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Natural Disasters**

WP7 “Citizens' empowerment”

Lead Partner – P4 – LSC

**D7.2 “Report on Linkages between Empowerment Practices
and Specific Socio-economic and Environmental Contexts”**

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List of Abbreviations

ADPC	Asian Disaster Preparedness Centre
CBDM	Community Based Disaster Management
C4E	Communication for Empowerment
CO(s)	Citizens' Observatory(ies)
EC	European Commission
EMSC	European Mediterranean Seismological Centre
FAG(s)	Flood Action Group(s)
FAO	Food and Agriculture Organisation of the United Nations
FWMA	Floods and Water Management Act
GIS	Geographic Information System
ICT	Information and Communication Technologies
IFAD	International Fund for Agricultural Development
IPPC	International Plant Protection Convention
LSC	Laboratorio di Scienze della Cittadinanza
NGOs	Non-Governmental Organizations
NMHS	National Meteorological and Hydrological Service
OECD	Organisation for Economic and Cooperation Development
PAHO	Pan American Health Organisation
PID	Participatory and Integrated Development
PLA	Participatory Learning and Action
PNY	Patanka New Life
PRA(s)	Participatory Rural Appraisal(s)
PRODERE	Development Project for displaced, refugees and returnees
RFCC(s)	Regional Flood and Coastal Committee(s)
RRA	Rapid Rural Appraisal





RUG	University of Groningen
TCP	Territorial Coordination Master Plan
TED	Twitter Earthquake Detection
UNCRD	United Nations Centre for Regional Development
UN-DESA	United Nations Secretariat – Department for Economic and Social Affairs
UNDP	United Nations Development Program
UNESCO	<i>United Nations Educational, Scientific and Cultural Organization</i>
UNHCR	United Nations High Commissariat for Refugees
UNISDR	United Nations Office for Disasters Risk Reduction (for the implementation of the International Strategy for Disaster Reduction)
UN-OCHA	United Nations Office for the Coordination of Humanitarian Affairs
UoM	University of Malta
USSD	Unstructured Supplementary Service Data
VISOV	Volontaires Internationaux em Soutien Opérationnel Virtuel
VOST	Virtual Operations Support Team
WMO	World Meteorological Organization
WWF	World Wildlife Fund





Executive Summary

This report is devoted to the analysis of the linkages between empowerment practices and specific socio-economic and environmental contexts.

In the first chapter, we have tried to identify from the literature review (Task 7.1 – Literature review and state of the art review on community empowerment concepts and practices) and from the analysis of 25 practices of people empowerment in Europe (plus some other practices elsewhere), the social, economic and environmental factors that can affect empowerment processes related to disaster management.

76 factors have been identified related to 11 categories:

1. Demographic/health conditions
2. Territory
3. Presence/absence of specific actors
4. Individual behaviours
5. Social integration, social cohesion, marginalisation, and poverty
6. Regulatory framework
7. Institutional and community governance
8. Educational and cultural conditions
9. Technology and innovation
10. Economic conditions
11. Hazard intensity.

The factors belonging to each of these categories have been analysed, providing always some examples on where and how these factors are present (i.e., linking factors and contexts). Many among the identified factors have a higher or lower degree of correlation (in a metaphorical sense as shown in Chapter One, §3.). Consequently, all the factors have been described taking into account these correlations and, therefore, some have been described alone, some others within a "set".

Some of these clearly oriented factors are also "bilateral", i.e. their "presence" is pro-empowerment and their "absence" can be an obstacle/challenge or vice versa.





Conversely, some other factors are ambiguous, i.e. in some contexts they favour people empowerment, and, in some others, they represent an obstacle/challenge.

In the second chapter, we have first analysed the relevance of each factor with regard to their importance in the various contexts where they have been identified.

The identified factors, in their relation with people empowerment (in the frame of disasters/risks), can be:

- a) Necessary (e.g., without these factors, either if we are missing one, it is impossible or, at least, very unlikely that any people empowerment action can happen), since these factors are, implicitly or explicitly, present in all the studied cases and intrinsically linked to the essence of an empowerment process
- b) Rare or of low importance for this specific report, since they are i) never or almost never considered worldwide; or ii) never or almost never considered in Europe.
- c) Neither necessary, nor rare.

On a mere methodological level, the first two categories of factors do not interest us in this Report. The first are present (or should be present) in any socio-economic, environmental and cultural context; the latter are more or less absent (or should be) in any socio-economic, environmental and cultural context.

Therefore, in the specific frame of this report, our interest is on the factors that are neither necessary, nor rare (at least in Europe), i.e. those factors that may or may not characterize, in Europe, each economic and social context in which people empowerment practices occur (i.e., showing the linkages between empowerment practices and specific socio-economic and environmental contexts).

There are 48 of the 76 initially identified factors that fulfil this criteria. These factors can be classified, considering the theoretical frame of the people empowerment in relation to disaster/risks management, in 5 clusters described on Chapter Two, §4.:

- First cluster – Citizenship
- Second cluster – Disasters risk managers and local authorities (and/or scientists)
- Third cluster – Partnership, communication and governance
- Forth cluster – Hazards, territory, and environment
- Fifth cluster – Specific actors.

Crossing these five clusters, we can build more than 30 potential scenarios. However, as discussed in Chapter Two, only 12 scenarios of people empowerment in disaster/risk management are plausible. And, if in order to simplify, the fifth cluster is considered as collateral to the first cluster





(taking into account that it deal, mainly, with specific actors among citizenship), the scenarios that should be considered are six.

Each one of these six scenarios is described in Chapter Two, §5, alongside examples where it seems to be materialized among the 25 European people empowerment practices considered.

Some lessons learned from this analysis are the object of Chapter Three.





Introduction

1. Institutional Framework

This report represents Deliverable 7.2 of Work Package 7 (WP7) "Citizens' Empowerment" of the "Culture And RiSk management in Man-made And Natural Disasters" (CARISMAND) Project, G.A. n. 653748, funded by the European Union under Horizon 2020 and coordinated by the University of Groningen (RUG).

The project objectives, to which the current report aims to contribute, are two.

- To explore the possibilities and current practices of how cultural aspects can strengthen the ability of citizens and communities to prepare for disaster situations, respond efficiently, and accelerate recovery processes, proposing recommendations for disaster managers on how cultural values can be used for citizen empowerment.
- To develop an active feedback loop between disaster management stakeholders and citizens that can be institutionalised. This will establish, test, and refine solutions for culturally informed best practices in disaster management and benefit from a wide cross-sectional knowledge transfer.

In this overall framework, WP7 – "Citizens' empowerment", coordinated by LSC, aims to:

- Analyse the possibilities – and current practices – of how cultural aspects can enhance the ability of citizens and communities to prepare themselves, respond efficiently, and accelerate recovery processes
- Provide recommendations for disaster managers on how cultural values can be used in their day-to-day practice for enhancing citizen empowerment
- Provide substantial input for empowering citizens/communities through the Stakeholder Assemblies discussions and the Citizen Summits and for the toolkit for disaster stakeholders that will be prepared at the end of the project.

This report represents the second deliverable within WP7 of the CARISMAND project. As the final output of Task 7.2 "Empowerment in socio-economic and environmental contexts", it presents the findings related to the linkages between empowerment practices and specific socio-economic and environmental contexts. This report deals at first with the specific contexts of the empowerment practices identified in Task 7.1 conceptualizing the socio-economic-





environmental differences among these contexts and later identifying which, among these differences, appear linked in some way with the process of empowerment. At the end, the socio-economic-environmental factors that can facilitate empowerment in relation to natural and man-made hazards are identified.

The present report has been prepared by the LSC team as part of the work done under the CARISMAND project and, more specifically, by: Giovanni Caiati, statistician and expert in ICT and the societal dimensions of technological innovation, and environmental issues; Federico Luigi Marta, socio-psychologist; Gabriele Quinti, socio-statistician, expert on social vulnerability, crisis mapping, and community participation in relation to natural hazards. The report benefits from inputs provided by UoM, Libre Foundation, Law and Internet Foundation, NUTC, SMURD, UNS and Florence Municipality (civil defence). Moreover, this report benefits also from some of the findings of WP2, WP3, WP4, WP5 and WP8, and from the work in progress in WP9.

2. Theoretical Framework

2.1. General Approach

This review is based on both in depth analysis of the available documents and interviews with experts and key informants involved in 25 out of the 26 practices identified at the end of Deliverable 7.1 "Literature review". These experts, key informants and documents come from different disciplines (sociology, anthropology, economics, psychology, political science, risk management, etc.).

Therefore, the approach adopted in this document has been multidisciplinary, the special focus being placed on societal issues, also taking into account their economic, psychological, juridical, ecological, and political aspects.

2.2. Main Concept

The starting point of the present analysis is the concept of empowerment resulting from the broad review on this notion carried out in Task 7.1. The review examined the multiple and sometimes partially divergent definitions which were minted during the last 20 years both in general and with a specific reference to the management of disasters. It was also highlighted that sometimes empowerment refers to a whole community while, in other cases, addresses specific societal actors – members of groups excluded from decision-making processes (such as women),





or other generally powerless people (such as people with disabilities, elders, and ethnic minorities).

Many definitions of empowerment have been presented in Deliverable 7.1. Those definitions are different but appear to have (more or less) some common features, such as the following:

- ❖ Empowerment is one process or more processes interrelated¹
- ❖ Empowerment is multidimensional (in that it involves societal, psychological, economic, and other dimensions)
- ❖ Empowerment is related to a community (people, group), but also to the individuals belonging to this community
- ❖ Empowerment mainly deals with social change
- ❖ Empowerment entails an increase of capacities (intellectual, operational, etc.) of concerned people.

Other aspects of empowerment may vary considering the specific context and kind of people involved (empowerment may encompass participation, collaboration, equity, social and sustainable development), but those five listed above remain quite constant (Hawe, P. 1994).

Empowerment, beyond these many definitions, should be considered here (as suggested at the end of Deliverable 7.1 of CARISMAND) as a complex process that entails an increase in the skills, awareness, and involvement in the decision-making process of social actors. In short, an increase in their capacities to control their own environment and therefore to be active in such environment. Therefore, empowered people, as already shown in many of the identified practices (in Deliverable 7.1), can contribute to the management of hazards at any stage (preparedness, response, recovery, and reconstruction).

The empowerment process is conditioned by the cultural context both at the cognitive level (perceptions, etc.), and at the operational one, since local communities are not homogeneous (see Deliverable 7.1, Chapter One, §7.). Therefore, it is vital for enhancing empowerment to be as open as possible, so that different points of view, sensibilities, and problems can be considered, as well as the resources of the different types of actors, taking into account gender, as well as generational, religious, ethnic, and other differences (OSCE 2008; 2009). At first sight, social and cultural diversity is a crucial point and should be considered in relation to the actual participation and empowerment of citizens.

¹ However, according to Hawe (Hawe, P. 1994) – "Empowerment is usually described as a process, but may be considered an outcome variable (i.e., an object of interest)".





The other relevant notions of our conceptual framework are those related to our approach to empowerment². The most important ones are listed below.

- a) **Power** (in relation to empowerment) may occur at several levels; at the level of the individual, power refers to the ability to make decisions; at the organizational level power involves the shared leadership and common decision-making.
- b) **Agency** considered as the result of a set of aptitudes and capacities relevant to enable individuals and communities to increase the control over their own environment; the referred aptitudes are those relevant to promote the social action of groups and individuals, with special reference to those involved in the process that leads to the definition of choices; the referred capacities are those concerning the ability of groups and individuals to actually pursue the choices made (CERFE 2012).
- c) **Culture** consists of beliefs, attitudes, values and their associated behaviours, that are shared by a significant number of people in hazard-affected places. Culture in relation to risk refers to the ways in which people interpret and live with risk, and how their perceptions, attitudes and behaviours influence their vulnerability to hazards³.
- d) **Resilience** refers to the capacity of an ecosystem to recover from environmental stresses like fires, drought, climate change, or pollution; it stresses not only the capacity to maintain the system functions, but also the possibility of generating a new state of equilibrium as the output of the resilience capacity of a given system.
- e) **Community Based Disaster Management (CBDM)** is an approach that entails a community-based participation in identification, mitigation, preparedness, response and recovery, and reconstruction activities related to potential and/or experienced natural hazards. CBDM promotes a bottom-up approach working in harmony with the top-down approach, to address challenges and difficulties. CBDM tries to integrate disaster risk factors into development planning at all levels so that the disaster management would not stand apart from the development process; therefore, to be as effective as possible, local communities must be supported in analysing their hazardous conditions, their vulnerabilities and capacities and in deciding how to intervene at the different stages (preparedness, response and recovery, and reconstruction); therefore, an empowerment process should be promoted and/or supported.

² All these notions have been described in details in Deliverable 7.1. All the specific sources are mentioned there. However, all these sources are also among the references reported at the end of this document.

³ This is the working definition used across the whole CARISMAND project.





3. Methodological Framework

This report is based mostly on desk and field research both on the literature and on the identified practices (in Deliverable 7.1). At the same time, the report makes partial use of the findings of the Citizens' Summits that were organised by the CARISMAND project team in Bucharest and Malta in July 2016 and in Rome and Frankfurt in June 2017⁴.

As explained in Deliverable 7.1, the following categories of sources have been consulted in the literature review:

- Books and scientific articles (in paper or on the web)
- Documents made available by agencies dealing with hazards across the world and by international, governmental (central and local) and non-governmental entities
- Documents and websites of local authorities.

Informal consultations with CARISMAND partners were also included.

However, the core base for the preparation of this deliverable, beyond the literature review implemented in Task 7.1, is represented by a group of initiatives (practices) on disaster/risk management at different stages (from preparedness to recovery) occurring in communities in Europe (the whole continent and not only EU member countries) prone to hazard(s) with effective citizens' empowerment practices. We considered hazards such as the so-called natural ones (flood, landslide, earthquake, volcanic eruption, avalanches, extreme temperature and drought, huge storm, wildfire, tsunami, etc.) and some of the so-called man-made non-intentional hazards (industrial and nuclear, transport, non-industrial explosions, atmospheric pollution increase, etc.). The so-called man-made intentional hazards (famine, displacement of population, civil disobedience, terrorism and conflicts, weapons of mass destruction, cyber-attacks, etc.)⁵ have not been considered, not so much as to limit the scope of investigation, but because this category of hazards is usually managed by institutional actors different from those engaged with the previous two categories, which are commonly handled by the civil defense, the health emergency services, the NGOs working on environmental issues, and similar institutions.

The initiatives identified under Task 7.1 and considered as the core information for the present task were selected according to the following four fundamental characteristics (in our assumption – as discussed in the two previous chapters – there cannot be empowerment if these characteristics are not present).

⁴ See CARISMAND deliverables related to the Citizens' Summits in WP5 (D5.3 and D5.4).

⁵ We have adopted the same typology proposed in CARISMAND, deliverable D2.1.





- **Sociality.** Compared to others, the identified initiatives involve a significant set of actors (a whole local community or, at least, groups of citizens as well as institutional actors and/or scientific community).
- **Social impact.** Moreover, these initiatives should have a significant social impact in empowerment terms (producing, for example, changes in common behaviours, the introduction of new rules or regulations, changes in the way people or organizations use resources, capacity building, more awareness, broader involvement in decision-making, etc.).
- **Transparency.** These initiatives are also distinguished by their transparency, having a "communicative" propensity, providing access to information about the results achieved and establishing relationships of interaction and exchange with other initiatives.
- **Systemic character.** These initiatives operate in a given territory not occasionally but for a significant time frame.

Among the 26 practices identified in Task 7.1, one is not considered relevant to the present analysis because it is too general⁶ (i.e., too far from a "field perspective").

The 25 practices considered relevant are, country by country, are listed below

Country	Practice
Czech Republic (CZ)	1. Crowdmapping in 2013 regional flood
	2. Bio-monitoring campaign in Ostrava
France (FR)	3. Crowdmapping in 2014 south-eastern flood
	4. Multifunctional water management in Rouen
Germany (DE)	5. Inclusive decision-making in relation to Saxony river flood 2006–2013
	6. Timmendorfer Strand coastal protection strategy
Hungary (HU)	7. Capacity building and citizens' empowerment in the context of heatwave and forest fire in Tatabanya
Italy (IT)	8. Florence civil protection system
	9. Civil protection experimentation in the Alto Adriatico (in particular in Vicenza province)
	10. Networking and crisis mapping after Badia landslide in 2012

⁶ It is the territorial coordination master plan of Potenza (Italy).





Norway (NO)	11. Multi-Hazard Approach to Early Warning System in Sogn og Fjordane
Poland (PL)	12. Lodz Learning Alliance/floods and increased air pollution
Portugal (PT)	13. Earthquake drill and capacity-building
Slovenia (SI)	14. Ljubljana citizen scientists system
Spain (ES)	15. Citizens' observatory to empower citizens to contribute to and participate in environmental governance in Barcelona
	16. Environmental citizens' observatory in Vitoria-Gasteiz
	17. Stakeholders engagement to reduce vulnerability to drought in Segura and Tagus basins
Sweden (SE)	18. Regeneration initiative of Augustenborg, Malmö in relation to floods
The Netherlands (NL)	19. Delft monitoring network (pluvial flooding)
United Kingdom (UK)	20. Citizens' flooding networks in Doncaster
	21. Climate change and flood citizens' monitoring in East Salford
	22. Support networks in the context of heat wave in London
	23. Engaged communities of resilience practice in relation to floods in Northern England 2005–2009
	24. Stakeholders and community engagement/Humber coastal floods
Bulgaria (BG), Romania (RO), Ukraine (UK), and Moldova (MD)	25. Lower Danube Green Corridor: floodplain restoration for flood protection

These 25 practices are:

- Spread in 18 different European countries
- Identified both in rural and urban contexts (small/medium towns and big cities)
- With a sometimes local, sometimes regional character
- With a global population of several million people.

They cannot, however, be considered a statistically representative sample of such kind of practices in Europe, since nobody knows the "universe" of these practices. Nonetheless, for the reasons just said, they represent a significant set, at least for a qualitative and "cumulative" analysis, considering that all the information they provide is important, even if tracked in just one of the 25 practices (or tracked in the literature review implemented under Task 7.1).





The implementation of Task 7.2 and the drafting of the present report lasted between December 2016 and August 2016 and involved the following steps:

- Collection and analysis of the literature and relevant documents related to the identified "practices"
- Interviews with key-informants in the identified practices
- Overall analysis of the whole available information (Task 7.1, Literature review included) on how socio-economic factors affect/can affect empowerment in the frame of the management of hazards
- First draft of this report
- Circulating the first draft to partners for comments
- Revising the first draft and writing the final report.

4. Description of the Report

The report includes: 1) the present introduction into the institutional, theoretical, and methodological framework, 2) a first chapter on the socio-economic and environmental factors that have been identified (characterizing the practices' specific socio-economic and environmental contexts); 3) a second chapter where these factors are put in relation with how empowerment practices work; 4) a third chapter aimed at providing some lessons learned on the basis of the main findings from the case studies.





CHAPTER ONE: Socio-economic and Environmental Factors Affecting Empowerment Processes

1. From the Literature Review

The literature review presented in Deliverable 7.1 has already allowed us to identify some socio-economic and environmental factors (or, in other words, the specific features of socio-economic and environmental contexts) that can affect empowerment processes (or, in other words, that characterize empowerment practices) in the frame of the management of disasters/hazards.

These factors are listed below, specifying always the reference. Of course, some factors are reported in more than one text and, in this case, only the main reference(s) is/are reported. For more details, Deliverable 7.1 can be consulted.

a) Demographic/health factors

- i. Concentration of women in the area (IFAD 2015b)
- ii. Concentration of pupils/children in the area (OXFAM 2006)
- iii. Concentration of elderly in the area (WMO 2016)

b) Territorial factors

- i. Resilience intensity⁷ (UNISDR 2009b), considered not only as restoration of the previous situation, but also as the possibility of a transformative effect in the community affected by a shock, resulting in change and improvement, rather than a return to the status quo (EC – emBRACE 2015), thanks to "the capacity for adaptation, learning, and transformation" (IPPC 2014)

⁷ If in several instances empowerment has been considered as a result of resilience, there are a lot of studies that consider community empowerment as one of the main factors that can make a community resilient. Therefore, on one hand, resilience affects (positively) empowerment processes, but on the other, these processes affect resilience. However, we cannot merge resilience and empowerment concepts but, at the same time, it is useful to analyse resilience in the empowerment context (Pulla, V. & Mamidi, B.B. 2015; more generally, see Deliverable 7.1, Ch. 2, §4.).





- ii. Presence of stocks of resources that equip actors to use economic, social, and political opportunities, to be productive, and to protect themselves from shocks (Alsop R., Frost Bertelsen, M. and Holland, J. 2006)

c) Factors related to the presence/absence of specific actors

- i. Intensive presence of ethnic groups and other minorities (characterized by deep challenges) (Solomon, B.B. 1976; Gutierrez, L. and Ortega, R. 1991)
- ii. Intensive presence of feminists (Miller, J.B. 1976; Kreisberg, S. 1992)
- iii. Intensive presence of members of grassroots organizations (Bookman, A. and Morgen, S. 1984)
- iv. Intensive presence of leaders (Backer et al. 2015) that encourage community-led initiatives
- v. Presence of facilitators playing the role of learner building up people's own capacities for analysing their living circumstances, their potentials, and their problems (UNDP 2012)
- vi. Active presence of a program/project promoted by an external actor (such as an international organisation, international NGOs such as WWF, OXFAM, etc.) (UNCRD 2004, WMO 2016, Pandey B. and Okazaki K. 2004)

d) Factors related to individual behaviours

- i. Individual strengths and competencies, natural helping systems, and proactive behaviours to social policy and social change" (Rappaport, J. 1984); individual agency, i.e. ability to make purposeful choices (Alsop, R., Frost Bertelsen, M. and Holland, J. 2006)
- ii. Ability to make decisions and to solve one's own problems (Parsons, R. 1991); ability to make choices and then to transform those choices into consistent actions and desired outcomes (Alsop, R., Frost Bertelsen, M. and Holland, J. 2006)
- iii. Ability to act and to implement the practical knowledge, the information, the skills, the capabilities and the other resources acquired (Parsons, R. 1991)
- iv. Integration of the level of individual analysis with the level of social and political meanings⁸ (Bandura, A. 1982; 1989); the connection of the individual with the public, a community, and politics (Ackelsberg, M.A. 1988); the development of a growing political consciousness (Keiffer, C. 1984)

⁸ This conjunction appears in feminist thinking, which connects the personal with the political.





e) Factors related to social integration, social cohesion, marginalisation and poverty

- i. Prevailing failure of social promotion programs financed by the public sector in providing appropriate solutions and, more broadly, in the context of crisis of public welfare (Rappaport, J. 1984; Berger, P. & Neuhaus, R. 1977)
- ii. Ownership by the local people (UNCRD 2004; see also footnote 6)
- iii. Social trust (Vazirpour, S. and Rezaei, A.A. 2012); mutual trust and respect (Backer et al. 2015)

f) Factors related to the regulatory framework

- i. Existence of (international) norms promoting citizens participation/engagement in hazards management (e.g., the Aarhus Convention of 1999, which promotes public participation in decision-making on environmental issues, or the European Flood Directive 2007/60/EC, which requires the establishment of public participation mechanisms to ensure citizens' involvement in the flood management cycle) (Wehn, U., Rusca, M., Jaap, E., Lanfranchi, V. 2015a)

g) Factors related to the institutional and community governance

- i. Potential changes in power relations, considering that power not only can change, but can also be expanded (Czuba, C.E. 1999; Kreisberg, S. 1992)
- ii. A participatory approach (sharing the decision making with all community's groups, through regular consultations, public hearings, transparency of decisions and actions, discarding of coercion in human relations) (FAO 2003; WMO 2006; Backer et al. 2015), more or less corresponding to a "community based disaster management approach" (Rajeev, M.M. 2013) putting local villages and communities at the centre of preparedness efforts and having people involved in the supervision and responsible for operations and maintenance⁹
- iii. Increasing number of groups of organized citizens who work to bring law and rationality in the public service sphere (i.e., intensive "active citizenship") (Quaranta, G. 1989)

⁹ Managing Natural Hazards Project for Vietnam (funded by the World Bank) - http://www.worldbank.org/en/news/feature/2016/08/30/when-it-comes-to-disaster-preparedness-communities-know-best?cid=ECR_E_NewsletterWeekly_EN_EXT





- iv. Intensive and productive interaction among societal actors (from citizens to entrepreneurs) and the institutional system (i.e., public bodies at the central and at the local levels) and, therefore, greater control of citizens over public institutions (CERFE 2012); Horizontal modes of governance (Wehn, U., Rusca, M., Jaap, E., Lanfranchi, V. 2015a)
- v. Accountability in local governance (OECD 2012)
- vi. Public sector decentralisation (OECD 2012)

h) Educational and cultural factors¹⁰

- i. Community aptitude for learning processes (e.g., learn to help themselves) (ADPC 2004; Pandey, B. and Okazaki, K. 2004)
- ii. Recognition/Valorisation of the existence and the relevance of "local knowledge" on hazards/disasters affecting a specific area / "popular information" of the people inhabiting a given territory (CERFE 1987; UNDP 1996)
- iii. Presence of safer technologies focusing on local tradition and culture (Pandey, B. and Okazaki, K. 2004)
- iv. Training level of citizens (Vazirpour, S. and Rezaei, A.A. 2012)
- v. Lack of fatalism (citizens interest in participation in natural disaster management decreases with high degrees of fatalism) (Vazirpour, S. and Rezaei, A.A. 2012)
- vi. People's awareness of their livelihood (UNCRD 2004)
- vii. People's awareness of the hazards in their area (Pandey, B. and Okazaki, K. 2004; OECD 2010; WMO 2016)
- viii. Positive communication (giving people attention and recognition) (Phillipy, T.A. 2008); two-ways communication paradigm between citizens and decision makers (Wehn, U., McCarthy, S., Lanfranchi, V., Tapsell S. 2015b)
- ix. Presence of communication strategies of organization, networking, group communication, and community media (White, R.A. 2008), taking into account specific needs, languages, cultures, as well as vulnerabilities and capacities of each audience (OXFAM 2006, OECD 2010)

¹⁰ More detailed in Deliverable 7.3 "Report on cultural factors and citizen empowerment".





i) Social factors related to technology and innovation

- i. Intensive diffusion of web, related to the expansion of freedom of choice and action and therefore to the ability of people to make strategic life choices in a context where this ability was previously denied to them (World Wide Web Foundation 2015)
- ii. Intensive practice of crowdsourcing (WMO 2015; De Brito Moreira et al. 2015; Wehn, U., McCarthy, S., Lanfranchi, V., Tapsell, S. 2015b; see also <http://www.citi-sense.eu/>)
- iii. Promotion of continuous technological innovations in a context of governance of innovation, taking into account that a fundamental element of any innovation is technology "closure", i.e. when people see the problem (related to the technological innovation) as being solved, the need for alternative designs diminishes (Bijker, W.E., Thomas, P.H. and Pinch, T.J. 1987)
- iv. Set-up of citizen observatories enabled by information and communication technologies (ICTs) (e.g., sensor technologies and social media); whereby the observations, insights and involvement of 'ordinary' citizens - alongside those of scientists and professionals - are included into earth observation, environmental conservation as well as decision making (Wehn, U., McCarthy, S., Lanfranchi, V., Tapsell, S. 2015b)
- v. Confidence building and long-term use of traditional technologies (influencing, among others, ownership – see above); Consideration given to the local practice, material availability, indigenous knowledge (Pandey, B. and Okazaki, K. 2004)

j) Economic factors

- i. Public financial resources availability (Rappaport, J. 1984)
- ii. Positive perception of the cost-benefit ratio of citizen-observatory-based environmental resource management versus more traditional means of data collection (Wehn, U., Rusca, M., Jaap, E., Lanfranchi, V. 2015a)

2. From the Identified Practices

Community empowerment practices related to disasters/risks management, identified in Deliverable 7.1 and analysed in-depth through documentation and interviews to key-informants in the frame of the Task 7.2 allowed us to further identify some socio-economic and environmental factors (or, in other words, the specific features of socio-economic and environmental contexts) that can affect empowerment processes, beyond those already





identified through the Task 7.1 "Literature review". Of course, these community empowerment practices allowed us not only to identify additional factors (listed below) but also to understand **how** the identified socio-economic and environmental factors affect empowerment processes, as will be discussed in Chapter Two.

In this section we limit ourselves to listing the **further** socio-economic and environmental factors identified in the community practices (from a specific practice, from a set of practices or from considering the whole set of 25 practices¹¹). We underline "further" i.e. we do not repeat below a factor identified in a community practice if already listed in the previous paragraph.

a) Demographic/health factors

(No further factors identified)

b) Territorial factors

- i. Poor accessibility of some areas (great distances between peripheral communities and transport and communication infrastructure not accessible or available at times)

c) Factors related to the presence/absence of specific actors

- i. Diversity of the actors present (significant set of actors involved: a whole local community or, at least, groups of citizens as well as institutional actors and/or the scientific community)
- ii. Presence of key boundary actors and brokers within formal governance institutions (e.g., citizens "flood wardens")
- iii. Presence of "angry" groups (in relation to disaster management or, broadly, to environmental issues (it is an ambiguous factor: sometimes "angry" groups desire to be empowered; sometimes, they refuse to cooperate and, in this frame, are not interested in any empowerment process))

d) Factors related to individual behaviours

- i. The authorities' perception of citizen participation and the extent to which authorities expect or have experienced valuable outcomes from citizen participation during the different risk phases (e.g., negative attitude by disaster managers about active

¹¹ The reference practices will be specified in §3.





participation of citizens in the disasters' management at any level; citizens regarded, by disaster managers, only as possible victims or as "spectators" and not also as active actors in disaster management)

- ii. The citizens' willingness to participate in risk management, correlated with the citizens' perception of risks
- iii. The citizens' trust in community resilience

e) Factors related to social integration, social cohesion, marginalisation and poverty

- i. Solidarity

f) Factors related to the regulatory framework

- i. Existence of national/local legislation favouring citizens' participation/active involvement
- ii. Existence of a community emergency plan (or an analogous document) and/or other planning procedures in action
- iii. Confidentiality legislation (indirectly, in relation to the intensive use of social media, mobile phones, etc.)

g) Factors related to the institutional and community governance

- i. Weakness of the civil defence systems (greater solidity of the civil defence systems in many European countries could lead to underestimating the relevance of citizens' empowerment in disasters/risks management; and/or to a "paternalistic governance style" from public sector/disaster managers)
- ii. Public sector encouraging and/or compelling communities to take responsibility for their own resilience (e.g., with the creation of "Communities of Resilience Practice"); the desire of the local authorities and disaster managers to change the mind set and the role of citizens (from being a customer 'receiving services' to taking responsibility in risk management; strong impetus from local authorities towards a much broader involvement of local citizens groups)
- iii. Trust in civil defence system and in local authorities (it is an ambiguous factor: on one hand, a strong citizens' trust in civil defence and in local authorities can lead citizens to underestimate their empowerment and the former to underestimate the relevance of citizens' empowerment in disasters/risks management; on the other hand, when





empowerment processes are "in action" a strong citizens' trust in civil defence and in local authorities strengthens these processes)

- iv. Continuous and dynamic planning process with the development of public participation instruments and with a history of previous plans behind (such as local climate change action plans)
- v. Local Alliances "in action" among stakeholders – scientific community, local authorities, companies, NGOs, etc. (e.g., the SWITCH Learning Alliance in Lodz-PI) / Running cooperation programs which are repeated over the years; institutionalisation of public/citizens participation
- vi. Policies relating to moving from post-industrial to environmentally sustainable cities
- vii. Political stability (political changes can stop ongoing empowerment processes)
- viii. Propensity towards regional/international cooperation with exchanges of experiences

h) Educational and cultural factors

- i. The idea that people can become "citizen scientists"
- ii. People's awareness that the risk of a hazard is not reducible to zero¹² vs. the "awareness gap" (i.e., lack of awareness)
- iii. Social learning as the interaction of formal and informal institutions¹³
- iv. Organisational cultures and agency of disasters' managers
- v. Education programs (for children) around ecology or carbon literacy

i) Social factors related to technology and innovation

- i. Intensive diffusion among citizens of the use of Smartphones (or other smart devices)
- ii. widespread access among citizens to social media
- iii. Intensive presence and activism of social networks (and their complex lateral bonding and bridging nature)
- iv. Digital "revolution" in the public sector (local authorities, disaster managers, etc.)

¹² This factor can be assimilated to "People's awareness of the hazards in their area (Pandey B. and Okazaki K. 2004; OECD 2010; WMO 2016)" identified from the literature review.

¹³ This factor can be assimilated to the factor "aptitude towards learning processes", §1., h), i).





- v. Development of inter-compatible products (technical challenges such as lack of compatibilities related to the apps can represent an obstacle in citizens' empowerment as "sensors" of their environment)

j) Economic factors

- i. Economic incentives proposed in the frame of disasters/risks prevention/preparedness
- ii. Intense competition among local neighbourhoods for the governmental financial resources
- iii. Importance of the tourism in the area
- iv. Importance of green business in the local economy (propensity towards greener choices)

k) Hazard intensity

- i. Historical frequency of hazards (e.g., in areas periodically affected by floods, empowerment actions are very widespread; in other areas the frequency of floods can be secular)
- ii. The occurrence in the past of a very intense disaster (in terms of human life losses, economic damage, etc.)
- iii. The degree of impacts that citizens suffer from any hazard event (since it results in a differential participation based on geographic and situational factors)

3. Categories of Factors Affecting Empowerment Processes

In the two previous sections, 76 socio-economic and environmental factors have been identified. The table below presents their distribution by sources and categories.





	Literature review	Practices (further factors)	Total
<i>a.</i> Demographic/health	3	0	3
<i>b.</i> Territorial	2	1	3
<i>c.</i> Presence/absence of specific actors	6	3	9
<i>d.</i> Individual behaviours	4	3	7
<i>e.</i> Social integration, social cohesion, marginalisation and poverty	3	1	4
<i>f.</i> Regulatory framework	1	3	4
<i>g.</i> Institutional/community Governance	6	8	14
<i>h.</i> Educational and cultural	9	4	13
<i>i.</i> Technology and innovation	5	5	10
<i>j.</i> Economic	2	4	6
<i>k.</i> Hazard intensity	0	3	3
TOTAL	41	35	76

Many among the identified factors have a higher or lower degree of correlation. Consequently, all the factors are described below taking into account these correlations and, therefore, some are described alone, some other within a "set", taking, anyhow, into consideration the identified categories.

3.1. Demographic/Health Conditions

a. The first identified factor is the importance of women in the local community. According to the IFAD (IFAD 2015b) women are more aware than men on issues related to the community where they live and have a greater agency for solving problems, more specifically if these problems can affect their family. This is particularly true in poor and marginalised areas. Therefore, empowerment processes can be more frequent and more effective with a large presence of active women. However (contrary to what can happen elsewhere), no specific attention is attributed to the presence of women in the 25 community practices considered (probably also because none of these practices is in a deep marginalized or poor area).





b. The second factor is the large presence of pupils/children in the area. Pupils and children can be a "shuttle cock" of an empowerment process in a community thanks to their participation at school in training activities, awareness campaigns, drills, etc. on hazard management (in particular in the preparedness phase) who will then be able to convey to their families. Specific attention to this factor can be found in empowerment practices around Citizens' Observatories (in Ostrava-CZ, in Delft-NL and in Doncaster-UK) and elsewhere (e.g., the Local Council of Pupils in Tatabánya-HU and the Children' education around ecology or carbon Literacy in the Irwell Valley Sustainable Communities Project in Salford-UK). Outside Europe, in the improvement of disaster preparedness in coastal schools from Panadura to Hambantota (OXFAM 2006) in Sri Lanka (these programs teach children how to identify evacuation routes and prepare for disasters; children then share this information with their families). The importance of this factor has been also underlined in the two Stakeholder Assemblies held in the CARISMAND project in Bucharest and Rome and in the EU funded CUiDAR (Cultures of Disaster Resilience among children and young people) project¹⁴ that aims to include children in disaster planning and management through actions such as dialogues with children mutual learning exercises; national level awareness and communication events.

c. The third factor is the concentration of the elderly in the area. This is an ambiguous factor. On the one hand, as underlined in the already mentioned practice in Sri Lanka, senior citizens are a "weight" and, due to their high degree of illiteracy, empowerment actions are hardly conceivable. On the other hand (WMO 2016), senior citizens represent a living "memory" of previous disasters in their area of residence and can give a positive contribution to the empowerment of citizens in the same area (particularly in the prevention and preparedness phases). Moreover, if they are retired and in good physical condition, senior citizens are often part of social volunteerism. This dualism of senior citizens has been well underlined also in the two Stakeholder Assemblies held in the CARISMAND project in Bucharest and Rome.

3.2. Territorial Factors

a. As already shown in the analysis of the relations among the concepts of resilience and the concepts of empowerment, resilient communities are more oriented towards

¹⁴ http://cordis.europa.eu/project/rcn/194896_en.html





empowerment processes. And vice-versa, empowerment actions increase the community resilience (see Deliverable 7.1 Chapter Two, §4.). There is a virtuous circle among empowerment and resilience as shown in the practice located in the alpine community of Badia in South Tyrol-IT, in the one related to the heat waves in London and on floods in Northern England and, outside Europe, in the frame of the Managing Natural Hazards Project for Vietnam (funded by the World Bank).

b. The presence of stocks of resources that equip actors to use economic, social, and political opportunities, to be productive, and to protect themselves from shocks in a specific area is a second territorial factor facilitating empowerment processes. This is obvious considering first that such availability of resources empowers citizens (the practice of the Saxony-DE river floods can be taken as an example) and secondly increase resilience and, therefore (point a. above) facilitate empowerment.

c. The great distances between peripheral communities and the lack of transport and communication infrastructures (not accessible or available at certain times of the year) that make accessibility poor can be a territorial factor which induces empowerment processes. In practice, peripheral/isolated communities that must "go it alone" should empower themselves or be empowered with the help of disasters' managers or other actors. This is part of the Multi-Hazard Approach to Early Warning System in Sogn og Fjordane-NO, a rural area characterized by scattered villages and communities frequently experiencing avalanches and landslides, storm surges and flooding.

3.3. Presence/Absence of Specific Actors

a. The most important factor that facilitates the start-up and/or the strengthening of empowerment processes in a specific area is the presence of a significant set of different actors: "common citizens", local authorities, business (SMEs and other enterprises), professionals, scientific community (university, research centres, etc.), media, etc. We will see later (§3.7. on "Factors related to the institutional and community governance") that the existence of partnerships and alliances facilitate empowerment actions and the factor considered here is a pre-requisite. In the majority of the 25 considered practices empowerment is based on the involvement of different partners.





b. Beyond this factor, the intensive presence of a specific kind of actors can be a facilitating element, to wit:

- i. Ethnic groups and other minorities (cultural, racial, belonging to a religious minority, etc.) because these actors can suffer more than others from disasters and therefore can be particularly interested in being strengthened
- ii. Feminists (perhaps more so a few years ago)¹⁵ considering their propensity for collaboration, sharing and mutuality
- iii. Members of grassroots organizations (as potential elements of active citizenship – see later in §3.7.).

c. Even more important than the kind of actors present in a given context, is the role that they play, as evidenced not so much by the literature (as for the previous item) but by what happens in the empowerment community practices analysed. In this regard we can mention:

- i. Leaders that encourage community-led initiatives (as empowerment actions are) developing mutual trust and respect (see §3.5. further below), as those of the Flood Action Groups in Cumbria, Northern England-UK, of the citizens' flooding networks in Doncaster-UK)
- ii. Facilitators, building up people's own capacities for analysing their circumstances of living, their potentials, and their problems, identified, mainly in empowerment community projects outside Europe (e.g., in poor/marginalised Asian communities)
- iii. Key boundary actors and brokers within formal governance institutions that establish, as it happens in Cumbria, Northern England-UK, facilitating concerted community engagement with risk mitigation and resilience building; another example are the "flood wardens" citizens (brokers among citizens and technicians in relation to the Flood Citizens Observatories in Europe – e.g. in Doncaster-UK – and elsewhere – e.g. in Brazil).

d. An ambiguous factor (i.e., different from all the previous ones mentioned in this paragraph that are all clearly pro-empowerment) is the presence of "angry" groups. In fact, as we mentioned before, such groups:

¹⁵ And/or LGBT (Lesbian, Gay, Bisexual and Transgender) groups and other minority groups that share this same tendency.





- i. Sometimes, demand to be empowered (as it happens in flood practices where citizens' observatories are active), exactly because of their "anger";
 - ii. Sometimes, they refuse to cooperate and, in this frame, are not interested in any empowerment process (e.g., as it happens in Augestenberg-SE).
- e.* Finally, without any doubt, empowerment processes are facilitated by the active presence of a program/project promoted by an external actor, such as an international organisation (e.g., various entities of the United Nations in many Asian cases) or, international NGOs such as WWF (in the Lower Danube Green Corridor project), or OXFAM (in Sri Lanka); this factor, too, is trivial, considering that these external actors are always the promoters (or among the promoters) of citizens' empowerment practices for strengthening the "control" of natural hazards.

3.4. Individual Behaviours

- a.* Empowerment, as dealt with in this project (see Deliverable 7.1) is intended as a community or societal process able to facilitate the disaster management in its different phases. However, the start-up and/or the strengthened of this process can be facilitated by specific individual behaviours, such as the following ones:
- i. Individual strengths and competencies, as it emerges, beyond the literature, in most of the practices identified in Europe and elsewhere (e.g.: Members of the FAG in Cumbria, Northern England-UK; Flood wardens in the flood COs; Citizens contributing to the development of software platforms that use voluntary information; Crowdsourcers and citizens' crisis mappers in 2014 south-eastern flood in France, in 2013 regional flood in Czech Republic or in the City of Boulder in Colorado)
 - ii. Proactive behaviours to social policy and social changes, such as in relation to the Saxony floods (DE) or to the landslides in Badia (South Tyrol-IT)
 - iii. Ability to act and to implement the practical knowledge, the information, the skills, the capabilities and the other resources acquired (again, the examples related to crowdsourcing, as well as the cases of the civil protection in Florence, the civil protection in Portugal, and the EC project WeSenSeit, in particular in the Alto Adriatico area-IT)





- iv. Trust in community resilience as in the cases of Badia landslides in South Tyrol-IT or the heat waves in London-UK or floods in Cumbria, Northern England-UK (the 'Communities of Resilience Practice' in this last case could be quoted).

b. Moreover, the integration of the level of individual analysis with the level of social and political meanings; the connection of the individual with a public, a community, and politics; and the development of a growing political consciousness (that are more or less the same thing) facilitate a citizens' aptitude towards empowerment. This set of factors has been identified mainly in the literature (as already said, this conjunction appears in feminist thinking, which connects the personal with the political), but, at least in an embryonic state, it appears in almost all the empowerment community practices analysed. The hazards and the resulting disasters are perceived as an individual problem (because it affects their own family, their goods, and their economic activities) but must be addressed collectively. In a certain sense this set of factors represents a pre-requisite for any community empowerment process in relation to the disasters' management.

c. Again, empowerment is facilitated (it seems obvious) by the citizens' interest in participating in risk management. This interest, first of all has been manifested by the majority of the participants in all the CARISMAND citizens' summits celebrated until now (in Bucharest, in Malta, in Rome and in Frankfurt); and, even more, by their level of agency (intended – see Deliverable 7.1 – as "an actor's or group's ability to make purposeful choices – Alsop 2006). Many examples among the 25 empowerment practices can be considered:

- i. "Facilitated" empowerment in the presence of a strong citizen interest/agency in cases such as in Ostrava, in the Saxony river floods in Germany, in the City of Tatabánya-HU (with the "inhabitants group", the "council of pupils" and the "local climate group"), in Sogn og Fjordane-NO, in East Salford-UK and in Northern England-UK
- ii. Obstacles due to a lack of interest in cases such as in the municipality of Timmendorfer Strand-DE (very limited interest of citizens with only 25 participants with positive results) or in the CO in Barcelona-ES or in the case of heat waves in London-UK
- iii. Changing situations, such as the case of the regeneration initiative of Augustenborg neighbourhood in Malmö-SE which starts with apathy and low involvement of citizens and goes on with approximately one-fifth of the tenants in the area participating in dialogue meetings.





d. On another hand, we have to consider also the behaviour of the individual officials of local authorities or disasters' managers, in particular their negative attitude that can discourage empowerment processes. This happens, e.g. in the case of 2013 regional floods in Check Republic-CZ. This is also the feeling of many among the participants in the CARISMAND citizens' summits, who perceive that citizens are regarded, by disaster managers, only as possible victims or as "spectators" and not also as active actors in disaster management.

3.5. Factors Related to Social Integration and Cohesion, Marginalisation and Poverty

a. The first identified factor of this category is the prevailing failure of social promotion programs financed by the public sector in providing appropriate solutions and, more broadly, in the context of crisis of public welfare which creates a "void" that makes it necessary for the citizens to take part and then have to be able to intervene. The diminution of welfare, therefore, sometimes goes hand in hand with the promotion of empowerment programs. This factor, which we have met in the literature (Rappaport, J. 1984; Berger, P. and Neuhaus, R. 1977), does not appear explicitly in the studied empowerment practices. However, it can be assimilated to the relevance of citizens' empowerment in disasters/risks management that we meet in the cases of the weakness of the civil defence systems. We will deal with this factor in §3.7. (institutional and community governance).

b. The second factor is a feeling of ownership amongst local people. According to UNCRD, involved or promoter of many community empowerment practices identified mostly in Asia (see Deliverable 7.1), empowerment is induced by a sense of ownership for people and can result in their continuous engagement and long-term commitment to these activities. Additionally, individual and community ownership, commitment and concerted actions in disaster mitigation, including resource mobilization, produce a wide range of appropriate, innovative and do-able mitigation solutions, based on people empowerment for being cost-effective and sustainable. This factor has never been explicated in the European empowerment practices analysed. However, it seems to characterize at least some cases, such as the Saxony river floods in Germany and Cumbria, Northern England-UK.

c. The third factor of this group is the prevalence of a sense of social/mutual trust and respect inside the communities (that facilitate social cohesion). Beyond the literature, this





factor has been recorded in the case of Badia in South Tyrol-IT and in the case of heat waves in London-UK and, outside Europe, in a case study on earthquake at Teheran districts' level (where a positive correlation between sensitization/social trust and citizens' interest in participating in the disaster management cycle has been recorded).

d. A forth factor to be considered in this group (partially related to the previous one) is the solidarity inside a local community that, contributing to the social cohesion, can facilitate an empowerment process.

3.6. Regulatory Framework

a. First of all, empowerment processes could be facilitated by the existence of (international) norms promoting citizens' participation/engagement in hazards management (e.g., as stated above, the Aarhus Convention of 1999, which promotes public participation in decision-making on environmental issues, or the European Flood Directive 2007/60/EC, which requires the establishment of public participation mechanisms to ensure citizens' involvement in the flood management cycle). We say "could" because, as shown in the three community empowerment practices documented by the WeSenSeit project (funded by the EU DG research), in Vicenza province-IT, Delft-NL, and Doncaster-UK, these norms, which are not prescriptive, have a very slight incidence, even though such favourable regulatory framework represents at least an "enabling environment".

b. It is the same for national/local legislation concerning citizen participation/active involvement. Assimilated to this legislation are the community emergency plans (that often are norms), as in Badia-South Tyrol-IT, and other planning procedures in action, such as the "urban development zone" procedure in Rouen-FR or the "city adaptation strategy based on the Blue-Green Network Concept" in Lodz-PL or the "action plans" in the Lower Danube Green Corridor (BG, MD, RO and UK). However, in some low democratic countries, there can be also norms that prevent or impede people's active participation, and, therefore, people empowerment (WMO 2016). All this considered, it is an ambiguous factor.

c. An actual or potential regulatory factor that represents an obstacle (i.e., is "against" empowerment processes) is the confidentiality legislation that can make harder the use of





ICT/social media for crisis mapping or in crisis response as noted just in one empowerment community practice (Sogn og Fjordane-NO).

3.7. Factors Related to the Institutional and Community Governance

a. The first factor to be considered, as a pre-requisite of any empowerment process (related or non related to risk/disaster management) is to be in a situation of a potential change in power relations, remembering, as we have seen in Deliverable 7.1, that the essence of the concept of empowerment is the idea of power. We have to remember that power can be also expanded (Czuba, C.E. 1999); i.e., under certain circumstances, gaining power strengthens the power of others rather than diminishes it (Kreisberg, S. 1992). Such a situation characterizes all the community empowerment practices considered, which always involve an increase of empowerment of people at least related to their capacity to understand their own environment and often (9 out of 25 cases) through their (increased) involvement in decision-making and more rarely (3 out of 25 cases) in the use of resources in relation to hazards management/preparedness.

b. The second factor to be taken into account is the strength (in quantitative and qualitative terms) of the civil defence systems and of the local authorities. If/where these systems/authorities are weak, the public sector (and the international organisations working with it) is very much inclined to promote any people empowerment action, since an active commitment of the community is often indispensable in all the phases of the disaster/risk management. Community empowerment practices mentioned in Deliverable 7.1 related to countries such as Bangladesh, India, Sri Lanka or Vietnam testify to this state of affairs. The "vice-versa" is true only in few cases such as the already mentioned one in Czech Republic related to the regional floods in 2013 or the Delfland case-NL, characterized, sometimes, by a "paternalistic governance style" from public sector/disaster managers.

c. And indeed, in some European cases, the public sector encourages and/or compels communities to take responsibility for their own resilience as it happens, particularly, in the United Kingdom (the 'Communities of Resilience Practice in Northern England'-UK, but also the case of the heat waves in London-UK). The promotion of the Citizens' Observatories by the European Commission based on EC Directives (e.g., in Doncaster-UK, Delft-NL and Vicenza-IT in the frame of the WeSenSeit project) with the desire of the local authorities





and disaster managers to change the mindset and the role of citizens can be read in this same frame (also if, in the Delfland case-NL, the previous factor prevails).

d. However, communities can be able to take responsibility for their own resilience (and, more generally, in risk/disaster management), if there is a material basis for this to happen. A prerequisite of the latter is a participatory approach, explicitly mentioned in almost all the identified cases in Europe and elsewhere. In some of these cases, in particular in the ones identified outside Europe, this participatory approach corresponds to a "community based disaster management approach" putting local villages and communities "at the center" (e.g., the Vietnam or Indian cases analysed).

e. This participatory approach can be further facilitated by an "active citizenship", and, more specifically, by the increasing number of organized citizens who work to strengthen the public service sphere. Such increase seems to characterize many among the considered cases (e.g., Augustenborg, Malmo-SE, Cumbria, Northern England-UK, Badia, South Tyrol-IT), but it is explicitly mentioned only in those of Doncaster-UK and East Salford-UK.

f. A further step (i.e., going beyond a mere participatory approach) is related to an intensive partnership (e.g., "Intensive and productive interaction among societal actors, from citizens to entrepreneurs, and the institutional system – i.e., public bodies at the central and/or at the local levels"), recorded in 12 cases out of the 25 identified in Europe and in almost all the cases identified outside Europe.

g. Going further, this partnership, in few cases can be considered as "institutionalised" and such a situation facilitates more and more an empowerment process. This is the case of the Local Alliances "in action" among stakeholders – scientific community, local authorities, companies, NGOs, etc. as the SWITCH Learning Alliance in Lodz-PL or the running cooperation programs which are repeated over the years (e.g., in Tatabánya-HU). In this perspective, (as already stated) "Horizontal modes of governance" have been conceived in the WeSenSeit EC funded project, but only as reference models for the cases of Delft-NL, Doncaster-UK and Vicenza-IT. These modes of governance are not in practice. However, the only fact of having them conceived is a pro-people empowerment factor.





h. An intensive partnership may also involve a continuous and dynamic planning process, such as in the municipality of Timmendorfer Strand-DE, with the development of public participation instruments and with a history of previous plans behind (such as the local climate change action plan of Tatabánya-HU). Participatory planning processes also characterize almost all the cases identified outside Europe. It is also worth underlining that even planning processes that are not participatory "per se" can in any case facilitate an empowerment process since, almost always they contain tools aiming at strengthening citizens' capacities (through awareness raising, drills, etc.). One such a case is that of the Municipality of Florence-IT.

i. Moving now to another path, another factor related to the institutional and community governance to be considered is the people's trust in civil defence systems and in local authorities. Unlike the previous ones, it is an ambiguous factor:

- i. On one hand, a strong citizens' trust in civil defence and in local authorities can lead citizens to underestimate their empowerment and the former to underestimate the relevance of citizens' empowerment in disasters/risks management; this is what happened, e.g. in Badia-South Tyrol-IT before the exceptionally big landslide in December 2012, or in Saxony-DE before the major flood of 2002
- ii. On the other hand, when empowerment processes are "in action" a strong citizens' trust in civil defence and in local authorities strengthens these processes; this is the present situation in the two above-mentioned cases after the major events of 2002 and 2012, as well as in the City of Tatabánya-HU (heat waves and forest fires).

j. Political stability is another ambiguous factor:

- i. On the one hand this stability could contrast a potential change in power relations that we have considered (point a in this § 3.7.) as a pre-requisite of any empowerment process (related or non-related to risk/disaster management). However such a situation has been never recorded in all the analysed cases in Europe and elsewhere
- ii. On the other hand, political stability means continuity that could facilitate medium-term processes/policies as the people's empowerment policies are. Beyond the "common sense" this factor has been mentioned only in the case of the City of Tatabánya-HU.

k. Another factor to be quoted is the presence "in action" of people moving towards environmentally sustainable cities. Considering the relevance of environmental





sustainability in relation to risk/disaster management, this factor is trivial. However, it is explicitly mentioned only in few cases such as Auguestenborg, Malmo-SE, Rouen-FR (multifunctional water management), Timmendorfer Strand-DE, Tatabanya-HU and East Salford-UK.

I. Other factors that can be listed under "institutional and community governance" category are less important even because quoted by only one among the consulted sources of information. These factors are:

- i. Some good governance key elements such as accountability and decentralisation that OECD considers important for poor people empowerment because they allow an effective and inclusive local citizenry; however these two issues are never mentioned in the cases analysed in Europe and elsewhere
- ii. The propensity towards regional/international cooperation with exchanges of experiences that facilitate the mutual learning as it happens in the frame of the WeSenSeit EU funded project, involving the cases of Delft-NL, Doncaster-UK and Vicenza-IT.

3.8. Educational and Cultural Factors

a. A first trivial factor, quoted by the literature but never in the practices that were actually analysed (in Europe and elsewhere), probably because too trivial, is the training level of citizens (it is easier to activate/to strengthen an empowerment process with people with a certain level of education or, at least, in a community with educated persons).

b. A second important factor to be considered in this frame, is the community aptitude for learning processes (e.g., learn to help oneself) that can help a lot a people empowerment process. Beyond some mentions in the literature, this factor is quoted, explicitly, in 5 cases¹⁶. It represents a "core" issue in the cases related to the Saxony river floods-DE, the Lodz Learning Alliance-PL, the heat waves in London-UK, the floods in Cumbria, Northern England-UK, while it appears as much less important (but quoted) in the case of the Citizen Observatory of Barcelona-ES. This aptitude tends to generate not only a cumulative learning from the past disasters' experiences (e.g., the long history of river floods in Saxony-DE), but also a social learning (e.g., in Lodz-PL, London-UK and Cumbria, Northern England-UK)

¹⁶ This type of aptitude seems to be more developed in the communities where specific risks (e.g. flood) are frequent.





through a strong interaction among the involved societal actors that can be both formal and non-formal (e.g., in London-UK).

c. A third factor, going beyond a learning process, is the idea that people can become citizen scientists, that characterizes the EU funded project Citi-Sense and, in particular, the case of Ljubljana-SI where people carry out environment observations during their daily activities on the basis of this assumption (the other analysed cases linked to the Citi-sense project are the ones of Barcelona-ES, Ostrava-CZ and Vitoria-Gasteiz-ES).

d. A fourth factor is the importance of education programs (for children) around issues such as ecology or carbon literacy. We have already considered this issue in §3.1. point b., speaking about the importance of children.

e. A fifth factor is the valorisation of the existence and the relevance of "local knowledge" on hazards/disasters affecting a specific area, i.e. the recognition of the existence of "popular information" in a given territory. This issue has been identified as an empowering factor outside Europe, in particular in the contexts where local authorities and civil defence systems are weak (see §3.5., point b. In Europe, this factor is considered in the cases related to the Citizens' Observatories (WeSenSeit and Citi-Sense projects) but on a very partial way: citizens can be environmental sensors (and therefore acquire a knowledge), but are not considered yet as depositories of local knowledge: Conversely, as already stated, a paternalistic approach can be adopted (as it happens in the Citizen Observatory in Delft-NL), even consider the "local knowledge" as an obstacle for the management of disasters/risks (the already mentioned case of the Czech Republic regional floods in 2013¹⁷). In these cases, of course, the recognition of local knowledge does not be considered as a facilitating factor for people empowerment.

f. Another cultural factor (that will be taken into consideration more in-depth in Deliverable 7.3 "Report on cultural factors and citizen empowerment") is the lack of fatalism (citizens interest in participation in natural disaster management decreases with high degrees of fatalism); this factor has been recorded in a case in Teheran but nowhere among the European cases.

¹⁷ Some disaster managers consider that local knowledge (e.g., fatalism – see point f. in this §3.8.) could cause severe limitations in empowering communities and individuals.





g. Empowerment processes activation and strengthening are also deeply influenced by people's awareness (and, in turn, strongly affect people's awareness). Three kinds of awareness have been recorded. In all the cases a higher awareness positively affects empowerment processes:

- i. Awareness of the presence of hazards in their area (more or less explicitly recorded in all the analysed practices both in Europe and outside)
- ii. Awareness about the fact that the risk of a hazard is not reducible to zero (such awareness may be present elsewhere; however, it is explicitly mentioned only in the cases related to the EU funded WeSenSeit project, i.e. Delft-NL, Doncaster-UK and Vicenza-IT)
- iii. Awareness of concerned people livelihood (that could be affected by disasters), underlined, specifically, in two cases outside Europe (Gujarat, India and METAGRI project)¹⁸.

h. Moving from citizens to disaster managers, another factor that affects the activation/the strengthening of people's empowerment processes is the organisational culture and agency of disaster managers that can be pro-citizens, as it happens always (but is not limited to) in the cases in which the disaster management system is weak, but can be also "against" (as it happens sometime when disaster managers perceive themselves as strong – see §3.7. point b).

i. We can end this paragraph considering two communication factors. First of all, empowerment processes are facilitated in In a context where the communication among societal actors is rich and, in particular, where a two-ways communication paradigm between citizens and decision makers has been adopted. We can imagine that this paradigm is effective in many cases but it has been underlined just in some of them: the civil protection system in Florence, the civil protection system in Portugal, and in the three cases involved in the WeSenSeit project (Delft-NL, Doncaster-UK and Vicenza-IT), but as an aim to be reached and not as a common practice.

¹⁸ METAGRI project is implemented in Benin, Burkina Faso, Cape Verde, Chad, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone and Togo.





j. The second communication factor is the presence of communication strategies of organizations, networking, group communication, and community media, taking into account specific needs, languages, and cultures (as well as vulnerabilities and capacities of each audience). This factor is considered by OECD (OECD 2010) as a prerequisite in the "shift" towards a community disaster management approach that, as already underlined (in details in Deliverable 7.1), is pro-people empowerment. However, this factor does not seem to be taken into account in the European cases considered. Outside Europe, this factor is well mentioned in the frame of the UNDP Communication for Empowerment project, implemented in Ghana, Laos PDR, Madagascar, Mozambique, and Nepal.

3.9. Technology and Innovation

a. The first factor to be considered under this rubric is the promotion of continuous technological innovations in a context of governance of innovation. This issue, reported in the literature, is never mentioned in the cases analysed. However, it represents a pre-condition of the factors that follow.

b. In the frame of this continuous technological innovation, we have to consider, first, the intensive diffusion among citizens of the Web, taking into account that Web facilitates people involvement and, moreover, the Web affects the people expansion of freedom of choice and action and therefore their ability to make strategic choices also in context where this ability was previously denied to them; i.e. the Web, as shown in Deliverable 7.1 (Chapter One, §8. and Chapter Two, §5.) facilitates people empowerment. *Scriptu sensu*, this factor, well considered in the literature, is not directly mentioned in the studied cases in Europe and elsewhere. However, some other factors which presuppose the existence and spread of the web are very cited. More specifically:

- i. The widespread access among citizens to social media that represents a "tool" for empowerment¹⁹, explicitly mentioned in 15 out of the 25 practices analysed in Europe and in almost all the ones identified outside Europe; moreover, most of the citizens involved in the CARISMAND Citizens' summits accede to social media and this access

¹⁹ As stated in CARISMAND D8.2 The way in which people communicate and share information nowadays through social media can considerably change the conversation, the course of action of a specific event or the kind of response; moreover, posting on social networks and giving their contribution to solve an issue give people the sense of empowerment, the sense that they can really do something for the society they live in (Ward, 2011). Moreover, social media appear to empower citizens to address their own information needs during a crisis generated by a disaster (Sutton et al. 2008).





appears as functional to their more intensive involvement in disasters/risks management and to their wish to be empowered to that end

- ii. The intensive diffusion among citizens of the use of Smartphones (or other cellular phones), less mentioned in the analysed empowerment practices, but at least explicitly quoted in the cases of the 2014 floods in South-Eastern France, in Vitoria-Gasteiz-ES, and in relation to the Civil protections drills in Alto Adriatico, Vicenza-IT (WeSenSeit project), in Portugal and in Sogn og Fjordane-NO. Moreover quite all the citizens involved in the CARISMAND Citizens' summits use smart phones/cell phones and even that appears as functional to their more intensive involvement in disasters/risks management and to their wish to be empowered to that end (e.g., in the last Citizens' Summit, held in Germany, there was several participants who feel that the usage of a disaster-related app can strengthen the social cohesion and, actually, build "virtual neighbourhoods" in case of a disaster)
- iii. The use of smart phones/cell phones, however, can be hampered by technical problems: in the case of the Citizen Observatory in Barcelona-ES the citizens' empowerment as "sensors" of their environment has been hampered by a lack of compatibility among the required apps and those available on the citizens' mobile phones (and this problem negatively affected the involvement of citizens and therefore their empowerment).

C. The widespread access to social media and the intensive use of cell phones among citizens allow (among other things) the high development of crowdsourcing as a people empowerment tool. As already stated in Deliverable 7.1, crowdsourcing can offer insights and analyses to improve resilience in the face of threats at least in two ways: first, crowdsourcing makes use of ICT and the willingness of volunteers to share content to collectively produce information that could serve as solutions to different problems and contribute to increasing a people culture of constant preparation, anticipation and, more importantly, decisive action – not just by response. Moreover, crowdsourcing "before", "during" and "after" a disaster event generates a proactive attitude among citizens/volunteers that improves resilience (also thanks to enhanced cooperation among actors). This proactive approach, enabled by necessity but also by the accessibility of current forms of ICT, helps people who volunteer to know that they're not alone and that they're part of a much larger problem in society than what they experienced that day. All these issues are related to people empowerment processes, as we can see in the cases of almost all the studied Citizens Observatories in Europe (Barcelona-ES, Delft-NL, Doncaster-UK, Ljubljana-SI, Ostrava-CZ, Vicenza-IT, Vitoria-Gasteiz-ES) and outside Europe (Brazil





floods), in Boulder-Colorado, in Tanzania, as well as in the Euro-Mediterranean Seismological Centre system to detect earthquakes.

d. Therefore, the set-up of Citizens Observatories represents, too, an "enabling environment" for people empowerment actions.

e. The widespread access to social media and the intensive use of cell phones among citizens allow, moreover, the intensive presence and activism of social networks that represent, in itself, another pro-people empowerment factor (for reasons similar to those just mentioned in point c. above). The importance of social networks in this regard is explicitly mentioned in the cases related to the EU-funded WeSenSeit project (Alto-Adriatico, Vicenza-OT, Delft-NL, Doncaster-UK), in some of the ones of the EU-funded Citi-Sense project (Ostrava-CZ and Vitoria Gasteiz-ES), in Badia, South Tyrol-IT and in Cumbria, Northern-England-UK.

f. Moving from citizens to the public sector, people empowerment is also facilitated by the Digital "revolution" in the public sector (local authorities, disaster managers, etc.). This factor is quite trivial due to the fact that factors b. and d. but also c. and e. mentioned above are based on an intensive digitalisation of the public sector. More specifically, this factor is explicitly underlined in the cases related to the EC WeSenSeit project (Delft-NL, Doncaster-UK and Vicenza-IT) and by the Florence Civil Protection-IT.

g. Finally, moving to a completely different topic, empowerment of local communities can be also facilitated through the recognition and the valorisation of safer technologies focused on local tradition and culture (and/or on local knowledge), influencing, among others, ownership (see point b. in §3.5.). This factor has never been mentioned in the European cases analysed, but, conversely, in two cases outside Europe: the project "Reducing Vulnerability of School Children to Earthquakes" promoted in the Asia-Pacific Region and the UNCRD project in Gujarat (India).

3.10. Economic Factors





a. The first economic factor to be taken into account is related to the availability of public financial resources:

- i. On one hand, the lack of public financial resources is a factor partially linked to the crisis of public welfare (§3.5. point a.) in that the lack of public finances affects negatively, among others, the public welfare system. And, as we have seen in detail in the Deliverable 7.1, this is one of the main contexts for the expansion of people empowerment programs. The lack of public financial resources as a factor favouring people empowerment is explicitly mentioned in the case of Cumbria, Northern England-UK
- ii. On the other hand, also the abundance of public financial resources can foster active people participation, considering that these resources can be employed for implementing actions of social interest that may require such participation. This is the case of most of the international cooperation programs identified outside Europe. The case of East Salford floods-UK with its BIG Lottery Fund/Broughton Trust may also be recalled at this regard.

b. A second economic factor to be taken into account (linked to the point d., §3.9. above) is the positive perception of the cost-benefit ratio of citizen-based environmental resource management versus more traditional mean of data collection. This positive perception can induce local authority officials and risk managers to promote the development of the Citizens' Observatories as a tool for recording risk factors (using citizens as sensors of their environment) and therefore people empowerment. This factor is explicitly mentioned in the EU WeSenSeit project (cases of Delft-NL, Doncaster-UK and Vicenza-IT).

c. A third factor is the intense competition among local neighbourhoods for the use of governmental financial resources. This competition can be manifested in nearby locations, for example, in the case of floods, between municipalities of the same basin authority or, in the case of earthquakes, between municipalities that have been damaged and can generate empowerment trends linked to competition. However, such situations, mentioned in the literature (WMO 2006), have never been met among the studied practices in Europe and elsewhere. In a different context – a mere context of lack of financial resources, as in point a) above – this situation can be perceived in the case of Cumbria, Northern England-UK.





d. Another factor taken into account in few practices is tourism. The development of tourism and the presence of tourism operators (both in the public and in the private sector) can facilitate empowerment actions because these operators can be very interested in a high-participatory approach in disaster management, for the best possible safeguarding (and development) of tourism. This has happened in the set-up of the Timmendorfer Strand-DE Coastal protection strategy and, to a much lesser extent, in the establishment of the Lower Danube Green Corridor (BG, MD, RO and UK).

e. The set of economic policy instruments (more specifically financial incentives) aimed at addressing structural modification for preventing natural hazards can also facilitate people empowerment (enhancing public participation, especially regarding the planning activities). This factor has been recorded only in the case of Segura and Tagus basins-ES where, more than 100 stakeholders (national authorities, river basin authorities, members of the academia, irrigators, consumers' associations, insurance companies, NGOs, and international experts) were actively engaged in the process aimed at designing these economic policy instruments in seminars and telephone/web-conferences, etc.

f. Finally, green economy (in its broad sense), represents an enabling environment for people empowerment. Generally speaking, such orientation is often accompanied by a deep involvement of active citizens and entrepreneurs sensitive to "greener" choices in environmental issues, natural hazards management included. We can quote the Blue-Green Network Concept (with green infrastructures) in the case of the Lodz-PL Learning Alliance; policies to move from post-industrial to environmental sustainability in Auges-tenburg, Malmö-SE; greenhouses in Delft-NL; households' greener choices in Salford-UK.

3.11. Hazard Intensity

a. A very important factor is the historical frequency of hazards. Where this frequency is high people (common citizens included) are more responsive to solicitations of empowerment actions and more willing to participate actively in these actions. This is, more specifically, the case of areas affected – in some cases every few years – by floods, such as Saxony-DE, but also by other natural hazards (such as landslides in Badia, South Tyrol-IT or avalanches – as well as floods – in Sogn og Fjordane-NO). In these three cases, the recurrence of floods, landslides or avalanches brought the activation of various people empowerment actions.





b. An equivalent factor is the occurrence, even once, of a very intense disaster (in terms of human life losses, economic damage, etc.), such as an earthquake or a violent flood, as it happened in Sri Lanka or Vietnam.

c. Finally, the start-up or the enhancement of a people empowerment process in a disaster-management frame is more probable if the impact that citizens suffer from the hazard events is relatively high, with reference to:

- i. A contingency hazard, as documented more or less from all the identified practices outside Europe; this intensity, however, should be below certain threshold (if a disaster destroys almost everything people empowerment processes cannot be activated for lack of a critical mass of people and resources)
- ii. The historical series of hazards – this factor overlaps the one described in point a) and, therefore, the reference examples are the same.

4. Clarity and Ambiguity

Many among the factors described in §3 above are pro-people empowerment (even though none of them can be considered as a *conditio sine qua non*); and some others represent obstacles/challenges. In both cases, their being pro or against is clear enough. Some of them are also "bilateral" (i.e., their "presence" is "pro-empowerment" and their "absence" can be an obstacle/challenge or vice versa).

Beyond these factors, we have identified few others (ten) that are ambiguous: sometimes they favour people empowerment; sometimes they represent a challenge at this regard. Without reiterating their description, these ambiguous factors are summarized here by category:

a. *Demographic/health*

- The concentration of the elders in the area

c. *Factors related to the presence/absence of specific actors*

- The presence of "angry" groups





f. Factors related to the regulatory framework

- Norms on citizens' participation/engagement

g. Factors related to the institutional and community governance

- The strength of the civil defence systems and of the local authorities
- People's trust in civil defence systems and in local authorities
- Political stability

h. Educational and cultural factors

- The organisational culture and agency of disaster managers
- The valorisation of the existence and the relevance of "local knowledge" on hazards/disasters affecting a specific area

j. Economic factors

- The availability of public financial resources

k. Hazard intensity

- The impact on citizens of hazard events





CHAPTER TWO: Relations among Factors and Empowerment: Some Scenarios

In the previous chapter, a number of socio-economic and environmental factors that affect people empowerment processes in the frame of the risks/disaster management, as they emerge in the consulted literature and in the cases identified in Europe and elsewhere, have been highlighted. We have specified where these factors have been identified and how they can affect people empowerment processes, showing, among other, that some of them (the so called "ambiguous" factors) can have very different effects depending to the context and the way they are manifested.

In any context, anyway, factors affecting people empowerment processes are several; never only one.

Still from what happened and happens in the identified cases, in this chapter we will try to build some scenarios putting together many factors.

1. Necessary Factors

First of all, we have to consider that there are a few factors, among those identified and described in the previous chapter, that appear "necessary". Without these factors, it is impossible or, at least, very rare that any people empowerment action can occur. These factors can be considered as "constituents" of a people empowerment process and, they are, implicitly or explicitly present in all the studied cases and intrinsically linked to the essence of an empowerment process. Therefore, these factors should be considered in all the scenarios that we'll build later. These factors are the following.

- a) The presence of a set of different actors (at least citizens, civil defence officials and/or local actors). Without this people no empowerment action is conceivable.
- b) The integration of the level of individual analysis with the level of social and political meanings. Without this integration/connection no empowerment action can happen.
- c) The widespread citizens' interest in participating in risk management. Without interest from anybody no people empowerment action is conceivable.





- d) Participatory approach. Without such approach no people empowerment can happen.
- e) To be in a situation of a (at least) potential change in power relations (It is in the very essence of the empowerment notion itself).

These 5 factors need to be present always. No people empowerment process (specifically in a context of disaster management, but not only) can happen without. We can consider these 5 factors as "people empowerment pre-conditions".

2. Rare Factors

Secondly, we have to consider that there are some factors, among those identified and described in the previous chapter that, albeit theoretically connected to a people empowerment process, appears "de facto" rare or of low importance, since they are never or almost never considered worldwide (I) or almost never considered in Europe (II).

We can distinguish two categories of rare factors.

I – "Universally" rare factors. This is the case of the factors that have not been recorded in any case or in just one case (where they are of minor importance), considering all the identified cases in Europe and elsewhere.

II – Factors rare in the European contexts. This is the case of the factors that have not been recorded in any European case or in just one case (where they are of minor importance), nor mentioned in the stakeholders assembly and/or citizen summits held in the frame of the CARISMAND project. However, these factors can be of some importance outside Europe.

These two sets of factors are listed in the two paragraphs that follow.

2.1. "Universally" Rare Factors

We have identified 9 "universally" rare factors (i.e., they are totally absent in almost all the cases worldwide).

- a) The Intensive presence of feminists.
- b) The prevailing failure of social promotion programs financed by the public sector.
- c) Confidentiality legislation.
- d) Political stability (ambiguous).





- e) Accountability practices.
- f) Decentralisation.
- g) Training level of citizens²⁰.
- h) The development of tourism and the presence of tourism operators.
- i) The set of economic policy instruments (more specifically financial incentives) aimed at addressing structural modification for preventing natural hazards.

2.2. Further Factors that Are Rare in the European Contexts

Ten more factors appear rare only in the European contexts (i.e., they are totally absent in almost all the European cases and they have not been mentioned as important during the CARISMAND Stakeholder Assemblies and Citizens Summits), albeit they are not rare in the cases identified outside Europe.

- a) Importance of women in the local community.
- b) Intensive presence of ethnic groups.
- c) Intensive presence of facilitators, building up people's own capacities for analysing their circumstances of living, their potentials, and their problems.
- d) Presence/absence of fatalism.
- e) The presence of safer technologies focusing on local tradition and culture.
- f) Awareness of the people livelihood.
- g) Presence of communication strategies of organization, networking, group communication, and community media, taking into account specific needs, languages and cultures.
- h) Technical problems in the use of smart phones/other cell phones.
- i) The intense competition among local neighbourhoods for the use of governmental financial resources.
- j) The occurrence of a very intense disaster (in terms of human life losses, economic damage, etc.).

²⁰ Probably, this factor is never mentioned in the concrete cases, in Europe and elsewhere, because it is a trivial factor. Therefore, it should be classified, perhaps, among the "indispensable" factors (with no consequences, considering the methodology for building the scenarios, we adopt in this chapter).





3. Other Factors in the European Contexts

The 48 Factors not listed in the previous paragraphs are, therefore (in the European contexts), neither rare nor necessary. We can consider these factors as "contingent" people empowerment factors (in the frame of risk/disasters management in the European contexts) since in a people empowerment process each of these factors can or cannot be present. The presence of each one of these factors is an element that characterises the specific context in which they occur. Therefore, it is on the base of these factors that some scenarios can be built later.

These factors follow (remembering, when it is the case, if it is an ambiguous factor; see Chapter One, §4.).

1. Large presence of pupils/children in the area.
2. Concentration of the elders in the area (ambiguous).
3. Virtuous circle among empowerment and resilience.
4. Presence of stocks of resources that equip actors to use economic, social, and political opportunities.
5. Poor (territorial) accessibility.
6. Intensive presence of leaders that encourage community-led initiatives.
7. Intensive presence of key boundary actors and brokers within formal governance institutions.
8. Presence of "angry" groups (ambiguous).
9. Active presence of a program/project promoted by an external actor, such as an international organisation or, international NGOs.
10. Individual people strengths and competencies.
11. Proactive behaviours to social policy and social changes.
12. Ability to act and to implement the practical knowledge, the information, the skills, the capabilities and the other resources acquired.
13. Trust in community resilience.
14. The behaviour of the single officials of local authorities or single disaster managers, in particular their negative attitude towards people.
15. People ownership.





16. The prevalence of a sense of social/mutual trust and respect inside the communities.
17. The solidarity inside a local community.
18. Existence of (international) norms promoting citizen participation/engagement in hazards management.
19. Norms on citizen participation/engagement at the national/local levels (ambiguous).
20. The strength (in quantitative and qualitative terms) of the civil defence systems and of the local authorities (ambiguous).
21. Public sector encouragement towards communities to take responsibility for their own resilience.
22. The increasing number of organized citizens who work to strengthen the public services sphere.
23. The intensive and productive interaction among societal actors – from citizens to entrepreneurs – and the institutional system (i.e., public bodies at the central and/or at the local levels).
24. Institutionalised partnership.
25. Continuous and dynamic planning process.
26. The people's trust in civil defence systems (ambiguous).
27. Presence "in action" of people moving towards environmentally sustainable cities.
28. Propensity towards regional/international cooperation.
29. The community aptitude towards learning processes.
30. The idea that people can become citizen scientists.
31. Importance of educational programs (for children) around issues such as ecology or carbon literacy.
32. The valorisation of the existence and the relevance of "local knowledge" on hazards/disasters affecting a specific area (ambiguous).
33. People awareness of the presence of hazards in their area.
34. People awareness about the fact that the risk of a hazard is not reducible to zero.
35. The organisational culture and agency of disaster managers (ambiguous).
36. Presence of a two-ways communication paradigm.
37. The promotion of continuous technological innovations in a context of governance of innovation.





38. The widespread access among citizens to social media.
39. The intensive diffusion among citizens of the use of Smartphone (or other cellular phones).
40. The high development of crowdsourcing.
41. The set-up of Citizens Observatories.
42. The intensive presence and activism of social networks.
43. The Digital "revolution" in the public sector.
44. The public financial resources availability (ambiguous).
45. The positive perception of the cost-benefit ratio of citizen-based environmental resource management versus more traditional mean of data collection.
46. Green economy.
47. The historical frequency of hazards.
48. The intensity of the impact that citizens suffer from the hazard events (ambiguous).

It is on the basis of these 48 factors that a few scenarios can be built.

4. Factors' Clusters

For facilitating the construction of scenarios we will try now, as an intermediary step, to build some factors' clusters, taking into account:

- The theoretical/conceptual relations among the factors
- Their co-presence in some (European) cases.

Only the 48 factors listed in §3. will be taken into account (the 5 necessary factors should be, anyway, as we will see later, present in all the scenarios and the 19 rare factors – keeping in mind that, at least in Europe, they are scarcely present, or not at all – can be disregarded).

First cluster – Citizenship, where we can group all the factors related to people/citizens. Factors included in this cluster are:

- Intensive presence of leaders that encourage community-led initiatives
- Presence of "angry" groups (ambiguous)





- Individual people strengths and competencies
- Proactive behaviours to social policy and social change
- Ability to act and to implement the practical knowledge, the information, the skills, the capabilities and the other resources acquired
- People's ownership
- Virtuous circle among empowerment and resilience
- Presence "in action" of people moving towards environmentally sustainable cities
- The community aptitude for learning processes
- The valorisation of the existence and the relevance of "local knowledge" on hazards/disasters affecting a specific area
- The intensive presence and activism of social networks
- The intensity of the impact that citizens suffer from the hazard events (ambiguous)
- The widespread access among citizens to social media
- The intensive diffusion among citizens of the use of Smartphone (or other cellular phones)
- The high development of crowdsourcing.

Second cluster – Risk/disaster managers and local authorities, in which we tend to group all the factors related to the actors that are institutionally charged of risk/disaster management in a specific area, i.e. disaster managers, local authorities officials and relevant scientific experts. Factors included in this cluster are:

- The behaviour of the single officials of local authorities or single disaster managers, in particular their negative attitude towards people
- The strength (in quantitative and qualitative terms) of the civil defence systems and of the local authorities (ambiguous)
- Public sector encouragement towards communities to take responsibility for their own resilience
- Propensity towards regional/international cooperation
- The idea that people can become citizen scientists
- The organisational culture and agency of disaster managers (ambiguous)





- The Digital "revolution" in the public sector
- The positive perception of the cost-benefit ratio of citizen-based environmental resource management versus more traditional means of data collection
- The set-up of Citizens Observatories.

Third cluster – Partnership, communication, and governance (as co-government), in which we consider all the factors related to the partnership among the above mentioned actors in a governance perspective. Factors included in this cluster are:

- The intensive presence of key boundary actors and brokers within formal governance institutions
- Trust in community resilience
- The prevalence of a sense of social/mutual trust and respect inside the communities
- The solidarity inside a local community
- Existence of (international) norms promoting citizen participation/engagement in hazards management
- Norms on citizens participation/engagement at the national/local levels (ambiguous)
- The increasing number of organized citizens who work to strengthen the public services sphere
- The intensive and productive interaction among societal actors – from citizens to entrepreneurs – and the institutional system (i.e., public bodies at the central and/or at the local level)
- Institutionalised partnership
- Continuous and dynamic planning process
- The people trust in civil defence system (ambiguous)
- Presence of a two-ways communication paradigm.

Forth cluster – Hazards, territory, and environment, in which we tend to group all the "contour factors". Factors included in this cluster are:

- Poor (territorial) accessibility
- The promotion of continuous technological innovations in a context of governance of innovation





- The historical frequency of hazards
- People awareness of the presence of hazards in their area
- People awareness about the fact that the risk of a hazard is not reducible to zero
- Presence of stocks of resources that equip actors to use economic, social, and political opportunities
- The public financial resources availability (ambiguous)
- Green economy.

Fifth cluster – Specific actors, in which we tend to group all the factors that focus on specific demographic groups among people/citizens, such as children or elders; or specific external actors. Factors included in this cluster are:

- Large presence of pupils/children in the area
- Importance of education programs (for children) around issues such as ecology or carbon literacy
- Concentration of the elders in the area (ambiguous)
- Active presence of a program/project promoted by an external actor, such as an international organisation or, international NGOs.

5. The Possible Socio-economic and Environmental Scenarios

Combining the five clusters of factors, we can imagine, in relation to the people empowerment processes, some peculiar contexts.

We must remember that the necessary factors mentioned in §1. should be present in all contexts (i.e., the presence of a set of different actors as, at least, citizens, civil defence officials and/or local actors; the integration of the individual and the collective level; the interest of citizens towards disaster/risk management; a participatory approach; a situation of, at least, potential change in power relations).

Crossing the first four clusters (we will discuss the fifth one later), and considering for each cluster two situations (one corresponding to the significant quantitative and/or qualitative presence of





at least one factor; the other to the absence of all the factors included in the cluster), the possible socio-economic and environmental scenarios could be "in theory" 16 (i.e., $2 \times 2 \times 2 \times 2 = 16$).

However, considering the possible theoretical relations among the clusters (in our frame that is the one of people empowerment in relation to disaster/risk management), many of them can be eliminated.

More specifically:

- All those (8 scenarios) that consider partnership and co-government practice at the community level without "qualitative and quantitative importance of citizenship" and/or without "high propensity of disasters risk managers and local authorities towards citizens" (and with or without "problematic" territory) that are not conceivable
- All those (2 further scenarios) that consider low qualitative and quantitative importance of citizenship; low propensity of disasters risk managers and local authorities towards citizens; and absence of partnership and co-government practice at the community level (and with or without "problematic" territory) that are conceivable but where empowerment actions are impossible, as they could not be based on any actor.

Therefore, considering the first four clusters, only 6 scenarios of people empowerment in disasters/risks management (of the 16 possible "prima facie") are plausible. The 6 scenarios that can be actually met are the following ones:

- i. Qualitative and quantitative importance of citizenship and high propensity of disasters risk managers and local authorities (and/or scientists) towards citizens; therefore, actual or potential partnerships and co-government practices at the community level; all that in a "problematic" territory with resources limitations and high intensity of hazards (*Scenario 1*)
- ii. Qualitative and quantitative importance of citizenship and high propensity of disasters risk managers and local authorities (and/or scientists) towards citizens; therefore, actual or potential partnerships and co-government practices at the community level; all that in a territory without high resources limitations and low intensity of hazards (*Scenario 2*)
- iii. Qualitative and quantitative importance of citizenship and low/no propensity of disasters risk managers and local authorities towards citizens; therefore, limited/problematic/lacking partnerships and co-government practices at the community level; all that in a "problematic" territory with resources limitations and high intensity of hazards (*Scenario 3*)
- iv. Qualitative and quantitative importance of citizenship and low/no propensity of disasters risk managers and local authorities towards citizens; therefore, limited/problematic/lacking partnerships and co-government practices at the





community level; all that in a territory without high resources limitations and low intensity of hazards (*Scenario 4*)

- v. Low qualitative and quantitative importance of citizenship and high propensity of disaster risk managers and local authorities (and/or scientists) towards citizens; therefore, limited/problematic/lacking partnerships and co-government practices at the community level; all that in a "problematic" territory with resources limitations and high intensity of (*Scenario 5*)
- vi. Low qualitative and quantitative importance of citizenship and high propensity of disaster risk managers and local authorities (and/or scientists) towards citizens; therefore, limited/problematic/lacking partnerships and co-government practices at the community level; all that in a "problematic" territory with resources limitations and hazards high intensity (*Scenario 6*).

In any of these six conceivable contexts designed above (i.e., the scenarios that we shall take into account) any specific actor (fifth cluster) can play a more or less important role (therefore, considering all the five clusters, the scenarios should be $6 \times 2 = 12$; however, the fifth cluster can be considered as collateral to the first cluster, and then the scenarios that should be considered are the six listed above and discussed below.

5.1. Scenario 1

This is the "ideal" scenario for a robust people empowerment process. First, there is a pro-empowerment availability of actors from both sides: strong citizenry on one side; and propensity of disaster risk managers and local authorities (and/or scientists) towards citizens that generate a favourable context for partnership that could be already in effect or can be easily built. Moreover, resources limitation in the territory brings people to put themselves into action as resources (perhaps the only resource) for disaster management and/or a high intensity of hazards give people a memory that brings the same effect. Finally, the presence of actors that can be ready to help in disaster management such as educated children and/or active elders can be a plus.

These circumstances generate positive attitudes such as social/mutual trust, respect and solidarity inside the communities; an intensive and productive interaction among societal actors – from citizens to entrepreneurs – and the institutional system (i.e., public bodies at the central and/or at the local levels accompanied by a two-ways communication); a positive perception of the cost-benefit ratio of citizen-based environmental resource management versus more traditional mean of data collection (thanks to crowdsourcing, citizens' observatories, etc.) and a real institutionalised partnership can be reached.





In this scenario people empowerment is in action and can be characterised by a continuous capacity building (e.g., educational and advocacy programs on hazards) on both sides (citizens on one side, local authorities and civil defence managers on the other), learning processes, implementation of simulations/drills, mutual awareness, and the inclusion of all the relevant actors in decision-making processes (e.g., in planning activities related to disaster management, in the identification of technologic solutions, etc.).

Among the European cases analysed²¹, those that seem to fit better with this scenario are:

- Citizens' Observatories and bio-monitoring campaign in Ostrava (CZ)
- Inclusive decision-making in relation to Saxony River flood 2006–2013 (DE)
- Capacity building and citizens' empowerment in the context of heatwave and forest fire in Tatabanya (HU)
- Networking and crisis mapping after Badia landslide in 2012 (IT)
- Lodz Learning Alliance/floods and increased air pollution (PL)
- Engaged communities of resilience practice in relation to floods in Northern England 2005–2009 (UK).

5.2. Scenario 2

This second scenario looks like the previous one. The main difference is that here there is a lower intensity of hazards. Therefore, there are all the elements that can generate positive people empowerment processes; however these processes could be oriented not towards the disaster management (that could be perceived as not a high priority), but towards other issues (the energy transition and the mitigation of the climate change, the improvement of social welfare could be two examples of these other issues). The second difference is that in this scenario there is no important lack of resources; conversely, there may be stocks of resources that equip actors accompanied by a promotion of continuous technological innovations in a context of governance of innovation.

The same positive attitudes mentioned above characterize this scenario too and, therefore, we can meet the same people empowerment processes. However, as said above, such empowerment can be oriented towards other issues outside the disaster management. There is anyway a social process in action that can be easily re-directed towards disaster management when necessary.

Among the European cases analysed, those that seem to fit better with this scenario are:

²¹ According to what has been already mentioned in Chapter One, §3. above.





- Multifunctional water management in Rouen (FR)
- Environmental citizens' observatory in Vitoria-Gasteiz (ES)
- Regeneration initiative of Augustenborg, Malmö in relation to floods (SE).

5.3. Scenario 3

The third scenario is considerably different from the previous ones. The pro-empowerment availability of actors tends to exist only from one side: the one of citizens. Moreover, here too, resources limitation in the territory brings citizens to put themselves into action as resources for disaster management and/or a high intensity of hazards give people a memory that induces the same effect. And the presence of actors that can be ready to help in disaster management such as educated children and/or active elders can be a plus.

Conversely there is a negative attitude (at least in the majority) towards citizens' active involvement from disaster risk managers and local authorities, who tend to believe that the active involvement of citizens is useless if not harmful.

A participative approach can anyway be present, thanks to the strong citizenry (e.g., people strengths and competencies, people ownership, community aptitude for learning processes, intensive presence of leaders that encourage community-led initiatives, etc.), but partnership among citizens and local authorities/disaster managers (at least in the field of disasters/risks) is, inevitably absent or weak and a governance approach (as co-government among local actors) is not conceivable.

In this scenario people empowerment is far from obvious, thanks to the lack of interest (if not hostility) from the majority of (or all) the officials of the public sector. However, people empowerment actions can be encouraged from the citizens themselves (from local NGOs/CSOs/ community leaders, from high skilled citizens, from specific actors, etc.) or from program/project promoted by an external actor, such as an international organisation or, an international NGO or from the few public officials, if they exist, who have a different attitude towards citizens from that of most of their colleagues. Such people empowerment actions can consist in citizens' capacity building, learning processes, or awareness raising; but, of course, not in the inclusion of all the relevant actors in decision-making processes.

Moreover, people empowerment actions can be promoted also by public sector officials that have a negative attitude towards citizens, if they are conceived as education programs, one-way communication of instructions and information and in the implementation of simulations/drills.

Among the European cases analysed, those that seem to fit better with this scenario are:

- Crowdmapping in 2013 regional flood (CZ)





- Citizens' flooding networks in Doncaster (UK).

5.4. Scenario 4

This fourth scenario looks like the third one but with some important differences. The "prima facie" attitude of the various actors would be the same (strong citizenry on one side; public sector officials that do not like an active involvement of citizens in disaster/risk management; and therefore a participatory approach that subsists only – or mainly – from the citizens side).

The main difference from scenario 3 is that here there is a lower intensity of hazards. Not only does it lack an important component that can generate positive people empowerment processes (i.e., the positive attitude towards citizen active involvement from disaster-risk managers/local authorities), but these processes could be further weakened (or, at least, not oriented towards the disaster management but towards other issues – e.g. the ones mentioned in scenario 2) from the fact that disasters/hazards are not perceived as a high priority.

The second difference from scenario 3 is that here there is no important lack of resources; conversely, there may be stocks of resources that equip actors accompanied by a promotion of continuous technological innovations in a context of governance of innovation.

In this scenario 4 people empowerment is further far from obvious, not only – as in scenario 3 – thanks to the lack of interest (if not hostility) from the majority of (or all) the officials of the public sector, but also from an actual or potential lack of interest in hazards-disasters from citizens because the latter are not perceived as a high priority.

However, here too (but at a lesser extent than in scenario 3) the same people empowerment actions can be encouraged from the citizens themselves (from local NGOs/CSOs/ community leaders, from high skilled citizens, from specific actors, etc.) or from programs/projects promoted by an external actor, such as an international organisation or an international NGO. Such people empowerment actions, as in scenario 3, can consist in citizens' capacity building, learning processes, or awareness raising; but, of course, not in the inclusion of all the relevant actors in decision-making processes.

Moreover, as in scenario 3, people empowerment actions can be promoted also by public sectors officials that have a negative attitude towards citizens, if they are conceived as education programs, one-way communication of instructions and information and in the implementation of simulations /drills. However, such kind of actions are much less likely to take place, since hazards/disasters are not perceived, in the local context, as a high priority.

Among the European cases analysed, the ones that seem to fit better with this scenario are:

- Climate change and flood citizens' monitoring in East Salford (UK)





- Support networks in the context of heat wave in London (UK).

5.5. Scenario 5

Scenario 5 can be considered, in a way, as the "opposite" of scenario 3. In this scenario local authorities and disaster managers (and/or scientists) have a positive attitude (at least in the majority) towards citizens' active involvement, since they believe that their active involvement can be useful if not essential.

However, in this scenario, citizenry is weak or, at least, not strong (e.g., lack of leaders that encourage community-led initiatives; lack of strengths and competencies among citizens; lack of people ownership; lack of proactive behaviours among citizens to social policy and social changes; etc.). Moreover, actors that can be ready to help in disaster management such as educated children and/or active elders are absent or do not represent a plus.

Therefore, the participatory approach is mainly "top-down" generated (in large part) by the public sector officials and, here too, a partnership among citizens and local authorities/disaster managers is, inevitably difficult or weak (if not absent) and a governance approach (as co-government among local actors) is not conceivable, even if desired from the public sector.

There is a lack of resources in the territory and/or a high intensity of hazards but these circumstances do not bring people (or do not bring so much) to put themselves into action as resources for disaster management.

In this scenario people empowerment actions are not only possible, but even very likely if not certain. However, they will be mainly, if not exclusively, top-down actions, which, anyway, can be of any kind (or almost) and can be characterised by capacity building (e.g., educational and advocacy programs on hazards), implementation of simulations/drills, awareness promotion, and also the attempt of involving all the relevant actors (citizens included) in some decision-making processes (e.g., in planning activities related to disaster management, in the identification of technological solutions, etc.). More difficult/not likely, in this scenario, is the activation of learning processes among citizens.

Among the European cases analysed, the ones that seems to fit better with this scenario are:

- Timmendorfer Strand coastal protection strategy (DE)
- Civil protection experimentation in the Alto Adriatico (in particular in Vicenza province) (IT)
- Multi-Hazard Approach to Early Warning System in Sogn og Fjordane (NO)
- Earthquake drill and capacity-building (PT)





- Stakeholders engagement to reduce vulnerability to drought in Segura and Tagus basins (ES)
- Delft monitoring network (pluvial flooding) (NL).

5.6. Scenario 6

The last scenario (among the possible ones – see above) is similar to scenario 5 with the same differences met among scenarios 1 and 2 and scenarios 3 and 4. The "prima facie" attitude of the various actors would be the same as in scenario 5:

- On one hand, local authorities and disaster managers (and/or scientists) with a positive attitude towards citizen active involvement
- On the other, weak citizenry and lack of actors ready to help in disaster management such as educated children and/or active elders.

In this scenario the weakness of the citizenry (in the area of disasters/risks management) could be worse than in scenario 5 by the lack of intensity (or, at least, the lack of perception by citizens of the intensity) of hazards. This can bring even less people to put themselves into action as resources.

The second difference from scenario 5 is that here too there is no important lack of resources; conversely, there may be stocks of resources that equip actors accompanied by a promotion of continuous technological innovations in a context of governance of innovation.

Also in this scenario people empowerment actions are possible, but less likely than in scenario 5, for two reasons: citizenry is weaker and the public sector officials (local authorities, disaster/risk managers, etc.), due to the lesser intensity of hazards (compared to the scenario 5), will be less motivated to promote, in such a context, people empowerment actions.

It goes without saying that any people empowerment action, as in scenario 5, will be promoted mostly by public sector officials and will be, therefore, mainly, if not exclusively, top-down.

As in scenario 5, anyway, empowerment actions can be of any kind (or almost) and can be characterised by capacity building (e.g., educational and advocacy programs on hazards), implementation of simulations/drills, awareness promotion, and also the attempt of involving all the relevant actors (citizens included) in some decision-making processes (e.g., in planning activities related to disaster management, in the identification of technologic solutions, etc.). More difficult/not likely, in this scenario, the activation of learning processes among citizens.

Among the European cases analysed, those that seem to fit better with this scenario are:

- Crowdmapping in 2014 south-eastern flood (FR)





- Florence civil protection system (IT)
- Ljubljana citizen scientists system (SI)
- Citizens' observatory to empower citizens to contribute to and participate in environmental governance in Barcelona (ES)
- Stakeholders and community engagement/Humber coastal floods (UK)
- Lower Danube Green Corridor: floodplain restoration for flood protection (BG, MD, RO, UK).





CHAPTER THREE: Lessons Learned

This report is devoted to the analysis of the linkages between empowerment practices and specific socio-economic and environmental contexts. It has been prepared in parallel with Deliverable 7.3, devoted to the relations among empowerment and cultural factors (both deliverables in the context of risks/disasters). In Deliverable 7.4 "Synthesised report including recommendations", that will conclude the CARISMAND WP7, the findings of these two reports (that can have, inevitably, a few overlapping, due to the fact that there is no a clear-cut, or fully recognised, boundary between "social" and "cultural") should be integrated and specific recommendations will be drafted on how it is possible, feasible and convenient, to empower societal actors such as citizens in the various contexts (environmental, social, economic, cultural, etc.) in the perspective of an improved management of disasters/ risks/hazards. During the drafting of Deliverable 7.4, some among the WP7 findings (e.g., the identified scenarios) could be checked with stakeholders in the frame of the last Stakeholder Assembly and with citizens in the frame of the last two citizens' summits. After that, these recommendations will inform the final outputs of the CARISMAND project and, more specifically, the final toolkit.

As the main lessons learned at the end of this report, we want first to add some annotations on what seem to be the most frequent scenarios to be considered, thinking about people empowerment in relation to disaster/risk management, always assuming that we can consider the 25 European cases as a sort of sample.

18 of these 25 cases have been linked to 3 of 6 scenarios considered (6 to each one of these 3 scenarios).

The first of these 3 scenarios is the most pro-people empowerment one, i.e., the one where there are favourable factors from all the clusters: substantial traces of active citizenship with eventually, as a potential plus, also the presence of actors that can be ready to help in disaster management such as educated children and/or active elders; propensity of disasters risk managers and local authorities (and/or relevant scientists) towards citizens; and therefore a favourable context for actual/potential partnership; and, almost always, a high intensity of hazards giving people a memory spurring them to put themselves into action.

The second and the third of these 3 scenarios are, apparently, much less pro-empowerment, since there are no substantial traces of active citizenship, and therefore no (or a very weak) partnership climate. Conversely, local authorities and disaster managers (and/or relevant scientists) have a positive attitude (at least in the majority) towards citizens' active involvement because they believe that this involvement is useful if not essential. Moreover, in one of these two last scenarios, there is a lack of resources in the territory and/or a high intensity of hazards but these





circumstances do not bring people (or do not bring them so much) to put themselves into action. The opposite seems to occur in the other scenario.

We can note that these 2 apparently less pro-empowerment scenarios have elements in common with the citizens' situations we have met in the Citizens' Summits implemented until now in the frame of the CARISMAND project.

The common element of all these 3 scenarios is the positive attitude by local authorities, disaster managers and/or scientists towards citizen active involvement, which, therefore, appears as the core element for people empowerment. Furthermore, if we consider that also scenario 2 (see Chapter Two, §5.2.) is characterized by the same positive attitude, three more European cases can be added, reaching a total of 21 out of the 25 considered in this report.

However, the remaining 4 cases testify that people empowerment in disasters/risks can happen and actually happens also without this positive attitude from local authorities, disaster managers and/or scientists when an important set of factors characterizing active citizenship are put together.

Anyway, the attitudes of the actors (citizens, local authorities, disaster managers, scientists, etc.) and their actions are central. And the strengthening of social actors in the context of risk/disaster management is ultimately the general purpose of the CARISMAND project.

The citizen summits and the stakeholder assemblies, besides being eminent places of action research (i.e., geared at obtaining a better understanding of how things happen and are perceived by the various involved actors as well as the relations between these actors in the frame of the management of risks/disasters), should become, as far as possible, relevant also for a people empowerment policy. And this is (partially) already the case. In fact:

- The stakeholder assemblies are (also) opportunities where the various stakeholders (disaster managers, local authorities officials, NGOs leaders and volunteers, relevant scientific experts, etc.) discuss on people's actual and potential roles in the management of risks/disasters; through these discussions and thanks to the interventions/presentations of proper experts all (or quite all) the participants enhance a positive attitude towards an active involvement of citizens (as an useful resource) and the valorisation and improvement of their capacities, knowledge, etc.
- The citizens' summits are (also) opportunities where "common" citizens, as well as citizens already engaged volunteering and in groups and movements in various fields (environment, education, health, social assistance, relief, etc.), thanks to a mutual confrontation and thanks to the acquisition of the findings of the previous citizens summits and stakeholders' assemblies become more aware of their potentialities in the management (from the prevention to the recovery) of disasters/risks; citizens' summits are also a place where citizens' agency towards disasters/risks management increases.





However, the stakeholder assemblies and the citizens' summits do not take place everywhere and much less every month.

Therefore, the main output of the CARISMAND project will be the final toolkit. Through its dissemination and exploitation, the toolkit will represent the core instrument for enhancing an effective people empowerment policy. Such policy should be not only based, on a better and thorough understanding of the relevance of cultural and social issues that characterize any given community, but also supported by specific directions on how to valorise and improve the contribution that can be provided by each actor (common citizens included) in each specific context where an hazard arises.

After merging the findings of Deliverable 7.2 about linkages between empowerment practices and specific socio-economic and environmental contexts and Deliverable 7.3 about cultural factors and citizen empowerment, specific recommendations in this regard will be included in Deliverable 7.4 "Synthesised report including recommendations".





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