

Natural Hazards and Disaster Risk Reduction Policies

Loredana Antronico - Fausto Marincioni
Editors





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Cover: A woman shovels mud from her driveway in the aftermath of the October 2010 debris flow that affected the Province of Vibo Valentia (Calabria, southern Italy).

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7. Inclusive Disaster Planning. Evidences from municipal case studies in the Marche Region, Italy

Beatrice Gatto¹, Susanna Balducci², Fausto Marincioni³

Abstract

According to academic and practical studies, there is a significant lack in the application of the Human Rights-Based Approach to disability in local disaster planning. This chapter discusses the main results of the study conducted by the Università Politecnica delle Marche to investigate at which extent municipal civil protection authorities are trying to include persons with disabilities in the emergency planning process. The main results of the study revealed that, despite municipal emergency planners recognize the importance to include persons with disabilities and their needs in the local emergency strategies and plans, there are still many challenges to face in order to implement an inclusive approach, such as (1) collecting data on the specific needs of persons with disabilities and allocating human resources devoted to the collection and updating of those data; (2) establishing systematic and continuous collaborations amongst relevant stakeholders on disability-related issues in emergency; (3) building and disseminating an inclusive approach to local disaster planning actively involving persons with disabilities; (4) implementing existing strategies and building new knowledge on accessible evacuation, communication and accommodation. Relevant evidences from this study were considered for the development of regional guidelines for municipal administrations to support them removing those barriers that prevent the implementation of an inclusive approach to disaster planning.

Keywords: Disability, Inclusive Approach, Disaster Planning.

¹ *Corresponding Author*; Università Politecnica delle Marche, Italy, e-mail: b.gatto@univpm.it.

² Servizio Protezione Civile della Regione Marche, Italy, e-mail: susanna.balducci@regione.marche.it.

³ Università Politecnica delle Marche, Italy, e-mail: f.marincioni@univpm.it.

1. Background

The World Health Organization (WHO) estimates that more than one billion people worldwide live with a disability, representing about 15 per cent of the world population (WHO, 2011). Throughout history, there has been an evolution in thinking of disability, as demonstrated by the paradigm shift from the medical model to the social model of disability, recently integrated by the Human Rights-Based Approach (HRBA), adopted by the United Nations Convention on the Rights of Persons with Disabilities (UN CRPD) in 2006. Persons with disabilities are defined by the CRPD as individuals *“who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others”* (UN General Assembly, 2006). According to Klasing (2011), the HRBA moves from considering persons with disabilities as objects of medical and social assistance, towards viewing those persons as individuals with rights and capable of actively participating to regular societal activities. According to this approach, disability is not an attribute of the person (WHO, 2011) but, rather, is a concept that includes a wide variety of personal conditions. Societies tend to exclude people with disabilities by not including their needs and opinions in policies and programs, therefore the role of institutions and organizations is significant to avoid situations of further discrimination and exclusion. Recent events have brought worldwide attention on the fact that the elderly (Elmore and Brown, 2007; Jenkins et al., 2007) and persons with disabilities (Harris, 2004) are among the most vulnerable persons affected by disasters. Those persons, during disasters, are disproportionately affected because of their physical, mental, intellectual or sensory impairments (Ito, 2014). This is the case, for example, of elderly individuals drowned in their wheelchairs and beds inside St. Rita’s Nursing Home during Hurricane Katrina in 2005 (Stough and Kang, 2015). Reinhardt *et al.* (2011) stressed that, according to emergency management statistics, in case of disasters, persons with disabilities tend to die in far higher percentages of the population than persons without disabilities. Article 11 of the UN CRPD specifically addresses the rights of persons with disabilities in situations of risk and humanitarian emergencies and mandates that States Parties undertake *“all necessary measures, including those taken through international cooperation, to ensure the protection and safety of persons with disabilities in situations of risk, including situations of armed conflict, humanitarian emergencies and the occurrence of natural disasters”* (UN General Assembly, 2006). The relevance of the HRBA to disaster management has been recognized worldwide and many local,

national and international initiatives addressing disability-related issues during disasters increased the opportunities for communities, countries and groups of nations to learn and increase knowledge, and to enhance the application of this knowledge in dealing with the catastrophic consequences of disasters on the safety of persons with disabilities (Rouhban, 2014). Since only few studies have explored the possibility of involving persons with disabilities and their families in disaster planning, a risk exists that those persons might be excluded by current local emergency planning strategies (Rowland *et al.*, 2007). Therefore, investigating the level of inclusion of persons with disabilities in local disaster preparedness and promoting disability-inclusive strategies should be priority activities for all those involved in Disaster Risk Reduction.

2. Mainstreaming Disability into Disaster Risk Reduction

Persons with disabilities have to face unique challenges during emergencies and disasters. According to Mitchell and Karr (2014) the needs of those with disabilities are often excluded from emergency relief, recovery and rebuilding programs, and they have less access to resources and help in refugee camps and in post-disaster environments. Van Willigen *et al.* (2002) discovered that, in the aftermath of Hurricane Floyd in 1999, many persons with disabilities tried to respond to warnings but they did not receive any support during the evacuation efforts. After the Indian Ocean tsunami of 2004 persons with disabilities had less access to life-saving aids (Crock *et al.*, 2014), and also the earthquake and tsunami in Japan in 2011 has confirmed that persons with disabilities are often left behind during evacuation phases (Quigley, 2006) due to poor preparation or inaccessible evacuation facilities and transport systems (Crock *et al.*, 2014). Such inequalities have been revealed, as never before, by Hurricane Katrina in 2005, which terribly affected the most vulnerable population due to inadequate or nonexistent evacuation plans (White House, 2006). Roth (2014), the Senior Advisor and Director of the Office of Disability Integration and Coordination (ODIC) of the Federal Emergency Management Agency (FEMA), explained that, during the 2011 terrorist attack in the United States and Hurricane Katrina in 2005, the needs of persons with disabilities were considered special leading to separate planning strategies and stressed the importance to treat the needs of those persons as pivotal elements to plan for the whole community. According to Smith *et al.* (2012), both published and grey literature have focused on the issue of “*disability-related inequalities during disasters*”. Njelesani *et al.*

(2012), for example, investigated some disaster management initiatives of the 2010 Haiti Earthquake and the 2005 Hurricane Katrina from a human rights perspective. The authors reported that, during those catastrophic events, the coordination activities between disaster response organizations and associations of persons with disabilities were lacking, highlighting the poor involvement of those persons, their families and representatives in the disaster planning meetings. Furthermore, the National Organization on Disability (2009) revealed that, in some cases, communication and information programmes did not include alternative accessible formats and therefore, persons with hearing impairments were not able to use phones to contact their relatives nor those with visual impairments were able to access printed documents. The International Federation of Red Cross and Red Crescent Societies (2007) and Handicap International (2010) suggested that the main reasons of those repeated discriminations are related to the negative attitude of considering disability as a specialized field separated from the whole community. Another issue is that most of the scientific literature on emergency and disability-related issues tends to discuss standardized emergency preparedness policies and practices (Smith and Notaro, 2009), rather than how to include persons with disabilities in the decision-making process, and also Hoffman (2008) confirmed that very few emergency plans have addressed the needs of those persons. According to Barrios (2014), an inclusive approach should (1) increase community awareness of the importance of involving persons with disabilities in disaster planning; (2) encourage those persons and their families to participate in disaster planning meetings; (3) collect detailed information on persons with disabilities living in the community in order to understand their specific needs and develop tailored inclusive solutions. This last action may require using census data (in compliance with privacy laws) to be used in case of emergency to adequately rescue and assist persons with disabilities, but also during the emergency planning process. Municipalities should closely collaborate with long-term care facilities and should have an updated list of the residents of such facilities to be used by rescue teams in emergency. Another pivotal element of inclusive disaster planning is training emergency managers and rescue teams on disability-related issues. Rowland *et al.* (2007) investigated the emergency staff training programs of three urban and three rural locations in northeast Kansas. The study revealed that local emergency management agencies were not supported by any emergency preparedness policies, guidelines or procedures specifically designed to rescue persons with physical disabilities and, moreover, there was a consistent lack of data on those persons in their areas. Furthermore, the authors stressed the key role of simulation exercises to test the plan,

highlight aspects to be improved and raise awareness of commonly overlooked issues. According to Alexander and Sagramola (2014), more attention has to be paid to municipal emergency planning processes because all emergency plans are local in their implementation and outcomes. Municipal governments are central to the question of inclusive emergency planning because they have a direct connection with local communities, business, industries and services, and are thus responsible for the coordination of rescue and response activities (Alexander, 2016). Experiences of many European countries revealed that there is a level of uncertainty in municipal governments on how to approach and deal with disability-related issues during disasters (European Association of Service Providers for Persons with Disabilities, 2014), therefore a strong political commitment is needed to develop national or regional policies and guidelines as instruments to support the implementation of a disability-inclusive disaster planning. It will be strategic, then, to identify which organizations have the responsibility to develop policies in favour of persons with disabilities and to regularly monitor the effectiveness and the level of implementation of such policies (Alexander, 2002). It is also strongly recommended to reinforce the level of cooperation among civil protection authorities and organisations of persons with disabilities. This may represent a strategic solution to connect public administrations with civil society (Alexander and Sagramola, 2014). Alexander (2016) also stated that planning for emergencies is a never-ending cycle in which there are constantly improvements to be made. Thus, if the emergency plan can be considered a flexible instrument that can be regularly integrated and updated to include the specific needs of persons with disabilities, the delay on local implementation of disability-inclusive strategies is due to other critical issues, such as limited budget or personnel and resources in short supply (Alexander, 2016). These are the typical cases in which, very often, the needs of persons with disabilities are left behind instead of thinking that the whole community will benefit from an emergency plan that include and involve persons with disabilities and that such inclusive strategies will help building healthy families and stronger societies.

3. Including persons with disabilities in disaster planning: from international policies to national good practices

The importance of including the needs of persons with disabilities in Disaster Risk Reduction (DRR) has been recognized by several international agreements and treaties, such as the Convention on the Rights of Persons

with Disabilities (2006) and the Verona Charter on the Rescue of Persons with Disabilities (2007) that laid out the foundations for ensuring the protection and assistance of persons with disabilities in case of disasters. In the framework of ongoing discussions on the post-2015 UN development agenda, United Nations entities are making significant efforts to guarantee the inclusion of disability perspective in the global development agenda (Ito, 2014). Disability-related issues have been included also in the 2015 UN World Conference on Disaster Risk Reduction (WCDRR) in Sendai, Japan, as result of a long process, which was developed through the 1994 WCDRR in Yokohama, Japan and the 2005 WCDRR in Hyogo, Japan. Many pivotal issues, such as universal design principles and accessible technologies and communications strategies, have been included in the Sendai Framework for Disaster Risk Reduction 2015-2030 (SFDRR). As stated by Stough and Kang (2015), *“the inclusion of disability issue in the Sendai Framework for Disaster Risk Reduction 2015-2030 (SFDRR) firmly establishes people with disabilities and their advocacy organizations as legitimate stakeholders in the design and implementation of international disaster risk reduction policies”*.

With regard to the European commitment, in 2006, Council of Europe adopted the Disability Action Plan 2006-2015. The plan aimed to support Member States in reinforcing anti-discrimination measures and ensuring equal opportunities to persons with disabilities. At the end of 2010, the European Union, which ratified the CRPD in January 2011, defined the European Disability Strategy (2010-2020) as the main instrument to support the EU's implementation of the UNCRPD. This strategy was committed to introduce the principles of the Convention within the external actions and to raise awareness of the needs of people with disabilities in the field of emergency and humanitarian aid (European Commission, 2010). In 2014 the Council of Europe, after consultation with all relevant institutions and civil societies, defined a set of guidelines to support and promote the inclusion of people with disabilities in disaster management. In 2015, the European Council adopted the Council Conclusions on disability-inclusive disaster management, which specified the actions that the Member States and the European Commission must implement to ensure the inclusion of the needs of persons with disabilities in disaster management (Council of Europe, 2006).

Italy is among the first signatories of the UN CRPD and the first to adopt the Disability Action Plan as a successful result of an interactive and continuous cooperation among organizations of persons with disabilities, governments, academic institutions and other stakeholders. In Italy there are many legal and technical documents addressing the needs of persons of

disabilities in disaster management. One of those is the document entitled “Aid to disabled persons: indications for emergencies management”, issued by the Italian Ministry of Internal Affairs, and elaborated by the Department of Fire Brigade, Public Safety and Civil Defense. Here, many recommendations are provided on how to deal with different types of disabilities during disaster planning including some good practices to better assist and support those persons. Also the Italian standardized model for disaster planning and management, the so-called “Augustus Method” (regulated by the Law n. 255/92 - not in force anymore and replaced by Legislative Decree n. 1/2018), states that “*particular attention shall be paid to people with reduced mobility: elderly people, disabled, children*”. The Ministerial Decree of March 10, 1998 provides a description of the forms of assistance available for persons with disabilities in case of fire and, moreover, stresses the obligation to consider the specific needs of those persons in the early design of fire prevention measures and in evacuation procedures of the workplaces (Office of the High Commissioner on Human Rights, n.d.). The Circular Letter n. 4 of March 1st, 2002 addresses the “Guidelines for the evaluation of fire prevention measures in workplaces with disabled workers”, which include (1) involving people with disabilities in the process of risk assessment; (2) reaching adequate security standards for all; (3) elaborating security plans for disabled workers avoiding separated plans but rather including their needs in the existing emergency plans (Office of the High Commissioner on Human Rights, n.d.). Since 2004, the Italian National Department of Civil Protection promoted and conducted several initiatives on disability-related issues in situations of emergency in collaboration with the Social Cooperative “Europe Consulting Onlus” with the aim of (1) collecting relevant data on persons with disabilities and mapping their needs as prevention activities; (2) sharing good practices with voluntary associations, organizations of persons with disabilities, rescue teams etc., on how to develop inclusive and innovative ICT-based strategies for emergency alert and rescue; (3) organizing practical exercises such as those in Basilicata Region in 2012 and in Piemonte Region in 2016 which directly involved persons with disabilities. Furthermore, at regional level, many projects have been developed to reinforce the collaboration amongst civil protection authorities to enhance the ability of communities to deal with disability-related issues and to promote the inclusion of persons with disabilities in local disaster planning.

4. Major challenges and concerns related to the implementation of disability - inclusive approach to municipal disaster planning

In 2015, within the framework of a doctoral research, the Università Politecnica delle Marche (hereafter UNIVPM) conducted a study in three Italian municipalities of the Marche Region to investigate at which extent they are trying to include those persons in the emergency planning process. For the specific purpose of the study, persons with disabilities were not included in the survey but further studies should be conducted to investigate their point of view on such issues and to understand their willing to participate in local disaster planning. Thus, the sample population of participants was limited to the three municipal emergency planners and each interview lasted about 1 hour. There was a minimal risk to all participants as the study sought self-reported knowledge that was not deemed sensitive in nature and posed no threat to the participants. The participation in the study was voluntary and without compensation. Participants might refuse to answer any specific questions raised during the interviews without giving a reason or explanation for doing so, and without any effect on the relationship with UNIVPM or the other researchers involved. The interviews have been audiotaped. The voice files and transcripts from the interviews have been archived at the UNIVPM on a secured server and used for educational or research purposes only.

In-person structured interviews were conducted to collect information for the qualitative content analysis and to respond to the following main research questions:

1. Does your municipality include tailored strategies aimed to identify and map persons with disabilities who may need specific assistance in emergency?
2. Does your municipality collaborate with local first responders, representatives of social services (public and private), the Regional Disability Advisory Council, disabled people's voluntary associations to prepare and update the emergency plan?
3. Did your municipality involve persons with disabilities and their families in the emergency preparedness process?
4. Does your municipal emergency plan include specific considerations on communication, evacuation and transportation strategies for persons with disabilities in case of emergency?

The information extracted from the transcribed interview texts have been organized and summarized in the following categories:

1. Availability of data and resources for mapping persons with disabilities;
2. Collaboration amongst relevant stakeholders on disability-related issues in emergency;
3. Inclusion of persons with disabilities into disaster planning process;
4. Considerations on inclusive evacuation, communication and accommodation strategies.

The main results of the study, presented and discussed in the next 4 subsections, confirmed the complexity of disability-related issues in emergency and highlighted major concerns and challenges that local civil protection authorities need to face in developing strategies to support persons with disabilities during the emergency preparedness process.

4.1. Availability of data and resources for mapping persons with disabilities

None of the participants reported including systematic data on people with disabilities in the emergency plan, even though they had access to those data (without violating the Italian Personal Data Protection Code - Legislative Decree n. 196/2003), owned by the Social Services of the municipalities and the Local Health Authorities. All participants reported that the data was available in print version and there was a lack of human resources within the municipality devoted to the creation of a database containing information on citizens with disabilities, such as address (for their rapid localization), type of disability (to ensure adequate assistance and rescue), specific needs (to provide tailored services in emergency). This may confirm that the delay on local implementation of disability-inclusive strategies is often due to critical issues, such as limited budget or personnel and resources in short supply (Alexander, 2016). However, all participants were fully aware of the importance of collecting and updating such a database *“as it will represent an inventory of special needs and the location of people who may be in need of assistance”* (Alexander and Sagramola, 2014) and will provide further information to understand their specific needs and develop tailored inclusive solutions (Barrios, 2004). All participants claimed the need of a strong political commitment to assign stable resources devoted to this specific task within public administrations.

This may entail the creation of specific offices/services within municipalities and regional authorities to run programmes for protecting people with disabilities, representing their needs in emergency and including them in the disaster planning process.

4.2. Collaboration amongst relevant stakeholders on disability-related issues in emergency

All participants reported a liaison with the Regional or Disability Advisory Council (established by the Regional Law n. 18/96) but it was not clear at which extent they discussed disability-related issues in emergency or which specific topics emerged from those discussions.

All participants reported that they have identified residential care facilities in their territories (nursing homes, assisted living facilities, etc.) but, they all reported some gaps in the collaboration with them, especially with those in peripheral areas. More in detail, two participants reported that few practical exercises were conducted, also because it is challenging to involve residents of those facilities in the evacuation drills. However, also according to Rowland *et al.* (2007), those few experiences were considered strategic to highlight some critical issues and aspects to be improved, such as problems with transportations of residents due to a critical viability in the historical center of one municipality. Another issue emerged from the three interviews was the availability of adequate facilities, terms of accessibility and compliance with safety standards, where to accommodate the residents. Furthermore, one participant explained that he asked residential care facilities to share their emergency plans, since they might contain precious information for first responders on how to rescue and assist their residents, but only few of them replied to those request. Concerning the collaboration with voluntary associations, one participant reported that, during a flood event in 2006, the local Red Cross volunteers went door to door to ask persons with disabilities specific information on their needs, guided by the Social Services of the municipality which knew where those persons lived in the community. However, this was an extemporary solution adopted in emergency and not a systematic approach or a planned strategy included in written collaboration agreements, thus revealing the absence of a continuous collaboration and cooperation between social services of the municipality and external voluntary associations.

4.3. Inclusion of persons with disabilities into disaster planning process

None of the participants reported the development of specific strategies to involve persons with disabilities and their families in the emergency planning process, confirming that very few emergency plans address the needs of those persons (Hoffman, 2008). More in detail, one participant recognized the value of their participation in the decision-making processes and the urgency of finding solutions, developing programmes and allocating resources to build a systematic approach to this issue. The other two participants revealed some uncertainties on the concrete possibility of including them in such activities. In fact, in their opinion, those persons and their families have not enough time available to face these issues and they can feel uncomfortable when they are invited to participate in practical exercises where evacuation procedures are needed to test the municipal emergency plan. As further explained by the two participants, establishing a trust relationship with those persons and their families is challenging and, in this regard, they stressed the key role played by the Social Services and the voluntary organizations to sensitize those persons on the relevance of their participation in the disaster planning process. In this regard, introducing a new cluster (or a dedicated group on disability issues) within the local emergency operation centers could be a practical solution. This new cluster will be able to organize, for example, disability-tailored rescue services, stimulating the continuous dialogue and sharing good practices among the Civil Protection authorities and all relevant stakeholders in this field.

All participants revealed that persons with disabilities living at home (with their families/caregivers or, worse, completely alone) are of major concern compared to the residents of long-term care facilities. In fact, in case of emergency, the staff of such facilities are prepared and trained to assist and rescue those persons, thus revealing a certain level of trust in the ability of such facilities to act in emergency to protect the residents. All participants asked for the establishment of public-private pre- and post-emergency partnership/networks able to develop innovative solutions and approaches to ensure adequate assistance in emergency also to those persons with disabilities living at homes.

4.4 Considerations on inclusive evacuation, communication and accommodation strategies

Only one participant reported that the emergency plan included specific considerations on personalized evacuation procedures and techniques for

persons with disabilities. In general, some uncertainties emerged from all participating emergency planners on the ability of the civil protection teams to assist persons with different type of disabilities (e.g. physical, cognitive and sensory disabilities) during rescue and evacuation operations. All participants suggested that first responders did not receive additional training or guidance to learn more on how to communicate with those who are blind, deaf, hard of hearing, or who speak languages other than Italian.

Concerning alert systems and communication strategies, only two participants specified which local associations were responsible for alerting persons with disabilities in case of emergency. However, few details were provided on how these associations ensure effective and inclusive communication. All participants provided a digital version of their emergency plan on their official web sites, however, none of those plans were available in alternative formats (e.g., braille, large print, audio and/or video), thus they were not accessible for those persons with hearing and vision impairments, low literacy or cognitive processing difficulties, and who do not understand the local language. These results confirmed that, in some cases, communication and information programmes do not include alternative accessible formats (National Organization on Disability, 2009).

Concerning issues related to local accommodation strategies, none of the participants widely explained if the emergency areas, evacuation camps and reception facilities were selected considering Universal Design principles and regulations included in the Legislative Decree n. 236/89 and the Decree of the President of Italian Republic 503/96. Furthermore, none of the participants specified, in the plan, specific accommodation services such as accessible showers, specific dietary requirements, refrigerated storage of medicines, and accessible transports.

These results revealed a high level of uncertainty in municipal administrations on how to approach and deal with disability-related issues during disasters, confirming what explained by the European Association of Service Providers for Persons with Disabilities (2014) and, highlighted the need for strong political commitment to give further impetus for the development of national and regional policies and guidelines as instruments to support the implementation of a disability-inclusive approach to emergency planning.

5. Conclusions and Recommendations

The implementation of a Human-Rights Based Approach in local disaster planning is, undoubtedly, a long and impervious process, which requires

considerable efforts from governments, policy makers, civil societies and all relevant stakeholders in the field of Disaster Risk Reduction. The main issue is to start moving away from considering only the impairments when assessing a person's ability to participate in societal activities. Member States of the European Union developed good strategies to implement the recommendations of the UN Convention on the Rights of Persons with Disabilities, but a lot of work is still ahead to put in practice the human rights principles.

The dialogue on the specific needs of persons with disabilities in emergency should be reinforced and promoted by local authorities, investigating the needs of those persons, also collecting specific data and information, and sensitizing those persons and their families on the importance of their participation and involvement in public meetings, training programmes and practical exercises, organized by civil protection authorities. Furthermore, since many responsibilities related to disaster planning and management have been delegated to the municipal level, actual transfer of financial and human resources should be ensured to strengthen local capacities. Decentralization is a challenge for both national and local authorities, which should be met with adequate legislation but also with the needed support to comply.

Further research should investigate the opportunities provided by innovative ICT-based strategies for developing networks of civil protection authorities, public administrations, civil society organizations, directors of residential care facilities, voluntary associations and other relevant stakeholders. Such ICT-based international, national and local networks should be interdisciplinary, participatory, and accessible environments where sharing best practices as well as to increase knowledge and expertise on the field of inclusive disaster planning.

Further research is needed to understand how integrate specific measures for the evacuation, transportation and accommodation for people with disabilities into local disaster planning. Specific innovative training sessions and practical exercises should be developed to reinforce existing expertise and building new knowledge on how to assist and rescue persons with disabilities (e.g. innovative approaches, technologies and methods, etc.).

At local level, governments and communities can best engage with each other and work together for the successful implementation of the Human Rights-Based Approach to disability into local disaster planning. Key elements for such implementation are strong political commitment, sensitive and aware communities, innovative but realistic inclusive strategies, adequate resources allocated at local level and strong collaborations

amongst relevant stakeholders in the field of inclusive disaster risk reduction.

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Loredana Antronico is a Researcher of the Research Institute for Geo-Hydrological Protection of the Italian National Research Council (CNR). She is author or coauthor of several papers published in international journals or presented at international conferences and workshops in the following issues: soil erosion, debris flow and flood hazard on alluvial fans, landslide incidence, landslide susceptibility and hazard assessment, landslide monitoring, and recently, geo-hydrological risk perception. Loredana Antronico is coordinator of research projects, on some of the cited issues, funded by National and Regional Administrations.

Fausto Marincioni is an Associate Professor at the Università Politecnica delle Marche at Ancona (Italy), where he teaches and carries out research on disaster risk reduction. He holds a Ph.D. in geography from the University of Massachusetts (USA) and is an editor of the International Journal of Disaster Risk Reduction. Previous to the Università Politecnica delle Marche Marincioni has worked with the US Geological Survey, in Woods Hole, Massachusetts, and taught human and environmental geography at Long Island University (LIU Post) in New York.

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