Pre-study on the Role of Children and Youth in Building Resilient Societies in the Baltic Sea Region

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Acronyms and abbreviations, and key terms and definitions

Acronyms and abbreviations

BSR	Baltic Sea Region
CBDRM	Community Based Disaster Risk Management
CDRM	Community Disaster Risk Management
CBSS	Council of the Baltic Sea States
DRR	Disaster Risk Reduction
EU	European Union
FGDs	Focus Group Discussions
HVCA	Hazard, Vulnerability and Capacity Assessment
IO	International Organization
IOM	International Organization for Migration
ISDR	International Strategy for Disaster Reduction
NGO	Non-Governmental Organization
OCD	Obsessive-Compulsive Disorder
PTSD	Post-Traumatic Stress Disorder
UN	United Nations
UNDRR	United Nations Office for Disaster Risk Reduction
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization

Key terms and definitions

For the purpose of this Methodology, the following definitions are used:

Adolescence is defined as the period in human growth and development that occurs after childhood and before adulthood, from ages 10 to19 (WHO, no date).

Build back better: The use of the recovery, rehabilitation and reconstruction phases after a disaster to increase the resilience of nations and communities through integrating disaster risk reduction measures into the restoration of physical infrastructure and societal systems, and into the revitalization of livelihoods, economies and the environment. (UNDRR, 2020: 130-131).

A **child** is any person under the age of 18 years[1].

Child protection refers to preventing and responding to violence, exploitation, and abuse against children, including sexual exploitation, trafficking, child labor and harmful traditional practices. (UNICEF, 2006).

A **disaster** refers to a serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources. (UNISDR, 2009: 9).

Disaster displacement are situations where people are forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of a disaster or in order to avoid the impact of an immediate and foreseeable natural hazard. Such displacement results from the fact that affected persons are exposed to a natural hazard in a situation where they are too vulnerable and lack the resilience to withstand the impacts of that hazard. It is the effects of natural hazards, including the adverse impacts of climate change, that may overwhelm the resilience or adaptive capacity of an affected community or society, thus leading to a disaster that potentially results in displacement. Disaster displacement may take the form of spontaneous flight, an evacuation ordered or enforced by authorities or an involuntary planned relocation process. Such

1 Art.1, United Nations Convention on the Rights of the Child (1989).

displacement can occur within a country (internal displacement) or across international borders (cross-border disaster displacement). (UNDRR, 2020: 130-131).

Disaster risk reduction is aimed at preventing new, reducing existing disaster risk, and managing residual disaster risk, all of which contribute to strengthening resilience and therefore to the achievement of sustainable development. (UNDRR, 2020: 130-131).

A **gatekeeper** is a person who stands between facilitators and potential respondents, and who have the power to grant or withhold access to people or situations during the field-research. They may be members of institutions or organizations, or of the community or family of the potential participant(s).

A **hazard** is a process, phenomenon or human activity that may cause loss of life, injury or other health impacts, property damage, social and economic disruption, or environmental degradation. (Hazards include – as mentioned in the Sendai Framework for Disaster Risk Reduction 2015-2030 – biological, environmental, geological, hydrometeorological and technological processes and phenomena (UNDRR, 2020: 130-131).

Mitigating disasters means to lessen or minimize the adverse impacts of a hazardous event. (The adverse impacts of hazards, in particular natural hazards, often cannot be prevented fully, but their scale or severity can be substantially lessened by various strategies and actions. (UNDRR, 2020: 130-131).

Preparedness refers to the knowledge and capacities developed by governments, response and recovery organizations, communities, and individuals to effectively anticipate, respond to and recover from the impacts of likely, imminent or current disasters. (UNDRR, 2020: 130-131).

Prevention of disasters means activities and measures to completely avoid the harmful impacts of a hazardous event. (UNISDR, 2009: 19). While certain disaster risks cannot be eliminated, prevention aims at reducing vulnerability and exposure in such contexts where, as a result, the risk of disaster is removed. (UNDRR, 2020: 130-131).

Rebuilding/reconstruction refers to the medium- and long-term sustainable restoration of resilient critical infrastructures, services, housing, facilities, and livelihoods required for the full functioning of a community or a society affected by a disaster, aligning with the principles of sustainable development and "build back better" to avoid or reduce future disaster risk. (UNDRR, 2020: 130-131).

Recovery refers to restoring or improving of livelihoods and health, and economic, physical, social, cultural, and environmental assets, systems and activities, of a disaster-affected community or society, aligning with the principles of sustainable development and "build back better" to avoid or reduce future disaster risk. (UNDRR, 2020: 130-131).[2]

Resilience is defined as the ability of a system, community or society exposed to hazards to resist, absorb, accommodate, adapt to, transform, and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions through disaster risk management. (UNDRR, 2020: 130-131).

The **response period** refers to actions taken before, during or in the immediate aftermath of a disaster, which is the first minutes, hours and days, perhaps even up to a week, depending on the type and severity of the disaster event. It includes the provision of emergency services and public assistance in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected. (UNDRR, 2020:42 and 130-131; Fothergill, 2017: 6, 14; UNISRD, 2009: 24).

Risk is generally intended as the combination of the probability of an event and its negative consequences. Disaster risk more specifically refers to the potential disaster losses, in lives, health status, livelihoods, assets and services, which could occur to a particular community or a society over some specified future time period. It shall be noted that risk is not an absolute and fully objective measure; rather, it relates to the properties of objects exposed to threats, including their vulnerability and resilience. Moreover, there is an important psychological dimension hidden in the definition of risk, which is related to risk perception. (UNISDR, 2009: 9-10, 25; Wolanin, 2017: 9).

Risk assessment is a methodology to determine the nature and extent of risks by analysing potential hazards and evaluating existing conditions of vulnerability that together could potentially harm exposed people, property, services, livelihoods and the environment on which they depend. In the context of this Pre-Study, risk assessment most often refers to how individuals and groups (particularly children and young people) perceive the risk of hazard in their environment and how children and youth learn and understand the risks facing their families and communities. (UNISDR, 2009: 26; Fothergill, 2017: 4).

2 For children and youth, it generally means that recovery starts when they return to school/work, their homes have been repaired or replaced, and their parents (or other caregivers) have returned to their jobs. In other words, for children and youth recovery happens when they reach a semblance of stability, routine, well-being, and predictability in all spheres of life. However, it must be acknowledged that there are many children and youth living at the margins of society before a disaster strikes, who live a daily existence lacking stability, sense of routine, or predictability. (Fothergill, 2017: 16-17).

Security is a complex process, involving cultural, social, economic, organizational, and technical activities the function of which is to ensure the degree of resistance and protection against damage of various types of values, assets, and social actors (individuals, communities, organizations and institutions) that make up a specific community. Children and youth, as well as any other individual, pay a double role in the context of security: on the one hand, they are subjects to protection, and on the other hand, they are a significant, active element in the entire security system. (Wolanin, 2017: 8, 17).

A **stakeholder** is considered, for the purpose of this Pre-Study, as anyone who has the responsibility, capacity, or opportunity to work on disaster risk reduction, particularly on the role that children and youth are playing and could play in relation to disasters prevention and response, and more generally in building resilient societies. While it is indeed recognized that children and young persons – as well as their families and communities - do have a stake in these processes, the term "stakeholder" (also referred to as "key informants" in the context of the field research) here indicates representatives of institutions or organizations, as well as independent experts, other than children and youth, their families, and communities.

Vulnerability refers to the conditions determined by physical, social, economic, and environmental factors or processes which increase the susceptibility of an individual, a community, assets or systems to the impacts of hazards. (UNDRR, 2020: 130-131).

Youth/Young persons are those persons between the ages of 15 and 24 years. (UNESCO, no date).

Executive summary

The "ChYResilience Project – The role of children and youth in building a resilient society" commenced on 1 September 2020 and ended on 30 June 2022. Funded by the Swedish Institute, the Project aimed to empower children and youth to play an active role as contributors to societal resilience and to remove barriers to their active involvement in prevention, preparedness, response, and recovery. The Project was implemented by the CBSS as lead partner, in collaboration with partner organizations in Denmark, Estonia, Latvia, and Poland.

The present Pre-Study was the primary activity envisaged in the framework of the Project. It aimed to understand how children and youth could be empowered to play an active role as contributors to societal resilience, and how existing barriers to their active involvement in disaster prevention, preparedness, response, and recovery could be removed. In particular, the objective of the Pre-Study was to identify and explore critical factors that enable or hinder children and youth from playing an active role in building resilient societies.

The Pre-Study Methodology foresaw a qualitative analysis, to be carried out through desk research of selected reports and publications, as well as through field research in three Baltic Sea countries involved in the Project – Estonia, Latvia, and Poland. Grounded in a child rights-based approach as enshrined by the UNCRC, and drawing upon the Lundy model for children and youth's participation, the Pre-Study adopted a consultative approach and involved a total of 103 male and female children and young persons in Focus Group Discussions. Furthermore, it interviewed 24 professionals representing different backgrounds and institutions dealing with disaster risk reduction, particularly regarding the role that children and youth are playing and could play in relation to disasters prevention and response, and more generally in building resilient societies.

Several sources in the reviewed literature stress that the degree of vulnerability or, conversely, resilience that an individual child or young person displays in the face of disasters depends on the intersection between many different factors and levels. The extent and degree of exposure to disaster is often reported as a crucial factor, associated with less favourable adaptation. Individual differences, such as cognitive abilities, self-regulation of emotions and behaviour, self-efficacy, agency and self-confidence, persistence, motivation to adapt, and optimism, are also mentioned across the reviewed publications, although with the caveat that these are just one among the many factors influencing children and young people's vulnerability and resilience in disaster situations. Parents and caregivers' capacity to cope in adverse situations greatly influences the level of adaptation that children may display in those situations. Allegedly, the gender variable in some cases makes boys display more behaviour issues, whilst girls report higher emotional distress. Gender also represents a ground for discrimination - in general and in disaster situations - which deepens pre-existing unequal power distribution along gender lines.

Among the different settings, schools are regarded as an essential element in DRR, not only for children, but also for their families and communities, especially as post-disaster recovery efforts are often implemented within schools as a way to address the collective trauma of disaster. Communities also provide crucial resources that are a source of resilience for children, youth, and their families in the face of disasters, including different goods and services, as well as practices, routines and celebration, and a sense of pride and belonging for its members. Finally, societal, and other macro-systems, while more distal to individual children and families, influence their resilience in many indirect ways (for example, concerning activities and essential services that depend on electrical power and grids, and internet connection, which rely on global networks).

Closely related to the variables that make some children and youth vulnerable or resilient, the literature analysed refers to some groups of children and young persons who are at increased risk in relation to disasters and their consequences. In general, the incidence of disasters and the severity of their impacts have always been found to be higher in less developed regions. This owes to the fact that hazards compound existing vulnerabilities thereby leading to disasters. Indeed, disasters often reveal profound pre-existing inequalities in families, schools, communities, and cities. It is therefore crucial to consider the child and young person's environment before and after the disaster; and to realize that some of them experience cumulative vulnerability, or an accumulation of risk factors.

Migrants and refugees are also reported to be one of the groups in the population generally at higher risk in relation to disasters, in that they often have no choice but to transit through or settle in hazard-prone areas while on the move. Children and young persons with disabilities are regarded to be a particularly vulnerable group in the context of disaster. Again, while having a disability is an individual condition, what makes disabled children and youth more prone to experiencing adverse impacts of disasters is the discrimination they suffer on the basis of such condition.

Whilst the actual and potential resilience that children and youth have in adverse situations is frequently reiterated across the literature, few studies have explored child and youth resilience from their own experiences, perspectives, and voices. Children and youth's capacities and their enormous potential to contribute in the disaster cycle appear to have been largely overlooked until recently. Consequently, limited evidence-based guidance exists about how to involve them in actions and skills in the context of disasters.

And yet, the reviewed literature stresses that there are many benefits stemming from children and youth's involvement in DRR, which by far outnumber the

associated risks. As a key pre-requirement, for participation to be effective, this must become embedded in institutions and processes that influence children's everyday lives and grounded in sustainable and steady resources. Participation needs to be regarded as a regular, ongoing process and not as a one-off event, and it should be appropriately supported and evolve throughout different life stages, including through access to information and capacity building opportunities for children and youth.

Examples of DRR activities in which children could be involved are abundant across the literature, from risk assessment through to recovery and rebuilding. What is sometimes missing is the evidence justifying the appropriateness of such involvement for children and young people in those different actions.

While not much is known about factors that hinder children and youth's participation to DRR, it appears that there are often legal, institutional, or cultural barriers for that to happen. Allegedly, one of such barriers is the lack of clarity and shared understanding about the objectives and expected outcomes of their participation. The single most important factor cited across the reviewed literature as constraining children and youth's participation to DRR is, however, "a well-established 'adultist' culture [...] that mostly prioritizes the voices of practitioners and experts." (Mort et al., 2020:151). Discrimination against certain groups of the population, and of children and youth therein, also hinders participation to DRR. Discrimination acts as a key-barrier concerning the involvement of children belonging to certain groups – among which, children from minority groups, migrant children, children with disabilities - in the form of lack of knowledge about their experiences in the face of disaster, and of their perception as vulnerable and unable to make choices and to control their lives.

Children and young people interviewed as part of the Pre-Study demonstrated knowledge and ability to conceptualize risks, disaster, and safety, which become deeper and more nuanced as they grow up. When children are asked to think about the concept of risk, there appears to be a continuum in their perspective between disasters and mere accidents. As they grow older, children and youth's ability to conceptualize and define disaster apparently becomes more sophisticated. Young adults seemed to be very aware of what disaster means, and able to define the concept very accurately.

Younger children seemed to be almost equally scared by any kind of disaster that could possibly affect them, whereas adolescents and youth involved in the Pre-Study consistently ranked as the most concerning disasters war and terrorism - even when the discussions were held prior to the resuming of the war in Ukraine. Unsurprisingly, adolescents and youth also ranked pandemics rather high on their scale of fear in relation to disasters, because of its devastating impact on a huge number of people's lives, and because of all restrictions that were imposed upon them.

Several sources of information on safety, risks and disaster were mentioned by children and young persons interviewed as part of the Pre-Study. These include school and pre-school teachers; parents, older siblings and other family members; practitioners (fire-fighters, municipal police etc.); and the Internet. While younger children seem to rely mostly on information delivered at school and in the family, for adolescents and young adults internet becomes the main source of information in the DRR area, the one that they most easily access and trust. Stakeholders involved in individual interviews seemed to be mostly aware of the sources of information on disaster and related topics that children and youth rely upon.

Both children and youth on the one hand, and other stakeholders on the other hand, were asked about what the impact of information on disaster and risks is, and whether receiving it is scaring and paralyzing for children and young people or, conversely, it is making them feel more secure and even motivated to help. They referred to different emotional reactions, but pointed to the fact that reiterated information, received at regular intervals, is empowering. This suggests that regular DRR training not only is more effective in terms of building capacity, but it also decreases the potential negative emotional reactions among children and youth who are trained.

Most of the children and young people interviewed as part of the Pre-Study showed great empathy and willingness to help. Even young children, when confronted with an imaginary disaster scenario, seemed preoccupied that someone (parents, siblings, pets) may become hurt or remain trapped in that situation. Further, they seemed determined to help anyone, including people that they do not know. Children and adolescents appeared to have quite strong opinions about helping others in difficult situations. They do believe that this is the right thing to do, and they can clearly articulate the reasons why.

Raising awareness among the population about existing safety risks is one of the areas in which adults seem to rely more clearly and explicitly on children and youth's active contribution, acknowledging their skills and capacity to raise awareness among other people living around them. Adolescents and youth explained that they would feel confident teaching other things that they know well, thereby highlighting their need and wish to be exposed to (further) training on DRR.

Based on children and youth's accounts, they generally seem to have received some training on risks and safety. However, these appear to have been focusing mainly on daily accidents, and to have been delivered occasionally rather than regularly.

Concerning the way in which DRR-related information is presented and delivered, several interviewees pointed to the effectiveness of social media as a means to reach children and youth, possibly by avoiding written materials and prioritizing the role of celebrities and 'influencers'.

Interestingly, several young participants in the Pre-Study felt very strongly that managing stress and

preserving a stable emotional and psychological state is of utmost importance when affected by a disaster and should therefore be covered by training on preparedness and response.

In terms of the help that they could provide during the recovery phase, adolescents seemed ready to contribute – in a potential situation – as much as they could. Participants also showed appreciation of the need to support people affected by disasters emotionally and psychologically. Adult stakeholders interviewed as part of the Pre-Study conveyed different views about the possibility to involve children and young people in the recovery and rebuilding phase. Overall, most of them were positive about such possibility. However, some of them expressed reservations about the extent of such involvement and the specific tasks that especially younger children could (or could not) take upon.

The literature reviewed as part of the Pre-Study highlighted that children and youth's participation (in general and) to DRR is to be regarded as a process, and therefore it should be supported throughout their different life stages. During the field work, both children and youth, as well as other stakeholders, expressed different views about the age at which participation in DRR should and could start, and the kind of engagement that would be appropriate – or, conversely, inappropriate – at different ages, in consideration of children's evolving maturity and capacities.

While children and youth favour theirs and their peers' involvement in DRR, they also voiced some words of caution in that regard. Apparently, their answers and argumentations were primarily based on safety considerations. However, it is possible that adolescents and young adults are themselves not fully aware of the age-appropriate contribution that children can offer also at earlier stages of their growth and development. Adult stakeholders generally expressed the opinion that children can be involved as early as possible, provided that they are kept safe, and that participation must be age-appropriate.

Several conversations held during fieldwork revolved around the barriers that are currently preventing children and young people from further engaging in DRR activities. It appeared that lack of preparedness, including self-perceived difficulties in handling stress, could hamper children and young people's willingness to engage in DRR activities.

Both children and adults identified among the obstacles to children and youth's engagement in the area their lack of time, which is almost fully taken up by school and several extracurricular activities. Children's limited attention span, according to adult respondent, is another obstacle, and this is in their opinion mostly due to their over-exposure to new technologies. According to them, the excessive time they spend in the virtual world can also instil an illusionary sense of safety in children and youth, and when they meet the real world's challenges, their skills are not fully adequate.

In any case, the single most important factor hampering children and youth's active role in building resilient societies resulted to be the lack of knowledge, awareness, and capacity of adults around them. On the one hand, some respondents identified the limited awareness and knowledge about risks and safety among parents and other adults in their personal sphere as an obstacle to children's awareness and involvement. Furthermore, equally relevant apparently is the lack of capacity among professionals who are in the position to work with children and youth on DRR, and their limited understanding of the advantages that children and youth's active engagement in the area would bring.

Finally, interviewed stakeholders highlighted several benefits that derive or would derive from children and youth's involvement in DRR activities. Most of them pointed out to benefits to children and youth directly, including the fact that they would acquire a sense of responsibility and ownership. Such participation is believed to enhance children and young people's self-esteem, whilst also being a source of amusement and reward as they do something for the benefit of the society. However, benefits of involving children and youth are not limited to those received by themselves directly: children and youth provide a different perspective, which is not affected by prior experiences and constraints. They have the capacity to imagine innovative solutions to existing problems.

Nevertheless, as found through the literature review, and confirmed by the fieldwork, it seems that children and youth's potential to actively engage in DRR, and the benefits that their participation would bring, are yet to be fully explored in the countries covered by the Pre-Study.

Among the main recommendations that emerged from the analysis of the Pre-Study findings, the need to provide regular and ongoing training to children and youth on the different DRR phases and aspects is among the key ones.

Devising and implement mechanisms to regularly involve children and young people on an ongoing basis, and to help them figure out and express the ways in which their involvement in DRR could take place in practice, emerged very clearly as a need, and thus is strongly recommended.

Finally, it is considered of priority importance to raise awareness and build capacity of professionals who have the responsibility, capacity, or opportunity to work on disaster risk reduction, particularly on the role that children and youth are playing and could play in relation to disasters prevention and response.

Background and introduction

Children, youth and disasters

Between 2000 and 2019, disasters claimed approximately 1.23 million lives, an average of 60,000 per annum, and affected a total of over 4 billion people (many on more than one occasion). (CRED, UNDRR, 2020). Women, children and people in vulnerable situations have been disproportionately affected. (UNISDR, 2015: I.4). "Evidence indicates that exposure of persons and assets in all countries has increased faster than vulnerability has decreased, thus generating new risks and a steady rise in disaster-related losses, with a significant economic, social, health, cultural and environmental impact in the short, medium and long term, especially at the local and community levels." (UNISDR, 2015: I.4). "Natural disasters, including hurricanes, tornadoes, tsunamis, floods, and wildfires are increasing in both frequency and severity, often exacerbated by population growth, environmental degradation, and changes in global climate systems." (McDonald-Harker *et al.*, 2021:1-2).

"Half of the world's population are children and youth and they are often the first and most affected when environmental, technological or biological hazards strike. Disasters disproportionally impact them: their physical and mental health; nutritional needs to grow and thrive; access to education and decent work; economic opportunities; exposure to violence or trafficking; and choices of where they can safely live, study, play, grow and build community." (UNDRR, 2020).

According to the United Nations Office for Disaster Risk Reduction (UNDRR), an estimated 535 million children, nearly one in four, live in conflict- or disaster-stricken countries, with restricted access to medical care, quality education, proper nutrition and protection. (UNDRR, 2020). "Child and youth well-being is under enormous threat due to hazardous events increasing in frequency and intensity on every continent. Disasters are reversing development gains for children and youth and the fulfilment of their basic human rights." (UNDRR, 2020: 21). Thus, "the future of children globally is threatened by rising natural, political and technological disasters". (Masten, A.S., 2021).

The Sendai Framework for Disaster Risk Reduction 2015-2030 (Sendai Framework) – adopted by the United Nations member states between 14 and 18 March 2015 at the World Conference on Disaster Risk Reduction held in Sendai, Japan, and endorsed by the UN General Assembly in June 2015 – calls for states and all other concerned stakeholders to enact "a broader and more people-centered preventative approach to disaster risk". (UNISDR, 2015: I.7). In particular, the Sendai Framework calls upon Governments to "engage with relevant stakeholders, including women, children and youth, persons with disabilities, poor people, migrants, indigenous peoples, volunteers, the community of practitioners and older persons in the design and implementation of policies, plans and standards". (UNISDR, 2015: I.7).

Among its guiding principles, the Sendai Framework emphasizes that "disaster risk reduction requires an all-of-society engagement and partnership. It also requires empowerment and inclusive, accessible, and non-discriminatory participation [...]. A gender, age, disability and cultural perspective should be integrated in all policies and practices, and women and youth leadership should be promoted". (UNISDR, 2015: III).

Children's participation in disaster risk reduction is supported by the children's rights and authoritative guidance, including from the UN Committee on the Rights of the Child[1]. In particular, Article 12 of the UN Convention on the Rights of the Child (UNCRC) states that "State partiers shall assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child, the views of the child being given due weight in accordance with the age and maturity of the child".

Stressing the important role that non-state stakeholders should play (while acknowledging the overall responsibility of states) for reducing disaster risks, the Sendai Framework considers children and youth as "agents of change [who] should be given the space and modalities to contribute to disaster risk reduction, in accordance with legislation, national practice and educational curricula". (UNISDR, 2015: V.36 (ii)).

UNDRR emphasizes the importance of involving children and youth in disaster risk reduction (DRR) processes and actions: "Supporting children and youth in actions that advance the Sendai Framework for DRR should not be a checkbox activity. Their participation is a valuable proposition as it brings real and necessary benefit to DRR and resilience-building policies, programmes and strategies. Engaging children and youth also upholds their legal rights as outlined in the United Nations Convention on the Rights of the Child, which has been ratified by 196 countries". (UNDRR, 2020)[2].

"Children and youth often know what they want to ensure safety and well-being for themselves and their peers, family, community and wider world. Moving their DRR ideas into action starts with listening to what they have to say." (UNDRR, 2020). UNDRR specifies that children and youth must be engaged in DRR processes and actions at different ages, and that the type of engagement should evolve as they develop and gain knowledge and their ability for expression and responsibility grows. Thus, activities would normally move from mainly

1 In particular, as expressed in the UN Committee on the Rights of the Child's General Comment No.12 (2009) on "The rights of the child to be heard".

2 Article 12 (1) of the UN CRC states that: "States Parties shall assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child, the views of the child being given due weight in accordance with the age and maturity of the child".

participatory consultation processes in early childhood, to activities that include more responsibilities for self-led engagement by and for youth. (UNDRR, 2020).

The EU Strategy for the Baltic Sea Region stresses how many of the challenges faced by the region require action at regional level, as responses at national or local level may be inadequate, and in light of the considerable interdependence demonstrated by the concerned countries. (European Commission, 2009). The latest Action Plan adopted by the EC in order to support the implementation of the above-Strategy, under its Policy area "Secure", identifies a key-action in achieving a common societal security culture in the BSR, in particular: "a) Encourage increased involvement of NGOs and volunteers in the field of civil protection and emergency management; b) Strengthen the role of children and youth in promoting a common societal security culture in the BSR, and their role as contributors to building resilient societies". (European Commission, 2021: 3.9).

Among its long-term priorities, the Council of the Baltic Sea States (CBSS) focuses on furthering a safe and secure Baltic Sea Region. CBSS's goal in this area "is to make everyone feel safe and secure and at home in every corner of our region". Thus, the CBSS "strives to improve the well-being of our communities, build networks and trust to jointly respond to unexpected hazards and emergencies."[3] Children and youth participation is a cross-cutting area of all CBSS's work. As stated in the CBSS Children at Risk Unit's vision, each child should have equal opportunities and be offered meaningful opportunities for participation and active involvement in building a prosperous, safe, and secure region for all. (CBSS, 2020).

"Since children are able to contribute to disaster risk reduction activities, they represent valuable resources to nurture and mobilize for disaster preparedness, response, recovery, and resilience at the individual, family and community level." (Pfefferbaum *et al.*, 2018).

As UNDRR recognized, unfortunately, "all too often, children and youth are relegated to the margins in preparing for hazardous events, in the taking of decisions that affect them at critical junctures following a major disaster." (UNDRR, 2020). Indeed, "while children's vulnerability in the face of natural disaster is well established, their involvement in disaster management has received relatively little attention even though ignoring their possible role in disaster risk reduction can endanger them in the event of a disaster and overlooks a potential resource for the communities where they live." (Pfefferbaum *et al.*, 2018). Adults, including parents, may not fully appreciate children's concerns in the face of disasters and tend to underestimate children and youth's reactions in those contexts. (Pfefferbaum *et al.*, 2018).

Despite evidence of the benefits of involving children and youth in DRR activities to children, youth, as well as to the whole communities and societies, it is still difficult for many organizations and societies to fully accept that they can take responsibilities in DRR. Often, they are treated as bystanders rather than active participants, and their possibility to negotiate their contribution is very restricted. (Mudeza-Mudavanhu, 2016). Frequently, children and young persons "are portrayed as helpless, fragile, passive and powerless" in the face of disasters. (Fothergill, 2017). "But children and youth are creative social beings and active agents", and their potential to play a relevant role in preparedness and recovery activities for themselves, their families and communities is underestimated. (Fothergill, 2017).

"Unfortunately, empirical evidence on youth involvement in disaster risk reduction activities is lacking. Important next steps include identifying, applying, and evaluating approaches and implementation models that appropriately enlist, engage, and involve children in disaster risk reduction activities. Also needed is an understanding of the barriers and challenges to children's participation and of potential harms that stem from their involvement." (Pfefferbaum *et al.*, 2018).

The above-considerations apply to the BSR as well. Hence the need for targeted actions that further children and youth's involvement in all aspects of the cycle of civil protection (prevention, preparedness, response, and recovery), and in building resilient societies. Moreover, "the historical, political, and cultural differences between countries in the BSR generate a variety of social attitudes towards safety and security issues; this along with diverse institutional arrangements in the countries can pose challenges to cooperation. Therefore, there is a need to find a standard for the crucial elements of safety and security systems, to enable greater coherence and compliant approaches across the region." (Wolanin, 2017).

The "ChYResilience Project – The role of children and youth in building a resilient society" (the Project) commenced on 1 September 2020 and ended on 30 June 2022. It was funded by the Swedish Institute, and aimed to empower children and youth to play an active role as contributors to societal resilience and to remove barriers to their active involvement in prevention, preparedness, response, and recovery. The Project's lead partner was the CBSS (collaboration between the Safe and Secure Region and Children at Risk Units). The Project was implemented in close cooperation with:

- Estonian Union for Child Welfare (Estonia);
- The Scientific and Research Centre for Fire Protection – National Research Institute (Poland);
- The Polish Scouts and Guiding Association (Poland);
- The State Fire and Rescue Service of Latvia (Latvia);
- Creative Association for Youth TREPES (Latvia); and
- Unge i Beredskabet / Youth in the Fire Service (Denmark).

The objective of the Project was to identify and explore critical factors that enable or hinder children and youth from playing an active role in building resilient societies. The project planned to identify initiatives and good practices that address or promote these factors and help prepare children and youth to play an active role in their safety and security, and to contribute to the stability and resilience of society.

3 https://cbss.org/our-work/safe-secure-region/

The primary activity envisaged in the framework of the Project was a Pre-Study on preparing children and youth for prevention and effective action in the event of a crisis[4]. The aims of the Pre-Study were two-fold:

1) to explore critical factors that enable or hinder children and youth to play an active role in building resilient societies; and
2) to identify initiatives and good practice elements that address or promote these factors and help prepare children and youth to play an active role in their safety and security, and to contribute to the stability and resilience of society.

The Pre-Study was carried out by an Independent Consultant recruited by the CBSS. The Consultant worked in close co-operation with and was supported by the Safe and Secure Region Unit and Children at Risk Unit at the CBSS.

The Pre-Study methodology

The methodology for the Pre-Study envisaged a qualitative analysis, to be carried out through desk research and field research.

The Pre-Study desk research reviewed existing published reports, studies, news articles and other publicly available data. The main aim of the desk research was to gain an overview of the main topics and issues main topics and issues related to children and youth's involvement in and contribution to building resilient societies, as emerging from the available literature. The desk review also aimed to preliminarily identify factors fostering or hindering the above children and youth's involvement/contribution to the sector, and to map out activities that children and youth have been - or could potentially be – involved in before, during and after a disaster.

During the desk review phase, themes and key questions for field research were refined and tailored, and a detailed methodology for the field research phase was developed, along with additional support tools to guide partners in countries throughout the field work phase. The key research questions were grouped according to four broad research themes. These are:

— Risk Assessment;
— Prevention and Mitigation;
— Preparedness and Response; and
— Recovery and Rebuilding.

Each theme represents a specific phase in the disaster life cycle. Across each theme, key questions aimed to find out the following information:

— How do children and youth (of different age groups, gender, and other relevant background variables) conceptualize the issue?
— Have they been involved as target groups in any activity relevant to the topic? If yes, by whom (parents or other caregivers/relatives; teachers; other relevant adults; etc.) and in which setting (home; school; community)?
— Have they also been involved as actors to deliver activities for the benefit of others (peers, parents, community members etc.)?
— How do they judge their participation, or lack of?
— Do they think that they could contribute to activities in that area, and – if yes – how?

The Pre-Study drew upon the Lundy model for children and youth's participation (Welty *et al.*, 2013), along with other available best practice standards for children and youth's participation in research. For each theme researched, the following aspects were considered:

— **Space:** a prerequisite for the meaningful engagement of children and young people in decision making is creating an opportunity for involvement – a space in which they are encouraged to express their views. Thus, the following aspects were to be considered:
— Have children's views been sought as early as possible?
— Is there a safe space in which children and youth can express themselves freely?
— Have steps been taken to ensure that all children affected by decisions can take part? (Is the space inclusive?)

— **Voice:** children and youth may need the help of others in order to form a view and have a right to receive direction and guidance from adults in order to do so. The following aspects were to be looked at:
  — Did children and youth receive the information they need in an appropriate format to enable them to form a view?
  — Have children and youth been given a range of options as to how they might choose to express their opinion?

— **Audience:** children and youth should have a guaranteed opportunity to communicate their views and intentions to (an) identifiable individual(s) or body with the responsibility to listen. The following aspects were to be searched upon:
  — Who was the 'audience' for children and youth's perspective on a given topic?
  — Was there a process for children and youth to communicate their views?
  — Did the individual/body have the power to make decisions and act upon such views?

— **Influence:** adults who were there to listen to children and youth should not only listen to them,

4 https://childrenatrisk.cbss.org/chyresilience-exploring-the-role-of-child-and-youth-resilience/

but also take their views seriously and effectively act upon these. The following aspects were to be looked at:

- Were the children and youth's views considered by those with power to effect change?
- What process is in place to ensure that children and youth's views inform decisions that affect them?
- Have children and youth been informed about the ways in which their views will be considered and acted upon?
- Have children and youth been provided with feedback explaining the reasons for decisions taken?

Concerning the level of engagement of children and youth's participation, the methodology adopted a consultative approach, with some collaborative elements. (Save the Children, 2014: 4-9). A Youth Panel review of the methodology was planned for in one, some or all of the countries involved, based on discussion among partners (below). Furthermore, partners have been strongly encouraged, based on the experience and outcomes of the Pre-Study, to engage further with the children and youth who were involved, as well as their peers, and to move to a higher level and wider scope of engagement (collaborative or child- and youth-led participation).

While some questions were age- and gender-specific, facilitators were invited to always look for age- and gender-disaggregated data, and to analyse the specific situation of children and youth of different ages and maturity levels, as well as the perspective of children, youth and adults representing all genders and sexual orientations throughout the whole range of the research questions.

Similarly, interviews and FGDs were to search for any other variables (migration status; income level; belonging to a discriminated-against social or ethnic group; etc.) that could influence (hinder or facilitate) children and youth's participation in building resilient societies.

Focus group discussions (FGDs) with children and youth were central to the data collection process and to the field research phase. In addition, individual interviews with other relevant stakeholders were envisioned, to complement data emerging from FGDs with children and youth.

The methodology provided guidance for partners to identify individuals and samples of the target groups and communities to be consulted during the field research. A non-probability sampling technique was adopted, with a combination of snowball, convenience, purposive and - to some extent - quota sampling as appropriate.

The size of the sample of key respondents among stakeholders largely depended upon their overall presence in the country, as well as the resources available. The methodology recommended that key informants be selected equally among different affiliations (governmental agencies; NGOs; etc.) and fields of work (DRR and security issues; child protection; education/school; etc.).

The methodology presented the proposed data collection instruments above along with guidance on how to prepare for and apply each of those instruments, as well as suggested templates. It also encompassed a set of ethical guidelines to ensure high-quality, safe and meaningful participation of all children, young persons and other individuals involved in the field research, by highlighting minimum standards facilitators and other Project staff were to adhere to.

Guidance for collating inputs from FGDs and interviews, as well as for recording, transcription, and translation, were included in the methodology.

The field research process

The full draft of the field research methodology was shared with Project partners in September 2021 for inputs and comments. In October 2021, the Project partners participated in a 1-day workshop on the methodology.

The research framework, tools and guidelines were piloted during the first phase of the field work. Whilst no major need for changes emerged, it became apparent that it was not easy, and did not seem to be practical, to keep the research themes very separate and discrete during the interviews and FGDs, as participants tended to speak generally about the disaster life cycle and DRR interventions, including children and youth's involvement therein. Therefore, indication was given to facilitators to allow participants in interviews and FGDs to move across the different phases of a disaster life cycle and DRR interventions as it best served to answer the key research questions.

Not surprisingly, the field work, especially the FGDs, could not generate much information around the "recovery and rebuilding" phase of DRR, and children and youth's involvement therein. This was due to the circumstance that the majority of respondents did not regard themselves as having had direct experience of disaster situations (except for the COVID-19 crisis).

A Youth Panel review of the methodology was to be planned for in one, some or all of the countries involved, based on discussion among partners. However, it was not possible to undertake this activity in practice, due to limited resources available (below).

While the methodology foresaw disaggregation of data based on age and gender, not all FGDs transcripts clearly indicated the gender of the speakers. Therefore, in some cases the quotes are referred to an "adolescent", or "child".

The field work was carried out between November 2021 and May 2022 by a total of 10 facilitators deployed across the three countries covered by the Pre-Study. In total, 103 children and youth were involved in FGDs. Out of the total, 57 children and young people were male, and 47 were female. Twenty-four were younger children (aged 7 to 11) and 79 adolescents and young persons (aged 12 to 24). The number of FGDs held in total was 14 (7 in Latvia; 5 in Poland; and 2 in Estonia). A total of 24 professionals were interviewed (8 in Latvia;

10 in Poland; 5 in Estonia), representing a range of organizations and institutions, including: Police; Fire Rescue Services; Road Traffic Safety Departments; Child Protection Services; School Teachers; Civil Protection; Scouting Associations; Academia, and others.

FGDs and interviews (with few exceptions) were carried out in person.

Transcripts from field work were translated into English and shared with the Pre-Study Project Manager and Consultant. The full list of key informants and FGD participants is enclosed in Annex 2.

The main findings have been analysed and resulted in the present Report, encompassing the Pre-Study different components.

Limitations of the Pre-Study

There is a growing body of literature about disasters, disaster risk management, and it was possible to only partly review that for the purpose of the Pre-Study. Particular attention and priority was given to the experience and actions of children and young people in relation to disasters, which can be in turn regarded as an emerging subfield of disaster studies.

As the author of this report could not read documents written in local languages spoken in the countries covered by the Pre-Study, nor was there a plan to translate available studies into English, national-language literature was not included in this review. Acknowledging that most likely important information on the research themes is also being written and published in local languages, it is suggested that these data and information be captured by subsequent desk-research carried out at country level, in the framework of other research efforts undertaken by the Project partners or by other stakeholders.

An inherent limitation of literature reviews pointed at by some authors relate to the variety of definitions of the concept of resilience, and – consequently – of methodological approaches: "Differences in theoretical and operational definitions of resilience in the social sciences have led to extraordinary variations in methods and findings, opening up many avenues of important inquiry, but also creating significant challenges for systematic reviews of the literature." (Masten, 2020:3).

Partners in countries undertook the field research with limited resources available. In light of that, their efforts are particularly commendable. However, these circumstances brought some limitations to the data collection process.

First of all, the limited time that partners' staff and facilitators could devote to the Pre-Study hindered the creation of an ongoing mutual feedback process, as it was designed in the methodology. To address this limitation, the CBSS organized a dedicated partner meeting to take stock of the field research results, half-way through the process.

Guidelines for sampling offered in the methodology were not adhered to in full. While the selected samples provide a balanced representation of gender, as well as of different age-groups, few attempts could be made to reach out to children belonging to the most marginalized groups of the population. In Estonia, approximately half of the planned interviews and FGDs was in fact undertaken. Due to the limited size and features of the samples of the target population, the findings of the Pre-Study should be regarded as exploratory and need to be confirmed with a larger study.

As mentioned earlier, the field research started in late 2021 and ended in May 2022. On 24 February 2022, Russia invaded Ukraine, marking a steep escalation of the Russian-Ukrainian war, which had begun in 2014. The impact that this event had on the public opinion of European countries clearly reverberated on the FGDs and – to some extent – also on the individual interviews held following that date. In several discussions held with both children and youth, and other stakeholders, concerns about a possible impending expansion of the above-conflict prevailed, possibly obscuring considerations about other existing disaster risks in the researched countries.

Structure of the report

Section I of the present Report provides a general review of selected academic and grey literature, including NGO, IO and Government reports and position statements, published studies and surveys, focusing on children and youth's resilience in relation to disasters, and in particular on the role that they could actually play in building such resilience for themselves, their families and communities, and for the broader society.

Section II of this Report is dedicated to the findings derived from children, adolescents, and young persons' perspectives. It is broken down into sub-sections that concentrate on children and youth's knowledge and perception of risk, disaster, and safety, how do they define such concepts and which disaster scenarios are more concerning to them. It illustrates the sources of information on DRR that they are exposed to, and the impact that such information has upon them. Further, this section looks at children and youth's willingness to engage in DRR, and on stakeholders' views on children and young people's attitudes to solidarity and cooperation. It looks at activities that – according to both children and youth and adult stakeholders – they could be safely and effectively involved in, with the aim of preventing and responding to a disaster, at the benefits that could derive from their involvement, and at the obstacles that hinder children and youth's active participation to DRR in the countries covered by the Pre-Study.

Section III draws some conclusions from the analysis of the Pre-Study findings, and then offers recommendations based on such analysis. In highlighting what actions should be undertaken based on what the Pre-Study uncovered, the perspectives of children and youth have been given priority.

I - Literature review

There is a considerable number of studies on the situation of children (primarily) and youth (to a lesser extent) in the face of disasters. The majority of these studies focus on the negative impact on these groups of the population as a consequence of a disaster. Less but still a relevant number of the reviewed publications focus on factors that make children and young people more vulnerable or, conversely, resilient in a disaster situation.

However, since the focus of this Pre-Study is on children and youth's contribution to building resilient societies, the author tried to focus on the literature covering this particular area and perspective. As some of the reviewed articles explicitly recognize, the role of children and youth as active participants in the DRR cycle and their contribution to building resilient societies has yet to be explored in much greater depth. Nevertheless, this appears to be an expanding area of focus and studies in the latest years.

Most often, the situation of children in disaster event is analysed. Adolescents and young people are less frequently in the focus of research, apparently. This is flagged as a gap to be filled, and which presumably leads to less targeted policies and interventions for older children, adolescents, and young adults in the DRR frameworks.

All sources accessed and consulted for this review were in English. In terms of geographical coverage, most of the above-sources focused on the global level and discussed the participation of children and/or youth in DRR actions in general terms, often referring to concrete examples and cases from different areas of the world. Other sources dealt with specific disasters that had occurred in a particular area (for example, a flood in a specific region). Only a few articles or reports concerned Europe specifically.

Overall considerations

The reviewed materials point to a series of preliminary considerations as it follows.

First of all, it shall be acknowledged that the concepts of risk, security, safety and social protection vary across countries and social groups. Among the aspects that make populations across countries perceive risks differently, Wolanin highlights the cultural diversity and the different historical experiences; and the diversity in terms of arrangements of the division between the public and the private spheres. In the BSR in particular, "the historical, political and cultural differences between countries generate a variety of social attitudes towards safety and security issues". (Wolanin, 2017:7).

The populations in each of the countries of the region perceive forthcoming threats and disaster risks differently. "It is, therefore, important to establish a common ground for understanding issues of risk and threat to enable more widespread cooperation in the field of disaster risk reduction". As argued by Wolanin, a common understanding of risks, which is in turn grounded the analysis of contemporary data and facts, would lay the foundation for a common security culture in the BSR, fostering a safe and more resilient region. (Wolanin, 2017:27).

The reviewed literature also highlights the need to adopt a human rights-based approach to DRR. "Disasters highlight the prevalence of deprivation and inequality." (Yore *et al.*, 2018:2). "Disaster risk is often the result of inequalities". (UNDRR, 2020:20). "Social scientific research has shown over many years that disaster is not a thing or event, but a process." Indeed, "disaster is increasingly being understood as an outcome of social vulnerability and inequality, a product of human neglect or unbridled growth such as building on flood plains or too close to forests, neglecting safeguards for profit." (Mort *et al.*, 2020:9).

As UNDRR states, "disasters are not natural or neutral, especially for children and youth living in vulnerable situations." (UNDRR, 2020:20). "Disaster risks and impacts are exacerbated by the consequences of poverty, conflict, fragility, discrimination, unplanned and rapid urbanization, weak institutional arrangements, non-risk-informed policies, unsustainable use of natural resources, declining ecosystems, extreme weather events, disruptive climate change and increasing environmental, social, technological and biological health hazards." (UNDRR, 2020:21).

Thus, inevitably and obviously, "disaster risk relates to rights. For children, basic human rights such as education and health are jeopardized with increased disaster risk. The risk from disaster is greater where people are denied their human rights and where access to information, resources or decision-making is limited. Therefore, a rights-based perspective is central to child-centered disaster risk reduction." (UNDRR, 2020:20). Placing children and youth's rights at the hearth of DRR is imperative as hazards "threaten nearly all the fundamental rights of children and youth, from basic survival to access to critical services and systems (e.g. healthcare; education continuity; WASH; and freedom from abuse and exploitation)." (UNDRR, 2020:22).

Different authors also maintain the need to adopt a multi-system approach to disasters. "Although disasters vary in a multitude of ways, they pose threats on a large scale to living systems. Disasters are multisystem in nature, demanding mobilisation and coordination of multiple adaptive systems in order to mount an adequate response. Integrating resilience science across disciplines and levels is critical to meeting the multisystem challenges of disasters." (Masten, 2021:1).

The concept of "resilience" is defined in partially different ways across the reviewed literature. Among other definitions, Masten suggests that resilience is "the capacity of a dynamic system to adapt successfully to challenges that threaten the function, survival or

development of the system." (Masten, 2021:1). Liebenberg *et al.* consider resilience as "the capacity to navigate to health-enhancing resources that nurture individual, relational, and community assets, as well as the capacity of individuals to negotiate with others for these resources to be provided to them in culturally meaningful ways." (Liebenberg *et al.*, 2013, quoted in McDonald-Harker *et al.*, 2021:2-3).

By recognizing the evolving nature of the concept, the United Nations define resilience as "the ability of individuals, households, communities, cities, institutions, systems and societies to prevent, resist, absorb, adapt, respond and recover positively, efficiently and effectively when faced with a wide range of risks, while maintaining an acceptable level of functioning without compromising long-term prospects for sustainable development, peace and security, human rights and well-being for all." (UN, 2020:31)[1].

Indeed, while the definitions of resilience vary across the literature, it is increasingly recognized that – speaking about children and youth's own resilience - different factors contribute to producing positive developmental outcomes among children and youth who experience adversity, including individual, family, relationship, community, and cultural factors. "Far from being a concept that we can only associate with individual dimensions such as personality or personal skills", it is important to think about resilience "as something more than an individual adaptive property. Rather, [...] resilience is something that is achieved collectively, the fruit of empowering and creating interdependence, solidarity, and agency, especially with those groups that are most silenced and marginalized." (Mort *et al.*, 2020:11). Thus, structural social factors are key to understanding children's capacity to respond and recover in the face of disaster.

Impact of disasters on children and youth

The increased impact of disasters on children and youth

The literature reviewed generally highlights that children and youth are greatly affected by disasters, and that their exposure is expected to increase in the coming years. In many countries, they also represent the largest segment of the population, hence the majority of disaster victims. (Muzenda-Mudavanhu, 2016:1).

Several authors highlight that children are an especially vulnerable population when exposed to disasters due to a variety of reasons, which result in a series of negative impacts upon them. "Experiencing a natural disaster produces significant trauma for children and youth given the wide range of stressors involved, including 'threat to one's own life and physical integrity, exposure to death and dying, bereavement, profound loss, social and community disruption, and ongoing hardship.'" (Norris *et al.*, 2002, quoted in: McDonald-Harker *et al.*, 2021:2). Fothergill, referring to significant research on the topic, states that school-age children are generally more negatively affected by disasters than adults, and that youth are more likely to fall into the severe range of impairments than adults. Results are, however, apparently less clear in regard to the situation and experiences of children in preschool age. (Fothergill, 2017:12).

Children appear to be more vulnerable than adult populations when it comes to physical injuries and adverse consequences. "Compared to adults, children suffer more severe physical effects from disasters because they breathe more air per pound of their weight, have thinner skin, are at greater risk in cases of fluid loss, and are more likely to lose body heat." (Lai *et al.*, 2020:1). Children "are one of the most vulnerable groups during disasters [...] They are more likely to be killed or injured during disasters than adults". (Mudavanu *et al.*, 2015: 2).

"Research on injury, disease and fatality rates finds that children and youth suffer tremendous physical impacts around the globe in disasters." (Fothergill, 2017:9). The author further argues that children are exposed to numerous risks, which intersect and multiply. They are at risk of dying or suffering severe physical damages while the disaster is unfolding. They are also at risk of getting diseases that emerge after a disaster. They are exposed to polluting substances, toxins, and radiations. Physical impacts also include starvation and undernutrition. (Fothergill, 2017:9-11).

"Infants and young children are physically vulnerable because of their limited mobility, their inability to protect themselves, their less developed immune systems, and their specific nutritional requirements. Older children and adolescents are at risk of malnutrition, disease, injury and death; furthermore, they are liable to develop various behavioural, psychological and emotional problems following disasters". (Vandana, 2014:10). In some circumstances, children are particularly exposed to physical injuries: "Children and youth suffer physically particularly when they are in structures, such as schools or homes that collapse or are badly damaged or destroyed." (Fothergill, 2017:9).

The literature analysed for the purpose of this study also highlight the negative psychological and emotional impacts that disasters have on children and young persons. "After experiencing disasters, children and youth often experience increased behavioural problems, including insomnia, anxiety, depression, and post-traumatic stress disorder (PTSD)." (McDonald-Harker *et al.*, 2021:2). "Research has shown that disasters have psychological impacts on children and youth, often greater than adults. [...] Data support the idea that emotional impacts on children vary by age, disaster exposure, and level of support from parents and other adults. It is important to point out that because of the widespread stigmatization of mental health problems,

1 This definition is very similar to the one issued by the UNDRR, and adopted for the purpose of the present Pre-Study.

many survivors are hesitant to admit these impacts or receive treatment for them." (Fothergill, 2017:12).

In a strategic document concerning the COVID-19 impact on children and youth, UNICEF states that "COVID-19 has exacerbated existing psychosocial well-being and mental health problems and created new ones. [...] COVID-19 has disrupted or halted critical mental health services in 93 per cent of countries worldwide, while the demand for mental health support is increasing. Approximately 70 per cent of mental health services for children and adolescents or for older adults are disrupted." (UNICEF, 2020:13).

Indeed, as in many other situations and contexts, the consequences in terms of mental health and psychological and emotional wellbeing can be underestimated and not timely addressed. Fothergill warns that psychological impacts of disasters on children and youth may also be underreported by their parents. In some cases, this occurs because they are so preoccupied with finding housing and food that they overlook their children's psychological needs. At the same time, children and youth may not tell their parents about their emotional distress or anxiety, also because they do not want to burden them further. (Fothergill, 2017:13-14).

Some authors also warn about the indirect as well as long-term multi-faceted impact of disasters on children and youth. "Disasters can also harm children indirectly: when parents and other caregivers are affected, children's care, protection and support systems are eroded." Beyond the immediate trauma and harm, children exposed to disasters may also suffer longer-term physical, psychological, and educational deficits. (McDonald-Harker *et al.*, 2021:1-2).

According to some authors, several factors contribute to children and youth being among the groups of the population most affected by disasters. These are, firstly, "a long-standing common, yet erroneous assumption that children are not affected by disasters." Further, to date there is still "inadequate research and poor understanding of children's needs, vulnerabilities and experiences of disasters". Moreover, one more reason is that "children occupy a low position in society and lack the power to voice their concern", and that "disaster management approaches have typically subsumed children's needs under those of adults or have completely ignored children's particular requirements". Finally, "there is poor recognition of the fact that children possess basic rights and must be treated as equal human beings". (Vandana, 2014:10-11). As it will be further explored, the under-representation of children's voices and perspectives about disasters in research, but even more in decision-making processes, is a recurring topic in the existing literature.

Variables for increased risk or resilience

Several sources in the reviewed literature stress that the degree of vulnerability or, conversely, resilience that an individual child or young person displays in the face of disasters depends on the intersection between many different factors and levels. Acknowledging that the concept of "vulnerability" has been defined differently by different authors, Rohon and al. recognize that the vulnerability to hazards stems from the intersection "between key environmental and social indicators". (Ronoh *et al.*, 2015:39). Virtually, all reviewed documents acknowledge that coping with a disaster "challenges individual and community adaptive capacity", and that "a child's reaction to a disaster varies widely" depending on a number of different circumstances. (Stafford *et al.*, no date). It is therefore widely recognized that multiple factors contribute to producing positive developmental outcomes among children and youth who experience adversity, including individual, family, relationship, community, and cultural factors. (McDonald-Harker *et al.*, 2021:2-4). Thus, several such factors are discussed across the literature as it follows.

The extent and degree of exposure to disaster is often reported as a crucial factor. "Children's reactions can be negatively affected by the degree of exposure to the disaster event – how life threatening, how much they saw and experienced, the intensity of it." (Fothergill, 2017:13). "More intense, prolonged and cumulative trauma and exposure to adversity is associated with less favourable adaptation." (Masten, 2020:3). The amount of personal loss obviously plays a key role as well. (Stafford *et al.*, no date).

Individual differences, that is, the "unique individual characteristics and the child's previous experiences" (Stafford *et al.*, no date), are also mentioned across the reviewed publications, although with the caveat that these are to be regarded as just one among the many factors influencing children and young people's vulnerability and resilience in disaster situations. Such individual differences include "cognitive abilities (e.g. IQ, executive functions); self-regulation of emotions and behaviour; self-efficacy, agency and self-confidence; persistence; motivation to adapt; and optimism." (Masten, 2020:4).

According to McDonald-Harker *et al.*, "individual factors [...] refer to internal capacities which influence how children and youth respond to traumatic experiences." They refer first of all to the locus of control, that is the degree to which an individual believes s/he is in control or not of the situations s/he finds her/himself in. Having a strong sense of internal locus of control is usually associated with self-efficacy, emotional regulation, and self-control; these significantly influence attitudes toward difficult circumstances, and choice of coping strategies, which are critical for children and youth to build resilience in adverse contexts. Children and youth who are proficient problem-solvers apparently fare better when experiencing disasters. Having an optimistic outlook has also been associated with resilience: children and youth who view challenges as learning opportunities rather than obstacles and are able to maintain a positive and hopeful attitude, have increased resilience. (McDonald-Harker *et al.*, 2021:3).

The age of the child might also play a role concerning psychological reactions and how these are expressed:

younger children appear more likely to report PTSD symptoms than older children. (Fothergill, 2017:12). This circumstance is also related to the child's degree of dependence on adults. (Stafford *et al.*, no date). As reported below, parents and caregivers' capacity to cope in adverse situations greatly influences the level of adaptation that children may display in those situations.

Concerning the gender variable in the impact of disasters on children and youth, Stafford *et al.* note that "cultural and biological differences between girls and boys make it more likely for boys to have more disruptive or externalizing behavioural symptoms and longer recovery periods than girls. Boys tend to react with aggressive behaviour, violence, substance abuse and antisocial attitudes. Girls, on the other hand, are more at risk for internalizing disorders such as depression and anxiety. In some cultures, girls may be more willing and able to verbalize their experiences, thought this may not extend to sexual victimization, which is often highly stigmatized and can have serious social consequences. Both girls and boys are at risk for interpersonal and sexual violence (including rape) during and following a disaster." (Stafford *et al.*, no date). Observing how the gender variable plays a role in the psychological impact of a disaster on children and youth, Fothergill remarks that, according to the available research, in some cases boys may display more behaviour issues, whilst girls report higher emotional distress. (Fothergill, 2017:13).

The context in which the child or young person has been living "before, during and after exposure to disaster appears to play many roles in the interpretation of and response to disaster at multiple levels." (Masten, 2020:3). In particular, "the amount of support during the disaster and its aftermath" is very relevant. (Stafford *et al.*, no date). This aspect will be looked at in closer details further below, when discussing about the groups of children and youth who are at higher risk of disasters.

Support and services can be crucial in minimizing disasters impact on children and youth's resilience. These are provided at different levels. Family support – in particular, the emotional, physical support provided by the child's parents or other caregivers – is regarded as one of the most important factors influencing a child's reaction to a disaster event. "Family factors played a significant role in children's reactions in terms of mental health consequences: parental distress is the strongest predictor of their children's distress; less irritable and more supportive parents had healthier children, as well as did parents with less psychopathologies, who were able to offer more support to their children. [...] When adults are suffering from emotional distress, depression, PTSD, they often cannot meet the needs of their children, and the children themselves may exhibit the symptoms." (Fothergill, 2017:12).

"Furthermore, other family factors may also decrease a child's emotional health such as family conflict, parents' substance abuse, ineffective discipline, and low levels of warmth." (Fothergill, 2017:13). Thus, family resources and resilience are strictly related to children's resilience. In particular, close relationship with, and effective parenting by the child's parents or other caregivers typically "tops the list" of key protective factors for children in disaster situations. Conversely, profound adverse effects on children of separation from or loss of family in the midst of disasters has long been noted by clinical observers and humanitarian workers. (Masten *et al.*, 2020:5).

Similarly, McDonald-Harker *et al.* argue that having supportive relationships with one or more caregivers has been identified to be a consistent predictor of resilience among children and youth who have experienced traumatic events, such as a disaster. That helps children and youth to build and strengthen their own resilience. "The psychological support provided by caregivers serves to protect and bolster the resilience capacities of children and youth. Having a close and supportive relationship with caregivers helps children build and strengthen their resilience." More specifically, "re-establishing a sense of safety, resuming normal roles and routines, and ongoing open communication with their children are some of the ways caregivers helped children to navigate and cope with the experience of disaster." A sense of family cohesiveness, positive family communication styles, effective conflict resolution skills within the family, and related positive coping skills are all associated with child and youth resilience. (McDonald-Harker *et al.*, 2021:3).

The above-authors also note that "physical proximity and physical affection between caregivers and children/youth post-disaster has also been found to be an important predictor of child and youth resilience." By spending time caring for the physical needs of their children, caregivers contribute to instilling in them a sense of safety and security." (McDonald-Harker *et al.*, 2021:3).

In many cultures across the world, pets are regarded as being part of the family. Some indications across the literature emerged that the death of a pet, or even missing a pet in a disaster, or not being allowed to rescue their pet, can be deeply distressing to children. Fothergill reports that during the hurricane Katrina, "hundreds of families were not allowed to bring their animals when they were rescued by boat or helicopter, or when evacuated from the Superdome in New Orleans because they would not let animals on public transportation, causing great anguish." (Fothergill, 2017:13). Allowing families to rescue, care for and bring their pets during disaster-related evacuations and rescue operations is an important factor to consider when thinking of children's emotional health and resilience in a disaster.

According to McDonald-Harker *et al.*, a limited but growing body of research has found that a predictor of resilience among children and youth following experiences of adverse events such as a disaster is the presence and role of peer groups. Apparently, maintaining friendship during and after disaster, despite evacuation and displacement, provides children and youth with social support that is helpful to them during early recovery and ongoing rebuilding stages. Connecting and communicating with peers helps children and

youth re-establish a sense of normalcy and security, and provides mutual ongoing support and assistance among peer groups.

Further, peer-to-peer relationships post-disaster provide children and youth with age-appropriate connections, that encourage and facilitate the sharing of experiences and needs. Often, children and youth also rely on peers as a form of distraction from the day-to-day stressors of post-disaster life. The findings from field research involving 100 children aged between 5 and 11 who directly experienced a wildfire in Fort McMurray (Alberta, Canada) revealed "that higher levels of resilience among children and youth participants were [also] associated with [...] peer support." (McDonald-Harker *et al.*, 2021:4-5).

For children and youth, schools represent a key support system in many ways. Given that disasters often impact a large number of children and youth in communities, post-disaster recovery efforts are often implemented within schools as a way to address the collective trauma of disaster. (McDonald-Harker *et al.*, 2021:3-4). Indeed, schools play a central role in the development of children in many communities around the world. Thus, it is not surprising that they also play essential roles in disaster risk, preparation and resilience. "Schools symbolize normal life [...] They provide a host of resources and relationships that support child resilience directly and they also nurture resilience." (Masten *et al.*, 2020:5).

In particular, group-based school interventions focused on routines, group problem-solving, as well as strategies directed to learning and enhancing protective factors of childhood development increase resiliency and capacities.

Schools often serve as a facilitator for recovery not only for children and youth themselves, but also for their families and the wider communities. School-based intervention programmes implemented by teachers and other school personnel (such as counsellors and support workers) aiming at reducing PTSD symptoms are often effective in helping children and youth recover from disasters. (McDonald-Harker *et al.*, 2021:3-4). Schools are therefore regarded as an essential element in DRR, not only for children, but also for their families and communities. As observed during the COVID-19 pandemic, when schools are closed for prolonged periods, there can be profound widespread effects on the individuals directly affected, but also on the whole family, communities and on the economy. (Masten *et al.*, 2020:5).

Communities provide social, economic, and human capital to support children and families. "Children depend on resources of families and schools, but also the systems in which these microsystems of development are embedded." (Masten *et al.*, 2020:6). These resources include, among others, health, and emergency services; leadership; support to vulnerable members of the community; operational systems for the sewer, electricity, clean water, and many other services related to maintaining the community order, supporting children's education etc. Communities also provide support for religious organizations, and practices as well as community routines and celebration, and a sense of pride and belonging for its members. (Masten *et al.*, 2020:6).

Finally, societal and other higher-level supports are referred to as a source of resilience for children and families. While more distal to individual children and families, macrosystems influence the resilience of children in many indirect ways. They set policies and priorities for disaster risk reduction and preparation. In the event of actual – especially large-scale - disasters, these systems can mobilize resources and social capital to the area that needs disaster relief, and meet the challenges of disasters that require a coordinated response beyond the scope of the community or even state resources. Further, many daily routines, activities and essential services depend on electrical power grids and internet connections, which rely on global networks. This was clearly demonstrated during the COVID-19 pandemic, which underscored the vital importance of power grids for the wellbeing of children and adults – including for the functioning of medical equipment, transport and logistics, air conditioning, but also distance learning, remote working etc.

Most vulnerable children and youth

Closely related to the variables that make some children and youth more vulnerable or resilient to disasters, the literature analysed refers to some groups of children and young persons (and sometimes simply of the overall population) who are at increased risk of not only experiencing disasters, but also the negative impact and outcomes of a disaster situation.

As argued by Khyati, "disasters do not discriminate; they affect all – women and men, rich and poor, children and the elderly. But specific groups are impacted differently, and the extent of suffering varies." (Khyati, 2014:12).

"Geographies around the world are prone to various forms of hazards. But the incidence of disasters and the severity of their impacts have always been found to be higher in less developed regions. This owes to the fact that hazards compound existing vulnerabilities thereby leading to disasters. Therefore, any effort to reduce the damage potential of hazards must necessarily be aimed at reducing these underlying vulnerabilities." (Varun, 2014:15). "Children in developing countries, especially the poorest children, appear to be most vulnerable to death and injury." (Fothergill, 2017:11). As also noted, severe or very severe mental health consequences following disasters have been observed more often in developing countries than in developed ones. (Fothergill, 2017:12). Indeed, "while children and youth in industrialized countries are experiencing increased risks, the children and youth in developing countries are the most at risk to disasters." (Fothergill, 2017:1).

Closely related to the above, children and youth experiencing poverty, unequal access to resources, marginalization and discrimination are often reported by the literature to be more vulnerable to disasters. "Marginalization and inequality also play many roles in the vulnerability and resilience of children and families in disasters. Impoverished families often live in more hazard-prone areas and have less social and economic capital to mobilize for recovery. [...] Disasters often reveal profound pre-existing inequalities in families, schools, communities and cities, observable in health disparities and differential rates of loss, displacement or recovery in the aftermath of disaster. Children already exposed to the adversities that accompany poverty and discrimination appear to be more vulnerable to the added stressors posed by disasters, directly through higher exposure to adverse experiences pre- and post-disaster and indirectly through greater effects on their disadvantaged families, schools and communities." (Masten, 2020:3-4).

"People living in poverty around the globe are more vulnerable to disasters for a multitude of reasons, including the following: they are less likely to be able to prepare for disasters, live in more hazardous places, often do not receive or understand warnings, have a harder time evacuating due to a lack of resources, live in unstable or unsafe housing, have fewer political rights and voice, and have fewer savings for recovery." It is therefore crucial to consider the child's environment before and after the disaster; to realize that some children experience cumulative vulnerability, or an accumulation of risk factors; and that disasters may occur on the top of other crises – such as drought, epidemics, or a family crisis such as divorce or death. (Fothergill, 2017: 22)

"Disaster risks and impacts are exacerbated by the consequences of poverty, inequity, conflict, fragility, discrimination, unplanned and rapid urbanization, weak institutional arrangements, non-risk informed policies, unsustainable use of natural resources, declining ecosystems, extreme weather events, disruptive climate change and increasing environmental, social, technological and biological health hazards." (UNDRR, 2020:21). Therefore, it has to be recognized that "inequalities in access to security measures are an inevitable consequence of the differentiation of people's socio-economic status." (Wolanin, 2017:19).

Similarly, McDonald-Harker *et al.* include among the children most affected by disasters those who belong to underserved or marginalized groups, such as: children living in poverty, children belonging to discriminated-against minorities, and children living in temporary or unstable houses. (McDonald-Harker *et al.*, 2021:1-2).

Migrants and refugees are also reported to be one of the groups in the population generally at higher risk in relation to disasters. (Ronoh *et al.*, 2015:39). Guadagno illustrates how - while "people's ability to move [...] is a key component of their resilience" - in that "moving, in all its different forms, has an intrinsic risk management value, allowing people to prevent or mitigate the negative impacts of (natural and man-made) hazards" – "actual movements do not allow them to completely avoid negative impacts and future risks. [...] In most cases, moving allows people a trade-off between the (present or future, well known) impacts they are (or will likely be) suffering in their places of origin and the (potential, less certain) ones they might face elsewhere." Reviewing different examples from around the world, the author demonstrates, however, how "displaced persons, migrants, asylum seekers and refugees, as well as relocated communities, often have little choice but to transit through and to settle (temporarily or permanently) in marginal, hazard-prone areas, with limited ability to access locally available resources and services, little knowledge of the local hazard context, and skillsets and capacities that do not match local livelihood opportunities. They effectively move out of harm's way, only to find themselves highly exposed and vulnerable to other hazards." Hence, the imperative to include DRR considerations in managing people's movement in all the diverse above-situations. (Guadagno, 2021).

In a recent publication focusing on COVID-19 and so-called "biological disasters", Twigg *et al.* recommend the inclusion in DRR actions of migrants, refugees, and asylum seekers, who "should have a voice to engage with policymakers and service providers in understanding their needs and identifying good practices and opportunities for mitigating the impacts of the pandemic." (Twigg *et al.*, 2021:60).

While gender is regarded as an individual variable influencing one's reaction to adverse situations (above), it also represents a ground for discrimination, in general and in disaster situations. Ronoh *et al.* include women among the groups of the population who are more vulnerable to disasters. (Ronoh *et al.*, 2015:39). "Past research has found that the morbidity and mortality rates for female children are often higher than for boys in developing countries, even though girls have psychological advantages over boys. This is often the result of discrimination towards females." (Fothergill, 2017:11).

Khyathi points to some of the specific vulnerabilities of women in disaster situations in Asia: "The root causes of women's vulnerability often lie in unequal power relations that deny women basic rights and give them secondary status in the labour force. This is compounded by a limited access to land rights and extensive domestic responsibilities which contribute significantly in making women economically vulnerable long before a natural disaster strikes." (Khyati, 2014:12). However, the author also reminds readers about the resources that women are able to bring in a post-disaster situation, their extreme resilience and motivation to support themselves, their families and the community. Moreover, since disasters leave people in a situation of crisis, they "should be also seen as an opportunity to improve pre-existing conditions such as gender imbalances in society" and "as an opportunity to improve the existing social order." (Khyati, 2014:12-13).

Children and young persons with disabilities are

regarded to be a particularly vulnerable group in the context of disaster. In particular, "children with disabilities are also seen as being more at risk to the physical impacts of disasters as they are unable to take many of the necessary protective actions." (Fothergill, 2017:11). Again, while having a disability is an individual condition, what makes disabled children and youth more prone to experiencing adverse impacts of disasters is the discrimination they suffer on the basis of such condition – before, during and after a disaster.

According to Jang *et al.*, "about 15% (93-150 million children) of all children in the world are those with disabilities, and the majority of nations have failed to include these children's needs into an appropriate and significant part of the overall discussion on disaster management [...] and thus their fatality rates during disasters are higher by 4.3% than those of children without disabilities." (Jang *et al.*, 2021:2). The authors thus conclude: "Multiple challenges have, to date, prevented the field of disaster management from achieving its ultimate goal of reducing not only the physical impact of disasters, but also their social impact, which disability inclusion may help to accomplish. [...] As inclusion will enable us to reduce the human loss and psychological impact caused by disasters, it will be a cornerstone for the whole field." (Jang *et al.*, 2021:8).

In conclusion, "social class, gender, race and ability status affect children's vulnerability to [disasters]". (Fothergill, 2017:1).

The literature also identifies other children and youth who are more likely to have physical health, mental health and learning problems after being exposed to a disaster. These include children who were exposed to other forms of violence and trauma after a disaster. (McDonald-Harker *et al.*, 2012:2). In often cases, violence against children is triggered by disasters: "Another physical impact [of disaster] is child abuse and neglect, which is of a grave concern and needs more attention." (Fothergill 2017: 11).

Children who were exposed to multiple, potentially life-threatening disasters, as well as those who thought that their life was in danger during disaster, are also regarded as more vulnerable to adverse impacts. The case is similar for children who experienced multiple stressors in the recovery period, such as parents changing or losing job, moving to a new home or to a new school, or a death or illness in the family. (McDonald-Harker *et al.*, 2012:2).

Concerning school and its central importance across all DRR phases (as examined above), children who missed school days for extended periods after a disaster are also regarded as a particularly vulnerable group. (McDonald-Harker *et al.*, 2012: 2). Research conducted in Massachusetts highlighted the key role played by schools in facilitating access to mental health care for students, especially those belonging to poorer and marginalized groups of the population. Hence, schools' closure during the COVID-19 pandemic is believed to have considerably limited children and youth's access to mental health care, at a time when they likely needed it more, as they "may be dealing with increased rates of depression, anxiety, PTSD, eating disorders, obsessive-compulsive disorder (OCD), paranoia, panic disorders, and/or difficulties with socialization." (Shen, 2020:7-11).

Children and youth's experiences, perceptions, and participation in DRR

A substantial amount of the reviewed literature focuses on what is known about children and youth's experiences in disaster, their perception of risks and hazards, and their participation in DRR activities.

There is a general recognition about the growing yet limited knowledge about children's perspectives, experiences, and potential to contribute across the different phases of disaster cycle.

Resilience factors

Several authors recognize that there is limited knowledge about disaster risk and resilience factors affecting children and young people, and most importantly, about their perspectives on such factors. "While child and youth resilience research within the context of disasters has made significant gains, little is known about the specific factors that contribute to resilience in children and youth, and effective ways to support their overall health and well-being. Moreover, few studies have explored child and youth resilience from their own experiences, perspectives and voices." (McDonald-Harker *et al.*, 2021:2).

Indeed, "disasters impact children the most in terms of physical, emotional, mental, educational, and nutritional development. The first step to risk reduction and management is to identify the causal factors affecting children and plan around that." (Varun, 2014:15). "While understanding the risk factors and vulnerabilities of children and youth post-disaster is necessary to address their needs, the need to develop an understanding of the protective factors and strengths they possess is equally pressing as they can serve to mediate resiliency processes following adversity or trauma, such as experiencing a disaster. Research which focuses on protective factors has shown that even in the context of adverse circumstances like disaster, when provided with the proper support systems, children and youth often demonstrate resilience." (McDonald-Harker *et al.*, 2021:2).

However, the actual and potential resilience that children and youth have in adverse situations is frequently reiterated across the literature. "Children and youth are among the most vulnerable to the devastating effects of disaster due to the physical, cognitive, and social factors related to their developmental life stage. Yet children and youth also have the capacity to be resilient and act as powerful catalysts for change in their own lives and wider communities following disaster. Specific factors

that contribute to resilience in children and youth, however, remain relatively unexplored." (McDonald-Harker *et al.*, 2021:1). Therefore, "it is critical – especially as the risks to disasters continue to increase – that we fill our knowledge gaps and understand the vulnerabilities and capabilities of children and youth in disasters." (Fothergill, 2017: 23). Additional research moving on from the deficit discourse and taking a strength-based approach in order to unearth the protective factors that contribute to resilience among disaster-affected children and youth is needed. (McDonald-Harker *et al.*, 2021:11).

As mentioned above, even when research and analysis does focus on children and youth's resilience in disasters, very often their own perspectives are overlooked. "It is important to note that much of [existing] research relies on data that is not obtained from children and youth themselves, but rather from the adults in their lives such as parents, teachers, doctors, and counsellors. While information obtained from adult caregivers and allies is important, it neglects the experiences and insights of children and youth informed by their own unique perspectives which are key to understanding the factors that contribute to their resilience. To fully understand children and youth's resiliency post-disaster, it is crucial to include children and youth as informants, recognizing them as knowledge holders of their own experiences." (McDonald-Harker *et al.*, 2021:4).

Children and youth's potential to contribute

Furthermore, the literature stresses as policymakers as well as practitioners, and even researchers, are – reportedly – often unaware of children and youth's enormous potential to contribute to DRR. "Children under 18 are often considered the vulnerable, passive victims of disaster events and in need of protection by parents and adults in the community, who in turn make decisions and take actions on their behalf. Yet children have unique perceptions of the world in which they live, and they have the capacity to act as agents of change." (Tanner *et al.*, no date:54). Similarly: "Despite readily available information and knowledge about how children are caught up as victims of disasters, little work focuses on children as agents of change in the prevention or mitigation of disasters in developing countries. Children are viewed as passive victims during emergencies." (Muzenda-Mudavanhu, 2016:2).

"All too often, children and youth are relegated to the margins in preparing for hazardous events, in the taking of decisions that affect them and at critical junctures following a major disaster." (UNDRR, 2020:22). Children and youth's capacities in the disaster cycle appear to have been largely overlooked until recently. Consequently, limited "evidence-based guidance exists about how to involve them in actions and skills in the context of [Community Disaster Risk Management -] CDRM." (Williams *et al.*, 2021). As Pfefferbaum *et al.* state: "Unfortunately, empirical evidence on youth involvement in disaster risk reduction activities is lacking. Important next steps include identifying, applying, and evaluating approaches and implementation models that appropriately enlist, engage, and involve children in disaster risk reduction activities. Also needed is an understanding of the barriers and challenges to children's participation and of potential harms that stem from their involvement." (Pfefferbaum *et al.*, 2018:5). This last point will be further analysed later in this chapter.

Speaking about climate change in the South-Asian context, Wijneyake holds that "the focus on children as a solution to climate change is not missing. However, there needs to be a consolidated effort on developing the quality of the space allocated to children to be agents of change, and improvement in their inclusivity in structuring strategies to act on climate change." (Wijneyake, 2014:3).

Based on a literature review about five countries in Europe[2], Mort *et al.* argue that "children are still rarely considered as a group with valuable experience and knowledge that should be taken into account in disaster management and risk reduction. They are frequently included among the most 'vulnerable groups' less able to help themselves in the circumstances of an emergency, and therefore requiring external assistance. Only rarely is any attempt made to clarify why children are vulnerable or what characteristics set them apart from other vulnerable groups. As a consequence, participation, if pursued, remains within a framework of rules and goals determined by 'experts' and other adults, or adopts a rather tokenistic approach." (Mort *et al.*, 2020:32).

The authors of the above-report further argue: "Despite the growing interest in participatory approaches, the active participation of children and young people in disaster risk management is still scarce in Europe. In general, children and young people are seldom included in the management of disasters as they are mostly considered as a vulnerable group. Participation, if pursued, remains within a context of rules and goals determined by experts and other adults. The tokenistic views of most adults hinder participation and, although there is an increasing tendency to address this situation, children and young people are still under-represented in decision-making processes." (Mort *et al.*, 2020:12). The situation in Europe is compared to other regions of the world. According to the authors, in Europe "there is still a significant lag behind the leading countries in this field, particularly New Zealand, Australia, the US and Japan." (Mort *et al.*, 2020:33). They conclude that there is still too little space for children and youth to participate in DRR, and that "they are rarely considered a group with valuable experiences and knowledge that should be taken into account." (Mort *et al.*, 2020:33).

Mort *et al.* stated, "that both child and adult stakeholders were mostly unaware of children's rights to participation", and that despite many years of participatory initiatives and programmes, children and

2 Greece, Italy, Portugal, Spain and the United Kingdom.

youth are still regarded as a group "to be educated and protected, rather than listened to and integrated into decision-making." (Mort *et al.*, 2020:64). Many stakeholders still regard children "as passive recipients of risk reduction education, at best as vehicles through which to deliver predetermined risk messages to families." (Mort *et al.*, 2020:65-66). This highlights the importance of working with adults in order to prepare and sensitize them on the way they can involve and collaborate with children. At the same time, it is also important for the children and youth themselves to gain an insight into the adult stakeholders' perspectives. (Mort *et al.*, 2020:66).

Surely, the literature does recognize the utmost importance and benefit of actively and consistently involving children and young people in DRR actions. "At the same time that children and youth are vulnerable, they also demonstrate important and often unnoticed capacities and strengths, as they assist themselves and others before and after a disaster strikes." (Fothergill, 2017:4). Therefore, "meaningful participation is central to promote and enhance the resilience of children and young people to disasters and to enable disaster responders to meet children and young people's needs, rights and ideas more effectively. Progress in this field has already proved to be central to disaster studies in general, and to disaster policy and practice." (Mort *et al.*, 2020:35).

Indeed, the lack of involvement of children and youth brings considerable limitations to DRR actions, especially when these focus precisely on children and youth themselves. "Children respond to disasters in ways both different and similar to those of adults. If children's participation is not considered, local community programs run by institutions who respond to children's needs may be less effective." (Muzenda-Mudavanhu, 2016:2).

Fortunately, over the past years there has been an increased attention on children and youth's participation in DRR. "Whilst children's participation is recognized in the development process, its recognition in DRR is an emerging concern and is achieving increased attention as a component of DRR." (Muzenda-Mudavanhu, 2016:3).

Over the past decade, "scholars from around the globe have been focusing more intently on the experiences of children and youth in disasters and the field has grown and become more diverse in methods, research questions, and perspectives." (Fothergill 2017:21). "One of the significant developments in the work on children, youth, and disasters has been the attention and recognition of their skills, talents, contributions, unique perspectives, problem-solving aptitudes, teaching abilities, creativity, and many other capacities." (Fothergill 2017:22).

Children and youth's position across DRR phases

The reviewed literature offers some examples of the ways children and young person perceive and react to disasters, across the different phases of its life cycle.

Several authors focus on children and youth's perceptions of risks, how these are influenced by adults, while at the same time unique and still not fully explored. Participatory research among children aged 7 to 9 year old about their knowledge, skills and dispositions to discuss about flooding uncovered that "although limited understanding of physical processes of flooding is revealed, children displayed an aptitude to apply logic to their independent thinking about these issues. This could indicate a desire and capability to acquire and understand information, revealing potential for children's personal agency and a degree of systems thinking." (Williams, 2021:no page).

From previous research reviewed by Fothergill, it appears that children have a clear and uncluttered view about risks. It also appears that they have "an all-risk approach; in their lists of hazards, the children included environmental hazards as well as rape, alcoholism, and not receiving enough love and care". (Fothergill, 2017:5). Children seem to create a more extensive list of disaster risks than adults, demonstrating an understanding of a broader range of risks.

Mort *et al.* confirmed that, when asked to define "disasters", children explained these in much broader terms than adults' official definitions. When asked to provide examples, children's examples were comprehensive, ranging from "natural" disasters (earthquakes, landslides, forest fires, floods, windstorms etc.), through to "technological" (plane crashes, train accidents, chemical spills) and "social" disasters (terrorism, robberies, migrant and refugee crisis). (Mort *et al.*, 2020:71).

Fothergill argues that "perhaps children perceive threats and risks of hazards in the same way as their parents. This seems logical, considering what we know about socialization and the way in which children learn attitudes, beliefs, and values from their parents. And yet, children and youth spend a good deal of time away from their parents – in school, childcare centers, with friends – and create their own peer cultures and learn from other socialization agents, such as teachers and the media." The author also wonders: "Adults sometimes base their judgement of risks based on their own past experiences; would this be a less influential factor for children since they have fewer past experiences from which to draw?" (Fothergill, 2017:5).

With reference to risk perception, risk assessment and the way children and youth conceptualize disasters, the literature points to the fact that, allegedly, there is still little recognition of children and youth's diversity. Variables such as gender, social class, and ethnicity are not sufficiently considered. Disability seems to be addressed only seldom in programmes dealing with children and youth in the context of disasters. Moreover, very young children seem to be practically invisible to emergency planning, whilst young people above 15-year-old are usually not addressed as an age group. (Mort *et al.*, 2020:32).

Firstly, the literature points to the need to consider the age variable. "Too often children and youth are considered as a homogeneous group, which should be avoided as it is too simplistic a way of examining how to

enforce their rights. Life needs to be viewed as a cycle of stages which occur during the process of growth and development of children and youth, each stage of which is characterized by a set of different skills, needs and expectations. For this reason, it is necessary to see the life cycle as an important element in the process of planning, implementation, and monitoring of actions for DRR and resilience-building. A different approach is going to be required according to the developmental stage of the targeted population, as each stage will necessitate distinctive procedures and treatment." (UNICEF/RET, 2013: 20-21).

As put by UNDRR, "a lifecycle approach recognizes the need to focus on how children and youth develop as they move through age categories. [...] Prioritizing age-disaggregated data (along with gender, disability, ethnicity, poverty and socio-economic status, geography, etc.) helps ensure DRR awareness materials, policies, programmes and participation opportunities are age-appropriate, inclusive and effective. It can also identify the most vulnerable children and youth in a community to reach them in times of crisis and help address their unique needs." (UNDRR, 2020:22).

Gender is another variable that influences risk perception, and that should be therefore taken into account when trying to understand how children and youth perceive risks of hazards. Referring to past research, Fothergill argues that "there are gender differences in risk perception for adults. [...] Women, for example, are more likely to perceive a disaster event or threat as risky or threatening than men, and they are particularly likely to perceive a risk as more threatening if it affects their children." (Fothergill, 2017:6). According to this thinking, men and adolescent boys might tend to be more risk taking, while women and girls may be more risk adverse; "but this may be context and culturally specific and should not be accepted out of hand." (Fothergill, 2017:6).

A study on gender differences in health risk perception of radiation in the aftermath of the Fukushima nuclear disaster in Japan highlighted how the sexual division of labour, the sexual division of power, and the structure of social norms greatly affect the significantly different way in which mothers and fathers perceive health-related risks to their children. "Gendered institutional norms that expect full-time male employees to prioritize work over private life and narrowly define the masculine role as breadwinner" leads men to regard disasters as a threat to the economy and to their job more than to their own or their family's health. In the specific case quoted above, "while women were concerned for physical health, the risk of radiation meant economic instability for men." (Morioka, 2014: 8-9).

Other variables affect children and youth's risk perception. Namely, individuals with low income generally seem to have a heightened perception of risk possibility, because they have less control over their lives and less power to react. It is possible that this circumstance influences their perception of what seems "risky" or not, and that this applies to children and young people as well. (Fothergill, 2017:5). Furthermore – as already highlighted above in this chapter - children with disabilities (and people with disabilities in general) are often overlooked during emergency preparations and in DRR policies, fact which not only leaves them unprepared to face such emergencies, but also limits their capacity to effectively participate and contribute to DRR activities. (Ronoh *et al.*, 2015:41). "A starting point for involving children with disabilities in DRR initiatives is researching their experiences in the face of disaster, and subsequently designing policies that consider their potential contribution." (Ronoh *et al.*, 2015:44-45).

Concerning disaster prevention and mitigation, Mort *et al.* briefly mentions several sources from which children and youth likely learn about disasters. These include: mass media (films, TV more generally); comics – mostly regarding low-probability but high-impact disasters, such as planetary collisions; but also hearing from parents or grandparents, as well as neighbors, about events that had occurred in the area or country where they live. (Mort *et al.*, 2020:72). No additional significant information was retrieved from the reviewed literature concerning how children are made aware about disaster risks, and whether they are involved in prevention exercises to mitigate such risks. This appears an area to be further explored in detail.

Concerning the preparedness and response phase, the gender variable is again brought to readers' attention as affecting children and youth's behaviour. Reportedly, research on adults has shown that "women are more likely to hear and believe warnings than men are and interpret them as valid and respond more to warnings than men, often because of their social networks." (Fothergill, 2017:9).

A concern flagged by the above-author is that "most children and youth are dependent on adults in their lives to communicate the risk and to instruct them or assist them with the appropriate response, especially if they are young. These adults could be parents, guardians, teachers, or childcare providers. There is an assumption that parents will take care of children when there are warnings or protective actions needed, and this is often the case. However, it is important to keep in mind that many children are not with their parents when disasters occur. Many are at school, jobs, with friends, at childcare centers or babysitters' homes, or in self-care." (Fothergill, 2017:8).

"An important issue to consider is households that have both children and pets." (Fothergill, 2017:8). While research shows that families with children in the home are more likely to evacuate more often and earlier than they would have without them, families are reluctant to leave pets behind in a disaster, especially if they also have children. Indeed, in some countries pets are regarded as members of the family, and children especially are opposed to being separated from them in times of crisis. This difficulty could hinder evacuation in some cases. (Fothergill, 2017:8). When directly consulted, children pointed to the importance of caring for pets and animals in the framework of DRR actions.

Disaster impacts on pets and animals can create distress and feelings of loss in children. (Mort *et al.*, 2020:83-83).

Children and youth's perception, reaction and involvement in the preparedness and response phase seems, however, a generally overlooked area. "Overall, it can be said that there is very little known about children, youth, and warning communication and response, and more attention should be given to this topic in the future." (Fothergill, 2017:8).

Concerning the recovery and rebuilding phase, and the specific position of children and youth, the importance of school is underlined. Allegedly, schools and teachers can play a tremendous role for children and youth in the recovery period. "Young people need their schools and the social networks and support they provide." (Fothergill, 2017: 18). Students recover well if they feel attached to their school and get positive support from adults and friends at the school, be it their usual, old school, or the new one in a host community. Therefore, "community leaders need to prioritize schools in recovery, as they are important to both children and communities." (Fothergill, 2017:18).

It can be concluded that, "in emergencies, children wanted to do more than be the passive recipients of assistance. They wanted to take part in all aspects of disaster management, from prevention to reconstruction." (Mort *et al.*, 2020:89). "While the contribution of children should never be viewed as a replacement for effective emergency management, their knowledge, creativity, energy, enthusiasm, and social networks have the power to help themselves as well as others." (Peek *et al.*, 2021).

Benefits and risks of involving children in building resilient societies

The reviewed literature stresses that there are many benefits stemming from children and youth's involvement in DRR, which by far outnumber the associated risks. "A number of benefits – for both children and communities – accrue from children's participation. As they try to find their role in society, youth need opportunities to participate in meaningful activities." (Pfefferbaum *et al.*, 2018:4). "Children and youth themselves can play a large and important role in the reconstruction stage and should be involved in post-disaster planning when possible." (Fothergill, 2017:20). "Children and youth occupy a position of both unique vulnerability and capability when it comes to disasters and disaster risk. [...] Child-centered risk reduction [...] not only directly involves children and youth in dealing with disasters – including adapting to climate change – but also enhances the resilience of entire communities." (Yore *et al.*, 2018:2-3).

"As the scientific literature shows, children and young people bring crucial skills, perspectives and knowledge to preparedness and resilience-building in their homes, schools and communities. Children often have the time, energy, creativity and capacity to contribute to disaster risk reduction, and their involvement in these efforts is becoming recognized by researchers and practitioners alike. Meaningful inclusion of children and young people is, without doubt, a way to improve their lives, but also their future prospects and those of their communities." (Mort *et al.*, 2020:17).

"While children's vulnerability and needs are widely recognized, they are not passive victims. Since children contribute to disaster risk reduction activities, they represent valuable resources to nurture and mobilize for disaster preparedness, response, recovery, and resilience at the individual, family, and community level." (Pfefferbaum *et al.*, 2018:5). Similarly, Muzenda-Mudavanhu stresses the need to look into the role that children can play in withstanding, managing as well as coping with disaster risk and reduce vulnerability through capacity building, education and awareness. (Muzenda-Mudavanhu, 2016:2).

Benefits to children and youth

Several authors explain in further details what the benefits stemming from children and youth's involvement in DRR activities are. First of all, being active participants across all DRR phases brings a number of positive effects to children and youth themselves.

According to UNICEF and RET – Protecting Through Education, putting children and youth at the center of DRR activities contributes to raising and strengthening attention onto children and youth at risk, that is those children and youth who are exposed to specific risks and whose rights are systematically violated. The involvement of children and youth in DRR leads to a more correct understanding – as opposed to erroneous assumptions and misinterpretations – regarding the specific priorities and problems that these groups face, which in turn decreases their vulnerability. (UNICEF/RET, 2013:17-18).

"As part of a rights-based approach focusing on children and youth, the institutionalization of participation mechanisms for children and youth to be involved in designing public policies, including advocacy and social mobilization, should be promoted at both national and local levels, as this will allow them to exercise their rights in the field of DRR, and will build community resilience in general." (UNICEF/RET, 2013:48). Child-centered DRR is a rights-based approach, which recognizes children as key actors in their own development and in that of their communities. "It is a valuable entry point for programmes aiming to promote sustainable development and those promoting the realization of children's rights." (Plan International, 2010:13).

"By participating in community activities, children can define what they perceive to be problems, rather than having to accept issues that have been identified and mediated by adults or authorities." (Muzenda-Mudavanhu, 2016:3).

Actually, "vulnerable groups are those that are unequally exposed to risk, those that are excluded, silenced,

or marginalized from public and political life. In this context, the right to participate becomes a way to prevent patronizing and stigmatizing children as an affected group." (Mort *et al.*, 2020:155). "There is ample documentation [...] of the benefits of having older children active, informed and involved in responding to the challenges in their lives, not only for their own learning and development, but for the energy, resourcefulness and knowledge that they can bring to local issues". (Wijneyake, 2014:3).

The above holds even truer for children with disabilities. Dependent on others' (mostly adults) conceptualization of what it means to have a 'disability', these children have been for a long time neglected by both research and policymaking on DRR, especially when it comes to the potential value they could bring to these activities. They are seen as "inherently vulnerable", and "often perceived to have little to offer in terms of developing effective DRR." (Ronoh *et al.*, 2015:39). "For children with disabilities, an opportunity for their inclusion in DRR initiatives would enhance their participation and their capacity to face and contribute during a disaster." (Ronoh *et al.*, 2015:46).

Meaningfully and safely involving children and youth in DRR activities, therefore, fulfils their fundamental rights to participation and non-discrimination, and enables the whole community to discern their true problems, perspectives, as well as potential.

Furthermore, children's participation in post-disaster response also offers a precious opportunity to process emotionally what happened: by recalling events in a narrative form or in creative ways, children are usually willing to recount about their experiences in disasters, and to put these in perspective. This is believed to enhance children and youth's mental health and to prevent or reduce post-traumatic stress disorder amongst them. (Mort *et al.*, 2020:19). Helping in the recovery phase provides children and youth with a feeling of purpose and a sense of control. (Fothergill, 2017:18). During times of crisis, children want to help. When they are given the opportunity, there are many things that they can do to support adults, other children, and themselves. Providing children with opportunities to get involved makes a huge difference to their recovery by increasing feelings of solidarity, empowerment, and interconnection. (Peak *et al.*, 2021:no page).

"Programs that engage students to lead in school or community recovery appear to have multifaceted salutary effects on recovery after disasters. Students in the Youth Leadership Program implemented in the St. Bernard United School District after Katrina, who were engaged in meaningful recovery projects for their school and community, gained self-efficacy and showed fewer trauma symptoms over time." (Masten, 2020:5). In the framework of strategies to promote better adaptation of children and youth and to restore the powerful engines of resilience embedded in inter-connected systems, one of the suggested measures revolves around providing ways for young people to help with recovery. (Masten, 2020:7-8).

Indeed, an effective way to strengthen resilience while reducing the vulnerabilities of children and youth in relation to disasters is to further their participation. "Participation in disaster risk reduction has the potential to make activities more sustainable, integrative, and empowering as it becomes an increasingly integral approach to enhancing community resilience." (Mudavanu *et al.*, 2015: 7). The reviewed literature points to the importance, in order to enhance their resilience, to involve children and youth in recovery at the community level after a disaster occurred. This is particularly true for adolescents, who may on the one hand be more vulnerable to disasters as they are more aware of the significance of losses incurred, while on the other hand have more capacity to help and thereby to experience agency and self-efficacy (through holding productive roles in disaster response or recovery). (Masten, 2020:4). Consequently, as Mort *et al.* maintain, children and young people are disproportionately affected by disasters "not precisely because this is a particularly physically or psychologically fragile group, but because it is a group frequently overlooked in disaster planning and management, a fact that greatly amplifies their vulnerability." (Mort *et al.*, 2020:16).

The empowering effect on children and youth of participating in DRR activities is widely recognized. According to Plan International, based on a holistic approach and awareness of risks and a sound understanding of the consequences of disasters, children can maximize their own adaptive capacity by making informed decisions on how to adapt their lives and livelihoods to a changing environment. A child-centered DRR approach would also empower children and youth "to make informed choices and develop behaviour that reorient society towards more sustainable practices for sustainable development, which reduces local vulnerability and increases resilience." (Plan International, 2010:11-13).

"Giving children and young people opportunities to have a voice in their communities, lead to them feeling valued and that they can contribute to disaster prevention, preparedness and to community recovery and rebuilding post disaster. Not providing these opportunities led to children feeling marginalized and alienated, pre, during and post disaster." (ACYP, 2020:125). Hence, effective and meaningful participation is in itself a way to precisely empower children and young people.

Involving children and youth in DRR provides an opportunity to recognize their individual strengths and their ability to influence their families, peers, and their wider communities. "Helping others can give children a sense of control and security and promote helping behavior. During an emergency, children and adolescents can bring about positive change by supporting those in need." (Save the Children, no date).

"The participatory HCVA [(Hazard, Vulnerability and Capacity Assessment)] process with children accomplishes two important objectives: it builds children's knowledge and skills in DRR, and it enables children to analyse and monitor disaster risks, vulnerabilities and

capacities in their communities, to better protect themselves, and to share their informed views to influence disaster management governance and planning. Once an HVCA has been conducted with children, children gain knowledge and skills on their community's hazard and vulnerability profile. This knowledge of children can be applied to inform the planning and implementation of decisions for prevention, preparation, and mitigation activities that have been prioritized by children at the end of the HVCA process." (Brij, 2014:14).

In conclusion, children and young people feel empowered and eager to learn more and take action, when they are given an appropriate space to contribute. (Mort *et al.*, 2020:91). When children and youth express their views in a disaster situation and feel that these views are heard, this increases their confidence and creates a sense of belonging. It also supports them in building their critical thinking skills and deepens their capacity to civically engage. This in turn helps building collective organizing skills in the community and the whole society. (UNDRR, 2020:27). Children and youth's perspectives can inform a more robust public discourse and improve disaster-related policies. "Children need to regain a sense of control when they are faced with feelings of powerlessness, and we all need children's ideas and actions for our recovery." (Peak *et al.*, 2021:no page).

Benefits to others

Indeed, the idea that children and youth's potential in DRR action is yet to be explored in large part is echoed across the literature. "Children could constitute a group with energy and influence yet to be harnessed by many agencies tasked with community disaster risk management." (Williams *et al.*, 2021:no page). "When the problem of overlooking children and young people, in terms of disaster policy and practice, is addressed, risk awareness, community preparation and resilience are improved across society." (Mort *et al.*, 2020:159).

Children have unique perspectives about risks, disasters and their consequences. Besides enforcing their fundamental rights – namely to participation – taking children and youth's voices into account when planning for DRR actions enables adults to learn what they think and know about themselves, but also about the communities where they live. Children and youth can provide detailed crucial information that can be of key importance in case of an emergency. (Mort *et al.*, 2020:91).

One aspect that is frequently stressed across the literature concerns children and youth's energy, enthusiasm, creativity and originality. In this sense, their participation is indeed instrumental for DRR: they can make very valuable contributions, as "they have clever and innovative ideas and suggestions for disaster management, they envisage unanticipated needs, tools and improvements." (Mort *et al.*, 2020:68-69). And yet, despite the increasing evidence from the field about the important actions that children and young people have taken before, during and after disasters to help themselves and others, "the knowledge, creativity, energy, enthusiasm, and social networks that children have to offer could be better used." (Peek *et al.*, 2021:no page).

Children and youth are, therefore, not just a generally vulnerable group that makes up a high percentage of the world's population – and therefore particularly exposed to disasters. "Children can act as innovative agents of change, as they tend to be less constrained by social norms and fatalistic attitudes that are more common among adults." (Plan International, 2010:13). Similarly, Peek states that children have specific skills and traits that make them particularly helpful in tackling disasters: "Children's knowledge, creativity, energy, enthusiasm, and social networks could be utilized during all phases of the disaster life cycle." (Peek, 2008, quoted in Mort *et al.*, 2020:83).

A more holistic approach to the concept of risk, and effective skills to communicate on risk and risk reduction, are also assets that, according to the literature, children and youth bring. Children have a unique and holistic perception of risks, encompassing natural hazards, personal safety and social and economic threats. They often have a longer-term perspective of risks than adults, who are primarily concerned with meeting the day-to-day needs, in particular with regard to the environment.

Moreover, "children have the capacity to communicate effectively on risk and risk reduction with their parents, siblings and peers and through informal communication networks. With appropriate support, children can effectively communicate risks to the wider community and larger audiences. Children hold a pivotal position in many communities for addressing the impacts of climate change, for example, through their increasing access to information from school, the media and [information and communication technologies]. Children are enthusiastic innovators of risk communication tools. They can inform others on disaster prevention and vulnerability reduction, through creative messaging and media such as participatory video, theatre, radio programmes, songs and informative murals." (Plan International, 2010:13).

Reportedly, awareness raising and advocacy initiatives involving or led by children and youth can result in greater outcomes than information sharing alone, including on household and community risk preparedness, better hygiene practices, alternative livelihood strategies and greener lifestyle choices. (UNDRR, 2020:18).

Children and youth's capacity to lead and mobilize is also mentioned across the literature. Among others, UNDRR stresses that communication through social media and educational campaigns designed and run by adolescents and youth can mobilize actions – from the local to the global level – in languages and processes that engage, inspire, and motivate. (UNDRR, 2020:18).

Inclusivity is another trait that is usually highlighted in the accounts about the benefits of actively including children and youth. "DRR innovations led by adolescents

and youth often prioritize inclusivity, with crowd-sourced data-gathering in person and online, as well as risk-taking, creative ways to use new technologies and outside-the-box thinking. [...] Child- and youth-led humanitarian strategies and actions often seek to reach and include populations most at risk, especially in areas of health, nutrition, WASH (water, sanitation and hygiene), prevention of sexual and gender-based violence and harmful practices, and child protection." (UNDRR, 2020:18).

Sustainability is another key benefit of involving children and youth in DRR. According to some authors, such involvement creates the link between overcoming an emergency and sustainable development. The active engagement and participation of children and youth in developing permanent structures, which take into account the scale of the risks to this group, will benefit future generations. (UNICEF/RET, 2013:17). Children make up a high percentage of the populations affected by disasters. Thus, organizations working on reducing the vulnerability and enhancing resilience to disasters can maximize the impact of their interventions by building the capacities of the largest proportion of the population, and the largest cohort of those on the frontline of disasters, that is children. (Plan International, 2010:10).

"Children and youth are tomorrow's leaders and decision-makers. By investing in their behaviour change, and involving them in DRR governance structures and mechanisms today, a generation can be better prepared for the disasters of tomorrow. This means taking a long-term perspective to DRR". (Plan International, 2010:12). In this sense, involving children and young people supports the process of democratization and equity in countries. It is doubly sustainable to incorporate their active participation in all DRR actions, because not only it strengthens the children and youth in their current position, but also prepares them to exercise their role as adults. (UNICEF/RET, 2013:17).

UNICEF and RET conclude that generally, "the involvement of the community as a whole will generate more effective and sustainable results, promoting opportunities for dialogue and giving communities the right to review, participate and make decisions. The involvement of a community helps it acknowledge its own assets in terms of both skills and resources and helps create and strengthen links between different community actors. In general, it serves to improve local self-esteem and ultimately decrease the sense of loss caused by the damage suffered." (UNICEF/RET, 2013:18-19).

Actions undertaken by children and youth in disaster situations targeting their peers are regarded as particularly effective and beneficial by some authors. "Peer-to-peer support recovery programmes by prepared and trained adolescents and youth are often effective in helping reduce post-traumatic stress disorder, anxiety, depression and alcohol or drug addiction exacerbated by a disaster event." (UNDRR, 2020:18).

Having the opportunity to communicate with peers in a disaster event offers children and youth an insight into how others, similar in age and experience, process the event and navigate both the short- and long-term challenges that result from disaster. This serves to legitimize and validate their own experiences. (McDonald-Harker *et al.*, 2021:8). In addition to receiving support from their peers, children and youth coping with a disaster also provide support to their peers, highlighting the reciprocal nature of peer support. Openly and honestly communicating with their peers, as well as reciprocally receiving and offering support to their peers, can greatly help children and youth in the recovery process. (McDonald-Harker *et al.*, 2021:8).

Peers also serve as a useful distraction from the stresses associated with a disaster. Having their peers distract them helps children and young people cope with the stressors of a disaster. (McDonald-Harker *et al.*, 2021:8). Sometimes peers help distract children and youth from the negative impacts of a disaster by helping change their mindset, that is by suggesting them to focus on some of the positive outcomes and by encouraging them to pursue activities that bring them a sense of joy. (McDonald-Harker *et al.*, 2021:8).

Risks

A few but relevant risks stemming from the involvement of children and youth in DRR are mentioned across the reviewed literature.

Fothergill wonders whether children and youth should be shielded from information about risk, and whether sharing information might be frightening or paralyzing to them. "It is understandable that adults do not want to scare children with information about disaster that may or may not occur; yet, research finds that the information is not frightening or paralyzing, depending on how it is presented. It could even be empowering to learn about risks and then how they can be mitigated. [...] The amount of information about particular hazards that is shared with children, depending on the context, might depend on the child's age and culture." (Fothergill, 2017:6).

One of the risks inherent in making children and youth aware about the fact that the place where they live is prone to disasters is that this notion and awareness may overwhelm them psychologically. Reportedly, in Cuddalore district in the Indian state of Tamil Nadu, which was affected by several disasters (including the December 2004 Tsunami), the local administration played a central role in the recovery and rehabilitation process after the Cyclone Thane in 2011. This included raising awareness about disaster preparedness among students. However, awareness about disaster and the knowledge that their district had been conferred with the status of a disaster-prone village was making students "live in constant fear" and become nervous at an even slightly heavy wind. A possible solution "to rid students of these unfounded phobias is disaster preparedness lessons", that "should be given to different students according to the class in which they study." (Reuben, 2014:6).

Since knowledge (awareness about risk) is a necessary but not a sufficient condition to trigger effective behaviour (actions to mitigate loss) and desired outcomes in adults, alternative thinking is required about how to engage children early as young citizens to build their agency in dealing with risk. (Williams *et al.*, 2021:no page).

Some authors warn that, considered only as an exception to the ordinary way of doing things, participation becomes fragile and anecdotal. If adults merely consult with children, without giving their proposals meaningful consideration, this is almost worse than not listening to them at all. Indeed, it only reinforces among children and youth the notion that adults do not take them seriously, and this may discourage them from participating in future. (Mort *et al.*, 2020:91).

Research in Zimbabwe found that, in addition to their active involvement in their communities when a disaster hit, children developed a number of coping strategies after experiencing the devastating effects of disasters. These included: selling household assets they themselves owned; reducing the number of meals per day; gathering and selling wild fruits, as well as firewood; assisting families in performing paid labour (for example working in better households' fields in exchange for money or food; assisting in agricultural activities).

Whilst children performed most of the above-activities during weekends and holidays, at times of more complex emergencies sometimes they had to skip school in order to attend to such tasks. Coping strategies also included begging from better-off relatives, friends, and community members, and even for girls getting married as early as 14.

Thus, while children were active agents in DRR, these coping strategies were also threatening children's lives, physical and cognitive development, thus violating their fundamental rights. (Mudavanu *et al.*, 2015: 5-6). Furthermore, trapping children in the cycle of poverty, these coping strategies make the whole community more vulnerable to future disasters and reduce the community's long-term resilience. (Mudavanu *et al.*, 2015: 6).

Generally, children's participation in DRR should "not imply wiping away their childhood, treating children as adults or pressurize them to make choices. Rather, children's participation may be a way to be involved in issues that concern their lives in order to reduce their vulnerability." (Muzenda-Mudavanhu, 2016:5).

The risks highlighted above point once again to the need to consult with children and youth in a safe, meaningful and effective way. Indeed, while children were involved in DRR activities in the example above, they were not or rarely consulted about their possible contribution to the different DRR phases. It can be concluded that children and youth's participation in DRR is not in itself increasing resilience among them and the whole community. They need to also be effectively consulted also about the contribution that they could bring before, during and after a disaster strikes.

DRR activities in which children and youth could be involved

Prerequisites

The reviewed literature points to several preconditions, which can be considered as essential requirements for children and youth's meaningful participation in DRR activities.

First of all, "for participation to be effective, it must become embedded in institutions and processes that influence children's everyday lives." (Muzenda-Mudavanhu, 2016:4). Indeed, "meaningful engagement requires more than an opportunity for children and youth of different ages and life experiences to have a presence in decision-making spaces or to share diverse views. It can be seen as a result of incessant, deliberate, well-resourced, facilitated and often legally mandated action." (UNDRR, 2020:30).

Therefore, participation has to be grounded in sustainable and steady resources. It is necessary to "establish a mechanism to allocate more resources to child- and youth-led DRR projects. This include providing children and youth with dedicated avenues and capacities to contribute to national strategy design and review processes set forth in the Sendai Framework." (UNDRR, 2020:25).

Further, children and youth's participation to DRR needs to be regarded as a regular, ongoing process and not as a one-off event. "Meaningful engagement is sustained activity with regular communication, both formal and informal (i.e., more than one-time planning and participation in events). It takes time and learning how to share and redistribute power when and where necessary. This is pivotal for enabling children and youth to grow and communities to foster knowledge development and leadership renewal (i.e., the transfer of power in formal and informal leadership roles and positions to those coming after)." (UNDRR, 2020:30). Similarly, Mort *et al.* advise that "the right of participation cannot be enacted without access to knowledge and information. Therefore, the first step is making sure children have access to relevant information, but also establishing two-way communication between them and adult stakeholders." (Mort *et al.*, 2020:76).

Since participation is to be regarded as a process rather than as an event, it should be appropriately supported throughout different life stages. "Agency builds through life stages that ultimately result in self-led engagement. From a very young age, children want to express and share their ideas. As they develop and gain knowledge, their ability for expression and responsibility grows. For meaningful participation in DRR to occur, how children and youth engage in DRR processes and actions at different ages should also evolve. This is where activities move from mainly participatory consultation processes in early childhood to activities that include more responsibilities for self-led engagement by and for youth. [...] Children, adolescents, and young adults represent a

heterogeneous cohort and the in-group diversity must guide all engagement pathways. Meaningful engagement does not only benefit youth but considers children, adolescents and young adults as drivers of transformation for the wider community." (UNDRR, 2020:26).

Building the capacity of both children and key adults is also regarded as a preliminary and essential step to effective participation. Children and youth's capacity has to be built first, for them to play a really active role in DRR. "Children must be empowered to be able to play the lead role in DRR. They have to be well prepared and motivated that the tools, information and methods of delivery are all significant." (Save the Children, no date:19). Children and youth should be informed about their rights, especially to participation. They should also be sensitized about adult stakeholders' perspectives. (Mort *et al.*, 2020:64-68).

At the same time, prior to any engagement between adult stakeholders and children and youth, it is key to prepare adults to work with children and young people and to engage them in decision-making processes. In particular, adult stakeholders should be made aware that children and youth's participation is a fundamental right, enshrined in the UN CRC and other human rights instruments. They should understand that children and youth's participation to DRR is indeed possible and feasible, and that it is actually beneficial, as evidence shows that these groups of the population can make a very valuable contribution to DRR activities. (Mort *et al.*, 2020:64-68). As also stressed by Save the Children, it is very important to also envisage time to build the capacity – formally and informally - of identified key adults who need to support children in playing an active role in DRR. This is a key issue to address, especially where there is low awareness and acceptance of children's role in this area. "It is important to engage key adults in the community (religious, social, different ethnic groups, elderly, men and women) so that they are willing to work with and support children doing [child-led disaster risk reduction] activities in their communities." (Save the Children, no date:21).

Children and youth should be involved along the whole decision-making process, including impact assessment, final evaluations and lessons learnt exercises. It is important to systematize and share learning from practices with children, communities, government, and other agencies. (Save the Children, no date:51). Indeed, it is fundamental to "provide age-appropriate data and tools for children and youth to monitor and provide feedback on DRR activities." (UNDRR, 2020:25).

Examples of DRR activities in which children could be involved are abundant across the literature. What is sometimes missing is the evidence justifying the appropriateness of such involvement for children and young people in those different actions.

Risk assessment

A few publications refer to the effectiveness of involving children and youth in the risk assessment phase. UNICEF and RET state that "children and youth are effective actors for promoting disaster risk reduction, especially through [among others] risk analysis (identification of the factors which influence the development of risk)". (UNICEF/RET, 2013:48).

Yore *et al.* support that involving children and young people in child-centered, participatory Hazard, Vulnerability and Capacity Assessment (HVCA) exercises is highly beneficial for them and for the whole community. (Yore *et al.*, 2018:3). Similarly, Save the Children encourages to envisage and undertake HVCA prepared and conducted by children, using a multi-hazard approach (including all relevant natural and man-made threats) to developing preparedness plans. (Save the Children, no date:26). According to the Organization, children should be involved in conducting baseline or situational assessments of target populations to identify knowledge, attitudes and behaviors – to be broken down by gender, age and other features (like belonging to a marginalized group), with an emphasis on impacts on children and youth in all those situations. (Save the Children, no date:45).

Recounting an experience of participatory mapping with children and young people in Australia using Minecraft and LEGO, Le Dé *et al.* highlight several positive features of such exercise. "Minecraft and LEGO are engaging, playful and stimulating tools for children to identify and map potential disaster risks in a participatory way." In their words, testing these tools "sparked children's interest and enabled 'handing over the stick' to children with the mapping process. [...] In a way, the children were the 'experts' as they generally had more and recent experience with Minecraft and LEGO than the facilitators." The participatory mapping "enabled children to demonstrate and share their knowledge as well as build social connections and collaborate with peers. When finalized, the maps were a platform for dialogue about DRR with teachers, local people and practitioners." (Le Dé *et al.*, 2020:39-40).

The above-authors also identified a series of challenges to the use of Minecraft and LEGO as participatory mapping tools. Among these: the limited availability of the LEGO bricks to reproduce geo-referenced features; the lengthy of time required to complete the mapping; the level of technical knowledge required for facilitators – in terms of server capacity, connectivity, software updates and firewalls. (Le Dé *et al.*, 2020:40-41). They concluded that "participatory mapping using evolving technologies offers a myriad of options that are still to be tested. [...] The possibilities for conducting participatory mapping with children has great potential and application. [...] Particular aspects should be considered [...]: the technology, game or material used for participatory mapping needs to be available locally and be socially and culturally suited to the local context [...]; maps need to be understandable and usable by potential audiences (children, adults, DRR practitioners, teachers, scientists, etc.); participatory mapping needs to be enjoyable and fun as children's participation is enhanced when play is encouraged." (Le Dé *et al.*, 2020:41).

Moreover, it is deemed very important that participatory mapping of any form is not regarded as an end in itself. It "should not be conducted with the sole objective of doing participatory mapping. The aim is to facilitate exchange of information and dialogue." (Le Dé *et al.*, 2020:41).

Prevention and mitigation

According to the consulted literature, children and young persons' role can be particularly beneficial and appropriate in the prevention and mitigation phase. Child- and youth-led risk education, awareness raising, and advocacy initiatives could be devised, addressing different target groups, namely: families, communities and peers.

Based on their scoping review of available literature, Mort *et al.* confirmed that child-led risk education programmes can play a central role for children and youth's active participation in DRR. Children and young persons have proven to be good risk communicators, who can convey risk reduction measures to others among families and communities, particularly in contexts where they are better informed or are more fluent in the local language than their parents. (Mort *et al.*, 2020:76).

Interviews and FGDs conducted in the framework of the Project CUIDAR[3] confirmed that having practical information about what to do in an emergency is regarded by children and youth as very important. The children and youth also expressed their wish to inform families and communities about risks and disasters, and ways of being prepared. In particular, peer-to-peer information sharing was highlighted in several cases by the interviewed children and youth as being particularly effective. Among concrete ideas in this regard, children and youth suggested: creating peer support groups; organizing summer camps on the topic; using social networks for spreading information among peers, and not just official channels - for example: creating communication videos, publishing risk information, news and alerts via social networks or chat services, creating an app for smartphones that automatically activates in case of emergency and sends children's locations to their parents. (Mort *et al.*, 2020:76-80).

Regarding the use of social media, children and youth are generally aware about their limitations: mobile phones may not work in the aftermath of a disaster; also, fake and unreliable information can be shared through social networks; hence they acknowledge the importance of creating reliable sources of information, centralized by the relevant public authorities, and to have access to trustworthy and official information during emergencies. (Mort *et al.*, 2020:76-80).

According to UNDRR, children and youth should be involved in awareness raising, behaviour change and advocacy initiatives involving and led by children and youth themselves, including on household and community risk preparedness, better hygiene practices, alternative livelihood strategies and greener lifestyle choices. (UNDRR, 2020:18).

Citing research conducted in Zimbabwe, Fothergill states that children are effective risk communicators. Apparently, children had learnt a lot about risks in the school setting, and in some cases had passed on this information to their families. They also distributed disaster pamphlets to other community members and helped with distribution of hygiene materials during a disaster (cholera outbreak). (Fothergill, 2017:5). The author infers that disaster education in schools can create a culture of prevention and mitigation throughout the community, and this, along with self-help and cooperation, is the core of disaster mitigation. (Fothergill, 2017:5-6).

"Children and youth are effective actors for promoting disaster risk reduction, especially through [the] implementation of actions, according to their capacities, to both avoid or reduce the underlying risk factors; [and] communication skills on different topics, including prevention and mitigation". (UNICEF/RET 2013:48).

UNDRR stress that children and youth's capacities should be built and strengthened, so that they can become peer educators for disaster risk and climate change awareness and education, and influence friends and families to reduce disaster risks at home and in school. (UNDRR, 2020:25).

As referred by Mudavanu *et al.*, in the Muzarabani district (Zimbabwe), children usually participated in disaster preparedness, response and recovery, promoting their own safety and security and that of those around them. They acted as risk communicators; relayed risk messages to communities and distributed disaster related materials such as pamphlets and flyers. They also assisted the Ministry of Health and Child Care to distribute chlorine tablets during a cholera outbreak following a flood. Children in the district were also actively involved in food aid distribution. They provided labour in off-loading food stuff and assisted their parents to carry the food home. (Mudavanu *et al.*, 2015:4).

Research supports the view that if children are included in discussions about DRR, they can influence their families to take preparedness actions, revealing their potential capacity, at least in some settings and thematic areas, to act as inter-generational agents of change. (Williams *et al.*, 2021:no page). Especially when previously involved in risk assessment exercises (above), "follow-up child-centred DRR programming springing from their HVCAs can include small projects that the children manage themselves to affect change, awareness raising, and advocacy in cooperation with adult groups and NGOs to hold local governments accountable to their responsibilities, with the aim of creating spaces for children's voices to be heard on a regular basis in disaster management decision making." (Brij, 2014:14).

Save the Children suggest that children develop awareness raising campaigns about DRR - using a

3 CUIDAR is a European wide project aiming to enhance the resilience of children, young people and urban societies to disasters and enable disaster responders to meet children and young people's needs more effectively. (https://www.lancaster.ac.uk/cuidar/en/).

variety of media to fully engage the community. (Save the Children, no date:28). They point to the fact that children are well positioned to reach out to excluded and marginalized groups (for example: out of school children or migrant communities). Also, children should be consulted in promoting safer and child-friendly physical environments and in advocating with relevant actors. (Save the Children, no date:43).

Similarly, Mort *et al.* highlight as the available literature provides extensive evidence about the effectiveness of children and youth's involvement in DRR. (Mort *et al.*, 2020:17). Among the different activities they can successfully be involved in, quoting available literature, they mentions for example: raising awareness, contextualizing knowledge, using analytical tools and prioritizing actions, by – for example – creating educational murals, disseminating warnings, designing preparedness measures and planning to protect the environment, their families and the wider community; organizing events such as drama, music, art exhibitions and community meetings to increase community knowledge, and even building coalitions with parents and other stakeholders and advocating for risk reduction. (Mort *et al.*, 2020:18).

Drawing upon two case studies in Malaysia, Yamin' *et al.* conclude that "volunteerism platforms are identified as a key strategy for youth and community to be empowered, proactive and knowledgeable, especially in disaster risk reduction. Hence, disaster science communication among youth through volunteerism platforms is evidently essential to be established. [...] Disaster science communication contributes to the enhancement of knowledge among the youth, who eventually will give back to their community by engaging the lessons learned from the programs/events." (Yamin' *et al.*, 2020).

Pfefferbaum *et al.* confirm that children and youth can be involved in a range of prevention and mitigation efforts, including building family, school, peers and community's awareness on disaster risks. (Pfefferbaum *et al.*, 2018:4).

Preparedness and response

According to numerous sources available, children and youth can be of great help during the preparedness and response phase following the onset of a disaster. "Children and youth are an enormous resource in this stage of a disaster and the more they can be trained and brought into preparedness activities, the safer they and their communities will be in a disaster." (Fothergill, 2017:7-8). The author further states that reports from all over the globe have demonstrated that children and youth can have a positive role in preparedness activities of their households, schools, and communities.

Because they often receive training on preparedness and response at school, "children can be helpful during the warning and evacuation phase. Children are often educated about risks at school and bring that information home." (Fothergill, 2017:9). At times, "often children can be the translators of warnings for family members who do not speak the dominant language." (Fothergill, 2017:9). Children and youth can engage and act as translators, mediators, and brokers between generations across different cultures - for example, when they belong to a migrant or refugee community. (Mort *et al.*, 2021:18). "Because youth are commonly creative, idealistic, and passionate, they can be effective advocates for preparedness by helping disseminate information to educate and prepare family and friends thus enhancing resilience and recovery in themselves, their families, and their communities." (Pfefferbaum *et al.*, 2018:3).

As first responders, children and young persons can be involved in a great variety of crucial activities, including search and rescue operations. They can provide food and participate in other emergency response activities. (Mort *et al.*, 2021:18). "Children can help prepare younger siblings, pack up belongings, and do specific chores for their parents as the family prepares to evacuate." (Fothergill, 2017:12). Children and youth can also have a role in minimizing or preventing grave physical injuries or death. They can take actions that save others in disasters. (Fothergill, 2017:12). "They can identify escape routes, and they can help stock supplies." (Fothergill, 2017:12).

Based on survey findings from 90 youth organizations based in 48 countries, a paper issued by the OECD points to a range of activities that youth in OECD member states engaged in to build resilience during the COVID-19 crisis. Many of these activities targeted their peers, including: disseminating information on how to protect themselves and others, and providing peer-to-peer mental health advice; providing practical advice for young people on how to cope with working and studying from home and how to conduct online meetings; carrying out surveys aimed to find out the impact of the COVID-19 crisis on young people, and supporting young people to voice their concerns to authorities. However, children and youth also helped other members of their communities, including by: combating discrimination by disseminating information in different languages to inform people facing language barriers about the measures taken by the government to combat the pandemic; and providing support to the elderly and other groups at increased risk of becoming infected (from shopping for basic needs, groceries or medication, through to helping combat loneliness by connecting younger and older generations). (OECD, 2020:26-30).

Children and youth, indeed, can be involved in practical as well as planning activities related to the preparedness and response phase. They can establish and strengthen preparedness and contingency plans involving communities, children and government and promote systems to periodically update these plans. (Save the Children, no date:33). They can also promote simulations involving children, community members and government to reinforce and promote behaviour change. (Save the Children, no date:37). Children and youth can also establish and strengthen early warning systems using simple technologies and identifying roles

children can play in these systems. (Save the Children, no date:38). They can develop clear and time-bound action plans with other children and young people, the community, and the government, in order to mitigate the risks identified. (Save the Children, no date:40).

Similarly, Pfefferbaum *et al.* list among preparedness and response activities to which children can participate: helping staff volunteer centers and operations; assisting at shelters; distributing water, food, and other supplies; identifying organizations that family or peers can access for assistance; assist with younger children; and engage in clean-up campaigns. (Pfefferbaum *et al.*, 2018:4).

Furthermore, "children can be a calming presence as a disaster looms." (Fothergill, 2017:12).

Recovery and rebuilding

Concerning recovery and rebuilding, the literature reviewed stresses in particular the support that children and young persons can provide to their peers during this phase. Among other activities, children and youth themselves suggested that they could create peer support groups. (Mort *et al.*, 2021:18). Based on experiences at the global level, UNDRR states that peer-to-peer support recovery programmes by prepared and trained adolescents and youth are often effective in helping reduce post-traumatic stress disorder, anxiety, depression and alcohol or drug addiction exacerbated by a disaster event. (UNDRR, 2020:18).

Fothergill confirms that "children and youth are able to provide critical emotional support and warmth to one another. They are able to empathize with their peers, provide comfort to their younger siblings, and be a listening ear to other children and youth. They also provide emotional support to adults, as noted by parents whose children gave them extra hugs, sang to them, and reassured them." (Fothergill, 2017:14).

Children and youth's role is critical also in helping their peers affected by disasters and subsequent displacement to integrate in a new, host community and school.

Children can also help during this phase by "helping to care for others, gathering and distributing resources [...], planning and reconstruction projects, and assisting with childcare and household responsibilities." (Pfefferbaum *et al.*, 2018:3).

In conclusion, children and youth can help in the recovery phase in many ways. In particular, since children and youth benefit from peer-to-peer relationships post-disaster (see above), it is useful to engage children and youth in helping and supporting each other in these situations.

Factors that hinder or promote children and youth's participation in DRR

Albeit children "can participate in DRR activities, little is known about specific factors that could promote children's participation in DRR." (Muzenda-Mudavanhu, 2016:2). The author summarizes the key obstacles to children and youth's involvement in DRR as it follows. "Countries are finding it difficult to make children participate because (1) they lack clarity as to what participating means (2) there is lack of legislation (3) adult and cultural resistance (4) lack of capacities and (5) lack of monitoring and evaluation tools." (Muzenda-Mudavanhu, 2016:5).

Similarly, speaking about what children and youth can do to help during a pandemic, Peak *et al.* state that "for decades, disaster researchers have documented that adults have a strong need to help in disasters. So do children. There are often legal, institutional, or cultural barriers, however, and in the end, young people are often denied the chance to make meaningful contributions." (Peak *et al.*, 2021:no page).

Thus, one of the factors that hinder children and youth's participation in building resilient societies is the lack of "clarity and shared understanding about the objective and outcomes of their participation." (Muzenda-Mudavanhu, 2016:5). As highlighted above in this report, to prepare adults to work with children and young people and to engage them in decision-making processes is regarded as a pre-requirement for children and youth's participation in DRR.

Lack of legal and policy commitment, along with institutional barriers, appears to represent a major obstacle as well. "Lack of commitment by decision-makers to accept children's views and a failure to represent them" poses challenges to fully involving children in DRR. "Disaster risk is [...] a complex issue involving the physical environment, and the social, cultural, political, and economic spheres of the society. This complexity is the major obstacle to effective children's participation in DRR. A holistic approach can be applied for effective DRR, but that option has failed to influence policy makers in most developing countries." (Muzenda-Mudavanhu, 2016:5).

Along with lack of commitment by duty-bearers, "the lack of children and youth's participation to DRR is also constrained at times by the fact that legislative frameworks generally stipulate that the population should be informed and trained on DRR, but does not make any specific mention of children and youth's participation." (Mort *et al.*, 2020:34). Mort *et al.* conclude that "there is a need for more research on how [the] interconnection among policy levels, actors and administrative scales might encourage or constrain children and young people's voices, actions and engagement." (Mort *et al.*, 2020:34-35).

The single most important factor cited across the reviewed literature as constraining children and youth's participation to DRR is, however, "a well-established 'adultist' culture [...] that mostly prioritizes the voices of practitioners and experts." (Mort *et al.*, 2020:151). Cultural resistance to children and youth's engagement manifests at different levels. "In most developing countries, communities do not believe in children's rights but rather that children should follow what elderly say." (Muzenda-Mudavanhu, 2016:5).

According to Mort *et al.*, what seems to inhibit the

participation of children and youth to DRR "are what we term adult imaginaries or prejudices about childhood, for example, where children and young people are seen as a homogeneous, passive, intrinsically vulnerable group." In their views, it is necessary to overcome these "contemporary forms of adultism and ageism", and "to democratize a domain excessively controlled by adult and expert power." (Mort *et al.*, 2020:34, 155).

De Lé *et al.* also emphasize that children's participation in DRR rarely takes place for many reasons, including the fact that adults tend to regard them as "weak and passive [...] not as potential contributors" in the face of disasters. (De Lé *et al.*, 2020:34). "Challenges to children actively participating do not come from children, but from adults. Adults must understand that children should be provided with both the opportunity and right to express their views and ideas without fearing adverse reactions or consequences." (Yore *et al.*, 2018: 7). Quoting a case study from Kyrgyzstan, Yore *et al.* support that a dominant top-down culture hinders community participation in DRR generally. (Yore *et al.*, 2018:5).

Cultural resistance to children and youth's involvement in DRR at times comes directly from parents. "Parents sometimes hinder their children from participating; some fear losing control over their children while others do not trust their children's capabilities." (Muzenda-Mudavanhu, 2016:5). Reportedly, research in Zimbabwe found that the commitment and support of parents for children to express their views, to voice their concerns and experiences with disasters, was also highlighted as one of the most important factors in allowing these children to cope with natural disasters. (Mudavanhu *et al.*, 2015:7).

Lack of resources is also mentioned as a factor constraining children and youth's participation to DRR activities. "Children often do not have the resources or independence to prepare for disasters, so they are often reliant on adults to make evacuation decisions, secure shelter, and provide resources." (Fothergill, 2017:1). In general, Yore *et al.* stress that maintaining community participation to DRR may be problematic when funding continuity is an issue, hindering ongoing community mobilization for DRR. (Yore *et al.*, 2018:5).

Further, a negative perception of civil society organisations can hinder community participation. Maintaining participation momentum can also be problematic when a top-down culture is prevalent. The impacts of community involvement in DRR among adults and children can diminish if knowledge and skills are not reviewed and practiced by community members repeatedly, especially in communities not facing regular disasters. To maintain habits, community-based disaster risk management (CBDRM) needs to be part of people's daily lives through activities such as emergency drills. Community-based teams can continue and lead on CBDRM and boost awareness regularly at community events. Moreover, bringing together a coalition of community members and local authorities supports CBDRM and encourages project longevity. Using popular media such as radio and Instagram has a similar effect. (Yore *et al.*, 2018:6). Indeed, as highlighted above, participation has to be grounded on sustainable and steady resources in order to be effective.

Discrimination against certain groups of the population, and of children and youth therein, also hinders participation to DRR. When a community is not recognized by the Government, such as in the case of informal settlements or minority groups, this is a challenge. DRR activities can still be conducted directly with and by such communities, but advocacy for official recognition of their role and their rights more broadly is needed at least at the level of local government. (Yore *et al.*, 2018:6).

As already highlighted, discrimination acts as a key-barrier concerning the involvement of children with disabilities in DRR activities, in the form of lack of knowledge about their experiences in the face of disaster, their perception as vulnerable and not competent, as unable to make choices and lacking capacity to structure and control their lives. Also, the physical environment around children with disabilities often acts as a limitation to their active involvement: such an environment is shaped by and for persons without disabilities, and thus does not offer a context for social interaction accessible to these children. (Ronoh *et al.*, 2015:45).

Limited knowledge about children and youth's specific needs in disaster situations, as well as of their diverse skills to cope and contribute to DRR actions, acts as a further barrier to mobilizing their exceptional potential. Generally, there has been "inadequate research and poor understanding of children's needs, vulnerabilities and experiences of disasters". The fact that "children occupy a low position in society and lack the power to voice their concern", and that "disaster management approaches have typically subsumed children's needs under those of adults or have completely ignored children's particular requirements" act as a crucial barrier. (Vandana, 2014:10-11).

De Lé *et al.* highlight that children are not a homogeneous group, and that "practitioners often lack appropriate tools to effectively foster diverse children's participation and cater for such diversity." (De Lé *et al.*, 2020:34). Indeed, "children's knowledge of risk and disasters differs across cultures, physical and social environments, and family structures. As a result, not all children have the same strengths or abilities. Though children can be involved only in age- and culture-appropriate activities, the results may not be the same." (Muzenda-Mudavanhu, 2016:5). Hence the need "to pay more attention to crucial variables such as age, gender, education, disability or culture." (Mort *et al.*, 2020:34).

Finally, the 'securitization' of disaster-related discourses has further hindered the active participation of children and young people, and of communities more generally, to DRR activities. "The securitisation of risks, hazards and disasters has certainly contributed to strengthen a specific field of expertise and practice, but has also contributed to shrink public debate and more participative, inclusive and social justice-oriented

framing of disasters. [...] We just need to think of the complexities, multiple controversies and crises unravelled by a tiny microorganism, COVID-19, to realise that it's not possible to disentangle security from care. [...] Contemporary challenges prove, probably more than ever, that we need to collectively rearticulate the field of [DRR] by rethinking disasters not just as a matter of security but also [...] as a matter of care. That is, we need to pay attention to undervalued and minimised voices, opening up what counts as disaster, when, how and for whom, and try to understand the more interdependent and relational dimensions of disasters, risks and resilience." (Mort *et al.*, 2020:157-158).

Further, the "myth that disasters are natural events" should be debunked, in order "to collectivise and democratise disasters, incorporating and valuing a wider array of skills, voices and knowledges, and particularly those emanating from excluded and marginalized social groups. [...] Care and democracy, awareness, empathy and recognition, are central to reduce the risk of disasters and to lessen their capacity to intensify issues of inequality and neglect." (Mort *et al.*, 2020:157).

II - Main findings

Children and youth's knowledge and perceptions

Awareness of risks, disaster and safety

The groups of children and young people interviewed as part of the Pre-Study demonstrated knowledge about what disasters are. Their knowledge and ability to conceptualize risks, disaster and safety becomes deeper and more nuanced as they grow up.

Young children aged seven to eight were able to provide a simple definition of disaster: "Something that is terribly dangerous." (Child, 7-8 y.o., FGD LV 4). When asked to do so, they could point to several examples of disasters: "When, for example, a school blows up"; "A fire"; "When our houses may blow up"; "Also, when a tornado hits the school." (Children, 7-8 y.o., FGD LV 3). Another group of children of the same age also mentioned: a fire; a tsunami; a hurricane; a tornado; war; snow; flood. (Children, 7-8 y.o., FGD LV 4). A group of children aged eight to nine, when shown pictures of disaster scenarios, could name those disasters quite precisely: "A flooded village." (Girl). "A big explosion. [...] A nuclear bomb blows up." (Boy). "A warzone." (Boy). "A powerful storm." (Girl). "A fire." (Boy) – (Children, 8-9 y.o., FGD LV 2).

When a group of children aged nine to eleven was asked what 'risk' means to them, a boy stated: "Risk is like that when you think like in games, that when you take a risk, it means that you have one life, you approach it like that. If you fail... risk means it is life and death." (Boy, 9-11 y.o., FGD ES 1). Another boy added: "And it's also a risk that some people will be crazy to jump down from the waterfall." (Boy, 9-11 y.o., FGD ES 1). It seems that, when asked to think about the concept of risk, children tend to relate it primarily or more strongly to the personal sphere, rather than to a collective event. Similarly, when asked to identify and name different disaster situations, a group of children aged nine to ten could promptly do so; however, there appears to be a continuum in their perspective between disasters and mere accidents, for example, an old lady falling in the street; eating poisonous mushrooms; etc. (Children, 9-10 y.o., FGD LV 1).

When asked whether they have ever identified risks in the area where they live, a group of children aged nine to eleven seemed to have noted some of such risks spontaneously, prior to the focus group discussion. For example, some participants had noticed that trees growing very close to the road could be a threat, as they could fall on someone driving by car or by bike along that road. They went on to say that those trees can catch fire more easily, resulting in a wildfire. (Boys, 9-11 y.o., FGD ES 1).

As they grow older, children and youth's ability to conceptualize and define disaster apparently becomes more sophisticated. When a group of adolescents aged 12-14 was asked how they would define a disaster, a participant outlined the concept as it follows: "An event or a situation where people are forced to do something they would not normally do. For example, be it due to war or some other natural disaster, or a situation where, for example, people have to move from their place of residence somewhere else or take a completely different course of action to do something they do not do on a daily basis." (Adolescent, 12-14 y.o., FGD ES 2).

A group of adolescents aged 15-16, when asked to define what a disaster is, provided different relevant and accurate definitions: "I think a disaster is a global tragedy, a major event that causes negative emotions." (Girl, 15-16 y.o., FGD LV 5). "In my view, it's a negative event, usually accidental, that involves many people; a large group of people." (Girl, 15-16 y.o., FGD LV 5). "A major accident, or a planned tragedy." (Boy, 15-16 y.o., FGD LV 5). "An ill-advised act with bad consequences." (Boy, 15-16, FGD LV 5). "I think a disaster is a small or big accident." (Girl, 15-16 y.o., FGD LV 5). "A disaster is an unexpected and not particularly pleasant moment or event." (Girl, 15-16 y.o., FGD LV 5). "Something terrible, a tragic event." (Boy, 15-16 y.o., FGD LV 5).

The same group of adolescents above, when asked to point out some specific disaster situations that they knew, mentioned several of those, namely: volcanic eruptions; earthquake; flood; viruses and pandemics; storms; terrorism; war; traffic accident; air disaster; "a crisis between great powers"; economic and political crises. (Adolescents, 15-16 y.o., FGD LV 5). Some participants also referred to personal tragedies: "A person dying, like a personal disaster." (Girl, 15-16 y.o., FGD LV 5).

Similarly, when asked to define what a disaster is, another group of adolescents aged 15-16 offered rather relevant definitions of the concept: "Something that is very important. Something that calls for very close attention, and that can harm people, animals, or things." (Girl, 15-16 y.o., FGD LV 7). "I think a disaster is something terrible, something that can happen unexpectedly, and that requires important decisions as a result." (Girl, 15-16 y.o., FGD LV 7). The same group of participants, when asked to mention disaster situations that they knew, listed several of those: tsunami; earthquake; traffic accidents; COVID-19; fire; storm; flood; volcano eruption; war; economic crisis. When asked whether they would they define COVID as disaster, a girl replied: "Yes, it's both a natural and an economic disaster. It affects people's health and lifestyle. And economically, it has an effect on their survival, on politics and communication." (Girl, 15-16 y.o., FGD LV 7). Another girl added: "People get ill, and need money, to get treatment, which affects them economically." (Girl, 15-16 y.o., FGD LV 7).

Similar answers were obtained even changing the way questions were posed to participants. When asked to mention the main disaster risks, they believe they are exposed to in the area where they live, a group of adolescents could name a few, including: atmospheric phenomena caused by climate change; winds, rains and storms; flooding. (Adolescents, 16-17 y.o., FGD PL 3). Likewise,

when asked what are the dangers that they believe themselves and their families are exposed to where they live, another group of adolescents could mention a few, that are: snowstorms; falling trees; gas installation; carbon monoxide; fires; clogged or faulty chimneys; terrorists; war; and also, a neighbour with mental health problems. (Adolescents, 12-17 y.o., FGD PL 5).

Young adults seemed to be very aware of what disaster means, and able to define the concept very accurately. "A disaster is a big man-made or natural event that has a negative effect on the environment and living beings, like earthquakes and floods." (Girl, 18-24 y.o., FGD LV 6). "It's an extraordinary situation that causes resources to be lost or damaged. Resources include people, property, and other resources." (Girl, 18-24 y.o., FGD LV 6). When the participants from the same group were asked if they could name some disaster events they knew, they mentioned several ones, including: pandemics; earthquake; volcano eruption; wildfire; storm; tornado; flood; meteorite; war; nuclear bomb explosion; global electricity and internet failure. (Young adults, 18-24 y.o., FGD LV 6). Some participants could also recognize that some disasters are slow onset events, such as the COVID-19 pandemic: "COVID-19 was not like everyone just died immediately, but it is a physical, a social catastrophe, because socializing was severely restricted during it, and this had a huge effect on people's mental health, leading to other diseases." (Girl, 18-24 y.o., FGD LV 6).

Children and youth's concerns and how they 'rate' risks and disaster

Younger children, aged between seven and nine, seemed to be almost equally scared by any kind of disaster that could possibly affect them. For each disaster risk, they could articulate the reasons why they are concerned.

When presented with different disaster scenarios, some children openly stated that all those scare them. A girl said: "I am the most scared of everything [...] Because these are all bad situations. Because at first, for example, polluting nature, the second [wildfire burning a house] one may not run [...] out of the home. Third, houses and people can explode. Fourth, others may conquer our land in war. And the fifth is when everything is flooded, and people can't get out of their homes." (Girl, 7-8 y.o., FGD LV 3). Similarly, a boy explained: "I would be afraid of all of them, because I would have to buy new books because of the water. Tornado could tear the roof away from the school. [...] In a fire, you don't know where it is, you have to go to the security guard to know where the fire is, in which wing. And the explosion, none is left. I am afraid of everything." (Boy, 7-8 y.o., FGD LV 3).

Two girls from a different group also referred to several situations that scare them: "I'd be afraid of a burning house, because you might not be able to leave the house if something bad happens and stuff. [...] And war. You can't really be calm and quiet there, something happens all the time." (Girl, 8-9 y.o., FGD LV 2). "I'd be afraid of all five [situations portrayed in the pictures]. Fire most of all, and war, and the explosive, if you are in the middle of the explosion." (Girl, 8-9 y.o., FGD LV 2).

Other young children referred to specific disaster risks that they would be afraid of above all. Wildfire appeared to be the most concerning risk to many children. As a girl explained: "A fire [...] Because we just can't run out of the house either in time." (Girl, 7-8 y.o., FGD LV 3). Similarly: "Fire [...] Because you cannot manage to run outside". (Girl, 7-8 y.o., FGD LV 3). One girl said she is "most afraid of fire. [...] Well, I live in an apartment, and it can all end very soon. It's the top floor, no less." (Girl, 7-8 y.o., FGD LV 4). A girl said: "I am most scared of fire because it's a terrible burn and it's very painful". (Girl, 7-8 y.o., FGD LV 4).

Some other children mentioned an "explosion": "Because it's very big and it can be, like, all over the world." (Boy, 7-8 y.o., FGD LV 3). "Because it looks so scary when it explodes. [...] Something can blow up, if there is gas nearby, and then fire can go everywhere." (Boy, 7-8 y.o., FGD LV 4). As another boy explained: "I am also the most scared from a nuclear explosion. Firstly, I would have to pick up my staff approximately in one minute in such a situation. Secondly, I would have to live in a bunker for about two years. Maybe after around nine years, if those who have survived would have children, they could have mutations." (Boy, 9-10 y.o., FGD LV 1).

War was mentioned by several children as a disaster situation that they are mostly concerned about. The prevalence of war among discussions carried out as part of this research increased, unsurprisingly, after the conflict in Ukraine escalated again in February 2022, following the invasion of the country by Russia. Children expressed their feelings of powerlessness when imagining to be confronted with an armed conflict. "When there is a war, you are shot and it is sad when they say nothing and just shoot straight away and there are no words, please don't." (Boy, 7-8 y.o., FGD LV 4). A girl explained that she is mostly scared about a war "because everybody is forced to be involved" (Girl, 9-10 y.o., FGD LV 1). "Because in war you can conquer the whole world", a girl stated. (Girl, 7-8 y.o., FGD LV 3, p.5). Another girl said that if a war started, "suddenly I would be shot." (Girl, 7-8 y.o., FGD LV 3, p.5).

Similarly, when asked about the disaster risks that scares them the most, the majority of a group of children aged nine to eleven answered that it was the war. This discussion also took place after the restart of the war in Ukraine. "War is the worst", stated one participant. (Boy, 9-11 y.o., FGD ES 1). However, another boy argued that a pandemic could be worse: "That is that if, for example, there is no war in Estonia, but the corona is spreading all over the world. It means that more people are dying in the world than in war." (Boy, 9-11 y.o., FGD ES 1). As another boy echoed: "No war kills a country more than a global corona." (Boy, 9-11 y.o., FGD ES 1). Generally, though, pandemics – and, more broadly, biological disasters – did not feature across the disaster risks that

young children seem to be most afraid of. One possible explanation is that children did not immediately conceptualize the COVID-19 pandemic as a "disaster".

Finally, some children mentioned storms among the risks that they are concerned of. "Trees may fall down. [...] They can fall on a house", a girl explained. (Girl, 7-8 y.o., FGD LV 4). "And it can start blowing people away", a boy added. (Boy, 7-8 y.o., FGD LV 4). Another boy stated he would be mostly afraid of a storm. "Because it could blow the house away, and you'd fly away with it. And fall on your head." (Boy, 8-9, FGD LV 2).

Children were concerned not only for themselves in such situations: "To be honest, I wouldn't be scared for myself, but for my family, because I worry more that something might happen to my family than to myself. I once had a dream that there was a war, and my entire family dies, and I'm very unhappy, and I cry, so I'm most scared of war. [...] Also, this [pointing to the flood picture]. Because I have a little brother who can't swim. He's only three." (Boy, 8-9, FGD LV 2).

When asked what disasters scare them the most, adolescents involved in the Pre-Study provided informative and in-depth answers and views. Even when the discussions were held prior to the resuming of the war in Ukraine, participants consistently ranked as the most concerning disasters war and terrorism. In articulating the reasons why, they provided a range of motivations. In a war, "a horrible amount of people die, and lots of resources are spent killing others." (Boy, 15-16 y.o., FGD LV 5). "For me, these [terrorism and war] are the biggest sources of worry, because lately, given the situation in the world, I have often thought about it, and I feel slightly threatened by it. So, this is at the top of the disaster scale for me, because if any of this starts, there will be really crazy consequences." (Girl, 15-16 y.o., FGD LV 5). As another girl explained, "although it [terrorism] doesn't affect people in Latvia, it does affect those elsewhere in the world, and it's really crazy that people choose to go and blow up buildings. I don't see the point. And at the very top, it's war. As [another girl] has said, it brings huge consequences, consumes lots of resources, and affects everybody." (Girl, 15-16 y.o., FGD LV 5). Similarly, a boy stated that terrorism "harms very many innocent people." (Boy, 15-16 y.o., FGD LV 5).

Unsurprisingly, adolescents also ranked pandemics rather high on their scale of fear in relation to disasters. They are aware that this is because pandemics "are very relevant to us today. And when I got affected by this it felt really bad." (Girl, 15-16 y.o., FGD LV 5). Similarly, another girl said that she ranks among top-concerns pandemics, "because it's one of the hottest topics right now, affecting the most people." (Girl, 15-16 y.o., FGD LV 5). "Agreed on pandemics – echoed another girl – it's ruined many people's lives now, because of all of the restrictions." (Girl, 15-16 y.o., FGD LV 5). A boy instead stated that, for the same reasons, he would not place viruses and pandemics high on the scale, "because I feel that it's something we're familiar with, and I don't think it's that hard, even though it is tougher on other people." (Boy, 15-16 y.o., FGD LV 5).

Two girls made a connection between the COVID-19 pandemic and war: "I think, in a way, the pandemic is a war, a modern war, as everyone says. This is why I think that we're already experiencing it, we're in the midst of it. But I also think real war applies too, because people in the world fight and can't share things all the time, and I believe the sooner or later, this will lead to something bad, and sooner or later, we'll get pulled into a war, because that's how these things happen." (Girl, 15-16 y.o., FGD LV 5). "The pandemic has brought about major consequences especially in the way people communicate with each other. People try to focus more on themselves, try to think more just about themselves, and be much more egoistical, so I don't completely reject the possibility of a war. [...] War is something that we could experience. If not me, then probably the next generation." (Girl, 15-16 y.o., FGD LV 5). One participant stated that he would consider pandemics high on the list of concerns, as this had an impact of the mental state of young people. (Adolescent, 16-19, FGD PL 2).

Economic crises were also listed by many as a mid/top-rank priority concern, and even felt by some as a highly concerning disaster. "I believe they are very unpleasant, and difficult to overcome, but you can still resolve these situations, so they aren't' at the top." (Girl, 15-16 y.o., FGD LV 5). As a girl stated, economic crises "could affect me somewhat, because my mum has a job, and we need to live off something etc." (Girl, 15-16 y.o., FGD LV 5). A boy stated: "What really makes me fairly worried is economic crises; knowing how difficult they can make it for a family, they are bad." (Boy, 15-16 y.o., FGD LV 5).

Adolescents in the same group as above generally expressed a medium-level concern about natural disasters. "Volcanic eruptions, because if I actually lived next to a volcano, it would be horrible for the city you live or were born in to disappear. Fire, because it's not nice to see how people lose their house because of a fire, and they don't have anywhere to live, to go." (Boy, 15-16 y.o., FGD LV 5). Another boy expressed his concern for disasters deriving from human action: "I am concerned most of all about people destroying the world and humanity, because modern technology can be used for evil, and I worry that at any time one can press the red button, leading to a global catastrophe." (Boy, 15-16 y.o., FGD LV 5). When asked specifically about the natural hazards that they think are the most serious ones, a group of adolescents mentioned: storms; fires; frosts; floods. One participant also referred to water supply shortage: "Many regions of the world already feel it strongly, we hear about it and watch it, but it can affect us as well." (Adolescents, 16-19, FGD PL 2). Again, adolescents showed concern also about disaster risks that are not immediately threatening the place where they live, demonstrating global outlook and deep awareness.

Interestingly, when asked by facilitators what are in their views the most likely disasters that one can experience in the country where they live, none of the participants listed war or terrorist attacks. They referred

to COVID-19 and economic crisis in first place, and to traffic accidents and air disasters secondly. (Adolescents, 15-16 y.o., FGD LV 7). Thus, these adolescents seemed to be mostly concerned about a war, although none of them thought it was likely to happen where they live. They explained the reasons behind their ranking of concerns. "War is the highest, it's a very bad thing. Wind or tsunami is at the bottom because we do not get these." (Girl, 15-16 y.o., FGD LV 7). "War is the biggest one, because an economic crisis can happen during a war. I am afraid of earthquakes, traffic accidents, air and other disasters. Wind least of all, because you can hide, and it'll affect you less." (Girl, 15-16 y.o., FGD LV 7). "I mostly worry about war, because it can happen unexpectedly, and the entire world will worry about it and panic, and nobody wants that. That's what worries me the most. Least of all, it's wind and other natural phenomena, which also almost don't concern me." (Girl, 15-16 y.o., FGD LV 7). One boy answered: "Economic crisis is the highest, and tsunami is the lowest, because we don't get these in Latvia." (Boy, 15-16 y.o., FGD LV 7). However, after the resuming of the war in Ukraine, war was perceived as a more concrete threat: "There were fears that Russia might come to us", stated one participant to a FGD held after February 2022. (Adolescent, 12-14 y.o., FGD EE 2). Similarly, another participant: "Maybe it's the fear that this current war may come to Estonia as well." (Adolescent, 12-14 y.o., FGD ES 2).

Some participants seemed mostly concerned about the disasters that they had direct experience of. For example, an adolescent said: "Well, some bigger storms. There have been such storms recently. I don't know if all of them are bigger, but recently it's getting more and more serious." (Adolescent, 16-17 y.o., FGD PL 4). Another participant stated: "There was a situation a month ago, that there was a storm – pretty heavy – there was a discharge, which hit in the chimney at the gas stations. There was no gas. All night and all day and it was cold. The whole neighbourhood had no gas at all and it was just cold. And there was no electricity, everything was disconnected." (Adolescent, 16-17 y.o., FGD PL 4).

Similar answers and views on what disaster risks are more concerning were provided also by young adults interviewed as part of the Pre-Study. When asked what disasters situations, among several types mentioned by the facilitators, scare them the most, a group of young people aged 18-24 seemed to be mostly concerned about war, nuclear bomb explosions, and terrorist attacks. "If a war breaks out, we will all be involved somehow. My family member is in the army right now, and I know that anything could happen. It'd be crazy." (Girl, 18-24 y.o., FGD LV 6). As for pandemics, participants expressed different opinions: some of them rated it as a high concern, "because all I hear is COVID-19 restrictions, all the time." (Boy, 18-24 y.o., FGD LV 6). Most participants rated it in a middle or low place for apparently the same reasons: "The pandemic is in the middle for me, because I hear about it all the time." (Girl, 18-24 y.o., FGD LV 6). Thus, it appears that 'getting used to' a disaster can have different impact on individuals and their perceptions of its seriousness. Natural disasters did not seem to rank high in a scale of concerns for the young people involved in FGDs. One participant referred to wildfires, because "you can't predict, [it] happens quickly." (Girl, 18-24 y.o., FGD LV 6).

Another girl emphasized that the scariest life situations for her are, however, "disasters in your life", that is, crisis that occur at the individual and family level, "because I've seen many people who had so many things happen to them that they don't care what's going on around them. They're not just interested anymore. We have had something like that in my family; I've seen it, so it's at the top for me." (Girl, 18-24 y.o., FGD LV 6). Thus, it appears that experiencing personal and family crisis may detach young people (and people in general) from what happens at the broader societal level.

Sources and emotional impact of information

Findings obtained as part of the field research concerning the sources through which children and youth receive information about disaster and risks relate mostly to the phases of risk assessment, prevention and mitigation, and preparedness and response. Apparently, information delivered to children and youth in this domain usually covers all these three phases simultaneously (albeit not necessarily in an exhaustive manner). While children and youth's level of information and perceived capacity in relation to DRR activities – as well as how to enhance these - will be explored later in the present report, this paragraph focuses on the sources of information on disaster and risks that children and youth currently access and rely upon.

Several sources of information on safety, risks and disaster were mentioned by children and young persons interviewed as part of the Pre-Study. These include: school/pre-school teachers; parents, older siblings and other family members; practitioners (fire-fighters, municipal police etc.); and the internet.

While they are aware of the fact that disaster-related information can be found on the internet, younger children seem to rely mostly on information delivered at school and in the family. When asked by a facilitator who told her about what to do in case of wildfire, a girl answered: "My family told me and my teacher, I also watched a video on what to do." (Girl, 9-10 y.o., FGD LV 1). Another girl from the same group echoed: "My parents and my big sister, and teachers told me, and we also watched different videos about fire at school." (Girl, 9-10 y.o., FGD LV 1).

Information that young children were provided with in the school setting seems to be mostly focused on daily safety concerns, such as wildfires, road safety rules and similar threats. For example, on child explained: "I was told in kindergarten not to hide behind tables when the alarm sounds. Get dressed and get out of the classroom. But if the place where you change your clothes is on fire, you have to go through the metal door. All kindergartens have them." (Boy, 7-8 y.o., FGD LV 3). Another boy similarly stated: "We learned in

kindergarten that you can't open doors or windows, otherwise the fire could spread everywhere." (Boy, 7-8 y.o., FDG LV 4). Another child explained: "I've been told about this at school. [...] In first year of social sciences, we had a test, and it said there that you shouldn't play with an iron, and we had to colour all dangerous things red." (Boy, 8-9 y.o., FGD LV 2).

Sometimes, information is received in the school setting through written messages. As a girl explained: "I haven't seen it and I haven't studied it [how to react in case of a wildfire], but I've looked at the pictures when I walked out the gym. There is, if there is a fire or something burning, there is a little handle, and you have to push on it and a little black tube and where the fire is burning and there you have to let the little bits go." (Girl, 7-8 y.o., FGD LV 4).

Children of young age also referred to internet as a source of information in this domain: "I actually searched on the internet and looked it up", said a boy while talking about wildfires. (Boy, 7-8 y.o., FGD LV 4). However, it is for adolescents and young adults that internet becomes the main source of information in the DRR area. "Internet is the most comprehensive medium and what we observe in it draws our attention and it's a source of knowledge", stated one participant. (Adolescent, 16-19 y.o., FGD PL 2). Another participant declared: "If a person wants to find something on the internet, he will definitely find it." (Adolescent, 16-19 y.o., FGD PL 2). Not only the web seems to be the source of information and news that older children most often and easily access, but also the one that they trust the most. A participant from a different group explained: "Now everything is often done via the internet, also, for example, on Facebook, what is happening is published there [...]. Everything is described so that different people can see it, but it's also reaching people in general." (Adolescent, 16-17 y.o., FGD PL 4).

However, a group of adolescents largely agreed that these topics "should be covered more in schools, because young people spend the most time there and we collect various information from there so that our knowledge is bigger. The appropriate teachers should inform us of such dangers." (Adolescent, 16-19 y.o., FGD PL 2, p.3). Another participant went on saying: "I don't know whether a dedicated class should be created, but it would be at least necessary to cover strictly ecological education, not geography or distinguishing trees, but how to influence and save the planet and us living on the planet." (Adolescent, 16-19 y.o., FGD PL 2, p.3).

Thus, while being habitual users of the internet, adolescents seem to acknowledge the importance of school as a setting in which they may learn appropriate information on safety and disaster. As a participant stated: "Well, in fact, from an early age, they teach us what we should do in some situations and with time it stays in our head. Even when it's sometimes boring, but you never know if it won't be useful at some point. Life happens and sometimes such things are useful, and rather everyone would know how to do it, if previously someone else somehow passed it on." (Adolescent, 16-17 y.o., FGD PL 4). The above opinions seem to further shape up as adolescents grow into adulthood. A group of young people aged between 19 and 24, when asked where they search for information about safety threats, stated that, besides the internet, they would rely on paramedics through direct contact for medical information, and that they generally tend to trust more people they know personally. Some participants also mentioned specialist studies and expertise among relied-upon sources. (Young adults, 19-24 y.o., FGD PL 1).

In the countries covered by the Pre-Study it appears that awareness raising and education concerning disaster, risks and safety for children and youth should be a compulsory part of the school education. Modules should be delivered in different school grades and at university. However, it is not clear to which extent have these provisions been implemented in practice, and what the outcomes are. (II LV 1).

Stakeholders involved in individual interviews seemed to be mostly aware of the sources of information on disaster and related topics that children and youth rely upon. Speaking about the setting in which children and youth should receive information about risk and safety, one respondent working in school stated: "Schools undertake various types of programs related to ecological, economic, and human threats – such as aggression, attacks, and fires. [...] Students are also involved in various educational programs. This [school] is, in my opinion, the most comprehensive environment to inform children. The second environment is the family, although it's different there. Various types of NGOs might be another place, e.g. scouting and many others, like institutions that deal with extracurricular education of children and youth. As next, I would mention the mass media – internet, television. Newspapers rarely, children don't read the press until they reach high school age, they focus on social media and TV." (II PL 4).

Another stakeholder highlighted that in any case, it is important to prepare teachers to deliver the above-information, so that it does not become "a checkbox activity." (II LV 1). "It really depends on the teachers because the teacher has to have the right mindset, to look for the right information. They know where they can find information, for instance on electrical safety, so it is up to them to look for more." (II LV 2).

Speaking about DRR information that children and youth receive at school, one respondent highlighted that there is discontinuity in the way this is approached and delivered to them. Referring to the context he is familiar with, he stated: "Until third grade of primary school, education of young children works very nicely, and then there is a gap till high school. Such information would be at least partially forgotten before it appears during Education for Safety class. At the beginning of education, a lot of attention is given to this topic and later on – almost not at all. Because there is such a gap, the kids either create certain attitudes from the beginning and follow them later, or they completely forget about it as it's discontinued. Then comes the teenage rebellion and problems with reaching teenagers with information." (II PL 5).

Both children and youth on the one hand, and other stakeholders on the other hand, were asked about what the impact of information on disaster and risks is, and whether receiving it is scaring and paralyzing for children and young people or, conversely, it is making them feel more secure and even motivated to help.

When asked how they felt when they watched videos about disaster events, a young child said it was "scary", and another one said, "it was sad to watch". He further articulated: "It frightened me that someone was like them, riding, and it frightened me that I was sorry for the person who rode the bike on a normal day and then was killed." (Boys, 9-11 y.o., FGD ES 1). Another participant added: "It was frightening when a tank drove over a person's car, but fortunately the person survived." (Boy, 9-11 y.o., FGD ES 1). Another participant said that he had "a bad night's sleep because of that", of having watched such a video. (Boy, 9-11 y.o., FGD EE 1).

Adolescents of various age groups reported different emotional reactions following exposure to information regarding disaster risks. When asked whether information about impending threats is perceived as mobilizing or paralyzing, an adolescent answered that in most cases, information about dangers is paralyzing: "It's often heard that it's too late to react, that the world will be destroyed, then it's difficult to mobilize, because this process has already started and it's paralyzing and demotivating." (Adolescent, 16-19 y.o., FGD PL 2). One participant in a FGD explained how this information can at some point become overwhelming: "I have such periods in my life that I read books about global problems, watch science and documentary films with related information. Then I live by it very much, encourage my family to change their habits and share various information. I also have such periods in my life that I just don't want to worry about such information, [...] I just put it away." (Adolescent, 16-19 y.o., FGD PL 2).

This reaction could also lead to withdrawal. For example, as another young person stated, "I don't have the time and will to just check it out of curiosity [...] I can do a lot of other interesting things in my spare time, and I want to use it differently than learning about the dangers." (Adolescent, 16-19 y.o., FGD PL 2).

Conversely, an adolescent stated that the primary kind of help he would hope to receive in the event of a disaster would be timely and adequate information: "Information about what's going on. That we are most afraid of what we do not know. In other words, the more we inform ourselves in this sense about what is going on there and how it will develop, then I believe that we will understand ourselves best, and then perhaps we will not be so afraid." (Adolescent, 12-14 y.o., FGD ES 2). Similarly, another participant reiterated that "the more we learn all sorts of so-called preventive actions, and then we use them either on a daily basis or when necessary, I think that's the best way to do them." (Adolescent, 12-14 y.o., FGD ES 2).

Other participants expressed a more nuanced position. When asked about how he felt when they received safety training, a participant in a FGD explained: "Yes, when I first heard about first aid [...] – I think it was in third or fourth grade of primary school – I was terrified. I should press someone's chest? What if I break their bones, then what? So, I was scared, but then, when you hear about it again, when you train more and more, it becomes normal. It becomes obvious that human life is priceless, and you need to save it." (Adolescent, 12-17 y.o., FGD PL 5). This suggests that regular training not only is more effective in terms of building capacity, but it also decreases the potential negative emotional reactions among children and youth who are trained.

Stakeholders from different organizations interviewed as part of the Pre-Study offered interesting insights about how to ensure that information on disaster and risks is provided to children and youth in a way that it does not scare them but rather makes them feel empowered.

First of all, information should be delivered by informed and competent individuals. As one respondent stated: "In order to reassure younger children, it's necessary to indicate what are the risks, how to deal with them, how to protect yourself. You have to present specific tasks that need to be done. But it's also important to emphasize that the crisis situation will pass and then we'll slowly return to normal." (II PL 4). Further, a respondent stated, based on his direct experience: "It depends on how we deliver information – we never scare children. If we scared them, when the child sees smoke somewhere, he or she will be scared and panicked, and it may simply be the smoke of a campfire or a field kitchen. There's no point in scaring. We try to make children feel responsible and that they need help. For example, by informing about the dangers. Or knowing what needs to be done at the moment. [...] The smaller children who thought they did everything right, they were proud of themselves that they know how to behave." (II PL 2).

The above-information has to become, in a way, complementary to the discussions that children and youth are part of in other settings. Taking the example of the armed conflict in Ukraine (just resumed at the time of the interview), one respondent explained: "Even if young people talk to someone about the war (parent or peer), it may not improve their sense of security. Keeping calm while explaining and presenting facts influences the child's understanding of the problem. If a child doesn't have adequate support, he is lost in such emotions, he turns himself on, experiences something that is associated with pain and suffering." (II PL 3). Thus, a lot of difference is made by the way information is conveyed.

Secondly, information needs to be tailored to the specific audience, and delivered in a way that it is also interesting to children. As one respondent stated: "It's said that activities that contain an element of suspense, plot twist, and a humorous element are more effective. They reach the mind better and last longer than an element of intimidation." (II PL 1). Another respondent explained: "When the class is well prepared, it motivates the kids. If it's adjusted to their level of understanding, it doesn't frighten them, they are somehow imbued

with it [...] If this information is given, for example, through play, it doesn't scare them and it falls in children's memory. The question is whether it's continued afterwards". (II PL 5).

Another stakeholder reiterated: "No, I don't think it scares them. [...] Because the world is really a sad or harsh place, all sorts of bad things happen, we can't be prepared for everything, of course, but the fact that we talk openly about issues and some concerns, then that already develops tolerance in people or some kind of thinking or some kindness and goodness. [...] Because if we didn't talk about it, children and young people wouldn't really know where to turn to and what to do." (II ES 2).

Managing to properly inform children and youth without scaring them is, however, challenging. As one respondent observed: "Just speaking about theory without showing some visuals is not getting to the children, because with the support of visuals they understand much better. But showing the visuals is frightening." (II LV 1). It is suggested that perhaps this obstacle can be overcome by informing children and youth "through some games... but it's tricky because they might understand that this [disaster] is not true. It is easier to say what not to do than what to do." (II LV 1). One suggestion this respondent had, based on a concrete project experience of involving children and youth on the topic, is to inform them by asking questions on "what they think, and they know about disasters, because children have imagination", and they seem to learn a lot through such a process. (II LV 1).

Another respondent suggested that children are particularly interested in information related to extreme disaster situations: "Well, they definitely wanted to cooperate. My observations are as follows: the more drastic the topic, the more children become interested in it." He concludes: "Anyway, this is how it works in general. Something drastic gests more in memory than something trivial, right?" (II PL 7). However, this may not apply once the disaster threat is closer to children. As one stakeholder explained: "If the information is about a threat that is far away, which doesn't directly affect them, then it's much calmer. On the other hand, in a situation when this threat is quickly approaching or is already at hand, the fear and anxiety are greater. Examples are the COVID pandemic and the war in Ukraine." (II PL 4).

Children and youth's ability and willingness to engage in DRR

Children and youth's sense of solidarity and willingness to cooperate

Most of children and young people interviewed as part of the Pre-Study showed great empathy and willingness to help. Even very young children aged seven or eight, when confronted with an imaginary disaster situation, seemed preoccupied that someone or something may become hurt, damaged or remain trapped in that situation, namely: parents; siblings; and pets. (Children, 7-8 y.o., FGD LV 3). "I would not walk by", declared a child. (Boy, 7-8 y.o., FGD LV 3). Another child said that, if she was walking past a river in winter with icy surface, she "would tell the kids it's dangerous [...] to leave the ice". (Girl, 7-8 y.o., FGD LV 3). They seemed determined to help anyone, including people they do not know (FGD LV 3). "Even if it's a stranger, you have to help them", a girl stated. (Girl, 7-8 y.o., FGD LV 4).

A group of children aged eight and nine reacted in a similar way when handed with a picture of a fire and a of child crying: "I think he worries that his parents are inside, that he's alone, and has no one, and that the house will burn down, and no one will save him maybe. And he doesn't have a phone to call the fire service, and he is too young, and can't really think of anything." (Boy, 8-9 y.o., FGD LV 2). "I also think he worries that there's someone from his family inside, and about what to do. What he can do." (Boy, 8-9 y.o., FGD LV 2). When asked what they would do in such a situation, a girl said: "I'd ask an adult for help, and if I was inside the house, I'd simply tell everyone to run outside, and take my cat, which I love the most in the whole world. His name is Piča, and then I'd run away." (Girl, 8-9 y.o., FGD LV 2).

Indeed, children resolutely showed empathy and willingness to help in the event of a disaster or accident. A girl from a group of children aged nine to ten was presented with the following hypothetical situation: "You are on your way home from school, and you see that an old lady is laying on the road and her leg is broken." She said: "I would help the lady to get up and would call 113 (emergency), I would look for an adult, who could help and call 112." She specified: "I would not leave her there." (Girl, 9-10 y.o., FGD LV 1).

The same attitude was encountered among older children. An adolescent attending a FGD stated that he sees himself and other peers as capable of helping others in a disaster event, by providing some concrete examples: "I think we can help neighbours in general, even in a block of flats. Sometimes, when there are downpours or storms, we inform about it. For example, older people, if they know, if they have checked that everything is secured." (Adolescent, 16-17 y.o., FGD PL 3). When asked what they would do in the event of a disaster, a group of adolescents answered that they would "escape" to a safer location, but also "help those who need more help." (Adolescent, 12-14 y.o., FGD ES 2). When asked to explain who are the ones most in need, the above-participant further articulated: "Certainly, if there is a major disaster, it is certainly those who need medical help, for example, we have also been taught rudimentary medicine to catch major bleeding and all kinds of bleeding until they can be taken to hospital or to a professionally trained doctor. Yes, it would mainly help those in need". (Adolescent, 12-14 y.o., FGD ES 2).

Children and adolescents seemed to have quite strong opinions about helping others in difficult situations. They do believe that this is the right thing to do. A group of children aged between nine and ten were asked about why it is important to help others in the event of a disaster. They provided different justifications for

that: "Because they need help, and we cannot just pass by. We citizens need to do that." (Boy, 9-10 y.o., FGD LV 1). "I think that I need to help people because I might have a difficult situation in life as well and you would like to have people around you who would be ready to help you." (Girl, 9-10 y.o., FGD LV 1). "You should help, because if you help, others will help you as well. If you do not, you will not get help." (Girl, 9-10 y.o., FGD LV 1). "Need to help because everything comes back to you." (Girl, 9-10 y.o., FGD LV 1).

When asked whether anyone encouraged them to help other people, children mentioned their parents, and teachers. (Children, 9-10 y.o., FGD LV 1). "Mum and dad", said a child. (Girl, 7-8 y.o., FGD LV 4).

However, a girl clarified: "I know myself that I should help." (FGD LV 3). As another girl declared, "it's very good to help, it's from the good side, not the bad side." (Girl, 7-8 y.o., FGD LV 4). One girl stated that it is good to help in disaster situations "because it makes us happy." (Girl, 7-8 y.o., FGD LV 4). When asked what he would say to those people who do not help instead, the same girl said: "I would tell them that they themselves will feel bad afterwards for not helping. Yes. they will feel bad." (Girl, 7-8 y.o., FGD LV 4). Another girl answered: "I would tell them to start helping because they are showing a bad side of themselves." (Girl, 7-8 y.o., FGD LV 4).

Among the reasons why it is good to help someone who is in danger, a child also mentioned: "The other person will help in return, but only those who've helped that person." (Girl, 8-9 y.o., FGD LV 2). Another boy added: "Well, because you feel better after you help them." (Boy, 8-9 y.o., FGD LV 2).

An adolescent expressed the positive feelings that derive from helping others, highlighting how children and youth sometimes are happy to perform tasks that adults perhaps regard as too simple in a disaster situation: "I'm very often proud of how we can operate. How often children can come and help in such things that adults wouldn't like, because maybe they would prefer more ambitious tasks, and such basic work is often much more important. In such situations, many people can help – in these simple and complicated situations. When they donate their time and opportunities, I feel proud and want to do more. It just drives one another. When I see that someone's situation has improved thanks to small gestures that I make or initiated, I want to do more because I can see how it affects someone." (Adolescent, 16-19 y.o., FGD PL 2).

A group of adolescents interviewed after the beginning of the war in Ukraine in February 2022, proudly provided accounts about their recent experience in helping refugees with material aid. For example: "Receiving parcels, when people came with things, we collected parcels, then we sorted it for sweets, other food, etc. Packing parcels at the beginning. Later distributing them. Here, too, we prepared accommodation for the refugees because they were supposed to sleep at the fire station." (Adolescent, 12-17 y.o., FGD PL 5).

Similarly, a group of young adults expressed their willingness and interest in joining organizations providing help to other people in needy situations. One participant stated: "I like helping people and getting positive emotions from them in return; it's brilliant. If I could join another organization that helps more vulnerable social groups, I'd be happy to do that. I like providing assistance because if I enjoy the privilege of being healthy and able to do things, why shouldn't I share that benefit with other people who don't have it and need help." (Girl, 18-24 y.o., FGD LV 6). Similarly, another girl said: "I'd be happy to help, because you can get good skills there, and get a chance to use these skills in helping others, which is also a benefit." (Girl, 18-24 y.o., FGD LV 6). As a participant explained, "it's about information and knowledge for your own personal growth, but it's also something that you can teach others. That's how our society gets better educated." (Girl, 18-24 y.o., FGD LV 6).

In sum, children, adolescents, and youth believe that helping others in need is absolutely the right choice, for a number of reasons: because they will help you when you need; because it makes you happy, feel good; and because if you help, you are a better person. As one participant summarized: "There must be more social support and more sense of unity, to demonstrate trust towards each other, and that if a bad situation happens, we can overcome it as a country and as a community, depending on how big the disaster is. So, people supporting each other would be important here." (Girl, 15-16 y.o., FGD LV 5).

Adult respondents interviewed as part of the Pre-Study expressed mixed opinions about whether children and youth are being taught and helped to develop social values, such as cooperation, participation, solidarity, and therefore being encouraged to engage in the event of disasters or accidents.

Among the barriers to children and youth's involvement in DRR (that will be explored in greater depth below in this report), one respondent pointed to the limited volunteering culture in the country where he lives. (II LV 2). Similarly, another respondent stated that in his view, children and young people are not sufficiently encouraged to join volunteering groups and activities: "There is no sufficient government narrative or local government involvement. You don't hear in the media: 'get involved in volunteering. You may benefit from it, it's part of your psychological development and the development of your skills.' It doesn't necessarily have to be disaster or emergency volunteering, but anything else." (II PL 1). He also stated that volunteers' organization often do not make it clear to the community what are the avenues to enroll in a volunteering activity: "I know a lot of people have lost their commitment to voluntary work. They just didn't know how to get involved in a voluntary activity. They had no knowledge, no one to support them. So, they didn't get involved." (II PL 1).

A respondent suggested that the values of empathy and solidarity are not sufficiently promoted in the society more broadly. "We are currently quite selfish", she stated. (II PL 5). Similarly, another stakeholder explained: "I think that I see it less and less often that children

want to cooperate with each other. Everyone wants to be treated individually, everyone wants to be a star and build their ego. Be a leader in the group." (II PL 8).

However, most respondents were aware of the potential to engage children and youth in volunteering, in the DRR sector and beyond. "I think that children and young people really want to help and feel appreciated, do something for others", a respondent stated (II PL 1).

One respondent suggested that school should foster cooperation among children and youth: "This is definitely something that needs to be taught at school. And just that you, as a teacher, also take the responsibility, that you create these small groups all the time, that you don't let them emerge on their own, so to speak, where you have your own groups of friends, but that you also learn to work with those you may not be the closest to on a daily basis or who may not be the most sympathetic to you. And it helps, all our anti-bullying activities should encourage this. That you consider others." (II ES 3).

Another respondent explained: "A child finishing the eighth grade is assessed in a point system for his achievements and one of the criteria in which you can get several points is the so-called volunteering. And the schools themselves organize, give the possibility of such voluntary work, whether it is reading to children in kindergarten or telling them about a passion. [...] We are talking about normal conditions before the pandemic. There are social welfare homes, nursing homes, most often in the same district, and animal shelters. And yes, most of these kids, teenagers, do it for these few points. On the other hand, I also know that many of them stay in it, knowing that they won't get any point of it, but they see the sense of action." (II PL 9-10).

Other respondents, though, pointed to different settings in which children and youth can develop and experience solidarity and cooperation. One respondent believed that school is not the right place to support children and young people in developing attitudes such as solidarity, empathy and cooperation: "When it comes to soft skills, the school isn't always the place where they are shaped. Most school approach the learning process more didactically than behaviourally – there's little time for this type of activities. [...] But I don't know if this is wrong. Maybe that's good, maybe that's what makes the third sector different from school. We don't hear about school classes going to the borders and helping, but scout groups are." (II PL 4).

As another respondent stressed, "what makes children and young people aware of the dangers around them is their involvement in the third sector, volunteering, including participation in activities of youth fire brigades or scouting. Moreover, they prepare them to respond to these threats, and not only in the form of self-defence, but also to help others after the emergence of these threats." (II PL 1). One stakeholder described her experience working with youth at a national voluntary defence organization: "So that if there were a major crisis or an issue, they could be counted on. It's another thing that we're now talking about in the framework of our organization, that we're going to survive whatever the time, whatever the crisis, with the idea that the most important thing is to continue with the training, with coming together, with your group of friends, with your acquisition of things, because that's like the foundation, you can build everything else on it." (II ES 1).

DRR activities that children and youth could be involved in

Across all the FGDs and individual interviews held as part of the present research, it appeared that children and youth do not receive much support by adults in forming their views about ways in which they could contribute towards DRR actions. Despite recognition of the benefits that they would bring to the area (which are highlighted further below), apparently there are no mechanisms to regularly involve children and young people on an ongoing basis, nor to help them figure out and express the ways in which their involvement in DRR could take place in practice.

Nevertheless, children and youth were in fact involved in some activities relating to DRR. Moreover, children and young people themselves, as well as adult stakeholders, had several ideas about how they could potentially be further and more extensively engaged across the DRR cycle. As one respondent stated, "if they are taken as equal partners, they are given things to do, then they will do it, they really want to..." (II ES 1). This belief was echoed by several other interviews held as part of the Pre-Study.

Risk assessment

As highlighted previously in this report, children and youth demonstrated an ample understanding of the concepts of risks and disaster, across all age groups involved.

Raising awareness among the population about existing safety risks is one of the areas in which adults seem to rely more clearly and explicitly on children and youth's active contribution.

Adult respondents emphasized children and youth's skills and capacity to raise awareness among other people living around them. One stakeholder said that "they are skillful communicators and can spread information in many environments more than adults." (II ES 1). Other interviewees confirmed that: "Teenagers really can educate other members of the public, passing on the information they obtain." (II LV 4). "When it comes to children, the first group that – in my opinion – they can pass on information is the family, friends. And children are still curious, they start asking questions, they start to tell stories and they make older children think. They can role-play disaster scenes." (II PL 9-10). In this regard, children allegedly play a vital role in spreading information about safety and risks: "Yes, of course. [...] If we inspire children to be better prepared for everyday events or a catastrophe, then they will inspire family members as well. The safety of the whole family will be improved." (II PL 1).

One respondent emphasized that family members would be more open to trust information delivered by their children than by institutions: "We are able to reach adults thanks to the fact that we reach children and adolescents. We teach them about carbon monoxide detector or a threat of some greater caliber which requires informing parents and preparing not only children in the event of such threats. It's about reaching people I don't know myself, who can't be convinced, who don't trust state institutions and are not able to do so on the basis of State recommendations." (II PL 1). He later added: "Adults will trust their children sooner or will give in to their children rather than State institutions." (II PL 1).

Similarly, another stakeholder stated: "Working on prevention is vital, because if we are to change anything in public safety, we must start with children. They are still flexible in their perceptions and open to new information, and you can actually find them in schools. Police have much fewer ways of teaching things to older people: you can run advertising campaigns, but you can't communicate with everyone individually." (II LV 8).

Stakeholders made some examples of how such information spreading works: "Yes, we see this, if it's about fastening your seat belt in cars, for example. Teenagers get this information at school, and then point out to their parents that they should fasten their seat belt." (II LV 8). Confirming that children "often pass on to their parents and siblings what they have learned" on risks and safety, a respondent made an example of such passage: "Children got reflective elements. I saw a lot of reflectors from this action in the city, but I absolutely didn't know the people who wore them. We created the need to wear reflectors in the children, and the children distributed these reflectors to parents, siblings and grandparents." (II PL 2).

One stakeholder, though, was pointing to the obstacles that sometimes children and young people may face in raising their parents' awareness about risks and safety. "Today, unfortunately, more often than before, there are parents who have their own ideas, ideas for certain dangers. It's often overheard, unprofessional, repeated untrue or half-true knowledge. What the parents say and what the children hear at school collide then. As a result, the child doesn't know how to behave. [...] The smaller the child, the more susceptible he or she is to what the parent says – to him or her the parent is the most important." (II PL 4). This respondent believed that only older children, namely adolescents, are able to stand for their positions against their parents' ideas, based on the education received at school. (II PL 4). Thus, he thought that school and family need to cooperate in that regard: "Therefore, it's important to prepare a meeting with parents before undertaking such activities, especially with young children. To act aligned and avoid discrepancies. Define a common goal – protecting our children and shaping appropriate attitudes so that they can cope with each other in an emergency." (II PL 4). The importance of involving parents in the work in the DRR area that children and youth engage in will be discussed in the next sub-paragraph.

However, children and youth's potential in educating other members of a community is apparently not limited to their parents and siblings. As one respondent explained: "Even if there is an action or a campaign organized by the local government, it's faster to reach these participants through the school [...]. And it is only through these kids that we're reaching not necessarily parents (who are active), but seniors, staying at home and not going out, as not all of them are involved in the university of the third age or some senior group. So, it's possible not only to pass leaflets or materials through these kids, but also to talk to these older people (especially from rural areas) and pass the knowledge to them." (II PL 9-10).

Therefore, children and youth appear key to spread safety and risk information among individuals and groups that are harder to reach. As another respondent stated: "When it comes to children and adolescents, we didn't mention it before but it's obvious: social media. You can check if there is a fan page created for some groups or some organizations. Even though they don't belong to the group, the residents are observing all these events. Such content spreads the fastest now, spreads out and reaches specific groups. [...] Well, through these children and young people we reach excluded people. On the one hand, they have these elderly, infirm grandparents who never leave the house. But on the other hand, through an interview with this child, he is able to tell us who lives alone in our town, nearby his street. By such interview we can develop a map of such people and then reach them. Either with leaflets, with some help, or with some information." (II PL 9-10).

In some cases, the child and his or her parents may themselves be socially excluded. One respondent teaching at a "school for children maladjusted to life in society" answered: "I think they could pass the knowledge gained at school or in workshops, pass it at home. [...] Taking into consideration the group I work with, it would be even more reasonable to equip them with such knowledge, because the house won't do it. And there are houses where children are more likely to suffer accidents. Because parents are often mentally ill, so they are not responsible enough." (II PL 7).

As part of the Pre-Study, several groups of adolescents were asked about whether they would want to deliver training on safety and risks to others. Generally, they responded positively, in the sense that they would be willing to deliver some trainings, but that this should happen after they master the required knowledge, and when they have the time to properly engage in such activities.

When asked whether they think they could play an important role in communicating about safety threats, a group of adolescents were very vocal in affirming that they think they could: "Of course. When something is happening in the world, or when we are surrounded by it, we can inform the local community through social media." (Adolescent, 16-19 y.o., FGD PL 2). In particular,

they felt that "it happens naturally" that they pass information on these issues to their peers or to younger children. (Adolescents, 16-19 y.o., FGD PL 2). Similarly, another participant stated: "I can help somehow, for example by Facebook posts, when it becomes public, everyone now has Facebook, scrolls it. For example, on Instagram, or in general in social media. Just like that." (Adolescent, 12-17 y.o., FGD PL 5).

Another group of adolescents aged 15-16 almost unanimously agreed that yes, they would like to inform others about safety risks, and it would be a doable task for them, but they should become more prepared and informed first about such topics: "Of course I would like to do it, everyone wants to help and so on, but I think that in order for us to physically do it and help others understand it, we need to learn it ourselves first." (Girl, 15-16 y.o., FGD LV 5). Another girl said: "I think that if we prepare properly and learn about specific practices for providing aid, we could manage it. Perhaps not as someone who does and manages everything on their own, but as an assistant. I believe this is easily possible." (Girl, 15-16 y.o., FGD LV 5, p.8). Similarly, a boy emphasized: "Before we teach anything, we need to learn ourselves." (Boy, 15-16 y.o., FGD LV 5, p.8).

One girl explained that she would feel confident teaching others things that she knows first-hand: "When you started talking about fire safety, I remembered that a while ago, I worked as a senior administrator at a hotel, and one of my duties was to brief new administrators on fire safety. So I have done this, and it's something that I liked and would enjoy doing, if I really know the building well, all entrances and exits, which was the case in that hotel, which I knew like the back of my hand, and where I could walk around with my eyes shut, then yes, I am prepared to show it and talk about it to other people, but if I switch to another place, probably not. It'd take some time for me to get used to the environment and get ready again. I like teaching people in general, so I'd certainly like doing this." (Girl, 18-24 y.o., FGD LV 6).

One participant remarked that they are rather busy during the school year, so they could indeed devote some of their time to this activity, but perhaps during the holiday period: "We're in year nine now, we have a lot on our plates, and I don't think that currently we can do anything like that. But, I think that in summer it could be done, gathering a group of people, friends, and maybe offer help around us, in our area." (Girl, 15-16 y.o., FGD LV 5).

Some participants highlighted that they would consider as particularly suitable and natural to deliver safety and risk information to younger children: "I'm getting a little sister soon, and I could tell the next generation about what I have experienced, for example, during the economic crises. I could talk about the fact that you shouldn't panic." (Girl, 15-16 y.o., FGD LV 7). "You can transfer the knowledge you get from videos and real events to younger people, and it'll be like training." (Girl, 15-16 y.o., FGD LV 7). A participant to a FGD highlighted that they could "teach [...] to young people", for example "to live in nature [...] with more or less minimal equipment." (Adolescent, 12-14 y.o., FGD ES 2).

A group of youth aged 18-24 expressed caution about the fact that organizing and delivering safety trainings entails a huge responsibility, and they should know very well the subject first: "I haven't done it, but if necessary, I could try. But I wouldn't want to, it's a lot of responsibility. I won't be able to do that unless I'm one hundred percent certain that I know how to do those things. If I teach a person something wrong, this could cost them their life." (Girl, 18-24 y.o., FGD LV 6). Another participant stated: "I haven't prepared any training in any of these fields, but I'd rather participate than teach." (Girl, 18-24 y.o., FGD LV 6). A girl admitted: "I've never taught anyone. And I wouldn't want to." (Girl, 18-24 y.o., FGD LV 6). Similarly, a younger boy from a group of adolescents said: "I sure would like to, but I don't know if I'm ready." (Boy, 15-16 y.o., FGD LV 5).

The above points to the need to empower children and youth through equipping them with the proper information, for them to be able to devise training for others, as well as to support them in finding the appropriate ways to deliver such trainings. As it will be described further in this report, children and young people believe that they need to receive additional information and education to be able to engage in any DRR activity.

Prevention and mitigation

The Pre-Study aimed to ascertain, among other aspects, whether and to which extent children and youth are targeted by awareness raising and education activities about risks and hazards prevention and mitigation, and if yes, in which settings does that occur, and also how children and youth themselves, as well as other stakeholders, regard and value such activities.

Based on children and youth's accounts, they generally seem to have received some training on risks and safety. However, these appear to have been focusing mainly on daily accidents, and to have been delivered occasionally rather than regularly.

A group of children aged seven to eight reported that they had been rarely trained on prevention and mitigation. When asked whether they would like the firefighters or the police to go and train them, some children answered yes and some others no. (Children, 7-8 y.o., FGD LV 3). In another FGD, children aged seven or eight mostly stated that they would like firefighters to come to their school and teach them what to do in case of a fire: "Yes, [we would] learn how to use the extinguisher." (Girl, 7-8 y.o., FGD LV 4). One girl, though, said she would prefer them not to come. When asked why so, she said she would find that scary. (Girl, 7-8 y.o., FGD LV 4).

When asked whether anyone has informed them about disaster risks and how, a group of adolescents stated that they received generic information on some occasions: "Rather about the risks of threats that may occur in general, but not for the specific region." (Adolescent, 16-17 y.o., FGD PL 3). Another group of adolescents

recalled that they had receive some training on some topics occasionally, namely: first aid; how to act if a wildfire starts; how to survive in nature. However, they were not sure about whether they would be able to apply what they had learnt to a concrete situation. Such trainings were allegedly provided by different actors. Some participants were members of the Scouts and Guides association; some others had done a first aid course when joining a summer camp, or indirectly, while assisting a parent taking driving lessons; a couple of participants could recall having received some training at school once or twice. However, all the above information seems to have been largely delivered on an ad hoc basis. One-off, not regular trainings, undertaken upon the adolescents' participation to some dedicated activities (a summer camp, joining a Scouts' association etc.), seem to be the norm, rather than a systematic programme to train children and youth on DRR, risks and safety. (Adolescents, 15-16 y.o., FGD LV 5).

Similarly, a group of adolescents aged between 12 and 17 was asked whether they received any training on disaster risks in their area. Some participants recalled having received education for safety in primary and secondary school. As for the topics covered by such trainings, they mentioned: "Chemical, local, national hazards etc. Plus, these natural disasters: floods, fires. Chemical contamination, radiation." (Adolescent, 12-17 y.o., FGD PL 5). At the same time, these adolescents stated that their parents had informed them about other types of dangers, mostly concerning the individual and family spheres ("To not put a fork in the socket. About the theft. Not to take candy from strangers." – Adolescent, 12-17 y.o., FGD PL 5).

When asked about whether they had received any training related to safety and risk management, a group of youth aged 19-24 responded that they had occasionally received some trainings (at work, at school, or before joining a specific activity like a summer camp), but they could not remember much about such trainings' contents. (Youth, 19-24 y.o., FGD PL 1).

It seems that, despite provisions to deliver training on safety and risks to children and young adults envisaged in the school curricula, and the efforts made by other actors (scout associations etc.), and also by parents, children and youth are exposed to such training opportunities occasionally rather than on an ongoing basis. As a result, children and youth do recall having received some relevant information, but their memories on the subject tend to fade with time.

The field research did not identify any example of children and youth's involvement in hazard mapping exercises. One respondent explained that, while he considers it adequate for children to provide feedback on prevention activities - for example on information sharing tools adopted to inform children - risk assessment plans are not something that, in his view, they should or could contribute to. (II ES 4).

The Pre-Study aimed to find out what factors influence, or could potentially influence, children and youth's involvement in prevention and mitigation.

One key area of discussion and suggestions provided by the interviewed stakeholders, as well as by children and youth themselves, revolved around the need to make information around risks and safety more interesting, and engagement in DRR more enticing, to children and youth.

Concerning the way in which information is presented and delivered, several interviewees pointed to the effectiveness of social media as a means to reach children and youth, possibly by avoiding written materials and prioritizing the role of celebrities and 'influencers'.

When asked what people or institutions should do to encourage or be responsible for informing and preparing the public, especially young people, for disasters, a group of adolescents aged 15-16 mentioned several actors among the ones they believe should or could do something in this regard. While some participants pointed to school and the Government, most of them agreed that the information needed for young people to be prepared to disaster situations should come through online social media, mainly through "influencers" and celebrities.

One participant stated: "Because social media has such an effect on young people, I think that just like companies advertise their products through influencers, we should involve people who have more power over the youth in tackling these issues, which would be good for both sides. So I think it could be influencers and social media celebrities." (Girl, 15-16 y.o., FGD LV 5). Another participant agreed with this girl, "because, really, there are individuals whose words have power and whom young people listen to more, whose opinions they pay more attention to, sometimes more than the opinions of their own parents." (Girl, 15-16 y.o., FGD LV 5). Another girl added: "I one hundred percent agree [...], and for young people today, social media is the hottest thing; that's where they learn about everything. Perhaps not from news websites [...], but from influencers; from people they draw inspiration from. They could really learn this information from those people." (Girl, 15-16 y.o., FGD LV 5).

Participants to the above-discussion also highlighted that they "do not think today's young people read a lot of news, while they do spend more time on social media" and they "find everything online." (One girl and one boy, 15-16 y.o., FGD LV 5). As one participant admitted: "I don't personally like to read [...] and it's much easier for me to get information through listening, as it comes from another person's mouth, and doesn't force me to read it." (Girl, 15-16 y.o., FGD LV 5).

The lack of children's interest for written information was reiterated by an adult respondent. He recalled having distributed brochures at school on safety issues and having later received feedback from children that they had not really read it. "Because, you know, there is a lot of text, nothing which attracts youth", he explains. So, he and his colleagues came up with an idea: they applied augmented reality to textual information: "If the youth use this application called 'Overly' - you can download it on your mobile - on one page of the leaflet, you can see the statistics, which grow up through the application.

On the next page, there is the early warning system, if you use the application, you can see a video, which is two minutes long, you do not need to read text. About the evacuation bag, you can see a bag with different stuff in there. At the moment we do not have financial resources, but we would like to put augmented reality on all these different subjects. That is to say that we try and find an approach which is suitable for the youth. That's the same in all areas – medical safety, electrical safety, disasters etc." (II LV 2).

Along the same line, when asked about what innovations could be implemented in working with children and teenagers on road safety awareness, another respondent stated: "You can find more and more educational materials online, and we need to keep working in this field. We must develop interactive methods to make learning engaging." (II LV 3). Another respondent emphasized the importance of social media as a source of information: "The internet evokes more emotions, provides more stimuli, has images, animations, recordings – it's easier to memorize it." (II PL 3).

When asked about what in his view influences the participation of children and young people to crisis management, a participant in a FGD stated that it depends on how such information is presented to them: "They need to be properly motivated to take action. If we don't present them with a specific goal, they won't feel like doing it." (Adolescent, 16-19 y.o., FGD PL 2). Another adolescent who volunteered for an organization called Young Eagles stated that "those who are not inside the organization, they are usually not interested in it." Thus, he highlighted that children and youth – unless they have a specific interest in safety-related activism – "have to be motivated." (Adolescent, 12-14 y.o., FGD ES 2).

Speaking about improving ways of communicating with children and youth on risks and safety, a respondent pointed out: "If we're talking about the youngest children, they like to play. [...] Older children need more practice. Fun is stupid to them. Here we should show real-life examples [...]. Certainly not a dry lecture, even led by a policeman, for example. It's often disregarded by young adults of this age. For a group of this age, the classes should be practical or concern people who have experienced the given threats, for example flood survivors. We're also facing a crisis of authorities. The world no longer believes a firefighter being a specialist in his field, an authority." (II PL 5). Another respondent brought an example from the COVID-19 pandemic, emphasizing that the Government's way of approaching youth was rather prescriptive, conveying prohibitions ('do not go out' etc.) but it wasn't appreciative of their contribution, it was not saying to them "we're counting on you, or your contribution is important for us to get through this, or something." (II ES 3).

Another stakeholder confirmed that the most effective actions are the ones "arousing their interests". For example, he explained, "we can start with games and activities, but in the case of older people – high school students, they can be involved in some more serious games in which they will have to play the role of decision-makers, etc. The forms are different, but the more activating [the better], so they leave a mark in the memory." (II PL 3). One respondent elaborated: "Children and teenagers can show a lot of interest, but that depends on who the person visiting them is. Government institutions and non-governmental organizations can come to school and talk about various topics relevant to safety. The quality of these speakers can differ very much, and the response from their audiences depends on how well the material is presented. Teaching is a very complex thing, and to keep the interest up, you need to include specific examples. It is quality that matters, and not the quantity." And she also stated: "The more in-depth you look at these issues, the more engaging and interesting they become." (II LV 6).

One respondent again emphasized that this information reaches them effectively "whenever it is presented attractively. It's crucial. If someone is boring, they won't be interested in this person, it won't encourage them, they won't get the effect. It must be an attractive knowledge that this potential person will open up to." (II PL 9-10).

One stakeholder stated: "I think it is worth instilling in children the need and skills to help others and to react." (II PL 2). Similarly, another interviewee asserted: "We must create events and activities that are engaging and interesting to young people, and not just based on how convenient it would be to hold an event. If young people get more freedom, and are reached through the channels that matter to them, such as online influencers, then there will be more interest and engagement. Formal events with specific questions attract less attention. We must make it possible for them to express their opinions, so that these can be used in making future materials, thus creating a positive feedback loop. Various competitions also bring in more interest if the winners are publicly announced." (II LV 6).

Hence, the need to actively engage children in training and awareness raising activities on DRR: "What works very well are activating methods, less these expository ones." (II PL 7).

Related to the above, another respondent stated that "working with children and teenagers calls for creativity and a personalized approach. [...] Furthermore, practical examples in the context of safety are more engaging for the young people themselves." (II LV 7). One respondent provided some suggestions on how activities to engage children and youth in risks and safety prevention could become enticing. She mentioned "theatre, performances, quizzes, and the use of films, all kinds of multimedia", as "children all the time live in the world of smartphones, computers and so on. It is also their world. Well, this is also the way of educating them and it is attractive to them. At school, we have interactive whiteboards where children solve quizzes using their phones. So, various kinds of modernity, activating methods, participation in performances, theatres, and workshops, that is through active participation, is a factor that makes such activities more effective. Plus, when someone from the outside comes, still wearing a

uniform, it is interesting in general." (II PL 7).

Making an example about raising awareness on road safety and the importance of wearing a helmet on bikes and motorbikes, one respondent suggested: "Pictorial experiments. We've done an experiment with an egg, the helmet is made of foam with an egg in it and if you show it's your head and it's a helmet and, what happens? So maybe things like that. It might illustrate it to bring a parallel to it, you don't have to show a horrible video where it's actually the inside of somebody's skull on the street somewhere, but maybe to illustrate it. And in other areas too." (II ES 5). As another respondent put it: "they would like to play and collaborate, but the point is that we have to propose actions that are not only based on dry conveyance of content, nor forcing the children to just read it. We should interact with different senses." (II PL 1).

Speaking about the focus of information that could and should be conveyed to children and youth, one respondent explained: "Usually when we talk about disasters, we have to divide it between daily safety and disasters. People [...] are more vulnerable to daily accidents than to disasters. We live in a country that is safer. Of course, we have meteorological and hydrological risk, or man-made risk, but daily accidents are what people are more vulnerable to." (II LV 2).

Similarly, referring to education on road safety, another respondent stated: "The response is particularly good among nine- to 14-year-olds, because this is the time when children start participating in traffic on their own, and they are interested and motivated in learning the rules." (II LV 3). A stakeholder observed: "I have the impression that there is a greater focus on 'everyday' threats, on fires, dangers related to carbon monoxide, and drowning. When it comes to major disasters, the topic is not properly emphasized." (II PL 1).

The Pre-Study did not find out precisely whether the alleged focus on daily, smaller-scale accidents - that apparently characterizes training and awareness raising among children and youth in the risks and safety area - is based on up-to-date knowledge and consideration about the disasters that are more likely to occur in the area where these children and young people live.

When asked about what improvements are needed for ensuring better safety among children and youth, a respondent stated: "We should involve a broader scope of specialists in our prevention activities. It would be good to increase our internal capacity, for example, setting up a position for someone who'd only be responsible for prevention. We should create projects, which in addition to official authorities, involve young people as volunteers, thus providing feedback." (II LV 7). Another respondent highlighted that "there must be a leader, the person who will attract, who will mobilize children and youth, who will be able to show that it makes sense; such person is always needed." (II PL 9-10). The above suggests that thoughts need to be devoted not only to the contents and means through which DRR-related information is delivered to children and young people, but also about which could be the best sources to do so, and what actors are better positioned to achieve the intended results.

Probably the one suggestion that received the widest consensus, and that was brought up consistently across different interviews, was to actively involve peers as trainers and educators on DRR actions.

When asked about what improvements and innovations could be brought to the work with children and youth, a respondent resolutely stated: "A good practice would be to introduce teaching by peers; children and teenagers learn much better if they are taught by someone just a couple of years older, and not by the teacher. The police could train a mentor who would then spread the information among slightly younger children and teenagers." (II LV 8).

As another stakeholder stressed, "they can speak to their peers on an equal level." He goes on explaining: "If I am standing in front of a group of children or youth and I am telling them a story about an incident, of course someone will get to think about it, but if someone from the youth is on a stage and gives a prepared speech or shares an experience, I think they [peers] would listen more." (II LV 2). One respondent stated: "There are some children who feel comfortable in speeches. And if they, instead of adults from these services, such as the Fire Department, Police, City Guard, could pass something on to other children, it would be more effective." (II PL 8).

One respondent reiterated the potential of peer-education, stating that "for the younger ones, the ones who are a few years older are big idols. So perhaps their impact would be greater there." (II ES 5). Another respondent cautioned that "we need to remember that adults don't speak the language of children and adolescents. Only the others who are able to communicate in a linguistic way in line with the trends that young people like. Young people should be consulted on all awareness-raising activities." (II PL 1). Similarly, a stakeholder emphasized that "children understand each other better than an adult understands children. Children can make other children easier to understand in some way, but we must teach them to look for appropriate sources of knowledge." (II PL 3).

When asked whether children and teenagers can educate other members of the society, a respondent answered: "Yes, absolutely, we can see this in various studies, and in the experience of other countries. One of the most effective approaches is the transfer of information from one teenager to another. Peers can be good ambassadors, as the opinion of peers is very important." (II LV 5).

Some adolescents involved in the Pre-Study shared the views presented above regarding the power and potential of peers as communicators on prevention and mitigation. One girl said: "I would listen to my peers as much as I would to my parents and other adults, because people of my age know how we think and understand stuff, and can better explain it to us." (Girl, 15-16 y.o., FGD LV 5). Another girl reinforced the point, stating that "young people are much better at getting information from people they share interests

with, and this is also important when we talk about the effect that influencers have." (Girl, 15-16 y.o., FGD LV 5).

A few stakeholders also suggested that parents should be actively involved by school and other institutions in training and raising awareness among children and youth on DRR. Speaking about preparing children and youth to disasters, a teacher highlighted that this is not only the school's responsibility, but that also parents should play their role and convey such messages and knowledge. (II PL 8). Another respondent also suggested that initiatives should aim to involve parents as well. (II ES 3). She also sees parents (and older generations more generally) as the ones who could remind children and young people about the fact that some disasters did affect their country in the past, for example war. Hence, they would convey the message that people need to help other people in need, because once they were the ones being helped. (II ES 3).

Preparedness and response

When asked what they would do in the event of a disaster, several young children involved in the Pre-Study demonstrated to have some clear ideas about actions that they and their peers could undertake.

A group of children aged between nine and ten, for example, mentioned different actions that they would carry out in the event of a wildfire, including: calling the firefighters; running to the neighbours and ask for help; running with a wet cloth on their mouth. (Children, 9-10 y.o., FGD LV 1). Also, children aged seven to eight spoke about what they would do in the event of a wildfire (the example of disaster that facilitators were showing to them in a picture). One child said: "I would run outside the house [...] So as not to burn." (Girl, 7-8 y.o., FGD LV 3). Other children of the same group mentioned that they would call the fire brigade, the police, the emergency service - albeit many of them did not recall the phone numbers of such services. (Children, 7-8 y.o., FGD LV 3). Children said that they would call an ambulance, the firefighters, as these services "come quickly; they come in 10-12 minutes." (Boy, 8-9 y.o., FGD LV 2). One child would know how to operate a fire-extinguisher, and stated that she would use it to put the fire out. (Girl, 7-8 y.o., FGD LV 4).

One boy added: "I'd run to the neighbours right away, and would say that I am too little, so that they can call the firefighters." (Boy, 8-9 y.o., FGD LV 2). Thus, while they appeared to have clear ideas about what to do, children also seemed to rely on others for help: "My parents would call the fire brigade" – said one girl. (Girl, 7-8 y.o., FGD LV 3). Another girl said that in case of a storm, she would ask the teacher what to do; she would also "tell someone in the family an ask what to do." (Girl, 7-8 y.o., FGD LV 3). A boy confirmed that "the first place [to go for help] would be parents anyway." (Boy, 9-11 y.o., FGD ES 1).

Children also stated that they would "run to every neighbour and tell them to get out of the house." (Boy, 7-8 y.o., FGD LV 3). They showed empathy and willingness to help others: "I'd tell someone older, and then somehow try and rescue people inside." (Boy, 8-9 y.o., FGD LV 2). Again, it is clear that children are not only prepared to help themselves, but also to help others.

Even when confronted with diverse scenarios of risks, children expressed rather clear opinions about how they should behave in that event. For example, if some children were walking nearby an icy lake surface, "I would say the kids should get off because it's dangerous. I would call the family of those kids. And I would help the children climb off the ice. And I would call an adult to help", said a boy. (Boy, 7-8 y.o., FGD LV 4). One girl explained: "I'd first tell them that it is dangerous, and tell them to get off the ice. Second, I'd help them do that, and call an adult to help." (Girl, 8-9 y.o., FGD LV 2).

If she were in a shop when the evacuation alarm sounds, a girl said: "First, I would do is I'll go out right away and leave my basket on the floor. I would go out and tell other people to go out. I will call 112 and tell them what happened. [...] I would not call someone in the family – mum, dad, someone else, what to do. I would rather not do that because I would be wasting my time then. I'll pay for my purchase and walk out, because I'll be wasting time asking the shop assistant or security guard what to do." (Girl, 7-8 y.o., FGD LV 4). In the same situation, a boy said: "First, I'd call 112 and tell them what's happened. Second, I'll leave immediately, leave the basket on the floor. Fourth, I'd call a family member, so that they come and pick me up, for example. Fifth, I'd leave and tell others to leave." (Boy, 8-9 y.o., FGD LV 2).

Speaking about a military conflict like the one unfolding in Ukraine at the time of the discussion, a child stated: "The first thing I would do would be to take my own things and then run, not run, but go into hiding." (Boy, 9-11 y.o., FGD ES 1).

The Pre-Study aimed to also ascertain whether children and youth are informed about preparedness and response actions that could and should be undertaken after a disaster occurs, whom they receive this information from, and in which setting(s). In general, it was difficult to distinguish - in the discussions held – between training activities aimed to inform children about risks and how to prevent them, and those focused on what actions to take in the event of a disaster. Often times, indeed, information that was allegedly offered to children and youth covered all the above-mentioned DRR areas.

When asked whether they received any disaster preparedness training, a group of young people aged 18-24 recalled some training events that they had attended at school, university or driving course classes: "Yes, Cadet Force came to our school, and we trained together." (Boy, 18-24 y.o., FGD LV 6). "We had classes at university, but they were not practical, theory only. Firefighters also visited my school, back when I was in year three or four, if I'm not mistaken, and they talked about some of the basic things that one should know about", another participant said. (Girl, 18-24 y.o., FGD LV 6). "First aid training at the driving school", recalled one girl (Girl,

18-24 y.o., FGD LV 6). Similarly, when asked whether they received any disaster preparedness training, a group of adolescents aged 16-19 mentioned having been enrolled in evacuation drills at school, and having received first aid training at work. (Young adults, 16-19 y.o., FGD PL 2).

Some participants mentioned to have been involved in fire drills at school, and about police officers visiting the school and teaching them about road safety, as well as firefighters informing students about wildfire risks. One girl mentioned that teachers talked about different disasters in the framework of school subjects, for example: tsunami in geography, poisoning in biology. (Adolescents, 15-16, FGD LV 7). Some participants in the Pre-Study mentioned a range of issues that had been presented to them, including: wildfire; poisoning with chemicals; eating mushrooms; strangers approaching them. (Children, 9-10 y.o., FGD LV 1). However, all these trainings and awareness raising sessions on preparedness and response that children and youth have been exposed to in the past, appear to be sporadic, one-off occasions, judging from their accounts.

A participant to another FGD recalled: "I think there were lessons like that sometimes. We were informed about such situations, but probably not too often." However, "such lessons were so boring", the boy stated. He said that "these topics were probably not entirely relevant and didn't interest my peers." (Boy, 16-17 y.o., FGD PL 3). When invited to articulate a bit further how such lessons unfolded, he said that usually, children do not ask questions on such occasions: "When they [experts from rescue services] come, they talk about their topics, and we only listen and nothing more." (Boy, 16-17 y.o., FGD PL 3).

Still, children and young persons involved in FGDs sometimes believe that they would need further, more specific training, in order to become fully prepared to react to a disaster event. As a boy said, "I'd say that what could help us is certainly training of sorts, which we get at school, or at home, or something about what to do in these situations that you can find online." (Boy, 15-16 y.o., FGD LV 5). "I think more would have to be taught", a girl added. (Girl, 15-16 y.o., FGD LV 5).

Children and youth insisted on the need to be equipped with practical information: "I feel that you should go through real practical training to understand what to do in these situations. Maybe have something stockpiled at home, so that you can survive in a crisis." (Girl, 18-24 y.o., FGD LV 6). "You have to prepare for every disaster – said another girl - so that if one happens, you know at least a little about what to do. For example, where to go, what to do, where to ask for advice." (Girl, 15-16 y.o., FGD LV 7). When asked whether they think one should prepare for disasters, a group of young people aged 18-24 emphasized that, besides theoretical trainings, "people just should know what they have and what they can use it for in any situation. Because, for example, we don't know when a fire could happen, how it would be more convenient for me to help in a situation that affects my home, how to make it better in a flood, how to do things faster and better. You need to know the environment in which you live and know how to use it." (Girl, 18-24 y.o., FGD LV 6).

Some participants pointed to the importance of talking about how to prevent disasters at school. One girl participant pointed to the role that the school should play in supporting students in discerning reliable information: "Because of today's situation with the media, and a lot of news is considered fake news, this is one of the reasons why people don't trust what is being said too much, because the media are the primary source of news, from which we get information about what happens, which, in my opinion, misleads people as to the possible consequences, political processes and natural processes." (Girl, 15-16 y.o., FGD LV 5). These adolescents recall how the COVID-19 pandemic was initially underestimated in Europe, and how the population was being ill-informed about the risk: "When everything began, and they started saying on the news that COVID appeared in China, or something, here, in my school, people were pretty indifferent about it. We thought 'China is so far away, nothing would reach us'. And look what has happened." (Boy, 15-16 y.o., FGD LV 5).

Interestingly, several participants felt that managing stress and preserving a stable emotional and psychological state is of utmost importance when affected by a disaster, and should therefore be covered by training on preparedness and response.

As a participant noted, "the most important part is remaining calm, and this specifically needs more attention." (Girl, 15-16 y.o., FGD LV 5). A boy echoed this thought: "I feel that the most important part in a stressful situation, in a disaster, is to calm yourself down, and keep yourself cool, and think about the situation, because you can't think of a good solution if you're panicking." (Boy, 15-16 y.o. FGD LV 5).

Another girl emphasized the importance of being prepared mentally and emotionally: "People should prepare more emotionally and mentally, rather than physically." She continued by saying that if one needs information, internet is a huge source for this. "But mental health is the most important part, because if you don't have it, you can't do anything." (Girl, 18-24 y.o., FGD LV 6). A participant concluded: "Perhaps I need to work on my mental health or something, but as I said, I specifically experience shock in these unexpected situations." (Girl, 15-16 y.o., FGD LV 5).

Children and young people had several concrete views about the actors who could and should equip them with the needed information, knowledge, and skills to become prepared and able to respond to a disaster situation.

When asked what institutions should be responsible to ensure that young people are prepared for disasters, a group of adolescents aged 15-16 mentioned several ones. "I think it's fire-fighters, police, rescue services because they have hands-on experience. (Girl, 15-16 y.o., FGD LV 7). Another girl thought that "school should talk about what to do too." (Girl, 15-16 y.o., FGD LV 7). When asked the same question, a group of youth aged

18-24 referred to "government institutions" generally. (Young adults, 18-24 y.o., FGD LV 6).

When asked who should provide them with DRR-related information, a group of adolescents mentioned several sources: the internet, especially testimonies from people who have experienced such disaster situations (for example, in other countries); parents; school; television; books. According to them, parents should provide information to children when they are younger, and the school should take over at later stage: "When you're younger, it should be the parents, and then it's the school, and knowledgeable people there tell you about what could happen." (Girl, 15-16 y.o., FGD LV 7).

Some participant seemed to have a clear ideal training pathway in mind. As a girl stated: "This certainly begins in the family, with parents, then it's the school, and the teachers have all this information, and then essentially the Ministry of Defence. The Government provides instructions and trains teachers for example on what to teach, and employers, on what to tell their employees. The first step, I think, should be the Government, which then passes the information over to others, so that they spread it around through training. We learn from one another." (Girl, 18-24 y.o., FGD LV 6).

Another young lady stated: "I think there must be training, and it does not matter if it is about floods, storms or something else. Everyone should have a rough idea of what to do in all of these situations. Regarding who should teach this, I think the best foundation can be laid in school. I don't know, like a separate subject in primary or secondary school, but at an age when children are already becoming aware of things happening around them. That would be the most valuable thing, I think. Reminding adults in their everyday life, probably through social media, which is a modern approach, remind them of what to do if there is suddenly a flood, or a war, or something starts exploding unexpectedly. I think everyone should know what to do in these situations." (Girl, 18-24 y.o., FGD LV 6).

Stakeholders interviewed as part of the Pre-Study expressed some ideas about the role that children and youth can play in the preparedness and response phase. As a general consideration, a respondent suggested that activities they may be involved in also depend "on age, interests, environment, because there are different approaches; for example, in large cities the forests are not so interesting as in small villages living nearby the forests." He went on explaining: "In an experience from Finland I know they were preparing a project for the archipelago region, with small islands. If some crisis happens there, they have to educate them, including the children, on how to work with equipment while the emergency services arrive. These first steps that would be implemented by the local community may be crucial. For example, they would not be interested in what if a large building collapse because there are maybe two floor-buildings on an island." (II LV 1).

Asked about which activities children and youth could be involved in, two respondents mentioned several concrete examples: raising money for the victims of a disaster; collecting food; cleaning; delivering informative leaflets; reaching out to people who need help, for example the elderly. One of them recalled one example of children and youth's involvement during the pandemic: "In my parish, a priest pointed out that in wards of COVID-19 hospitals there is a shortage of water in bottles with a sealed spout. Otherwise, the children cannot use it. And now the children are bringing such bottles to the ward. First, they bought them themselves, then organized a fundraiser. When they see some specific, tangible goal." (II PL 9-10). The other respondent involved in the same interview confirmed: "They like such specific goals, yes." She also added one example from the pandemic: "Distribution of cleaning agents, masks and disinfectants. Children and young people are involved in such activities. Well, usually they are not random people taken off the street, but people involved in an organization. Then such a group is easier to command and manage than random, individual people." (II PL 9-10).

Another respondent made one more example from the recent pandemic. It was an activity undertaken by some youth enrolled in a scouting association, supporting children from a local school who were not coping well with the remote learning: "And then these older young people, each one of them, on the recommendation of the schoolteacher, so to speak, took some of the young people [students] under their wing or as a kind of younger sister or brother or someone to help. And then they helped them on the internet to do their schoolwork, obviously they didn't do it for them, they just helped them with where to look or what to do and just interacted with them through the computer with the younger ones, so encouraging them to do things. And this was a very welcome phenomenon. So that the younger ones afterwards realized that it was a very good thing that they had somebody to get in touch with who also knew the computer and the school, so to speak." (II ES 1).

In a similar way, highlighting children and youth's capacity to also provide moral and psychological support, one respondent said that they could act as "good companions or interlocutors" for the elderly persons in their homes or neighbourhoods. (II ES 4).

Some stakeholders, conversely, believed that children and young people's involvement in the aftermath of a disaster or accident should be limited. Asked about whether children and youth can play a role in the preparedness and response phase, a respondent decisively answered: "From the crisis management perspective, it's most important that every 'ordinary' citizen should self-evacuate after the signal of danger and go to a safe place. No additional help is required from children or even adults. In fact, the fewer people in risk, the better. The response should be handled by professional services. The average person should get away." (II PL 5).

In another respondent's view, children "can only call for help"; she said that she does not "see any possibility for children's involvement." (II PL 7). For example – she

explained - removing rubble is too unsafe for children and traumatizing too. (II PL 7).

Uncertainty about whether children and youth could engage in preparedness and response, or only adults should instead, was also expressed by a group of adolescents aged 15-16. One boy said that in his opinion, "the people who know better what they're doing should be in charge." He later clarified that he meant professionals (Boy, 15-16 y.o., FGD LV 5).

Recovery and rebuilding

One of the aims of the Pre-Study was to understand how children and youth conceptualize and perceive the recovery phase after a disaster has unfolded.

When asked how the recovery phase can be defined and when does it end, a young participant stated that "reconstruction continues until everyone is safe, each house will stand, will have a place to work, will have drinking water and will be able to meet his needs, at least enough to survive, and preferably as much as before the threat." (Adolescent, 16-19 y.o., FGD PL 2).

When asked about what it would take for the community to recover from a disaster, an adolescent said: "Stick together and communicate well with each other", thereby highlighting his perception of the importance of social relationships and interactions. (Adolescent, 12-14 y.o., FGD EE 2).

In terms of help they could provide during the recovery phase, adolescents seemed ready to contribute – in a potential situation – "as much as [they] could". When asked whether they think they could provide help during a post-disaster recovery phase, and what kind of help, participants highlighted several ways in which they believed they could help in such situations. An adolescents said that they could "organize a fundraising for those in need, and possibly help in cleaning the area, yard or flat." (Adolescent, 16-17 y.o., FGD PL 3). As one participant explained: "To volunteer everywhere or to help a lot, to be very active in the social sense [...] That would be the case, for example, if there were to be any kind of work that needed to be done quickly or something like that, then it would certainly be to offer oneself help." (Adolescent, 12-14 y.o., FGD ES 2).

When asked whether they think they could help others return to a normal life after a catastrophe has occurred, an adolescent said: "It seems that everyone would like and could help, because it doesn't require anything special. Even here I can give an example of a situation when we help, for example, Ukraine. We gather food, whatever they need now. Everything is being collected. Also, simply searching for different places so that they could also sleep normally. And it's just one example." (Adolescent, 16-17 y.o., FGD PL 4). Another participant stated: "Delivering food and clothing. For example, if they are people from abroad, then informing them where they can apply for help. Where the city hall is. Where they can find a foundation. Where's the nearest store or something." (Adolescent, 12-17 y.o., FGD PL 5).

However, participants also showed appreciation of the need to support people affected by disasters emotionally and psychologically. In focusing on benefits that could results from the help provided to victims of disasters, one participant stated: "Maybe, they felt that they weren't alone, such psychological support that they weren't alone with it, that someone was trying to help them, somehow." (Adolescent, 12-17 y.o., FGD PL 5).

Adult stakeholders interviewed as part of the Pre-Study expressed different views about the possibility to involve children and young people in the recovery and rebuilding phase. Overall, most of them were positive about such possibility; however, some of them expressed reservations about the extent of such involvement and the specific tasks that especially younger children could (or could not) take upon.

When asked about whether children and youth could in his view contribute to the rebuilding phase, a respondent said that "of course they can participate. When you build back, you have to organize the interest of society. I never put such attention probably, to whether youth are involved in such process, because they are part of the society, which is naturally involved." (II LV 2). Again, in general terms, another respondent answered: "Certainly the prevention phase. If there is a focus to work within the recovery phase, then this would be possible." (II LV 6).

A stakeholder stressed that the recovery phase could be the one where children and youth's role could be very effective. He said: "OK, we know these immediate actions, notifying emergency services, evacuation, notifying other people about the threat or collective leaving the facility or area at risk – these are immediate things that young people can do. However, you know there is a reconstruction phase, so it can also be a long-term, where children and adolescents can engage in cleaning up the affected area, or even cleaning the facades of buildings. I mean very initial threat phase, reaction phase and a lot of room for action in the context of the reconstruction phase. [...] In the meantime, the children won't quit school to take up voluntary activity." (II PL 1).

Similarly, asked about the role that children and young people could play in the rebuilding phase, a respondent said: "I think the use of 'children's resources' is even advisable." She made an example: "The reconstruction itself may also involve replenishing the supplies, for example in the case of a large road incident, when firefighters need to refill medical bags, younger people can take part in it. Then they will help firefighters, who then will be able to rest, but children can also learn about medical equipment." (II PL 2).

Referring to the arrival or refugees from the armed conflict in Ukraine, a respondent described: "When children from vulnerable areas show up, it's fantastic to see these children meeting other children and begin to feel a little normal. That despite the trauma of war and cataclysm, there are children who make new friends, despite, for example, language barriers. Empathy can do a lot here, surrounds the victims so that they will forget for a moment, let go and just play. The same

works for young people, and that's great. This is what we can expect – social behaviours." (II PL 5). She also believed that "children shouldn't carry sandbags or remove rubble from cities – it's an unnecessary trauma. Children who haven't experienced a crisis may surround other children who have had something bad in their life. It awakens a sense of security and gives some emotional stabilization." (II PL 5).

Asked about whether children and young people can play a role in the rebuilding phase, another stakeholder also emphasized the potential for their contribution to this phase, while advising about precautions that need to be taken: "Yes, definitely. The youngest children probably won't, although we could expect them to take care of the animals or take over simple household chores. The older we think about, the more we can involve young people, because the threat to them is much smaller, and we can build a sense of responsibility, being part of the community, and not just observers. I think they could also take part in social activities and projects. They could take part in caring for the younger ones, for example, create day-rooms, as in the case now of refugees from Ukraine. (II PL 3). He further cautioned: "We should remember that when saving others, we should also take care of our own safety and well-being, including mental health. When it comes to crisis management, you also need to consider topics such as education and self-care." (II PL 3).

Similarly, speaking about the rebuilding phase, one respondent stated: "Children under 12 should not be involved in traumatic events. They shouldn't even attend funerals." She then added: "Personally, I would rather be against. Unless they operate within the framework of scouting, where there is a supervisor who makes sure that the children, let's say, can transfer some food, after a flood. [...] And as I would like to emphasize here, children from 12 years of age. Younger ones absolutely shouldn't see such places. I am just after training on crisis intervention, it was very much emphasized by traumatologists – how difficult it is to treat traumas under 12 years of age. We shouldn't add additional burden." (II PL 7).

Participation at different ages and levels of maturity

The literature reviewed as part of the Pre-Study highlights as children and youth's participation (in general and) to DRR is to be regarded as a process, and therefore it should be supported throughout their different life stages. During the field work, both children and youth, and other stakeholders, expressed different views about the age at which participation in DRR should and could start, and the kind of engagement that would be appropriate – or, conversely, inappropriate – at different ages, in consideration of children's evolving maturity and capacities.

Some participants felt that participation is something that should be practiced from early childhood, and the degree and kind of participation should vary according to the age of the child involved: "I think some sort of participation and help could start as early as childhood. It's not just a matter of how much you help, and how important your work is in the given situation; it's the fact that you overcome your hesitation, that you go out and get involved. I believe this is what matters the most." (Girl, 15-16 y.o., FGD LV 5). As another girl reiterated, "this depends on the complexity of the task and what kind of disaster has happened. If there was a storm where you need to pick up branches and stuff like that, I think you can involve younger children, but if it's something serious, there are ruins and so on, then of course there should be people who can decide for themselves and be responsible for themselves." (Girl, 18-24 y.o., FGD LV 6).

An adolescent similarly stated that trainings on how to provide help in a disaster situation "should also reach young people, younger than us, even before going to high school. For example, in primary school, I never thought that I could join the Volunteer Fire Department. Nobody told me that I could act in this way and help other people, so all these lessons or training should also be carried out for younger people", as they "can have more enthusiasm and then they can learn more things." (Adolescent, 16-17 y.o., FGD PL 3). One girl stated: "Depends on the kind of responsibility you take. Sometimes one should understand how much we can do." (Girl, 15-16 y.o., FGD LV 7). Another girl, though, pointed to the fact that "many places don't accept people who are too young." She stated that she tried to get involved in an activity related to a global event once, but she was not allowed by the organizers, as she was 11 at that time, and they would only accept people starting from 12-year-old. (Girl, 15-16 y.o., FGD LV 5).

While children and youth favour theirs and their peers' involvement in DRR, they also expressed some words of caution in that regard. Participation should be supervised by qualified adults. As one boy expressed, "anyone can participate, regardless of age, but professionals should organize and supervise these events." (Boy, 15-16 y.o., FGD LV 5, p.13). Some participants stated that participation in DRR should start at a specific age, such as 16 or 18 year old. (Adolescents, 15-16 y.o., FGD LV 7, p.10).

Similarly, a group of young persons aged 18-24 largely deemed it appropriate to involve individuals aged 18 or slightly younger, "because this would not be very safe for [younger] children." They said that ideally engagement should wait until "the person already counts as a grown-up and someone who can take responsibility for themselves, but 16 or 17 could be possible if the parents agree, and the teenager is really capable of it." (Girl, 18-24 y.o., FGD LV 6, p.10). "I'd say, at 18 – said another participant. - This is when the person already understands something, they become independent, start getting a grasp of what's happening and what to do." (Girl, 18-24 y.o., FGD LV 6, p.10). "I also think that 18 is the age. It's the right age to start making decisions for yourself", another participant added. (Girl, 18-24 y.o., FGD LV 6, p.10).

Apparently, the answers and argumentations above were primarily based on safety considerations. However, it is possible that adolescents and young adults

are themselves not fully aware of the age-appropriate contribution that children and youth can offer also at earlier stages of their growth and development.

When asked about at what age involvement in DRR would be advisable, adult stakeholders generally expressed the opinion that children can be involved as early as possible, and that participation must be age-appropriate.

One respondent cautioned: "We can't regard children as a whole huge group, because they as well are individuals, with different personalities, skills, interests, different possibilities and different ways of communicating for example, and based on that we can involve them in different tasks and they can see what is more interesting for themselves, or what they are better at. [...] But they are crucial in all [DRR] stages." (II LV 1). Similarly, another respondent, speaking about the way information on DRR is delivered to children and youth, cautioned: "One must also take the audience's age into account." (II LV 6).

Asked about what the best age is to start working with children on disaster risk prevention, a respondent stated: "You can find an effective approach with every age group, and speak to them in a language they understand. For example, for seven-year-olds we have a game: we use a projector to show a city with dots, marking locations where a child can feel unsafe, and then discuss potential risks. This approach is good at engaging children and attracting their interest. With teenagers, we talk about their responsibility in bringing up their own children, about the prohibition to drink in public." (II LV 4).

Similarly, another respondent stated that, first of all, "every audience calls on its methods and offers its opportunities." She elaborated further: "Very early age is best for that, because you can talk about basic things in relatively simple terms. Later, you can only add details, while the foundation is laid at an early age. However, it's worth pointing out that safety issues are best discussed at an age of 11-12 or older, because these aren't a priority for younger children." (II LV 5).

Again, interviewed stakeholders expressed articulated views on how to engage in DRR with different age-groups, and kept stressing the need to tailor such work appropriately: "You can talk to children and teenagers of all ages, and each have their own interests. Younger ones remember what they can touch and hold in their hands. As they approach secondary school age, they start understanding more complex information without visual materials, and commit more information to memory. [...] I think there should be three groups: schoolchildren up to year five, then years five to nine, and then the older group, with people up to the age of 22. The youngest group needs visual information about what situations involve the most risk. The second group, years five to nine, should get mixed information, while the oldest group should be talked with about global emergencies, and keeping essential items ready. We can achieve results by adapting the information to the target audience." (II LV 8).

In the same way to the above, another stakeholder elaborated: "We need to work with all age groups, and it's impossible to separate any one specifically. It's the approach we take that's more important, rather than the age. We can provide information through, for example, films and music, positioning safety as a value." (II LV 6). Further, another respondent maintained: "Such education should begin at the State kindergarten, then primary school and higher schools. It is supposed to be in the curriculum, but it is not systematized. It is about teaching methods that we convey the knowledge in a specific way." She added: "As children aren't getting involved in preschool or school age, they are then afraid to take an active part in activities." (II PL 8).

Some respondents also expressed some reservations about the opportunity, or level of involvement of specific age-groups in DRR. A stakeholder stated: "There is a lot of engagement and ability to absorb information among seven to 10-year-olds; children are more open at this age and share more things." She added: "They get more secretive and cautious at a later age. It's relatively difficult to work with teenagers aged 13 to 15, because they tend to be defiant." (II LV 7). Another stakeholder expressed similar views, as it follows: "It's not that there is an age range, but minors are easier to convince than older people for a variety of reasons. Well, these people probably trust government institutions more easily and are more prone to change than people who already have strongly shaped their views, way of looking and trust or lack of trust in government institutions." (II PL 1).

Reservations to the benefits of involving children and youth in DRR also concerns younger children, primarily when it comes to the stage when a disaster is occurring or has already unfolded.

Speaking about age for involvement, namely in the rebuilding phase, a respondent elaborated: "Older adolescents can perform tasks related directly to the risk. Children, unfortunately, can only perform informational activities that support each other. [..] I would also like to add that a child up to the age of 10 thinks very selfishly, mainly about himself. We only start to build empathy in them, which is shown only at a later age. It's biological, evolutionary: a child of a certain age must take care of himself. His or her body is just building up. Empathy is formed only in adolescence when we prepare to become adults and help others." (II PL 4).

Referring to his experience with a scouting association, one respondent stressed: "Much depends on the age of the children. I mainly worked with teenagers – we often participated in [response] actions on the frontlines. We removed the effects of various storms and natural disasters. We operated the tools necessary for such activities. To sum up – firstly, children and adolescents must be safe, and secondly, these activities must be age-appropriate. However, in the case of adolescents and young adults, I believe that we shouldn't be afraid to entrust them with action here." (II PL 6).

In general, both children and youth, and professionals, appear to favor children and youth's involvement in DRR, especially as it concerns activities related to the

prevention and mitigation phase. They were more hesitant about engaging children and youth in preparedness and response, or in recovery and rebuilding, mostly due to security concerns and the paramount need to protect them in disaster situations.

Barriers to the involvement of children and youth in DRR

Several conversations held in the framework of the Pre-Study revolved around the barriers that are currently preventing children and young people to further engage in DRR activities. Some of the barriers mentioned by the different groups and respondents concern children and youth themselves, their attitudes, approaches and (self-perceived or actual) abilities; whereas the largest part of the identified obstacles relate to adults' awareness, knowledge and capacity (or lack of those).

Several adolescents and young adults attending FGDs were asked by facilitators how they would rate – on a scale from one to ten - their preparedness to react in the face of a disaster. They provided different answers to that question. Most participants in a FGD rated their preparedness between five and six – albeit some of them were confident that their preparedness reached seven, eight or even (on some topics, namely wildfire) ten. (Adolescents, 15-16 y.o., FGD LV 5).

In a different FGD, participants rated their preparedness relatively high regarding either disasters they had experienced directly, or that they had received information about. "Before I fell ill [with COVID-19], three or four, because I was not prepared. [...] It had never happened to me and came so unexpectedly. Now my readiness is a ten." (Girl, 15-16 y.o., FGD LV 7). A girl from the same group stated: "I'd say my readiness for a fire is seven, because we've learnt about it a lot, and there is knowledge available. And I've had experience." (Girl, 15-16 y.o., FGD LV 7). Similarly, another girl said: "I'm prepared for a fire at six. There could be panic at first, but then I'd take a moment to think and remember everything I've been told. It would be okay overall." (Girl, 15-16 y.o., FGD LV 7).

Similarly, when asked about how prepared they feel in the event of a disaster, a group of youth aged 18-24 generally felt they were relatively well prepared to react in the case of natural disasters, such as wildfire, earthquakes, floods or storms; whereas they rated low their preparedness for events like war or terroristic attacks. (Young adults, 18-24 y.o., FGD LV 6).

Interestingly, what many of them insisted upon is that they anticipate that the stress of the situation would decrease their ability to do the right things in a disaster event. This reflection was brought to the discussions especially by girl participants: "I'd grade my preparedness at about six, because based on my previous knowledge I'd know what to do, but given my possible lack of self-confidence, I could become so stressed that it's not that actually I don't know what to do, but on a mental level I am not sure that I can handle the situation, and that adds to the stress. I suspect that this could cause some problems." (Girl, 15-16 y.o., FGD LV 5). "Right now, I think I'm at seven, but stress and other factors that affect you in unexpected situations, because not everything goes to plan, especially in stressful situations and during disasters, so it's six or five. Roughly there." (Girl, 15-16 y.o., FGD LV 5). "I'd say eight or seven, because stress takes me over in unexpected situations, and then I can be in shock for a few minutes or seconds, and once my head starts working again, I can think of what to do in the situation." (Girl, 15-16 y.o., FGD LV 5). "Depends on the topic, for example, war is a five or six for me, because I know that I'd forget everything in a stressful situation." (Girl, 15-16 y.o., FGD LV 5). Girls thus seemed to give more consideration and weight about the fact that their emotional state could hamper their capacity to react properly in a disaster situation.

In sum, lack of preparedness, including self-perceived difficulties in handling stress, could hamper children and young people's willingness to engage in DRR activities.

Both children and adults identified among obstacles to children and youth's engagement in DRR their lack of time. One respondent answered: "I think it's mostly time. Currently I have the impression that the school itself is not enough for proper education, for proper development of children, so there are several additional activities that take children a lot of time. When organizing classes, sometimes also on Saturdays, I hear children enumerating: 'I have swimming lessons, a music school, I have this or that.' So, nowadays time is poorly managed. Let's be honest, without extra-curricular activities there is no possibility of developing artistic skills that are not present in school, in the school curriculum." (II PL 9-10).

Another respondent explained: "There are some youths who are active, but the biggest challenge is that the active ones are active in lots of fields and the risk of them going into burnout is very concrete. And they want to do a lot of things and do not have time for all these things, and if you do a lot of different things, you do not do well any of them." (II LV 1).

These statements mirror the answers that some adolescents and young adults provided during the FGDs, that they would like to get involved in DRR activities, but currently do not have enough time to do that. While some of them had some experience in this regard and stated that they would happily join an organization and volunteer to help others in their community, other participants declared that they were too busy to take up such commitments. As one girl clearly explained: "I don't know, it may be just me, but right now I have so much to do, that to be honest, I don't even sleep enough. It's not like I'm going to bed late and getting up early, I can't fall asleep anymore, and I start feeling tired. And right now, I don't think I could participate in anything, but I don't know maybe in a year or two, or maybe even next month, I could participate in something of interest to me. To be honest, I lose interest very quickly, but there are things I really view as important, and helping people is the biggest of them." (Girl, 15-16 y.o., FGD LV 5).

When a group of adolescents was asked whether they would like to join organizations who help others in need, one girl stated: "I was offered to join the Cadet Force, but I didn't have the time to do that." (Girl, 15-16 y.o., FGD LV 7). Again, the lack of time adolescents perceive in their life comes up. Some of them had had limited experience of volunteerism, for example, in organizations providing help to elderly people, and to animals in difficult situations; or they had joined some campaigns – namely to collect goods for child cancer patients, or for animals' shelters. (Adolescents, 15-16 y.o., FGD LV 7). Whilst their actual experience appeared limited, they voiced their willingness to engage, if they had time and opportunity. As a girl explained: "It's nice to share something you have. And help others. I'd like to be a volunteer and help others. Sharing really feels nice." (Girl, 15-16, FGD LV 7).

Among the barriers to actively involving children and youth in DRR activities, that concern children and young people directly, in another respondent's view, "the attention span is so small and becoming smaller. It is really hard to reach them because there is so much information around them." (II LV 1). As another expert stated, "there is a lot of information which attracts them in their daily life, so you have to find some way to attract children with specific information that they read, that they are interested in." (II LV 2). The main responsibility for this alleged overflow of information is placed on the new technologies: "Children and teenagers have unlimited access to various contents. Parents often have no influence there, and children watch YouTube videos about 'flat earth'. As a result, they are often not aware of the real threats, or the other way around – they exaggerate them. The media cause information noise that doesn't indicate a specific threat to young people, or indicates them so much that we become indifferent to it." (II PL 6).

Moreover, as one respondent maintained, over-exposure to the virtual world can instil an illusionary sense of safety in children and youth: "Nowadays, it seems to be the opposite [compared to the past], that children are brought up maybe in this virtual world inside 'cotton', and then when they come into contact with real life, that level of skills and behaviour may be inferior altogether". (II ES 4).

One stakeholder guessed that a factor influencing children and youth's risk awareness may be theirs and their families' socio-economic status, and hence impaired access to diversified sources of information: "When I think about these child welfare clients of mine, yes, I imagine that their awareness is lower because they're not the kind of internet users that maybe you and I are. They didn't even have smart devices". He suggests that these families and their children are more likely to believe to so-called fake news or propaganda. (II ES 2).

Among barriers to participation in DRR, one respondent suggested that peer pressure could hinder engagement in some cases. Therefore, he stressed, it is important for adults to publicly reward children and youth who engage in preparedness activities, because otherwise they may be teased by some peers for their engagement: "We expect courage, common sense, self-control, knowledge, and the right reaction. We want to reward such children so that they are an example for others. Because young people are different, one will call him, the other will laugh at him when he wants to help someone, for example a neighbour, to take shopping. And such a person may not 'stand out' due to the environment. However, when such a child is awarded a badge at the school forum, it can already be a model. This is already prestigious. It is also advisable to reward these correct attitudes and reactions." (II PL 9-10).

The single most important factor identified by both adult and child respondent as hampering children and youth's active role in building resilient societies was the lack of knowledge, awareness and capacity of adults around them.

On the one hand, some respondents identified parents' lack of awareness and knowledge about risks and safety – and generally lack of awareness and knowledge among adults in their personal sphere - as an obstacle to children's awareness and involvement. For instance, one stakeholder openly referred to "parents' unawareness, bad attitude, lack of knowledge". (II PL 9). One respondent stated that this differs across cultures and suggested that in poorer countries adults cannot prioritize disaster prevention, "because they have different priority problems than their safety." (II LV 1).

Similarly, another respondent pointed to the fact that lack of preparedness concerns adults as well as children and youth: "We, adults, are not ready for crisis or big disasters or changes in the same way. OK, there are definitely some people who have backpacks in the car with batteries, flashlights, matches and stuff like this, but I think that in general people's preparedness for crisis and disasters is rather low, because it feels that how can we have something like that, and I think COVID is a very good example. [...] I think children and young people are as prepared as their parents or their surroundings are." (II ES 2).

Further, when asked about the biggest challenges in talking to children and adolescents about risk and safety issues, a respondent said: "It is hard to say, but the biggest barriers are probably adults, parents, often not well prepared and informed themselves. They put in children an apparent sense of complete safety: 'Nothing will happen to you, as you're my little prince.' They keep children in a bubble, then the child collides with knowledge and information that something might happen – a fire, an accident. Then what? The child has a mess in his head. Adults who themselves don't properly inform their children about the dangers are the biggest barrier." (II PL 2).

Another stakeholder suggested that the overall feelings the adult population shares in his country is "that it's safe to live here, and within such feeling of safety there is this delusional understanding that we're living here as if behind the back of the Lord and nothing can happen. That is why this preparedness is exactly what it is. We have been trying hard to improve this here in

recent years. But we are certainly not at the same level as the Japanese, the Americans, for example, so that when they are hit by a disaster, they know immediately what they have to do. Here, I think, there is a lot of panicking at first." (II ES 4).

However, adults' limited awareness of risks and disaster is not confined to the family setting and to the personal sphere of children and young people's lives. Equally relevant is the lack of capacity among professionals to work with children and youth on DRR, and their limited understanding of the advantages that children and youth's active engagement in the area would bring. As one respondent simply put it: "On the paper it seems really great and fantastic, but in reality, it is really hard. I think it requires much more work with the adults and the professionals than with the youth themselves. It is crucial to prepare the adults to work with children." (II LV 1).

When asked whether children are regarded, in his view, as active participants and citizens who could play a role in DRR, a respondent stated: "Some may see children and young people as active participants, but I think that the majority still think that children and youth are vulnerable, so they are the ones to be saved." (II LV 1). Further, on the way adults regard children, the above-respondent said: "One of the problems is that the majority think that children have to be taught and do not have their own opinions. Finding out what is their knowledge basis, we can build on that." (II LV 1).

It appears that some stakeholders and – presumably – the institutions they represent have barely considered the possibility and benefits of involving children and young people in their work. One respondent stated: "In fact, they are part of the society, they also need to be aware of it. And the word could still be given to them as well. So that they can express their opinion and from that you can then put it together and be guided by the fact that they don't have to tell you everything in advance, but you can still be guided by what is their vision, how do they feel, where are their strengths, how do they feel they would be prepared to help." (II ES 5).

Analogously, a respondent answered that "disaster management plans don't seem to take into account the role of children and adolescents." He added: "We rather talk about how to protect children and adolescents, but this is through the actions of public institutions. Still, this is a subject for further exploration." (II PL 1). He also stated that, however, planning documents related to DRR "don't identify actions taken by different age groups of children or adults. They identify actions to be taken by specific institutions [...] If we promote social volunteering, the greater will be the importance of children and adolescents within various organizations. And their role in response plans will be more important. I don't expect plans to identify the age of children and adolescents, plans can identify organizations in which these children and adolescents are active." (II PL 1).
One respondent was openly talking about professionals and institutions' lack of capacity to involve children and youth in DRR. He stated that "in fact, children could be involved anywhere." He added: "But I don't even know, see, what is stopping it, is it like, do we have any instructions, we talk about involving interest groups, but why don't we talk about involving children? [...] When I say that 'hey, let's start involving children now!', then who will come to tell me about these basics and the main principles of how it should be? I don't think it's just like good will, but there are still some stages, some approaches you have to take to make it comfortable for everyone." Reflecting on child participation (or lack of) in his country, the above-respondent concluded: "I don't think this involvement of children is a popular topic for us [...]. This is not like normal in any way." (II ES 2).

Another stakeholder suggested that professionals and organizations they work with face the usual constraints in working with children and youth in the risks and safety area: "When it comes to obstacles, it probably means funds and lack of free time, as everywhere." (II PL 8).

A group of young children were asked whether they would be willing to help in the event of a disaster. A boy reacted: "It all depends. Young people actually think that if something happens, they will try to send you away." (Boy, 9-11 y.o., FGD ES 1). This reflection echoes answers from other participants, who believed that adults are not really willing to actively involve children and youth in DRR activities.

A facilitator asked a group of adolescents whether they think that institutions and people in charge of dealing with risks, safety and disasters would, in their opinion, take young people's ideas seriously. An interesting reflection and discussion ensued. A girl stated: "I think that these institutions and the people in charge of these things specifically don't trust young people too much. This topic is fairly difficult for me, that adult people are an authority by default, and don't appreciate the ideas of young people as much as one would hope. There are a few organizations and people that try to collaborate with the youth, and in most cases, people who are in charge of things that matter, like safety and security, have opinions in the vein of 'those teenagers; who cares what they think?'" (Girl, 15-16 y.o., FGD LV 5).

Even when adults in relevant positions open up to listen to youth's voices, youth doubt that their opinions will be taken into serious account and consideration. For example, as this other girl elaborated: "I think that many people, especially adults and institutions in charge, tell us to show initiative and participate, and to offer our ideas; they say that they'll listen, but some of them perhaps don't fully believe that we can come up with something intelligent and useful." (Girl, 15-16 y.o., FGD LV 5).

When asked whether they think that competent institutions would take youth's opinions and ideas - and willingness to participate - seriously, a participant from a group of young adults said: "This is very much on a case-by-case basis, and some institutions could be more open to dialogue with young people, but my impression is that not really." (Girl, 18-24 y.o., FGD LV 6). Another participant was even more pessimistic about that: "I

also think it isn't realistic and feel that even if you went to them with a serious idea, with a developed plan or project, they wouldn't take it seriously, and would just shelve it. They might remember it at some point, but really wouldn't consider, because they'd be certain that they already provide enough information, and why should they waste time repeating everything and teaching the public for the thing that in their view they have already taught to the public?" (Girl, 18-24 y.o., FGD LV 6).

However, another young adult pointed to the importance of youth's determination in expressing their opinions and taking these forward: "I'd say yes, but this really depends on how seriously the group of young people promoting the initiative treat that initiative themselves, how seriously they work on it, and how prepared they are to get involved and work with the Government." (Girl, 18-24 y.o., FGD LV 6). Another girl echoed: "It all depends on how serious these young people are in presenting the initiative." (Girl, 18-24 y.o., FGD LV 6).

One respondent highlighted the need for relevant institutions to involve children and youth in policy-making as a standard practice: "Speaking about young people, we must include them in the decision-making, unless the matter involved very specialized information. Our government bodies aren't used to adopting their decisions based on the opinions of younger generations, but it's something we should gradually start to do. We should pay particular attention to what is engaging and important to every age group, so that we can build a personalized approach." She added: "The agencies themselves must be open, friendly and create images and symbols pertaining to their identity that are visually easy to grasp for younger children." (II LV 5).

However, limited inclusiveness in decision-making seems to be a problem affecting the whole communities, not just children and youth. One respondent explained that, although his country has well-prepared disaster risk assessments, this information is not proactively shared with communities. "It is expected that potentially interested people will want to ask for this information." As he explains, though, "that's not how it works, unfortunately. People don't know they can do it. It seems that there are not enough awareness actions." (II PL 1). Moreover (and probably related to the above-obstacle), "there is clearly insufficient staffing in civil protection activities and crisis management at various levels of administration." (II PL 1). Finally, he saw also a demographic problem in engaging children and youth in certain geographical areas: "There are demographic shortages as well, the number of young people is decreasing. In general, there is a problem with the availability of people who would become leaders of their local communities in rural, deprived areas. These people often emigrate to cities. [...] Therefore, there is no one to pass this knowledge locally." (II PL 1).

A specific barrier to engaging children in DRR activities that was pointed to by several respondents in relation to the COVID-19 pandemic, and it is that for several months, events and activities had to take place online and not in-person. One respondent observed: "Remote teaching in education. It is such an obstacle, to make it happen. Although we did it." She explained that before the pandemic, their school was "visited by people from various institutions [...] Their specialists were coming. And my experience is that when an outside specialist comes in, he or she has a much better reception than when a specialist from the same school or a teacher does it." (II PL 7). The same respondent added: "Man has it that he perceives this world in a multi-sensory way. He must touch, he must smell, he must be there, use all his senses, and when it comes to children you see how they use all their senses." (II PL 7). Hence, the pandemic has – in her view – strongly limited children's access to learning and knowledge.

As another respondent stressed, "the pandemic is a huge obstacle, and talks have to take place remotely." (II LV 6). Similarly, another stakeholder said that "one [obstacle] is our access to holding in-person events. We work online too, but the effect is not too great." (II LV 7).

Interestingly, the increased difficulty of having to deliver awareness raising or educational sessions to children and youth online instead of in-person was expressed by adult stakeholders, but not by the children and youth involved in the Pre-Study. It would be useful to understand whether children and young persons did not point to this specific barrier because they did not perceive it as such, or because they are not aware of this problem – concerning their involvement in DRR and their participation more generally.

Benefits that would result from involving children and youth in DRR

Interviewed stakeholders highlighted some benefits that derive or would derive from children and youth's involvement in DRR activities. Most of them pointed out benefits to children and youth directly. As one respondent stated, it is important to involve children and youth in DRR, "because if they are involved, they learn a lot of other things: they learn responsibility, they learn ownership. And that's much more added value than we can ever imagine." (II LV 1).

Another respondent explained: "I think that from the psychological point of view, it certainly has a very good effect on self-esteem. It's an opportunity to show up. Our children often believe that they are bad due to their experiences from other schools or home. [...] All kinds of forms that make them engaged and give something out, they very well shape their personality. And self-esteem, too. Being appreciated – it helps a lot." (II PL 7). Similarly, another respondent stated: "Children are the proudest when they do something themselves", pointing to the importance of involving children and youth in DRR activities. (II PL 8).

Apparently, children and youth can really enjoy participating in activities that provide a positive contribution to the community. As one respondent reckoned: "As I can see, our students have a lot of fun doing something for the benefit of the society." She pointed to one experience her students had at a nearby nursery

with whom their school has a cooperation: "They go to the nursery and read fairy tales to these children. Which is with a lot of commitment, and they are very willing to give something of themselves." She brought up another example: "We once took part in a competition – it was about creating a film to warn children against the risk of drowning. And as a school, we even won some award. Anyway, later with this movie, we presented it to others [...]. And our students had a lot of fun as they presented their own work. Therefore, I think that such an engagement would have a positive effect, both on the local community and on themselves as activators who would do something good for someone." (II PL 7).

When asked about whether they had ever been consulted about their potential participation in DRR activities, a group of youth aged 19-24 stated that this was not the case. However, in their view, children and youth should take an active role in creating the safety rules that would be applied during a disaster situation. In their view, this would positively affect their development, self-esteem, and mobilization. (Young adults, 19-24 y.o., FGD PL 1).

Indeed, as the above-stakeholder stressed, benefits of involving children and youth are not limited to those received by themselves directly. One respondent explained that involving them brings added value, "because they provide a different point of view. Of course, this may not be evidence-based, but they provide the understanding about how the youth may feel, how the youth may think. And they can raise sometimes strange questions, but these questions are sometimes very important for the youth, and it is important that we address them when we speak to the youth because this is the way they want to know." (II LV 1).

When asked whether it is important to involve children and youth in DRR activities, a respondent stated: "Every social group is important in this regard. Informing them is important, as this information then spreads throughout the country. The contribution that children and teenagers make to that is very important." (II LV 6). Another interviewee explained that "it has a better long-term effect", in that children are more receptive than adults to new information, and presumably have a higher trust towards institutions. (II PL 1).

Children and young people's capacity to imagine innovative solutions was also highlighted: "Well, I think the biggest potential is that they are not hindered by historical constraints, that is, what is for an older person, let's say a little older than me, because it doesn't limit me yet, but still a little bit, that it's been always done this way and we are not going to change our attitude towards things. That this doesn't stop them, and that is, I think, a very big plus for them, that they can see things in a broader way and maybe come up with innovative solutions to problems." (II ES 4). Another benefit that the above-respondent mentioned is that children and young people can easily learn new knowledge and skills by accessing the internet, something that older people would not always be able to do. (II ES 4).

However, as found through the literature review (above), it seems that children and youth's potential to actively engage in DRR, and the benefits that their participation would bring, are yet to be fully explored in the countries covered by the Pre-Study.

III – Conclusions and recommendations

The Pre-Study has attempted to explore the role that children, adolescents, and young adults can play in building resilient societies in the BSR. Throughout the research, keeping the different phases of a disaster life cycle discrete proved to be difficult, especially during the fieldwork. Thus, the conclusions and recommendations that follow in most cases cover all or most DRR phases - from risk assessment through to recovery and rebuilding.

Throughout the literature reviewed, as well as the field work, girls and boys of all age groups and backgrounds generally demonstrated vivid opinions, and clear and uncluttered conceptions about the different aspects relating to risk, safety, and disasters. However, they also expressed hesitation about being able to engage in DRR activities, due to limited training opportunities on the topic they had been exposed to. Based on children and youth's accounts, they generally seem to have received some training on risks and safety. However, these appear to have been focusing mainly on daily accidents, and to have been delivered occasionally rather than regularly.

Both children and youth on the one hand, and other stakeholders on the other hand, expressed different views concerning the impact of information on disaster and risks, and whether receiving it is scaring and paralyzing or, conversely, it is making them feel more secure and even motivated to help. The one thing that nearly all participants suggested is that being exposed to training at regular intervals throughout their school cycle is releasing some of the anxiety and making children and youth feel more in control and able to react in a potential disaster situation. As a result, children and youth do recall having received some relevant information, but their memories on the subject tend to fade with time.

The consideration above points to the need to empower children and youth through equipping them with the proper information. Indeed, regular and consistent training is the way to empower them to confidently engage in the area. Moreover, it is also the right approach to avoid overwhelming or paralyzing feelings in children and youth, which may derive from getting in contact with information on sensitive topics.

One key area of discussion and suggestions provided by the interviewed stakeholders, as well as by children and youth themselves, revolved around the need to make information about risks and safety more interesting, and engagement in DRR more enticing, to children and youth.

The most effective way to approach this is to start by asking children and young people what they know and think about disasters. Children learn a lot through this approach too and could help shape training contents and identify the most effective means to deliver DRR information to them. According to children and adults, information should be delivered by informed and competent individuals. Moreover, information needs to be tailored to the specific audience, and delivered in a way that it is also interesting to children. Finally, children and youth need to be driven towards specific and concrete aims and results, rather than receiving broader, theoretical information on DRR.

Several child and youth participants felt that managing stress and preserving a stable emotional and psychological state is of utmost importance when affected by disaster, and should therefore be covered by training on preparedness and response.

Since self-perceived capacity to react in a disaster event could sensibly boost or, conversely, diminish children and youth's willingness to engage in DRR, it is paramount to work on the psychological dimension of preparedness, and to regularly include this element in training devised and delivered to children and youth in the area.

Children and young people feel a desire to help in assessing, preventing, responding to and building back after a disaster of any kind occurs. They demonstrated great empathy towards their family and community, and the broader society. They were very articulated in explaining the several reasons why they would like to help in those situations. Children and youth in the BSR are no exception in that regard, as examples from other parts of Europe and the world similarly demonstrate the huge potential and asset that children and youth represent in relation to DRR.

Interviewed stakeholders, on the other hand, appeared to be aware of the several benefits that derive or would derive from children and youth's involvement in DRR activities, both to children themselves and to the whole community and broader society.

Yet, several obstacles hinder the possibility for children and youth, including those living in the BSR, to effectively engage in DRR actions.

Across all the FGDs and individual interviews held as part of the present research, it appeared that children and youth are not systematically supported in identifying the areas in which they feel their contribution could best be provided. They are seldom consulted about the role they could play in relation to disasters. Albeit with the best intentions to protect them from potential physical and psychological traumas that could result from exposure, adults are in fact preventing children from deploying their full potential in building resilient societies, in general, and in the BSR in particular.

It is therefore recommended to design, implement and institutionalise mechanisms to involve children and young people on an ongoing basis, and to help them figure out and express the ways in which their involvement in DRR could take place in practice. Meaningful and effective participation requires, among others, more than a few opportunities for children and youth to have a say in decision-making spaces and to

share their views and ideas. It needs to be adequately resourced and embedded in institutions and processes that influence children and youth's lives. Participation should be appropriately supported throughout different life stages and give voice to children and young people from different age groups, backgrounds and life experiences.

Limited volunteering culture, increasing individualism, appear to counter the innate impulse to help that children and youth have. Reportedly, volunteers' organization often do not make it clear to the community what are the avenues to enrol in a volunteering activity.

It is therefore recommended to NGOs and civil society organisations to open up to children and youth's engagement in their activities, which would contribute to keeping their inclination to help alive. Schools could do a lot to foster cooperation and solidarity among children and young people, by encouraging them to work together collaboratively, instead of pushing everyone to stand out on her/his own.

In terms of activities that children and youth could be involved in, one of the suggestions that received the widest consensus, and that was brought up consistently across different discussions in the field, was to actively involve peers as trainers and educators on DRR actions. In that regard, information offered at school could become, in a way, complementary to the discussions that children and youth are part of in other settings.

The reviewed literature, as well as respondents involved in the field work, were very vocal about the fact that the primary obstacle to children and youth's engagement in DRR is the prevalence of an adult-centred approach, which gives more prominence to opinions formulated by practitioners and experts, and overlooks children and young persons' views on the topic.

Therefore, it is considered of priority importance to raise awareness and build capacity of professionals who have the responsibility, capacity or opportunity to work on disaster risk reduction, particularly on the role that children and youth are playing and could play in relation to disasters prevention and response.

Mostly due to its scope, this Pre-Study can be regarded as an exploratory attempt to highlight the factors that favour or, conversely, hinder children and youth's engagement in DRR. Many issues in this area require further research. In particular, while several sources across the reviewed literature, as well as interviewed stakeholders, assert the benefits of involving children and youth in DRR, limited evidence has been found about the positive, unintended and (if any) negative impact of such involvement.

It is therefore recommended that further research is undertaken on the topic, especially regarding DRR activities in which children and youth of different age groups could be effectively involved in, by collecting – among others - evidence from those areas of the world where such practices are more advanced and regularly implemented.

Furthermore, the Pre-Study aimed to find out what factors influence, or could potentially influence, children and youth's involvement in prevention and mitigation. While it identified several obstacles to engagement, the research could not clearly establish which other individual, family, socio-economic, geographical origin and other features influence children and youth's involvement in DRR, and how.

Therefore, further research is recommended in the above-area, aimed to cast out more light about the variables that could hinder or favour children and youth's engagement in risk, safety and disaster domains.

Annexes

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Annex 2 – Key-respondents interviewed during focus groups and individual interviews

Key-informants

II LV 1 = Kaspars Vārpiņš, Deputy Chief, Liepaja Municipal Police & Safe Cities Commission Chairman, Union of the Baltic Cities

II LV 2 = Ivars Nakurts, Head of Civil Protection Department , State Fire and Rescue Service of Latvia

II LV 3 = Guna Zvīgule, Education Project Manager, Communication Department, Road Traffic Safety Directorate

II LV 4 = Artjoms Kalacs, Chief Specialist, Juvenile Crime Prevention Unit, Riga Municipal Police

II LV 5 = Anda Sauļune, Head of the Family Support Department, State Inspectorate for Protection of Children; Taivo Trams, Expert, Family Support Department, State Inspectorate for Protection of Children

II LV 6 = Sandra Falka, Senior Expert, Comprehensive Education Content Provision Division, National Centre for Education

II LV 7 = Vita Vīlistere, Senior Inspector of the Prevention Group, Public Order Police, Kurzeme Regional Administration, State Police

II LV 8 = Janeks Bahs, Head, Tukums Police Station, Zemgale Regional Administration, State Police

II PL 1= Adrian Bucalowski, Deputy Head, Civil Protection Department, National Headquarters of the State Fire Service

II PL 2 = Sebastian Żurawski, Head, Volunteer Fire

Department, Kobyłka & Head, Scouting Fire Department, Polish Scouts and Guiding Association
II PL 3 = Krystian Radziejewski, Head, Scouting Region in Pruszków & Head, Scouting Safety Department, Polish Scouts and Guiding Association
II PL 4 = Tomasz Huk, School Director, Primary School No. 11 in Katowice
II PL 5 = Joanna Meitz, Specialist and Project Coordinator, Polish Academy of Sciences
II PL 6 = Sebastian Sosiński, Facility Director, Modlin Fortress (Former Head of Scout Region in Nowy Dwór Mazowiecki, Polish Scouts and Guiding Association & Former NGO Specialist in Town Hall in Nowy Dwór Mazowiecki)
II PL 7 = Ewelina Bzdęga, Teacher, Primary and High School for children maladjusted to life in society
II PL 8 = Justyna Wilczyńska, Teacher, Primary and High School for children maladjusted to life in society
II PL 9 = Marta Wawiórko, Head of the Social Prevention Division, National Headquarters of the National Fire Service; Teresa Tiszbierek, Deputy Chief of the Voluntary Fire Brigade & Senior Specialist at the Social Prevention Division, National Headquarters of the National Fire Service
II ES 1 = Anu Allekand, Youth Coordinator, Estonian Defense League
II ES 2 = Karen-Pauliin Konks, Children's Welfare Department, Ministry of Social Affairs
II ES 3 = Margit Sarv, Senior Adviser, Children's and Youth Rights Department, Chancellor of Justice
II ES 4 = Viktor Saaremets, Leader, Prevention Unit, Estonian Rescue Board
II ES 5 = Brita Saar, Regional Police Officer, Estonian Police and Border Guard Board

FGDs held with children and youth

FGD LV 1 = 4 children aged 9 to 10, 1 boy and 3 girls, school children, Latvia
FGD LV 2 = 5 children aged 8 to 9, 2 girls and 3 boys, school children, Latvia
FGD LV 3 = 6 children aged 7 to 8, 4 girls and 2 boys, school children, Latvia
FGD LV 4 = 5 children aged 7 to 8, 2 boys and 3 girls, school children, Latvia
FGD LV 5 = 8 adolescents aged 15 to 16, 4 boys and 4 girls, school children, Latvia
FGD LV 6 = 6 young adults aged 18 to 24, 5 girls and 1 boy, including 1 migrant and 1 person with disability, Latvia
FGD LV 7 = 6 adolescents aged 15 to 16, 5 girls and 1 boy, school children, Russian minority, Latvia
FGD PL 1 = 9 young adults aged 19 to 24, 3 girls and 6 boys, scout association, Poland
FGD PL 2 = 4 adolescents aged 16-19, 2 boys and 2 girls, scout association, Poland
FGD PL 3 = 13 adolescents aged 16 to 17, 3 girls and 10 boys, school children, Poland
FGD PL 4 = 16 adolescents aged 16 to 17, 5 girls and 11 boys, school children, Poland
FGD PL 5 = 13 children and adolescents aged 12 to 17, 5 girls and 8 boys, members of the Youth Scouting and Fire Department at the Volunteer Fire Brigade, Poland
FGD ES 1 = 4 children aged 9 to 11, all boys, school children, Estonia
FGD ES 2 = 4 adolescents aged 12 to 14, 2 boys and 2 girls, school children, Estonia