



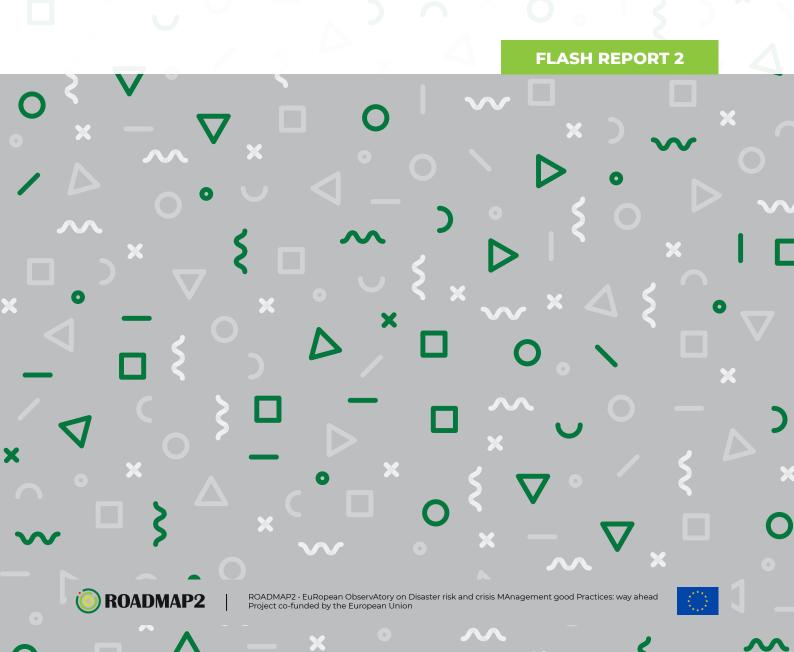








Practices of engaging people in vulnerable situations in disaster risk management







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Cite as:

Nahkur O., Orru K., Joao-Hussar I., Di Bucci D. (2024).

Practices of engaging people in vulnerable situations in disaster risk management. ROADMAP2 Project - Flash Report 2. https://doi.org/10.71524FR2DOI

Project Details

Start date: 1st January 2023

End date: 31th December 2024

Duration: **24 Months**

Reference: 101101690 - ROADMAP2 - UCPM-2022-KN

Website: https://roadmap2.ci3r.it/

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1. Introduction

Often it has been difficult for people with different capacities, especially people in vulnerable situations, to have their needs represented in disaster risk management (DRM; Nero et al., 2023; Janssen et al., 2023). Exclusion can amplify the impact of crises (Schobert et al., 2023). To build a more inclusive DRM system, engagement of people in vulnerable situations into DRM is vital. Inclusive DRM aims to address vulnerability and promote equality, requiring capacity building and empowerment (Twigg et al., 2018; United Nations, 2015). This ROADMAP2 project flash report aims to describe several good practices in engaging people in vulnerable situations in DRM, further developing the analysis started in ROADMAP project (Tagliacozzo et al., 2022).

European Union Disaster Resilience Goals stipulates the collaboration in European communities to withstand the impacts of future disasters and we need to be better prepared to act, before disasters strike (European Commission, 2023). Particularly the Goal 2 emphasises the importance of increasing disaster risk awareness and preparedness of all-of-society, involving and empowering the population groups that are in already vulnerable situations. Also the Sendai Framework for Disaster Risk Reduction 2015-2030 encourages partnerships between the communities and authorities to better understand the sources of vulnerability and defining its mitigation strategies (United Nations, 2015).

In this flash report we seek to address these goals and explore some existing good practices of engaging and empowering individuals that are already in vulnerable situations. We seek answers to the following questions.

- 1. What are the new or reviewed practices in engaging and empowering community members in already vulnerable situations?
- 2. What has been the rationale in developing such practices? Which problems in DRM (e.g. experiences in specific crises) have led to the development and use of this practice?
- **3.** What has made this practice particularly well-functioning and useful for DRM, for saving the lives and health of people?
- 4. To whom and how the practice is implemented in real life?
- What are the lessons learned? Feedback from implementers and target group/users of the practice.
- **6.** To what extent the good practice achieves the desired results? To what extent reaches to the intended target population?

The report follows the methodology for identifying and assessing good practices in DRM set forth in the ROADMAP2 deliverable D3.1. In this context, good practices are defined as activities that substantially reduce disaster risk and losses in lives, livelihoods, health, and assets. DRM, engagement and empowerment of stakeholders and members of community that are in

already vulnerable situations were considered as the key areas of relevance in the search for these good practices. Firstly, this search was conducted across academic databases using search terms such as "disaster", "crisis", "vulnerabilities", "empowerment" and "engagement". The databases used for the search were Web of Science, ScienceDirect and Google Scholar. Secondly, a search for engagement practices was conducted across the websites of international organisations operating in the field of DRM, including UNDRR, WHO and GNDR. Additionally, the search for engagement practices at a national or a subnational level was conducted using Google search engine.

In identifying good practices amongst the results, the identification criteria set in ROADMAP2 (2023) deliverable D3.1 Framework for identifying and assessing good practices in DRM were applied:

- cover the DRM cycle (e.g., have been realised in prevention, preparedness, response and/or recovery phases);
- adhere to priorities and targets of the Sendai Framework for DRR;
- adhere to the UDRGs;
- consider a multi-risk perspective;
- through research and/or practice, have been applied and work in a real context in achieving outcomes and results (evidence);
- involve different types of stakeholders (international, national, local, but also different professions).

2. People in vulnerable situations

Some groups, e.g. individuals with mental and physical disabilities (Morrow-Gorton et al., 2022) or the poor (cf. Morris, 2020; Siimsen et al., 2023) are by default more vulnerable to different risks. However, in most European countries there are people who have a high risk of becoming vulnerable through crises or depending on the considered risk. Thus, it is also important to consider vulnerability as the dynamic characteristic of individuals and groups of being susceptible to harm or loss, which manifests as situational inability (or weakness) to access adequate resources and means of protection to anticipate, cope with, recover and learn from the impact of natural or manmade risks (Kuran et al., 2020; Morsut et al., 2021). We use 'people in vulnerable situations' to accommodate traditional vulnerable groups but also individuals with situational inabilities.

3. Engagement and empowerment in DRM

Engagement relies on interaction between authorities and people in vulnerable situations and/or their



representatives. It gives the latter a stake in decision-making, development, or implementation of interventions with the objective of improving DRM. Engagement can take many forms, such as considering the risks in communities' living area, identifying sources of vulnerability and planning for joint crisis actions, or even preparing physical environment at homes or in the area of community to put up with various hazards.

In the context of DRM, World Bank's Global Facility for Disaster Reduction and Recovery (GFDRR, 2018) has proposed a framework differentiating degrees of citizen engagement. In this framework, based on the level of interaction between authorities and citizens, and citizens involvement in decision-making and DRM interventions, the following degrees of engagement are differentiated: (1) informing, (2) consulting, (3) collaborating, and (4) empowering.

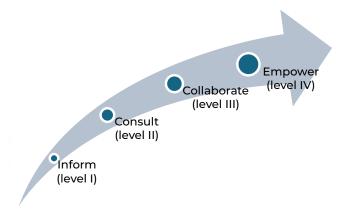


Figure 1: Degrees of citizen engagement (GFDRR 2018).

Informing, as an important first step to engagement, involves a one-way provision of information from public authorities to citizens. For example, distributing guidelines on how to prepare for a crisis in a way accessible to people with sensory impairment(s) can be considered as informing in the inclusive DRM context. Two-way citizens' engagement starts from consulting, as it allows authorities to get citizen feedback, e.g. what are the worries, fears and needs of people in vulnerable situations related to future crises and what are the lessons learned from previous crises. Consultation is a crucial stage in the development of interventions, involving public hearings, surveys, focus groups, and advisory bodies (GFDRR, 2018; Orru et al., 2022). Collaboration can be initiated by either public authorities or citizens and it can be seen as a two-way communication based on mutual interests and shared objectives, ensuring regular exchange of views. For example, creating elderly care home crisis plans in a way where authorities are driving the process of elaboration of preparedness plans and the elderly inhabitants contribute "at the backseat" can be considered collaboration. More control increases people in vulnerable situations feeling of ownership and engagement in DRM. Empowerment is the highest degree of engagement, where

citizens and public authorities work closely together, requiring the functioning of all levels of engagement. Empowerment can be specified according to Wilson (1996) as four processes which include problem identification/awareness, competency learning, capacity building, and utilization of competence and capacity. For example, if deaf individuals, who also have previous knowledge about DRM, train authorities about the 'specifics of deafness' in DRM, this can be considered as empowerment in the inclusive DRM context. However, it is important to notice that engagement is not necessarily a linear process, e.g. in some instances collaboration and consultation may be needed before wider information dissemination (i.e., co-creation of shared information).

4. Practices in engaging people in vulnerable situations in DRM

We describe practices covering different degrees of engagement - informing, consulting, collaborating and empowering - of various groups of people in vulnerable situations. These include children, elderly, individuals with disabilities/special needs and refugees. Informing is covered by Paré pas Paré ('Ready or not?') which is an educational program in Reunion Island. It is a practice for engaging children in DRM and this engagement takes place through informing children. Dopomoha is online platform in Romania where Ukrainian refugees can find relevant information and let know of their needs, and public authorities, companies or NGOs can offer their resources. The platform helps to match these needs and resources. It can be considered as engaging refugees to DRM through consulting. In Japan, individual evacuation plan for persons with special needs are developed together by themselves, their family members, neighbours, and welfare professionals, administrative staff, NGOs. This way, individuals with special needs are engaged in DRM through collaboration. Equipping the elderly people in Estonia with the knowledge and skills to actively contribute to DRM and applying the ABCD model/ Snowman method for asset mapping and community-led planning can be considered as empowerment of elderly people in DRM.

4.1 Paré pas Paré ('Ready or not?') educational program for children in Reunion Island

Children are a vulnerable group in the context of disasters. Children in Reunion Island are exposed to 7 different types of natural hazards. The island is particularly threatened by cyclones, landslides, flooding, volcanic eruptions, forest fires, seismic activity, and tsunamis. An unstable living environment in Reunion Island can decrease children's confidence in tomorrow and negatively affect their mental health. Paré pas Paré ('Ready or not?') ed-



ucational program, created jointly by the Ministry of Education, French Red Cross's (FRC), Indian Ocean Regional Intervention Platform (PIROI) and their technical partners, aims to increase Reunion Island 8-12-year-old (cycle 3) students' awareness on disaster risks and educate about the correct behavior before, during, and after disasters. Increased knowledge and skills in relation to natural hazards and the behaviors to be adopted help to increase children's confidence to live with natural hazards, support their positive mental state and help them to see themselves as agents of change. The strengths of this educational program are reality of knowledge (children live often what they are listening), existence of study materials in various forms adapted to target child population, training and supporting resources for teachers implementing the program, and correspondence of education kit provided by PIROI-FRC to the official French Ministry of Education curriculum for cycle 3.

Since 2011, PIROI-FRC has had a partnership agreement with the Ministry of Education in Reunion Island. As a result, an animated booklet on natural hazards and indications on what to do in the event of a disaster for 4th to 6th (CM1, CM2 and 6e) grade students have been created, and PIROI-FRC trained volunteers intervene directly in the target schools to animate the booklet and additional resources. From 2020 onwards, teachers from schools are trained on DRR by PIROI-FRC staff and volunteers run the sessions within their academic curricula.

The educational program takes place through 3 school years. CM1 students in public and private schools receive each year a printed student booklet which will follow them until 6th grade. The booklet content was developed by local specialists in natural hazards, pedagogy and child psychology. It is well illustrated, attractive, and regularly updated by the technical experts on natural hazards and validated by the Ministry of Education are done. The student's booklet includes:

- 8 modules (one general introductory module and 7 hazard-specific modules);
- a space for students' observations and thoughts.
- explanation of the natural hazards;
- behaviors in relation to the natural hazards (what to do before, during and after);
- exercises and games;
- resources to go further (PIROI: https://piroi.croixrouge.fr/boite-a-outils/mise-en-oeuvre/?lang=en).

In CMI, students focus on general natural disaster risks module, and cyclones and landslides modules, in CM2 on flooding, volcanic eruptions, forest fires modules, in 6° on seismic activity, and tsunamis module (Reunion Academy, https://www.ac-reunion.fr/pare-pas-pare-128193).

To further increase knowledge and awareness of the natural disaster risks, the booklet is accompanied by interactive local risks board game "Risk Pei" and Harry Trotter postcards. In board game "Risk Pei" each

square on the board is linked to a question contextualized to the territory of Reunion Island and dealing with the themes of the environment, risks, means of protection, historical natural events, etc. In each hazard-specific module, students receive a postcard from a virtual character, Harry Trotter, asking different questions about the disaster they are focusing on (Reunion Academy https://www.ac-reunion.fr/harry-trotter-et-les-risques-naturels-128220).

To further learn about the correct behavior before, during, and after natural disasters, comics, serious game, posters, and an animated storybook are used. Comics "Remember the right things to do" explains all the 7 hazards and examples of measures to take before, during and after the event. With Serious Game "A zot et les zinondations" students can more thoroughly focus on correct behavior undertaken before, during and after a flood. (PIROI https://piroi.croixrouge.fr/boite-a-outils/mise-en-oeuvre/?lang=en) Posters give prevention instructions for each hazard in the form of a comic strip. Preparation and prevention measures in the case of 5 natural hazards (cyclone, volcano, forest fire, tsunami and earthquake) are introduced also in the animated storybook "The Island of 1000 Dangers".

In each grade, knowledge assessment with a survey of 10 questions is done before and at the end of the intervention to quickly measure the impact of awareness-raising activities on a class. The study on the project's impact measurement is very positive, showing a progress between the two time points (PIROI https://piroi.croix-rouge.fr/boite-a-outils/suivi-evaluation/?lang=en). Since 2011, more than 200 000 young students have followed the program (Fouquart, 2024), a relevant figure, considering that Reunion Island has less than 900 000 inhabitants.

To strengthen students' engagement in this learning, PIROI-FRC organizes 3 types of activities each year (Charrier, 2024):

- a natural hazard model (e.g. volcanic eruption or landslide) competition open to all cycle 3 students. The first 10 classes win a field trip and educational visit with one of PIROI-FRC technical partners (e.g. National Forest Office, Volcano City, French national meteorological and climatological service);
- prevention activities in schools and prevention villages: pre-trained French Red Cross volunteers set up stands with awareness games about natural hazards for the 6–17-year-old students.

These activities are carried out by PIROI-FRC staff and volunteers during the extra-curricular time in schools (Charrier, 2024). Summary of 2023 activities:

- 34 000 students participated in the educational program Paré pas Paré.
- 1 450 students benefited from prevention activities led by French Red Cross volunteers.
- 28 classes registered in the natural hazard competition, with 10 classes (255 students) winning a field trip.



 232 students participated in the "Flooded Environment and Life-Saving Actions - MIGS" training.

4.2 Dopomoha online information and support platform for Ukrainian refugees

Dopomoha is an information and support platform, launched in 2022 for Ukrainian refugees who request help in Romania due to the war. It is developed by the NGO Code for Romania in partnership with the Department for Emergency Situations of the Romanian Ministry of Internal Affairs, the UN Refugee Agency, the International Organization for Migration and the Romanian National Council for Refugees (Dopomoha, 2024). The Platform is managed by the Department for Emergency Situations, and is permanently updated and available in Ukrainian, Romanian, English and Russian (Lazarescu, n.d). On the one hand, it is for refugees to request resources they need. On the other hand, public authorities, private companies and NGOs/volunteers can register their available resources. Offered resources, such as transport and housing, are checked and verified, including people providing help and what they offer as resources (Engage Knowledge Platform, 2022).

The platform landing page displays twelve buttons, through which the user can navigate between the different information categories (Dopomoha, 2024). By clicking 'Legal status', the user of the website is provided with information about temporary protection, short stays, applying for asylum and rights. Also contact information for support in some other European countries (Poland, Moldova, Hungary, Slovakia) is provided. 'Info' shows frequently asked questions and answers. 'Law made simple' explains legislation related to birth, education, professional life, marriage, death, civic participation, housing, vehicles, business, identity and travel in simple terms. User can also suggest to add a new life event needing explanation. 'Support' provides refugees with information related to medical assistance, jobs, education, legal help, transport, language courses and activities, drug use, mental health services, integration of refugees and opportunity to register their need for housing. Also, a map of organisations helping refugees from Ukraine and contact information about different help-lines and call-centers are provided. In addition, 'Support' is directed to volunteers who want to help with services, products, volunteering or in other way. It is possible to register the resources they are ready to provide. With the fifth button, 'Housing', refugees can ask for accommodation and legal entity, or individuals can offer accommodation. 'Call centre' provides an overview of help lines and telephone numbers to medical support, children support and support for accommodation requests and information regarding the conditions of stay on the Romanian territory. 'Education' provides information on how to enroll a child in school, kindergarten or extracurricular activities, including application forms and information about Ukrainian schools and kindergartens in Romania; information about free courses and activities for adults and children; how students can continue their studies in Romania. 'Health' provides information about medical assistance to refugees, including help for people with rare or chronic diseases, gynecology medical services, counseling for people living with HIV, pediatric oncology, children's nutrition, vaccination, psychological support, hygiene and taking care of children with disabilities. For women, by filling in the form, it is possible to ask for help if they have health or safety concerns. 'Transport' provides information about free transfer from Ukraine to Romania via Moldova, but also train, bus, subway, taxi information in Romania. It is possible to request help from Rescue 4x4 free service which consists of bringing help needers' vehicle to the road (paved or not) where it can continue on its own wheels or removing the vehicle from the carriageway of a public road so as not to inconvenience or block traffic. 'Jobs' provides information about the Jobs4Ukraine, Adecco platforms which match candidates from Ukraine with the right job opportunities in Romania and/or abroad; also, free services offered to Ukrainian citizens for integration into the labor market in Romania, guidance on access to the labor market, organizations providing employment support for refugees. 'Stay safe' gives guidelines to refugees on how to avoid human trafficking and exploitation, but also what to do in case of emergency or war and provides list of shelters in Romania. 'PTSD help' leads to app functioning as a free assistant for managing Post Traumatic Stress Disorder (PTSD). Although digital literacy is needed to make use of the platform, it has been developed with the user in mind, making it intuitive and easy to use (Engage Knowledge Platform, 2022). Users having challenges using the platform can contact a team with tech

lion refugees from Ukraine (Lazarescu, n.d). The functionality of the platform has been continuously evaluated through feedback from users (Engage Knowledge Platform, 2022). Feedback has been given from the ground workers to the Department of Emergency Situations of the Romanian Ministry of Internal Affairs of what the needs are, e.g. now there is a need for clothes and medicines. Feedback has also been related to the need to diversify and how to integrate new features.

support working 24/7, answering telephone and pro-

viding support via Microsoft Teams. Since launching

in 2022, the platform has been used by over 1.2 mil-

4.3 Individual Evacuation Plan for people with special needs in Japan

In Japan, Individual Evacuation Plan has been devised for individuals with special needs who require assistance during evacuations, and it is a supplement to the general evacuation plan. It encompasses a wide range of physical, cognitive, and other health conditions. According to the change in the official regulations in 2021, Japanese welfare institutions are responsible for making these individual evacuation plans.



The process of making these plans has three steps (Takahashi & Yasufuku, 2024). First, municipalities must proactively identify individuals requiring special evacuation assistance, ensuring that no one is overlooked. Next, a professional social worker conducts a comprehensive assessment of the individual's functional needs and capabilities, which informs the development of a personalised evacuation plan. Finally, there is a coordination meeting with the client and all relevant actors like family members, welfare professionals, administrative staff, NGOs, and neighbours as evacuation supporters. Together they plan who can do what to help in case of an evacuation. After the individual evacuation plan has been drafted, inclusive evacuation drills are conducted to test and refine the plan, thereby providing opportunities for practice and feedback from all involved (Inoguchi, 2024; Nishiyama, 2014).

The **rationale** behind the development of the plan is likely to have been influenced by several factors. The frequent occurrence of natural disasters in Japan, including earthquakes, tsunamis and typhoons, highlights the necessity for the implementation of robust DRM strategies that are specifically designed to address the needs of vulnerable populations. The Great East Japan Earthquake (i.e., the Tohoku earthquake, in 2011) highlighted the difficulties encountered by individuals with special needs during evacuations, thereby prompting the development of more proactive and inclusive measures (Nishiyama, 2014). Previous disaster experiences have demonstrated the difficulties encountered by individuals with special needs during evacuation procedures. The plan represents a proactive response to these lessons, with the objective of preventing similar issues in future events (Nishiyama, 2014).

Although the practice is still in its infancy, preliminary evidence suggests that it is effectively reaching its target population and achieving the desired outcomes. The practice has received positive feedback, which serves to underscore its success in terms of saving lives and improving preparedness. However, it is imperative that ongoing monitoring and evaluation are conducted to ensure the continued effectiveness and adaptability of the plan. (Inoguchi, 2024; Nishiyama, 2014; Takahashi & Yasufuku, 2024).

The effectiveness of the practice can be attributed to several factors, which collectively serve to save lives and protect the health of vulnerable individuals. The plan's emphasis on individual requirements and capabilities guarantees that evacuation strategies are realistic, attainable, and customised to the specific circumstances of each individual (Takahashi & Yasufuku, 2024). The collaborative approach fosters a sense of community ownership and shared responsibility for the safety and well-being of all members, particularly those in vulnerable situations (Nishiyama, 2014). The iterative process of review and refinement, incorporating evacuation drills and feedback, ensures that the plan remains dynamic and responsive to evolving needs and challenges (Taka-

hashi & Yasufuku 2024).

The implementation of the Individual Evacuation Plan for people with special needs has yielded valuable insights for DRM practitioners. A universal approach is insufficient for addressing the heterogeneous needs of vulnerable populations in disaster scenarios. It is imperative that bespoke plans are put in place to guarantee the safety and well-being of these individuals (Nishiyama, 2014). The fostering of inclusive collaboration serves to enhance community resilience and engender a sense of shared responsibility for the safety of all members. Involving individuals in the planning process has the dual benefit of enhancing the effectiveness of the plans and empowering them to take ownership of their safety and contribute to the overall resilience of the community (Takahashi & Yasufuku, 2024).

4.4 ABCD model/Snowman method for engaging elderly people in DRM

This practice centers on adapting the ABCD model (Asset-Based Community Development; Russell, 2020; Kuuspalu, 2023) to identify and mobilize the inherent strengths and resources of elderly community members, integrating them into DRM strategies. This approach shifts the narrative from viewing the elderly as solely vulnerable to recognizing them as active contributors with valuable skills, knowledge, and experiences that can enhance community resilience. The "Snowman Method," developed by Aav (2023) and colleagues since 2022, exemplifies this practice by providing a structured yet adaptable framework for communities to map their assets and envision their future, fostering a sense of ownership and empowerment among participants. Following information about this new practice is based on interview with Kristi Aav (2024) who is community developer and also related to Estonian Rescue Board.

Addressing Gaps in Traditional DRM

Traditional DRM approaches often overlook the potential of the elderly, focusing primarily on their vulnerabilities. This can lead to exclusion and dependency, hindering effective risk mitigation and response. The development of this practice was motivated by the following aspects. Elderly individuals possess unique knowledge and skills: their lived experiences, local wisdom, and understanding of community dynamics can be invaluable in identifying risks, developing preparedness plans, and responding to disasters. The "Snowman Method" emphasizes uncovering these hidden assets, promoting self-discovery and community recognition of the elderly's contributions.

Social isolation and exclusion exacerbate vulnerability: many elderly individuals face social isolation, which can amplify their vulnerability during disasters. Engaging them in DRM fosters social connections and support networks, enhancing their resilience. The community workshops and dialogues inherent in the ABCD model provide opportunities



for interaction and relationship-building among the elderly and other community members.

Empowerment fosters self-efficacy and preparedness: Recognizing and utilizing the assets of the elderly promotes a sense of self-efficacy and ownership, encouraging them to actively participate in DRM efforts. Aav's integration of ABCD principles into civil defense training underscores this by shifting the responsibility for disaster preparedness and response from external authorities to the community itself, including its elderly members.

Implementation

The practice has been implemented in several villages in different parts of Estonia, e.g. in Purtse and 15 villages in Rapla county. In total, more than 100 people participated. At least in Southern Estonia, it has been implemented by Estonian Rescue Board prevention officer, but also by voluntary community developers. Usually, there are three to four meetings within three months. Participatory and collaborative approach is used.

- Community workshops and dialogues: these provide a platform for elderly individuals to share their knowledge, concerns, and ideas regarding DRM. The "Snowman Method" utilizes workshops as a central tool for community engagement and asset mapping.
- Asset mapping: this involves identifying the skills, experiences, and resources that elderly community members can contribute to DRM. The "Snowman Method" explicitly incorporates asset mapping into its framework, encouraging communities to recognize and value the contributions of the elderly. Usually, asset mapping takes place during second or third meeting.
- Collaborative planning: elderly individuals are actively involved in developing DRM plans, ensuring that their needs and perspectives are considered. Aav's civil defense training emphasizes the importance of community-led planning, ensuring that DRM strategies are inclusive and responsive to the needs of all residents, including the elderly.
- Capacity building: training and support are provided to enhance the elderly's ability to participate in DRM activities. The workshops and dialogues facilitated by Aav and her colleagues serve as capacity-building opportunities, equipping the elderly with the knowledge and skills to actively contribute to DRM.

Achieving Desired Results

The practice has demonstrated success in:

- Increasing elderly participation in DRM. It has empowered elderly individuals to take an active role in community preparedness and response efforts. The positive feedback from participants in the "Snowman Method" workshops and the increased community engagement in civil defense training attest to this success;
- Enhancing community resilience. By mobilizing the assets of the elderly, it has strengthened the

- overall capacity of the community to mitigate and respond to disasters. The identification and utilization of elderly individuals' skills and knowledge through asset mapping and collaborative planning contribute to a more comprehensive and effective DRM approach.
- Fostering social inclusion. It has created opportunities for social connection and support among elderly individuals, reducing their vulnerability. The community workshops and dialogues inherent in these practices facilitate interaction and relationship-building, fostering a sense of belonging and mutual support among the elderly and the wider community.

Effectiveness factors in DRM

This practice has proven effective in DRM due to several factors:

- It taps into untapped resources. It mobilizes the often-overlooked skills and knowledge of the elderly, enhancing community preparedness and response capabilities. The "Snowman Method" specifically encourages the identification and utilization of these resources, leading to more comprehensive and effective DRM strategies;
- It strengthens social cohesion. By fostering connections and collaboration among elderly individuals and the wider community, it creates a more supportive and resilient social fabric. The participatory nature of the ABCD model, as exemplified in Aav's community workshops, promotes interaction and mutual understanding among different generations, enhancing social cohesion and collective action;
- It promotes inclusivity. It ensures that the elderly are not left behind in DRM efforts, recognizing their valuable contributions and empowering them to participate actively. Aav's emphasis on challenging the perception of the elderly as solely vulnerable and instead viewing them as active contributors aligns with the inclusive ethos of the ABCD model.

Lessons Learned

Feedback from implementers and elderly participants highlights several key lessons:

- Building trust and relationships is crucial. Establishing rapport and trust with elderly individuals is essential for meaningful engagement. This echoes the emphasis on relationship-building in the ABCD model and is reflected in the positive feedback from participants in the "Snowman Method" workshops who felt heard and valued. Some feedback has indicated the need for even more meetings;
- Flexibility and adaptability are key. The practice should be tailored to the specific needs and context of the community and its elderly population. The adaptability of the "Snowman Method" demonstrates this principle, allowing communities to modify the framework to suit their unique circumstances;



 Recognizing and valuing contributions is vital. Acknowledging the valuable contributions of the elderly fosters a sense of ownership and empowerment. This is evident in both the "Snowman Method" and Aav's civil defense training, where the focus on asset mapping and community-led planning validates the elderly's experiences and knowledge.

5. Conclusions

The implementation of the aforementioned engagement practices has demonstrated enhanced effectiveness in reaching and assisting individuals in vulnerable situations, both in preparedness building and in response and recovery from disasters. Examining the ladder of engagement, the initial step involves educational and awareness-building tools, which reflect the commitment of DRM authorities and organizations to continuous improvement in community preparedness. This is achieved through the dissemination of knowledge and the promotion of proactive attitudes and skills necessary for preparedness and response.

Beyond awareness building, the co-creation of emergency plans significantly enhances community resilience and fosters a sense of shared responsibility. This process empowers individuals to take ownership of their safety and contribute to the overall resilience of the community. Collaboration in designing disaster services, such as individualized evacuation plans and associated drills, represents the ultimate goal of engagement, benefiting from the foundational education and joint planning efforts.

A key element in the collaborative design of engagement and empowerment tools for individuals in vulnerable situations is the incorporation of feedback and continuous review and learning mechanisms. Monitoring the impact of novel practices facilitates their adjustment to maximize benefits, also considering the situational nature of vulnerability. Continuous feedback from users aids in improving engagement tools and strategies, addressing needs and integrating new features. For instance, informative platforms benefit from knowledge assessments conducted before and after interventions to measure the impact of awareness-raising activities. Ongoing monitoring and evaluation ensure the effectiveness and adaptability of disaster services, such as evacuation plans.

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