

V.A. Bagiyan, S.H. Bakunts

COMMUNITY-BASED NATURAL DISASTER RESILIENCE: CHANCES AND CHALLENGES

The article discusses community participation recognition, as a supplementary element of natural disaster management in recent years, as well as the necessity to reverse the global trend of exponential increase in disasters and losses from small and medium scale disasters for building a culture of safety, ensuring sustainable development and disaster resilience.

Key words: *community, vulnerable groups, disaster management, resilience, risk reduction, participatory governance.*

Natural disasters pose significant threats to communities worldwide, necessitating proactive strategies to mitigate risks and enhance resilience. This paper explores the prospects and challenges associated with community-based approaches to natural disaster resilience.

There are few pillars of community-based natural disaster resilience building.

Building Local Confidence: engaging communities in resilience efforts instills a sense of confidence and empowerment.

Enhanced Preparedness and Mitigation: communities actively involved in resilience planning develop improved capacity for disaster preparedness and mitigation.

Development Roles at the Grassroots Level: community involvement leads to greater responsibilities at the local level, aligning disaster resilience efforts with broader community development goals. Empowering communities to take charge of their well-being contributes to sustainable, long-term resilience.

The establishment of community-based natural disaster resilience is predicated on recognizing the pillars that underpin its success. As this paper delves into the prospects and challenges associated with such approaches, it becomes evident that local engagement forms a crucial foundation. Building local confidence emerges as a key pillar, wherein communities actively participating in resilience efforts not only gain a heightened sense of confidence and empowerment but also foster a collective belief in their ability to withstand and recover from disasters. This foundational belief, rooted in localized knowledge and understanding, serves as a catalyst for developing targeted and effective mitigation strategies. Therefore, the interplay between building local confidence and fostering collective belief becomes a linchpin in the overarching framework of community-based natural disaster resilience.

Localized knowledge and understanding of vulnerabilities contribute to the development of targeted and effective mitigation strategies.

Local participation fosters a collective belief in the community's ability to withstand and recover from disasters.

The main benefits of involving communities in disaster resilience and risk management are seen to be building confidence, improved capacity for disaster preparedness and mitigation, greater development roles and responsibilities at the local level and pride in making a difference. In

addition, the involvement of local communities provides an opportunity to develop a wide range of appropriate innovative and workable mitigation solutions in a cost-effective and sustainable manner [5, 10]. This last point of increased cost-efficiency is emphasized by Scully et al., (2022), who show that the integration and active participation of communities in disaster resilience and risk reduction has found to be a means of reducing costs and of incorporating important competencies, networks, etc. to make response and recovery more effective [3, 9, 12]. Likewise, Fischer (2012) describes an increase of efficiency and effectiveness of the provision and management of public services as one of the main goals and potential benefits of capacity building by community engagement [6]. Thereby, participation is seen to bear the potential of combining efficiency with equity since it provides less powerful groups within a community with better chances for having a say in how resources are distributed instead of leaving this decision up to unaccountable administrators. This is also because empowering citizens to "reflect on normative principles that underlie the provision of public services" is a key objective of capacity building. According to Fischer, community involvement can successfully enhance how resources are used and distributed as well as how successful initiatives are in terms of the results they achieve and are intended to achieve. Additionally, community involvement can result in quicker emergency response times in industries like health care, forestry, education, or environmental protection. It can also increase program implementation commitment and motivation and increase public satisfaction with both policies and programs. Thus, increasing capacity can also have the benefit of strengthening people's sense of unity and belonging. Participatory governance – as opposed to citizen participation – can help in gathering competent individuals who have sufficient social capital for joint problem-solving [6]. The UN Declaration of the Right to Development from 1986 claims a right to participate in development and sees this as an „inalienable human right by virtue of which every human person and all peoples are entitled to participate in, contribute to and enjoy economic, social, cultural and political development” [14]. This right is not to be seen as the simple right to „enjoy” the fruits of development, but also as a right to participate in the process of realizing them” [11]. The declaration even claims that „all human beings have a responsibility for development, individually and collectively”, whereby the rights and duties for formulating appropriate national development policies are attributed to the respective states [14]. The right to participate has quite universally and indisputably been accepted and the participatory approach – at least theoretically – certainly has the potential to contribute to greater equity and a fairer distribution of resources as well as a fairer design of decision-making processes. Yet, actual participatory processes often fail in enabling such a broad participation for all [11]. According to empirical research on the subject, it can be more challenging to achieve the purported benefits of involvement in environments where there is a lot of social and economic disparity. As Fischer notes, „equitable outcomes more commonly occur in combination with other factors, such as those related to the distribution of power, motivation levels of the participants, and the presence of groups that can facilitate the process” [6]. Since participation is neither an easy nor a straightforward task and needs to be carefully organized, facilitated and cultivated [5], its role is not viewed in an entirely positive light: while some call for more participation, others believe it should be restrained. Still others point out the limitations and difficulties of participation. Gustafson

et al., (2017) for instance point out that despite a growing body of literature on participatory modes of governance, there is still very little knowledge available on the key players of such participatory approaches, namely the participants and their capabilities and motives for and expectations of participation. This knowledge, however, would be urgently needed, since „the implementation of participatory governance depends on the voluntary and often continuous cooperation of committed participants” [8]. At this juncture, Fischer continues, "people need an incentive to participate because engaging in public affairs is not free." The possible advantages of citizens' participation should exceed these expenses. What is more, people may not see an immediate relevance for their participation or it may seem more important to outsiders than to the relevant communities themselves, and people may also simply lack the motivation, time or resources to take part in participatory processes [6].

The identification of categories of challenges existing in the sector is equally crucial. Based on research findings, the following categories can be used to group the challenges.

Socioeconomic Disparities: environments with high levels of social and economic disparity face challenges in achieving broad and equitable community participation.

Complexity of Participation: meaningful participation requires careful organization, facilitation, and cultivation, which can be complex and resource-intensive. Motivating individuals to engage in public affairs may necessitate incentives to outweigh associated costs.

Measurement of Success: the success of community participation in resilience efforts is challenging to measure, especially regarding benefits and costs to households. Establishing a clear cause-effect relationship between efficiency and participation can be problematic.

Gaps in Capacity, Incentive, and Power: effective participation faces gaps in capacity, incentive, and power, necessitating skill-building, addressing opportunity costs, and rectifying power imbalances.

The challenges inherent in community participation in resilience efforts are multifaceted and encompass various dimensions. The identification of these challenges reveals a pattern that intersects with the struggles faced by vulnerable groups. Notably, socioeconomic disparities, a key category of challenges, can exacerbate systemic inequalities, making it difficult for vulnerable groups to engage meaningfully. Moreover, the complexity associated with participation, including the need for careful organization and facilitation, presents an additional hurdle for those already facing societal barriers. The difficulties in measuring the success of participation, particularly in terms of benefits and costs, echo the challenges highlighted in the second text regarding the reliability of information on these distributions. Furthermore, the gaps in capacity, incentive, and power underscore the broader issues of skill-building, addressing opportunity costs, and rectifying power imbalances, which are integral to ensuring that vulnerable groups can overcome these obstacles and participate meaningfully in community-based resilience efforts. Thus, understanding and addressing the identified challenges become pivotal not only for the overall effectiveness of community participation but also for fostering inclusivity and overcoming systemic barriers faced by vulnerable populations.

Vulnerable groups may struggle to engage meaningfully due to systemic inequalities.

Another related challenge with participation is that its success is often difficult to measure. On the one hand because „there is often no reliable information about the distribution of benefits and costs to households”. On the other hand, as Fischer contends, establishing a cause-effect relationship between efficiency and participation can be problematic, as „it is always possible that a positive association between efficiency and participation may only reflect a process of reverse causation—that is, community members had already chosen to participate in those projects which promised to be efficient” [6]. Furthermore, in the context of developing countries „in which community participation is related to external donor-funded projects participation can intentionally advance preferences that are seen to be more in line with the interests of the donors than local interests. The participants simply try to increase their chances of obtaining available resources by telling the donors what they want to hear” [6]. In such cases, participatory approaches – although they are aimed at the opposite effect – tend to reproduce existing social hierarchies instead of eradicating or at least mitigating them. Osmani states that a careful analysis of previous approaches to participatory governance “suggests that success depends largely on how well a society can deal with three distinct but inter-related gaps that stand in the way of effective participation” [11]. These may be called the capacity gap, the incentive gap and the power gap”. The capacity gap „arises from the fact that meaningful participation in the process of governance requires certain skills which common people, least of all the traditionally disadvantaged and marginalized segments of the society, do not typically possess. In order to bridge this gap, participation must be made more effective by training and practicing general skills such as working in heterogenous teams or articulating one’s view rationally and understandably over a longer period of time. Thereby it is important that „the transfer of knowledge must take place in a setting of fundamental equality and mutual respect between the providers and recipients of knowledge”. The Incentive gap refers to the various types of costs of participation. These include an opportunity cost of the time and effort that people have to put into participative activities, which usually is especially high for women because of their alleged „triple burden”; the psychological cost of speaking out in public and the probable cost of retribution which refers to potential class hierarchies. The Power gap according to Osmani arises from „systematic asymmetries of power that is inherent in unequal societies”, i.e. due to gender, age, ethnicity, class, religion or other differences that may make a difference in certain situations. The author posits that in societies where dominant groups hold superior power to advance their own limited goals, participation is likely to be uneven as well. "Some countervailing power in favor of the subordinate groups" must be established in order to eliminate the power gap, or at least reduce it. Osmani proposes the „theory of deliberative democracy” as one way for creating such a countervailing power which should ensure a fair and equitable decision-making process by enabling all participants to effectively present their views and the actions, they consider necessary. A basic prerequisite therefore is that people have the necessary education and economic security, as “poor illiterate people, whose livelihoods are insecure and whose very survival depends on maintaining an obsequious humility in the context of patron-client relationships, are not very likely to participate independently or assertively in the conduct of public affairs”. In order for participation to contribute to increasing social equity, it must be ensured that poor and other vulnerable groups are able to act

and advocate in their own interests, even though this may go against the interests of their donors [11]. While participation may significantly contribute to greater efficiency and equity, there are certainly no guarantees and especially large-scale disasters continue to expose weaknesses in the communitarian dimension of crisis-management policy. The design of policy around participatory concepts is often problematic because of its ambiguous nature and connected romanticism while some initiatives may reflect a neo-liberal agenda [13]. These are by no means arguments against citizen participation but rather for a careful design and implementation. Dibley et al. (2019) for instance stress the government's role in supporting community-led approaches to recovery and argue that it is paramount to enable and support collective self-efficacy and already existing capacities and to understand the capacity of governments to devolve responsibility and power and to share it with the respective communities [4]. In a similar manner, Stark et al., (2014) propose a community decentralization model and argue that crisis management should remain in local state control. However, the resources should be moved out into the communities on a horizontal axis after being located at this lowest level on a vertical axis and being under government supervision. It is necessary to establish localized crisis-management teams that address the demands and dangers unique to each community. [13]. In contrast, Linnell (2013) suggests that instead of focusing on the potential risks and hazards, the focus should be on people and their capacity to act (see also UNDP 2022) since it is mainly the residents and first responders of areas that are affected by disasters who are the first to react to emergency events and quickly provide assistance and participate in the rescue of people [3, 9]. This is partly because they are the first to arrive on the scene, and partly because living in disaster areas has given them the necessary skills and experience to deal with disasters. Moreover, according to the authors, the response to crisis events is predominantly organized by kinship, family and neighborhood networks, each of which mobilize available resources [3, 9]. Linnell (2013) also highlights the effectiveness of established networks such as family, workplace, clubs, organizations, church congregations, which could and should be considered as important actors for emergency and disaster management. In order to being able to respond more effectively and efficiently to disaster events in the future [9], Beldyga (2022) recommends to develop emergency plans in collaboration with affected communities in an iterative process in order to enhance disaster resilience [3]. Yet, as already indicated above, including members of local communities in processes of building disaster resilience is not an easy task, and authors such as Alexander et al., [2014], Andharia et al. (2023) and Geekiyana et al. (2020) criticize that current disaster management plans and decision-making processes especially fail in sufficiently considering the views and needs of people with disabilities and other vulnerable groups, although they are often more severely affected by disasters than people with no disabilities and „they can suffer additional forms of discrimination or neglect” [1, 2, 7]. The authors plea for an inclusive approach in disaster management that adequately considers people with disabilities and implements their special needs. Andharia et al. (2023) propose a participatory mechanism for community feedback that is tailored to the special needs of people with disabilities [2]. The authors refer to a large-scale study that was conducted in Kerala in 2018 with people with disabilities/impairments after a major flood disaster. They present the work undertaken by the government and several partners using action research

and methodological innovations during post-disaster recovery to implement the idea of AAP ("Accountability to affected and at-risk populations") within government systems that included a large sample of people with disabilities. This approach, according to the authors "underlined the assumption that people with disabilities are not mere victims or beneficiaries but have the potential to be actors, active participants and agents of change and opportunities must be provided for them to communicate" [2]. The whole design and setup of the data collection process ensured that an app-based data collection platform was provided to people with disabilities that allowed them to give real-time feedback on their needs and concerns during disaster response and recovery. The research thus "created a reliable foundation for the government to understand the successes and shortcomings of its existing disaster management policies and their implementation. It also formed a rich source of reference for insights for future planning, preparedness and resilience building for the people with disabilities" [2]. While this is certainly an example of successful community involvement with special attention to vulnerable groups, there are numerous factors and hurdles that may significantly hinder the engagement of vulnerable groups. Geekiyanage et al. (2020) for instance state that vulnerable populations are often not considered in urban development decision-making processes because of barriers to community access and challenges to their inclusion. This neglect of vulnerable groups can subsequently also affect the disaster resilience of cities and urban environments. In their literature review, Geekiyanage et al. (2020) identify several challenges and barriers to collaborative decision-making, mainly in relation to the categories of context (community capacity, quality of existing relationships, organizational culture, attitudes and knowledge), infrastructure (investment in infrastructure and planning to support community engagement) and process (stakeholder engagement process, inclusive and accessible practice). These barriers include, first and foremost, communities' lack of knowledge about how best to engage in participatory decision-making and development processes, and a lack of awareness of the benefits they can gain from being involved in these processes. The second most frequently cited barrier was a lack of meaningful community involvement by decision-makers. Unclearly defined goals and purposes of civil society engagement, as well as a lack of clarity, lack of transparency and unclear expectations of current stakeholder engagement processes were cited as the third most important barrier to engaging vulnerable communities in urban development. Through a synthesis of current research, the study found that these barriers can be overcome by changing attitudes and building capacity of both community and professionals, investing in community engagement, and making changes to current stakeholder engagement processes and policies. This last aspect shall be achieved by "incorporating bottom-up dimensions instead of having dominant top-down governance" and by decentralising decision-making and management powers "with responsibilities spread over different stakeholder organisations" [7].

In conclusion, the exploration of community-based natural disaster resilience underscores the critical interplay between local engagement and the pillars that support resilience efforts. The identified pillars, including building local confidence, enhancing preparedness and mitigation, and promoting development roles at the grassroots level, collectively form the foundation of successful community-based approaches. Empowering communities to actively participate not only instills

confidence and a sense of empowerment but also fosters a collective belief in their capacity to withstand and recover from disasters.

In navigating the complexities of community-based natural disaster resilience, acknowledging and addressing challenges, fostering inclusivity, and promoting meaningful participation emerge as key imperatives. By doing so, communities can collectively build the capacity to respond effectively to disasters, ultimately contributing to a more resilient and equitable future.

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Վ.Ա. Բագիյան, Ս.Հ. Բակունց

ՏԱՐԵՐԱՅԻՆ ԱՂԵՏՆԵՐԻ ՀԱՄԱՅՆՔԱԿԵՆ ԴԻՄԱԿԱՅՈՒՆՈՒԹՅՈՒՆ. ՀՆԱՐԱՎՈՐՈՒԹՅՈՒՆՆԵՐ ԵՎ ՄԱՐՏԱԿՐԱՎԵՐՆԵՐ

Հոդվածքը քննարկում է վերջին տարիներին համայնքի մասնակցության ճանաչումը, որպես տարերային աղետների կառավարման լրացուցիչ տարր, որն անհրաժեշտ է աղետների և փոքր ու միջին աղետներից կորուստների թվի էքսպոնենցիոնալ աճի համաշխարհային միտումը հակադարձելու, անվտանգության մշակույթ ձևավորելու և կայուն զարգացում ու աղետների հանդեպ դիմակայունություն ապահովելու համար:

Առանցքային բառեր. համայնք, խոցելի խմբեր, աղետների կառավարում, դիմակայունություն, ռիսկի նվազեցում, մասնակցային կառավարում:

В.А. Багиян, С.Г. Бакунц

УСТОЙЧИВОСТЬ К СТИХИЙНЫМ БЕДСТВИЯМ, ОРИЕНТИРОВАННАЯ НА ОБЩИНЕ: ВОЗМОЖНОСТИ И ВЫЗОВЫ

Статья рассматривает признание участия общины дополнительным элементом управления стихийными бедствиями в последние годы, необходимым для обращения вспять глобальной тенденций экспоненциального увеличения числа бедствий и потерь от малых и средних бедствий, формирования культуры безопасности и обеспечения устойчивого развития и устойчивости к бедствиям.

Ключевые слова: община, уязвимые группы, управление бедствиями, устойчивость, снижение риска, совместное управление.

Bagiyan Valery Aleksandr – PhD. Biological Sciences, Associate Professor (CMSA MIA RA)

Bakunts Satenik Hrachik – PhD, Agricultural Sciences, Associate Professor (CMSA MIA RA)

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