



## Community-Based Disaster Management in Iran: Strengths, Challenges, and Recommendations

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### Abstract

**Introduction:** The limitation of relief forces from various aspects and the impossibility of the presence of specialist forces in the affected area immediately after the disaster has made it a necessity to use the capacity of the people and local communities in the government's response to disasters. This article aimed to identify the strengths and challenges of community-based crisis management in Iran and provide recommendations for expanding this approach.

**Methods:** The present research was conducted using a qualitative method, through in-depth semi-structured interviews with 13 experts and 12 subjects who had participated in community-based disaster management activities. The selection of people for the interview was done through targeted sampling using the snowball method. Examination and extraction of data were performed using the thematic analysis method, and the obtained data were classified in the form of strengths, challenges, and recommendations for adopting a community-based approach to disaster management in Iran.

**Results:** As a result of reviewing and analyzing the interview texts, 567 codes were extracted. In the next step, by removing duplicate codes and merging them, research results were presented in the form of strengths and challenges of community-based disaster management in Iran, and recommendations were presented to expand this approach. The main challenges of implementing this approach included social expectations, parallel work of organizations, numerous changes in the management of organizations, multiplicity of educational content, and the goals of the executors from the implementation of community-based programs. Against these challenges, strengths such as the existence of social bases at the neighborhood level, participation of donors, and development of individual skills and capabilities were extracted.

**Conclusion:** The findings of this research provide a general and comprehensive view of the challenges and strengths of adopting a community-based disaster management approach in Iran. Despite the existence of many challenges such as people's priorities, social expectations, parallel work of organizations, and many managerial changes in the implementation of this approach, there are many strengths and experiences in this regard in the country that can facilitate the implementation of this approach. Factors such as the participation of benefactors and existence of different capacities and social bases in the localities are valuable components in applying the community-based disaster management approach in Iran.

**Keywords:** Disaster Management, Community-Based, Challenges and Strengths, Approach, Iran

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### Introduction

Evidence shows that, in all countries, the programs related to the exposure of people and capital to disasters have been done much faster than the reduction of vulnerability; as a result, the damages caused by disasters have continuously increased. Therefore, it has caused severe economic, social, health, cultural, and environmental impacts in the short, medium, and long term, especially at the local and community

level (1).

The latest report published by the Center for Research Epidemiology of Disasters (CRED) for 2023 shows that 399 natural disasters have occurred in the world, resulting in the death of 86,473 people. 93 million people have been affected by these disasters and more than 202 billion dollars of damages have been caused to different communities. The occurrence of this number of natural disasters, which is more than

the average of the last two decades -380 disasters, emphasizes the necessity of more preparedness of people and organizations involved in the process of disaster management (2).

Despite efforts made to create preparedness at the community level, especially in vulnerable populations and high-risk areas, many researchers report low levels of preparedness. Based on assessing the preparedness of families against disasters at the national level (2013), the level of preparedness of Iranian families was equal to 8.5%, which increased to 9.3% with the intervention and implementation of the public education program in 2014. Another study (2013) showed that 93.3 percent of the respondents had average and less than average knowledge about the necessary measures before, during, and after disasters. Also, the amount of action to learn issues related to actions before, during, and after disasters was evaluated as low (3).

During the disaster and in the first hours after the disaster, due to the delay in the transmission of information, interruption of communication routes, problems of access to the damaged area, problems related to the calling, organization and mobilization of relief forces, preparation and delivery of equipment and the like, reaching Expeditionary forces takes a lot of time in the affected area. At this time, the survivors and residents of the disaster area are the first to rush to help the injured and are considered the first group to respond. In most programs related to reducing the risk of disasters, the local community should be considered as the center of attention. However, research shows that in planning for disaster preparedness and coping, the role of people as the most important and largest group of interested groups is often neglected (4, 5).

One of the approaches that has become more prominent in the last two decades and has been emphasized in international frameworks such as Hyogo and Sendai is the community-based disaster management approach. An approach that recommends the participation of different groups of society in different phases of disaster management, as the main beneficiaries (6-8). In different countries, especially Southeast Asian countries as well as the United States of America, this approach has a longer history. By publishing the results of adopting such an approach, other countries have also understood the necessity of planning to benefit from the

capacity of local communities in addition to the phase of prevention and reduction of effects and preparation in the phase of responding to disasters.

Community-based disaster management is fundamentally based on the concept of participation (7). In the developmental or community-based approach, there is an attempt to increase the ability of society to adapt to the harmful consequences of hazards through capacity building and empowering the members of the society. By attracting participation in risk reduction measures, society's ability to prevent, deal with, and respond to disasters and recovery will be improved (9).

Applying a community-based approach causes problems, challenges, and shortcomings. By participating in the efforts of local communities in analyzing the current situation, identifying environmental hazards, and determining the level of vulnerability, the existing capacities in the society can be increased. In addition, in the event of a disaster, the facilities and resources of the affected community and their cooperation should be used to return to the previous situation. In this way, local communities will not only be the creators of a part of the program, but they will also be the source of important decisions and their implementation (3).

Considering the situation in Iran and the high frequency of hazards in the country, it is very necessary to use the capacity of local forces in an organized manner to accelerate the process of disaster management and reduce the effects of disasters. Therefore, the main goal of the current research was to identify the strengths and challenges of community-based disaster management in Iran and provide recommendations for expanding this approach.

## Methods

This study was conducted using a qualitative method. In-depth semi-structured interviews were conducted with 13 subject experts and 12 people involved in community-based disaster activities. Next, using the thematic analysis method, the strengths, challenges, and recommendations for adopting this approach were classified.

The participants in the research were experts in the field of disaster management and members of people's disaster management groups who were

selected by purposeful and snowball sampling. Inclusion criteria were university education, research related to disaster management, and at least 5 years of work experience. Not having any of the entry criteria, unwillingness to participate, or inability to answer some questions were the exclusion criteria in this study.

Data were collected through in-depth interviews with participants. In the interview process, semi-structured questions as well as follow-up questions were asked during the interview. The interviews lasted for about an hour each, and finally, after conducting 25 interviews, the interviews were terminated by reaching data saturation.

The thematic analysis method was used to analyze the data. In this study, the researcher used Braun and Clark's 6-step process, including 1. Acquaintance, 2. Coding, 3. Generating themes, 4. Examining themes, 5. Defining and naming themes, and 6. Writing for data analysis (10). After implementing the interview texts, by checking the data manually, meaning units were identified. By reviewing and categorizing the obtained key concepts, themes were extracted in the form of strengths, challenges, and recommendations for community-based disaster management in Iran.

### Ethical Considerations

The present study was a part of the research project of the Red Crescent Society of the Islamic Republic of Iran with the code of IR.RCS.REC.1402.005. All ethical principles were considered in this article. The participants were informed about the purpose of the research and its implementation steps. They were also assured

of the confidentiality of their information and possibility of their withdrawal from the study at any time.

### Results

The demographic and occupational characteristics of the people who participated in the study are shown in Table 1.

Strengths, challenges, and recommendations of community-based disaster management in Iran are shown in Table 2.

### Challenges

Based on the participants' viewpoints, lack of proper understanding of the existing risks and hazards, along with economic and livelihood problems, people's life priorities have changed. Many people consider the government responsible for these actions.

*"Most people are in the pre-contemplation stage; that is, they have not yet understood the risks. That's why people's participation in these calls is low. You need people to come to work. That's why you need to identify people who understand the risk."* (P. 22)

Some experts also pointed out that the goal of the program should not be to outsource governance activities to the people. People should feel that the activities will be useful first for themselves, their family members, and then for the neighbors.

*"People's expectations from the government are high. People expect the government to take care of all their needs so that contribute less themselves. This acculturation should happen; people need to do some things themselves."* (P. 8)

**Table 1:** Demographic and occupational characteristics of the participants

Characteristics	Number	
Gender	Man	14
	Female	11
Level of Education	Ph.D.	11
	Masters	9
	Bachelor	5
Occupation	Lecturer / University Professor	12
	Employee	6
	Trainer of rescue courses	4
	Student	3
Field/Specialty	Disaster management	13
	Sociology	4
	Education	3
	Management	3
	Psychology	2

**Table 2:** Strengths, challenges, and recommendations of community-based disaster management in Iran extracted from interviews

	Themes	Meaning units
Challenges	Objectives of the program	The organization's goal must not be to impose its duties on the people, and the goals of program should be in line with the needs of different social groups.
	Multiplicity of educational content	Teaching various subjects and contents. the contents are sometimes opposite and contradictory.
	People's priorities	Due to the lack of understanding of the risks and the existence of economic concerns, these programs are not considered a priority by people.
	Social expectations	The majority of people believe that the government is accountable for these actions.
	Parallel work	The existence of similar plans and programs in various organizations
	Organizational changes	Changing the management causes the program to be incomplete
	Managers of the executive organization	The attitude of headquarters, provincial and city managers towards the community-based issue
	Program coaches	The competence, attitude and perspective of the trainers should be community-oriented
Strengths	Commitment and ownership creating	People's participation creates a sense of commitment and ownership to the program
	Contribution of donors	The capacity of donors to develop programs
	Existing social bases	The potential of social bases such as educational and student centers and Helal houses
	Development of skills and abilities	Participation in the program leads to learning skills and abilities. A person can save his life, family and neighbors in emergency situations.
	The capacity of virtual space and social media	The capacity of virtual space, media and various social groups to expand the scope of influence
Recommendations	Educational subjects	Paying attention to the common hazards of the region and the functions required in response to these risks
	Structure	Structures should be flexible to facilitate the formation of social participation
	Characteristics of people	Paying attention to people's innate characteristics, interests and knowledge level
	Attracting and retaining people	Identification of interested people in public courses, screening based on specific recruitment process
	Evaluation and promotion indicators	Determining indicators for the periodic evaluation of the program as well as the performance index of the members
	Identification	People should have an educational and operational ID, and based on that, their progress and promotion process will be determined
	Training managers	Managers should be familiar with or receive training on how to interact with different social groups
Branding	Transforming activities, coverage, etc. into a social brand	

Organizational changes and the impact of such programs from these changes are the next challenge. Community-oriented programs should not depend on the manager of the organization. Also, the goals and output of all actions of these programs should meet the needs of different social groups. Otherwise, people will not welcome it and participate. If the goals of the program are based on the needs of the community, the level of intervention of the organizations will also be determined. In other words, people consider themselves the owners of the process and this mentality is created for them that they do these activities for themselves, their family members, or for their neighbors. It is a big threat for organizations to want to have these social teams, manage them, and delegate organizational tasks to them.

The next issue is the parallel work of organizations and institutions. Similar plans and programs are being implemented in different organizations and bodies. To own these programs, by changing the contents and creating different structures, every organization causes confusion and discouragement for interested people. The government can organize all community-based relief and rescue activities by appointing a special organization. As a result, not only people do not receive different and sometimes contradictory contents and education, but also a unified social structure is formed for these activities. It seems that the main reason why different organizations perform this activity is that many organizations are involved in the field of disaster management and even do similar work.

*"The parallel work of organizations that work*



*in the field of crisis management prevents these activities from forming. If it is formed, its people will disperse, or if it is formed, there is one person who owns several organizations.” (P.19)*

### Strengths

According to many participants, one of the main potentials that can lead to more success in the development and expansion of community-based programs is the companionship and cooperation of benefactors and social leaders with voluntary and humanitarian activities. In this case, popular organizations such as the Red Crescent society can play an important role.

*“The history of the Red Crescent Society in public works is long and this is a good potential in implementing community-based programs. The capacity of Helal Houses can also be used in the field of advertising, promoting, and informing activities.” (P.3)*

Undoubtedly, virtual space and media are the main tools these days for the expansion of all activities and programs. Using this capacity can significantly increase the influence of community-based activities. In addition to being very helpful in attracting the audience, this capacity can increase understanding of the risks and increase the participation of different social groups by showing successful training activities of local teams in various disasters.

In addition, it can be a potential for sharing educational content by establishing the position of virtual networks and channels in neighborhood-based relief and rescue programs. Although the restriction of Internet access can affect this aspect of activities, it should be noted that social media can also help to expand the influence of these activities.

Some experts have pointed out that it is possible to use the potential of existing social bases at the beginning of the program and even later at the neighborhood level. Even though the synchronization of the custodians of these bases, such as health centers, mosques, Basij bases, and most importantly, schools, requires precise planning. At the beginning of the work, the social bases of the Red Crescent community, such as Helal Houses, can be used to expand community-based programs in different neighborhoods. Then, the lessons learned and experiences gained in this field can be used to attract the cooperation of other organizations and institutions.

Planning for existing social organizations and associations or attending educational campaigns and attracting citizens' participation as a social duty, to turn these activities into a social campaign, can also be very effective in encouraging different social groups to participate in these activities.

*“It is possible to use the capacities of different social groups, such as sports, art groups, etc., to inform, educate, and also increase the influence of education in society.” (P. 5)*

### Recommendations

Due to the voluntary nature of neighborhood-based programs, the main capital of this program is the volunteers and participating learners. Therefore, one of the essential efforts to increase the level of social participation and sustainability of this program is to pay attention to the characteristics of people. The participation of different social groups in terms of age, gender, level of education, interests, and intrinsic and innate characteristics highlights the need for planning and special attention to this field.

Wherever there is volunteer activities, issues such as recruitment, retention, promotion, and encouragement are significant. One of the essential things that the experts stated was clarifying the recruitment process, so that interested people were identified in public courses and screened based on different functions. In selecting people for community-based activities, criteria and qualifications should be considered. These criteria can range from interest and motivation to mental, psychological, and physical preparation.

*“Managing recruitment, retention, maintenance, and development of volunteers requires knowledge, but, unfortunately, our approach is not based on knowledge. Even the use of experiences has a very insignificant role.” (P. 7)*

Designing and compiling appropriate educational content, in addition to affecting the level and extent of people's participation in community-based programs, regardless of whether the trained person participates in social activities or not, can increase social readiness and resilience against disasters.

Training topics should be based on the needs of people in disasters, so that it teaches people how to solve and meet needs in emergencies. The main philosophy of preparing and compiling

educational content should be to create sensitivity in different communities and societies to prepare, deal with, and respond to disasters.

*“Educational topics should be designed and compiled based on the needs of local communities. Then, practical and theoretical courses should be defined based on these topics.” (P. 10)*

Most of the participants stated that educational content should be designed and prepared based on the interests and needs of different social groups. The unattractiveness of the contents and excessive attention to a specific issue, along with the dispersion, multiplicity, and large amount of information, reduce the penetration rate and the desire of the people in the community to learn disaster-related materials and also participate in community-based programs.

*“We have to prepare content based on people’s taste. If people don’t welcome it, the problem is with our content and management. If people are going to help, the content should be tailored to their taste. This requires study and recognition.” (P. 6)*

## Discussion

Although the process of Community-Based Disaster Risk Management (CBDRM) has been widely used throughout the world, it should be considered that its implementation in different regions of the world, is different, based on the knowledge and awareness of local people, and economic, cultural, political conditions and other factors.

Trott believes that to turn knowledge into a norm, a macro-scale policy change is needed by recognizing the capacities of individuals to become agents of change in societies (11). According to the 2015-2030 Sendai framework, to increase the efficiency and effectiveness of disaster risk reduction activities, all stakeholders should be connected and involved in the design and implementation of policies, programs, and standards (6). In the same line with this study, Khanlow also states that there is currently a “policy gap” in approaches that needs to be filled through the development and implementation of evidence-based resilience approaches (12).

What is clear is that developed countries have realized the importance of community members in better disaster management. Developing countries are also changing their approach and increasing participation with local communities

in the direction of community-based disaster management with the aim of improving the resilience of local communities.

The most common elements of the participation of different social groups in community-oriented programs are cooperation, empowerment, and ownership by local people (13). Individual and social ownership, commitment, and concerted action in disaster risk reduction produce a wide range of appropriate, innovative, and feasible solutions that are cost-effective and sustainable (14). The issue that the findings of the present study have also addressed and the sense of commitment and ownership towards neighborhood-based programs is one of the important factors in increasing the participation rate and durability of this program.

As the participants in the current research emphasized the necessity of participation of individuals and different social groups in different phases of planning and implementation, Huong also in a study that investigated community-based disaster management in Japan and Vietnam emphasized the necessity of participation. The residents’ activists have endorsed the community-based disaster management plan in the early stages of development and formulation (15).

The four elements that contribute to social participation in community-based disaster management programs are the social participation of non-governmental organizations, participation of donors and financial sponsors, internal factors and the organization that emphasizes the participation of volunteers in the disaster area, and, finally, the coalition and cooperation of other organizations (16). In addition, one of the measures that can play an important role in increasing the participation of different social groups in community-based disaster management programs is the spirit and culture of sacrifice in society (17), so the existence of “disaster-coping culture” and “disaster-reducing culture” in local communities are key factors in the sustainability of community-based programs (18).

The results of Amini Hosseini’s research (2014) show that the information and skills presented in training courses are usually not suitable and understandable for people because most of the information is technical or theoretical and is usually presented without considering local and socio-economic conditions (19). Local groups that share similar socio-cultural and sometimes

economic characteristics and live together in adjacent neighborhoods can play an important role in reducing the risks of hazards or improving emergency response capacities, as they are the first to be affected by disasters (20).

### Conclusion

The findings of this research showed that despite the existence of many challenges such as people's priorities, social expectations, parallel work of organizations, and many managerial changes in the implementation of this approach, there are many strengths and experiences in this regard in the country that can facilitate the implementation of this approach, such as participation of benefactors, capacities and social bases available in neighborhoods, which are valuable components in applying the community-based disaster management approach in Iran.

Unwillingness or access to some experts to participate in the research was one of the limitations of this study, which the researchers tried to solve by continuing the interviews until reaching data saturation. It is also suggested that to increase the generalizability of the results of this research, we should also consider the opinions of other groups and specialized fields.

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There are no conflicts of interest

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