Non-Governmental Organizations (NGOs) in Disaster Management: A Qualitative Study

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Abstract

Introduction: Non-Governmental Organizations (NGOs) play a vital role in accurate disaster management. This study aimed to Investigate factors affecting the participation of NGOs in disaster management in Iran.

Method: This qualitative study was conducted via content analysis approach. This study comprised 32 participants, including four managers of municipalities and governorates, four health ministry managers, five managers of Red Crescent Society, five faculty members of the university who work on disaster management, and fourteen managers/secretaries of NGOs. They had knowledge or practical experience in disaster management. The abovementioned people were interviewed. The data were collected through purposive sampling, which continued until data saturation was reached.

Results: Factors affecting the participation of NGOs in disaster management were classified into 4 main categories and 14 subcategories, including organizational and managerial, field and operational, social and cultural, and policymaking factors.

Conclusion: According to the results of this study, as multiple NGOs take part in responding to disasters and performing relief operations, establishing a unified command and supervision system for effective coordination and collaborations among NGOs and other stakeholders is highly suggested. The future national plans and strategies of disaster management need to consider the supportive rules and reform inappropriate legal barriers to NGOs' participation in disaster management activities. All organizations involved in disaster response must play a vital role in making disaster management decisions for every country to consider all important aspects and issues.

Keywords: Disasters, Management, NGOs, Participation.

Introduction

Disasters occur without attention to borders, and their occurrence time is never appropriate[1]. Moreover, nobody or no country worldwide is safe from disaster consequences[2]. States and nations face such incidents yearly and experience many financial losses and casualties[3]. The available information indicates increased occurrences and damages caused by these incidents[4]. Accordingly, the number of disasters has doubled, and the number of affected people has tripled worldwide over the past 30 years[5]. Iran is one of the most geographical areas prone to unexpected incidents. Iran is among the ten most catastrophic countries in the world[6]. Almost 90% of Iranian people are exposed to disasters[7]. In addition to floods, earthquakes, and local hurricanes in recent decades, the Iranian people have experienced a national disaster every ten years[8].

Governments cannot alone meet needs because of the complex nature of crises and Incidents risk, so people and communities must participate in such an arena[9]. Moreover, some options have been mentioned for disaster risk reduction in upstream international documents, especially in three famous documents of Yokohama, Hyogo Action Framework, and Sendai Framework. The mentioned strategies have highlighted the role of society in different phases and scopes of disaster management[10]. Although disasters cause loss of

resources and disorder in economic, social, and cultural activities, NGOs play a vital and influential role in such circumstances[11]. Managers can use this capacity to improve and recover from disaster conditions[12]. Active participation and cooperation of NGOs play an important role in four phases (Mitigation, Preparedness, Response, and Recovery), so they have inevitable participation in planning for natural disasters[13].

The non-governmental organization is not directly part of the government structure but plays a significant role as an intermediary between individuals, the government, and society itself[14]. NGOs comprise non-profitable human societies, groups, associations, and entities created by people whose independence from the government is their most prominent characteristic[15]. NGOs support affected communities by providing aid services, shelter, and livelihood assistance[16]. According to antecedents, non-governmental organizations can actively participate in relief measures during disasters of their governmental peers[17]. Although numerous successful NGOs in disaster management exist, various factors influence the fulfilled participation of these organizations in disaster management[18]. For instance, a study conducted in New Zealand indicated that the participation of NGOs in disaster management is affected by the relationship between NGOs, people, and vulnerable populations, the culture and language of the vulnerable population, and so forth[19]. In addition, another study in Malaysia found that cooperation between NGOs and other organizations, knowledge about the local capacities, rules, and regulations of the host state, etc., could influence the participation of these organizations in disaster management[20]. The ability of all governments to provide aid to disaster areas is incomplete, and the cooperation of other governments and aid organizations can create a high capacity to deal with disasters in the disaster country[21]. Considering the increase in disasters and the subsequent reduction in aid resources, humanitarian organizations face many coordination and collaboration challenges during their humanitarian measures[22]after the Nepal earthquake. NGOs faced numerous challenges, including inaccessibility to information and non-coordination owing to improper planning[23].

There must be cooperation between organizations, governments, and volunteers regarding the critical role of NGOs in disaster management. On the other hand, NGOs usually need more formal experiences or training for taking measures during disasters[24]and better cooperation and interaction with governmental organizations[25]. Therefore, the extant study examined the factors affecting NGOs' participation in disaster management in Iran based on the stakeholders' and beneficiaries' experiences during 2022.

Methods
Design

The extant research is a qualitative study with an individual semi-structured in-depth interview and content analysis method, a selected strategy when there are few theories or scientific literature about a phenomenon. In this method, the data are collected directly without any presumption then codes, categories, and subcategories are classified[26].

Setting

The extant study was conducted from January 2022 to August 2022 in Iran. Iran is among the ten most impoverished countries globally and ranks fourth in Asia. Among the 41 types of natural disasters in the world, 31 occur in different regions of Iran[27]. According to the announcement published by emergency datasets on risk indicators of countries, Iran is an area with a high risk of disasters[8].

Participants

Participants of this stud were key experts and scholars with scientific knowledge or practical experience with the participation of NGOs in disasters. Inclusion criteria included having experience and knowledge about NGOs (at least one year of NGO membership), managerial experience in crisis management, executive background in relevant studies, and willingness to participate in the research and cooperation process. The participants who were unwilling to take part in the study were excluded. Finally, 32 people were selected using purposeful and snowball sampling. The participants comprised managers and experts of the Red Crescent Society, non-governmental organizations of the Ministry of Health, faculty members of universities of medical sciences, managers of municipalities and governorates, and active volunteers in non-governmental organizations participating in disasters. In addition, all participants were requested to confirm informed consent.

Data Collection

The data were collected and analyzed by using semi-structured in-depth interviews. The interviews were done face-to-face. The authors used open and semi-structured questions and asked participants to talk about factors affecting the participation of NGOs in disaster management. Participants were asked the following semi-structured questions: 1) how is the participation of NGOs in disaster management in Iran? 2) how and in what fields the capacity of NGOs is used 3) in your opinion, what factors affect the participation of NGOs in disaster management? Some questions start with "how," "why," and "Can you tell me more about….?" Were asked during interviews. In total, 32 interviews were conducted. Interviews continued until reaching data saturation. Interviews were done from January 2022 to August 2022, each taking 30-60 minutes (45-min on average). Interviews were recorded on two voice recorders and were analyzed immediately after the session to prevent any possible error in the voice record.

Data Analysis

Data collection and data analysis were simultaneously conducted. Data analysis was done Manually and using the Landmann and Granheim content analysis approach[28]. To achieve an overall perception of the interview, the main researcher listened to the interviews several times. After transcribing, the final texts of the interviews were frequently read and checked according to the recorded files. Then all the extracted material was gathered and integrated as a single text (i.e., the unit of analysis). In the next step, the text was divided into meaningful units, and then the meaning units were summarized and labeled with codes. Afterward, the codes were compared based on their similarities and differences to put similar codes in the same categories and subcategories.

Trustworthiness

Guba and Lincoln created criteria to ensure the accuracy of qualitative data[29]. Credibility was approved via the triangulation strategy. In addition to interviews, prolonged engagement with the subject provided credibility. Moreover, peer checks were conducted in research team meetings, and member checks were done by summarizing the analyzed interviews and extracting codes from the participants. Confirmability of the data was checked and monitored by fully explaining the stages of the research, including data collection, analysis, and formation of themes, in order to provide an audit of the research by the readers by another researcher who did not directly participate in the interview. Data transferability was confirmed by offering a comprehensive description of the subject, participants, data gathering, and analysis. Dependency was assured through the current article, which offers detailed information for other researchers to replicate and extend the study.

Ethical Consideration

The authors referred to research subjects after obtaining a license from the research deputy of the faculty and Shiraz University of Medical Sciences under the tracking code 24758 and ethic code IR.SUMS.NUMIMG.REC.1401.018. The authors introduced themselves and explained the study objective and confidentiality. Accordingly, they selected the eligible participants based on the inclusion criteria. Moreover, participants were allowed to leave the interview anytime they wanted.

Results

Table 1 reports the demographic data of participants.

Table 1: Demographic data of participants

Variable		N
Gender	Female	10
	Male	22
Education	BA	15
	Ph.D.	17
Age	30-40	11
	41-50	9
	51-60	12
Work experience	2-10	7
	11-19	10
	20-28	15
Job position	Manager/agent of NGOs	14
	A faculty member of the university	5
	Managers of the Ministry of Health	4
	Managers of municipalities and governorates	4
	Managers of Red Crescent Society	5

Data analysis led to 734 initial codes that were reduced to 281 after removing repetitive ones. Finally, reanalyzed data were classified into four categories and 14 subcategories. The factors included organizational and managerial (seven

subcategories of planning, organizing and coordination, unit command, teaching skill and knowledge, information management and documentation, accessibility, monitoring, and transparency). Field and operational factors consisted

of costs, need assessment, and safety. Cultural and social factors comprised two subcategories of cultural and social factors. Ultimately, policymaking factors included two subcategories of legal and insurance factors (Table 2).

Table 2: Categories, subcategories, and selected codes.

Category	Subcategory	Selected codes
Organizational and managerial factors	Planning	Lack of suitable planning to train and strengthen NGOs Lack of proper planning for recruitment, deployment, and participation of NGOs in disasters
	Organizing and coordination	Coordination between NGOs Coordination between NGOs and governmental organizations
	Unit command	Independent and autonomous action of NGOs Different decision-making centers for the participation of NGOs in disasters
	Teaching skills and knowledge	Lack of managers' knowledge about capacities and functions of NGOs The improper attitude of managers towards NGOs Lack of training courses for managers and NGOs No experience of participation in disasters
	Documenting lesson learned	Various information sources Information management and documentation
	Accessibility	Lack of appropriate distribution mechanism Inaccessibility to all affected areas
	monitoring and transparency	Monitoring actions were taken by NGOs Transparent activities are done by NGOs
Field and operational factors	Costs	Funding Providing minimum needs of NGOs in the affected area
	Need assessment	Doing need assessment before entering the area Need assessment-based action
	Safety and Security	Preparing required safety equipment Providing security for NGOs
Sociological factors	Cultural factors	Not knowing the culture and language of the area Discrimination between different ethnics and religious groups Unreasonable expectations of vulnerable population
	Social factors	Attitudes towards governmental organizations and NGOs Knowledge or no knowledge of NGOs with social issues in the area
Policymaking factors	Legal factors	Lack of a clear law on the participation of NGOs Legal barriers to clearance and transfer of aids
	Insurance factors	Lack of insurance for volunteers Lack of legal support for NGOs

Organizational and managerial factors
Planning

Planning was one factor affecting NGOs' participation in disaster management. Participants mentioned some points, including a need for proper planning to train and strengthen NGOs and a lack of proper planning for recruitment, deployment, and participation of NGOs in disasters.

"Planning is very important. The absence of a plan causes confusion, it causes disorganization, there must be a plan in advance which organization should do what at which stage" (p19).

Organizing and coordination

Organizing and coordination influenced the participation of NGOs in disaster management. Participants explained about coordination between NGOs and collaboration

between NGOs and governmental organizations. "NGOs should be identified. They must take divided tasks and measures based on the skills and abilities" (p22).

Unit command

An integrated and single command was one of the most important factors affecting the participation of NGOs in disaster management. In this case, participants talked about some options, including independent and autonomous actions of NGOs and different decision-making centers of NGOs during disasters. "Most NGOs like to participate in disaster management directly and give aid to affected people while this leads to anarchism and chaos," one participant explained about the independent action of NGOs (p13).

Teaching skills and knowledge

Participants explained that disaster-related training and practices are essential for NGO volunteers. Training, skills, knowledge, and awareness were other factors affecting the participation of NGOs in disaster management. Participants mentioned some points, such as a lack of managers' knowledge about the capacities and functions of NGOs, a lack of training courses for managers and NGOs, and no experience of participation in disasters.

"Many managers have no information about the task and capacity of NGOs and non-governmental groups, considering them unable organization. In some cases, however, managers exaggerate the ability of NGOs, especially their financial ability, which causes a problematic condition" (p12).

Documenting lesson learned

Information management and documentation were other factors that affected the participation of NGOs. Participants introduced some issues, such as poor documentation of lessons learned and the presence of various information sources.

"If we get together after an incident and write down the lesson learned and then shared them, it will be a useful help in future cases. This process is not done or taken incompletely or wrongly." (p2).

Accessibility

Accessibility to the affected population that needs aid was another factor affecting the participation of NGOs in disaster management. Participants mentioned some factors, such as inaccessibility to all members of the affected population due to lack of sufficient vehicles, expensive cost of transportation, and heavy traffic during the first days of a disaster.

"Many regions did not have car roads or were difficult to pass, and their connection route was blocked so NGOs could not reach them and needed helicopters to deliver aid" (p21).

Monitoring and transparency

Monitoring and evaluation were essential factors of NGOs' participation in disaster management. In this case, participants explained some points, such as monitoring the actions of NGOs regarding their goals and supervising their financial activities.

"Actions of NGOs must be monitored to prevent secondary problems. Monitoring and evaluation should be done in all phases of NGOs, from formation to participate in disaster management. NGOs' expenses, incomes, and actions must be evaluated and monitored" (p5).

Field and executive (operational) factors

Costs

Results of the extant study indicated that cost and financial resources were the most critical factors affecting the participation of NGOs. According to a participant, "Many NGOs have limited resources, or their resources may be spent on other cases. Therefore, they usually cannot meet all of the needs during huge disasters" (p3).

Need assessment

Need assessment was another critical factor affecting the participation of NGOs in disaster management. Participants emphasized the necessity of need assessment before taking any measure or action. According to a participant, "Many NGOs, particularly NGOs with low experience, enter the affected area without assessing needs. For instance, one NGO brought a truck full of blankets while people needed tents after the Kermanshah earthquake" (p11).

Safety and Security

Safety and security of NGOs must be provided in affected areas; participants introduced it as a critical factor affecting the participation of these organizations. They mentioned providing safety items and security for NGOs, for instance.

"NGOs that provide manpower need safety tools. For example, personal protective clothing during corona crisis should be provided" (p12).

Sociological factors
Cultural factors

Cultural factors also influenced the participation of NGOs in disaster management. Participants mentioned some factors, including non-familiarity with the culture and language of the affected area, discrimination between

different ethnicities and religious groups, and unreasonable expectations of the vulnerable population.

"It is important not to use wrong literature and words when talking to affected people. For example, they say it does not matter, and I understand! How can we understand these people? Wrong words and sentences make efficiency doubtful" (p14).

Social factors

Participants introduced the attitude of societies towards governmental and non-governmental organizations and knowledge or lack of knowledge of NGOs about social issues of the affected area as social factors affecting the participation of NGOs in disaster management.

"People's trust is a crucial case during disasters. If people do not trust us, they prevent us from doing our tasks, while the build trust can perform as a facilitator" (p17).

Policymaking factors
Legal factor

Law and legal factors are significant factors that affect the participation of NGOs in disasters. Participants expressed many times in their explanations that rules about NGOs' participation can facilitate NGOs' active presence in disaster management.

"It is not clear how NGOs should participate in disasters, and there is no relevant, reliable law. Therefore, specific rules should be defined in the crisis management structure" (p9).

Insurance factors

Participants mentioned insurance as a vital factor in the participation of NGOs. They mentioned some issues, including more insurance support for volunteers and legal support for NGOs.

"NGOs and non-profit groups sometimes do humanitarian actions during disasters so that they forget safety keys exposing themselves to risk and damage. Nobody is responsible for such risks, and no insurance support exists for them" (p4).

Discussion

According to the obtained results, organizational and managerial, field and operational, cultural and social, and policymaking factors are the key factors affecting the participation of NGOs in disaster management. Subfactors affecting the participation of NGOs in disaster management included legal and insurance factors, monitoring and transparency, safety and security, accessibility, cultural factors, social factors, planning, organizing and coordination, unit command, teaching skills and knowledge, information management, and documentation, costs, and need assessment.

Planning was a factor in the practical application of NGOs' capacity and in determining the role of these organizations during disasters. Planning is the underlying base for success. Managers can design a plan for participation in disaster management by predicting disasters and their processes. Planning helps managers find the best route to achieve their goals, manage resources and risks, and create a regular and systematic action process[30]. Tingsanchali indicated that Governmental organizations manage floods in most developing countries, while NGOs had limited participation in this case. Application of NGOs' potential requires enacting a comprehensive national strategic plan regarding the capacity of these organizations[31].

Organizing and coordinating NGOs with governmental organizations was another critical factor in this study. Organizing is a process that divides tasks between groups involved in disasters and coordinates them to achieve considered goals[32]. According to the number and diversity of incidents and geographical extent, disaster management requires an organized and coordinated system for disaster management[33]. Organizing and coordination systems should be launched before the occurrence of disasters. This pre-launch reduced overlapping and rework[23]. In a study conducted in Malaysia, organizing and coordinating local and international organizations leads to more access to hidden refugee communities[18].

Cultural and social factors were identified as essential factors. The different cultures and languages, lack of knowledge and awareness, and attitude of officials toward the capacity of NGOs, and no information of NGOs about organization characteristics lead to bias and inaccurate judgments, which considerably affect the participation of organizations in disaster management[18]. Some challenges that influence the affected society[25] include a need for correct planning consistent with different cultures, cultural and social differences with the affected population, different job cultures of organizations[33], and various organizational standards[24]. However, it is essential to hold training courses to detect and overcome these barriers[34]. Training and such educational courses increase awareness and knowledge about cultural differences between the affected population and other organizations[25]. According to a study conducted in Malaysia, training and education boost

teamwork and improve collective and group decision-making[19].

Monitoring and transparency were other influential factors found in this study. Undoubtedly, transparency is a critical factor for the performance and credibility of NGOs. On the other hand, there is a direct association between transparency and income, a discreet trust-based relationship. According to a study conducted in the USA, increased transparency leads to higher trust in society and progress in plans[34]. Moreover, monitoring and surveillance measure the progress rate of objectives, leading to the timely detection of disruptions and corrective measures or creating required organizational changes. A study in Sierra Leone concluded that persistent monitoring and supervision of activities improve quality and ensure persistence in disaster management[35].

Budget and financial facilities are other important factors affecting the participation of NGOs in disaster management. Access to a sufficient budget, financial facilities, and accurate financial management will enhance the participation of NGOs in disaster management. According to a study conducted in Japan, the dependence of non-governmental organizations on external financial resources is an important point that makes organizations vulnerable to sustainability[36].

Having a relationship with local governments and regulating ruling the society are factors affecting the participation of NGOs in disaster management. Collaboration with and obeying local rules and norms directly lead to planning progress and socioeconomic sustainability of NGOs during disasters[37]. On the other hand, government and responsible practitioners can approve many transparent supportive rules to support NGOs and provide their safety and security, then delegate executive affairs to many of these organizations. The mentioned decisions will increase productivity and efficiency while reducing the loss of resources[31]. A study carried out in Malaysia explained that the government should support NGOs and provide them with diplomatic assistance to mediate negotiations with relevant countries to access the affected population[33].

Integrated and comprehensive management was another factor affecting the participation of NGOs. Integrated management prevents non-coordination, repetitive work, loss of resources, etc., during disasters. According to a study conducted in Sierra Leone, there should be alignment between strategic goals and activities of the Ministry of Health and Partners in Health (PIH) to strengthen the health system in the long term[35]. Although disaster literature usually criticizes the structure of command and control and the top-down attitude of managers, this structure creates an integrated and consistent command between different organizations during disasters. Therefore, it can be a useful option[38].

Access to affected populations and distribution systems were other findings of the extant study. Azmat concluded that accessibility to affected societies that need help, implementation of a supply chain, and utterly successful distribution require strong collaboration and coordination but also require sharing the information and resources among local and international NGOs[34]. Accordingly, it is practical to use state-of-the-art communication and information method during disasters.

Central governments should enact policies, rules, and cooperation protocols between different organizations during disasters binding them to use such policies. It is possible to create a mutual understanding between organizations and increase their trust by holding training courses and maneuvers and increasing cooperation between different organizations.

Conclusion

The results of the extant qualitative study provide a general vision of factors affecting the participation of NGOs. Based on our findings, NGOs faced various factors during the disaster. Different NGOs are involved in all phases of disaster management. Thus, NGO activities should be strengthened. Establishing a unified command and supervision system for effective coordination and collaboration among NGOs and other stakeholders is highly suggested to improve NGOs' activities. In addition, designing and implementing education and training programs for NGO staff can improve their disaster-related knowledge and skills. Strengthening the information and communication infrastructure and resources and financial support for NGOs is suggested to increase NGOs' motivations for more humanitarian actions in future disasters. The transparency of the activities of NGOs and monitoring of these activities is also essential. Future national disaster management plans and

strategies must consider the supportive rules and reform inappropriate legal barriers to NGOs' participation in disaster management activities. In addition, the lessons learned from previous disasters in Iran and other countries should be gathered and applied to the practical actions of NGOs in future disasters. Further research is needed to develop a measurement tool for assessing the effectiveness of NGOs' activities during disasters.

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Conflict of Interest Disclosures

The authors have no conflict of interests to declare.

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Authors' Contributions

Rita Rezaee and Hassan Khaledi were responsible for the study conception and design. Rita Rezaee and Milad Ahmadi Marzaleh supervised the whole thesis. All authors prepared the first draft of the manuscript. All authors did the data analysis and supervised the study. All authors have read and approved the final manuscript.

Ethical Statement

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