

# The Role of Local and National Radio and TVs in Disaster Management: A case study of 2012 East Azerbaijan – Iran Earthquake

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## Abstract

According to Iran's vulnerability to natural disasters and the important role of the mass media in managing such disasters, the purpose of this study is to achieve a model describing the role of local and national radio and TV in disaster management. The data were collected through interviews with three groups including the victims of the earthquake in Azerbaijan, managers and employees of local radio and TV in Azerbaijan, and experts in the field of media and crisis. Using grounded theory method to analyze the data collected from victims, their media needs were identified that consist of need for information, need for media attention, need for training and need to have a representative. A comprehensive model of national and local radio and TV channels role in disaster management was based upon such media needs. The model was designed according to the views of managers of local radio and TV in Azerbaijan and was ultimately approved by the experts. According to this model, in the event of natural disasters, local and national media play four key roles that are educating and culture-building, informing and making communication, monitoring and demanding as well as winning public participation and creating national solidarity. Using this model, local and national channels are able to interact effectively with one another to manage natural disasters in an integrated way.

**Keywords:** local and national radio and television, natural disasters, Iran, disaster management

## Introduction

Disasters are an inevitable fact in human life and human societies have always been faced with different types of disasters, notably natural ones. These disasters range from famine, drought, floods, earthquakes, and outbreaks of infectious diseases to crises such as wars and environmental pollution that, depending on the magnitude, damage the environment where they occur.

Iran is known as a highly-vulnerable country to natural disasters. According to Iran's official report to the United Nations on disaster risk reduction, 31 of 40 known types of natural disasters can be found in this country (National Report of The I.R.Iran on Disaster Reduction, 2005). Due to high diversity of the types of natural disasters and the lack of serious measures to reduce the damage caused by these disasters, with 171 thousands of deaths during 30 years, Iran is ranked as the third country in the world in terms of vulnerability to natural disasters after Indonesia and Bangladesh (Natural Disasters Risk Index, 2010).

The last large natural disaster that occurred in Iran was twin earthquakes in Azerbaijan, in 2012. Two earthquakes, with an 11-minute interval, struck the cities of Ahar and Varzaghan with the magnitudes of 6.3 and 6.4 on the Richter scale and caused severe damage and destruction due to the rural structure of the area. The damage was more severe and more extensive than the earthquake in Bam in 2003, but because of the time of the event and its coincidence with the harvest season, the number of victims was less.

In managing a crisis, each level of organizations and authorities have specific duties. These duties can be investigated from national to local levels and from individual to organizational levels. Media organizations, as well as other organizations and authorities, play a particular role. Media activities are not actually clear yet, because people's expectations of the media are sometimes beyond their natural capacity or conditions and the opportunities of the environment. Several studies have been conducted on the role of mass media in natural disasters but in crisis communication researches, very little attention is paid to the role of local media in disaster management and the potentials of these media are ignored in practice. In this earthquake, all local and national radio and TV channels tried to reduce the problems and damage. But the studies and field observations of the researcher indicated that despite their enormous efforts, due to local and national media disharmony and lack of accurate understanding of their duties, media failed to maximize their efficiency and effectiveness in managing the crisis caused by the earthquake. This brought up a question in the researcher's mind:

"How can we design a model that determines the exact duties of local and national channels at the time of natural disasters and help them achieve their optimum performance by correct division of labor and effective interaction?"

This study aimed at answering this question and the main purpose was to design a model for the

optimal performance of local and national radio and TV in crises caused by natural disasters in Iran.

### **The difference between the function of national and local media in disasters**

Researches on the topic of crisis, has already been conducted in various scientific fields such as psychology, sociology, politics, management, etc. However, to investigate the background of this study, crisis should be addressed through communication and media science that is a new field in communication called "crisis communications". A literature review in the field of crisis communications shows that a few studies can be found on the role of local media in disaster management in particular (Kearns Dill, 2006), (Morehead, 2011), (Spence, McIntyre, Lachlan, Savage, & Seeger, 2011), (Green, 1983), (Quarantelli & Wenger, 1989), (AMARC, 2008), (Sharifi, 2010).

The difference in framing the crises by local and national media can affect the social understanding of these crises. Compared to national media, local media possess more "citizen sources" to deal with disasters. For example, because local journalists are directly affected by the crisis, they have wider access to reliable sources for gathering news and information. Besides, since local media are directly affected by the crisis, they use more sources to cover the situation (Quarantelli, 1990). "Local media consider the crisis occurring in their local communities as their own crisis. As a result, framing of the crisis is different from national media that are not emotionally, financially, or socially dependent on local community" (Kearns Dill, 2006, P: 13).

Kearns Dill (2006) conducted a content analysis research on local, regional, and national newspaper coverage of Hurricane Katrina and found interesting results about different topics that were addressed by the newspapers:

- Frequent issues in local newspapers were the number of casualties, common diseases, damage to public and private properties, criminal acts in regions of conflict, rescue efforts, and evacuation problems in hurricane-stricken areas.
- But these topics were discussed in national newspapers in a different order including the number of casualties, evacuation problems in hurricane-stricken areas, criminal acts in regions of conflict, weaknesses in government aid, and crisis management.

Naturally, the types of information that the readers of these two groups of newspapers need, are different from each other. Because one group is in the heart of the crisis while the other one is hundreds of miles away. This is the reason of the differences in the issues covered by these two groups of newspapers. Witnesses, victims, experts, and authorities are the main sources of media for gathering information during the crisis, as well as producing the raw data used by media (Horning, 1993). Another important advantage of local media, in comparison with national media, is faster, easier, and more accurate access to these sources in critical conditions. This advantage could turn local media into a news source for other media that cannot have access to any other sources in the heart of the crisis.

Finally, the roles mentioned in various sources for local media in disaster management can be summed up as follows:

- Increasing tolerance and patience of people (Sharifi, 2010)
- Enhancing the sense of citizen participation (Sharifi, 2010)
- Pursuing the promises of local authorities (Sharifi, 2010)
- Building confidence in the victims about the crisis control methods (Sharifi, 2010)
- Establishing order and security and leading public opinion (Sharifi, 2010)
- Drawing public and major media attention to the critical conditions of the community in crisis (Green, 1983)
- Forming a collective identity in the people in crisis as well as the audiences out of the crisis (Green, 1983)
- Preparation and presentation of the information required by the people involved in crisis (Spence et al., 2011) (Morehead, 2011)
- Transferring personal messages (Quarantelli & Wenger, 1989)
- Informing and making communication (Chhetri & Narayan, 2010)
- Healing the victims' suffering (Chhetri & Narayan, 2010)
- Aiding vulnerable and marginalized groups (Chhetri & Narayan, 2010)
- Non-media activities to deal with natural disasters (Chhetri & Narayan, 2010)

### **Methodology**

Grounded theory method was used to achieve the objective of this study that was designing a model for the role of national and local radio and TV in disaster management. Research process included three main steps. Method requirements of each step are described below:

*First step:* Studying the viewpoints of earthquake-stricken people of Azerbaijan in order to extract their media needs and their expectations from local and national radio and TVs in natural disasters conditions. At this step, the data were collected in the affected areas. The study population was the victims of the earthquake and

purposive sampling method was used. 27 interviews were conducted with earthquake-stricken people, including 10 individual interviews and 17 group interviews. The data were analyzed using grounded theory method and audiences' needs were extracted.

*Second step:* Studying the viewpoints of Azerbaijan (Sahand) local radio and TV programmers and managers. The study population of this step consisted of all line and staff managers working in local TV and radio of Azerbaijan and other suppliers, producers, and broadcasters of these channels at the time of the earthquake. All line managers who were involved in the operational media management in Azerbaijan earthquake were interviewed. Among the staff managers, only those who were involved in earthquake management were selected. 7 managers and producers of Azerbaijan local TV and radio were also interviewed. 3 producers were interviewed as well including first reporter sent to the area, the main anchor of Omid emergency radio that had been in the earthquake-stricken area, and the presenter and director of the most popular program of Sahand TV channel called Bizimkand. To identify the local and national media tasks and roles in disaster management, the data collected from the interviews were analyzed using grounded theory method.

*Third Step:* Summing up the results of the first and second steps to design a primary model and offering it to the experts and gathering their views on the size and components of the model to validate it. After obtaining the desired model from the data of the first and second steps, the experts were provided with primary model and were interviewed on various aspects of the model. Purposive sampling method was used to select the experts in the field of communication and media management. The selection criteria was the relevance of their areas of expertise or experience with the subject of crisis communications and the role of media in crisis management. At this point, the snowball sampling method was used along with purposive sampling method to identify and access to 11 professional and knowledgeable experts. The data were analyzed using grounded theory method to develop the concepts and categories and validate the final model. Considering the opinions of experts, a model was developed that could take the opinions of three groups including the affected audiences, managers and operators of local broadcasting, and crisis communications experts into consideration at the same time.

## **Findings**

### **Media needs of the victims**

Most researches on the role of media in crisis applied the top-down and prescriptive approach and in theories ignored the media needs and expectations of the audiences. But in this study, the model for the role of local and national radio and TVs in managing natural disasters was based on the media needs of the victims. The media needs of the victims of the earthquake in Ahar and Varzaghan that were identified by coding their interviews, consisted of the need for information, need for media attention, need for training and need to have a representative.

Findings of this study about the media needs of the victims are:

The victims of natural disasters have four major media needs. The first is the need for information. They try to obtain the essential information, including informative and practical information, from media and non-media sources. They expect the media to provide them with necessary and accurate information in a critical approach and based on the conditions.

Second is the need for media attention. They expect the local and national radio and TVs, with the help of celebrities, to pay special, sympathetic, preemptive, continuous, and comprehensive attention to their needs, pains, and problems. The media attention helps attract people's aid and authorities' attention, psychological unloading of the victims, peace caused by support, increased trust in media, and prevention of abuses.

The third need is the need for training before and after the occurrence of natural disaster. They expect the local media to provide them with continuous informative and relaxing training focused on local potential natural disasters before they occur to increase awareness of audiences, in addition to some training after the disaster on the victims' needs and practical training for immunizing against future disasters with particular attention to the minorities and experts.

The last is the victims' need to have a representative. They expect the media to supervise crisis management on their behalf and pursue the problems and promises of the authorities. As their spokesman, the victims want the media to inform their wants, needs, and conditions to the authorities of crisis management and demand their rights.

### **Management of Three-level Message in a Local Disaster**

Victims of natural disasters are simultaneously located in the range of local, national, and international media and can use all these three types, as the earthquake victims of Azerbaijan did. They used Azerbaijan local radio and TV the most. National TV and radio channels and international satellite channels were their second and third choices respectively.

Since this article only discusses the roles and functions of local and national radio and TVs, international satellite channels do not include in the analysis of this study. Comparing the audiences of local and

national media reveals that local media only produce and broadcast programs for local affected people, but the audiences of national media are both local affected people and the public that are not directly involved with the crisis. Therefore, in a local disaster, national and local media should plan *three levels of messaging*:

- 1) *Messages of local media for local affected people.*
- 2) *Messages of national media for local affected people.*
- 3) *Messages of national media for the rest of the countrys' audiences.*

In addition to the messages to the public who are not affected by the natural disaster, affected people also have the right to receive appropriate messages from national radio and TVs. Local and national channels should be able to manage their messages to avoid three types of conflicts in messaging.

- First type of conflict arises from the differences between victims' observations and messages provided by these two types of media. This conflict is rooted in the ability of affected local people to judge the media information objectively and decide to reject or approve it.
- Second conflict may occur between the messages by local and national channels for the affected people. Local and national radio and TV can prevent this type of conflict with effective interaction, planning, and careful messaging.
- Third possible conflict is the one between two types of messages provided by national TV and radio channels for local victims and other people of the country. National media can follow an appropriate policy to avoid delivering conflicting information.

### **Role of local and national radio and TV channels in disaster management**

Local and national radio and TVs play four main roles in optimal management of natural disasters and meeting the media needs of affected local people. These roles include educating and culture-building, informing and making communication, monitoring and demanding, winning public participation and creating national solidarity. Although both local and national radio and TVs are obliged to implement these roles, the methods are different. Therefore, the requirements for each role of local and national radio and TV channels in disaster management were identified in three different levels that are messages of local media for local audiences, messages of national media for local audiences, and finally messages of national media for national audiences.

#### Educating and culture-building role:

*Messages of local media for local audiences:* Local TV and radio channels have to use pre-event training to help build the culture for dealing with natural disasters specified to the certain geographical area covered by them. Moreover, they should provide the victims with practical and essential training after the occurrence of natural disaster.

*Message of national media for local audiences:* National media are not required to provide local training.

*Messages of national media for national audiences:* Because of the multiplicity and diversity of disasters in Iran, national TV and radio channels should focus on more general features of the training to deal with major natural disasters on the national level. They are also responsible for drawing the public attention to cumulative risks and help build the culture to deal with them.

#### Informing and making communication role:

*Messages of local media for local audiences:* As the first media reference of the victims, local radio and TV channels have to meet their need to receive fast, extensive, accurate, efficient, transparent, and honest information. In their news coverage, local media should focus on contributing to the process of disaster management with no political interests. Local media should provide the affected people with detailed and practical information based on their daily needs to help them adapt to new conditions and pursue their life. Local media should validate public messages and deliver them to the authorities to help the communication between them. They can also give detailed personal information on individuals and help the affected people communicate with their relatives and friends.

*Messages of national media for local audiences:* By giving information to local audiences, national media can draw public attention to them. The amount of information presented to local audiences does not matter. Wide coverage of disaster can show the victims that national TV and radio channels feel responsible for them.

*Messages of national media to national audiences:* National TV and radio channels are not obliged to present the whole truth for national audiences with all the details in their news coverage and can edit the information in such a way that delivers a more general image of the crisis.

#### Monitoring and demanding role:

*Messages of local media for local audiences:* Because of their widespread presence in the area of crisis, local media can monitor the performance of the authorities of disaster management more precisely. Their other duty is to demand the victims' rights of local authorities, constantly and in long-term.

*Messages of national media for local audiences:* Because of their access to national managers and authorities as well as their influential power on local authorities, national media are responsible for demanding local and national authorities. But due to the geographical distance and lack of knowledge on the crisis environment, they

cannot effectively monitor local managers.

*Messages of national media for national audiences:* Only at the time of disasters in a national scale in which national authorities are responsible, it is necessary for national media to address this level of audiences. In local natural disasters, local and national radio and TV channels should monitor the performance of local authorities at the level of local audience and demand them.

**Winning public participation and creating national solidarity role:**

*Messages of local media for local audiences:* Because of their better understanding of cultural and ethnic characteristics of local audiences, local media can stimulate the emotions and enthusiasm of local audiences and encourage them to participate. Local media should identify the victims' required items and inform others on these requirements and monitor the process of collecting and distributing them.

*Messages of national media for local audiences:* National media should show the sense of responsibility of the authorities and people of the country to the victims and make them realize that they are members of a large family of fellow countrymen and strengthen the national solidarity in them.

*Messages of national media for national audiences:* In severe and widespread crises, national media should collect contributions from all over the country and gather national resources to help victims. National media should stimulate the public emotions about the conditions of their fellow countrymen and replace ethnic, regional, and religious thoughts with national ones.

## **Discussion**

The main purpose of this study was to design and offer a model on the role of local and national radio and TV channels in disaster management in Iran. A model that can be used by local and national media to help them show a better performance in disaster management.

To achieve this model, media needs of the victims of natural disasters were identified first that include the needs for information, media attention, training, and to have a representative and formed the main and basic core of the model (central core in fig. 1). On the other hand, local and national radio and TV channels are obliged to manage three levels of messaging. First level is the messages of local media for local affected audiences (internal dark circle in fig. 1), second level is the messages of national media for local affected audiences (middle circle with dotted line in fig. 1), and third level is the messages of national media for other audiences in national level (external light circle in fig. 1). Accordingly, local victims are simultaneously exposed to three levels of national and local messages and national radio and TV channels should present two types of messages to local victims and other audiences.

According to the findings of this study, local and national media play four roles in local disaster management in Iran that are educating and culture-building, informing and making communication, monitoring and demanding, winning public participation, and creating national solidarity (black rectangles in fig. 1).

Eventually, our assertion on the role of local and national radio and TVs in the management of natural disasters is:

To meet the four media needs of the victims of natural disasters, including the needs for information, media attention, training, and have a representative, local and national radio and TVs have to perform their roles on educating and culture-building, informing and making communication, monitoring and demanding, winning public participation, and creating national solidarity in three levels of local media messages for local audiences, national media messages for local audiences, and national media messages for national audiences.

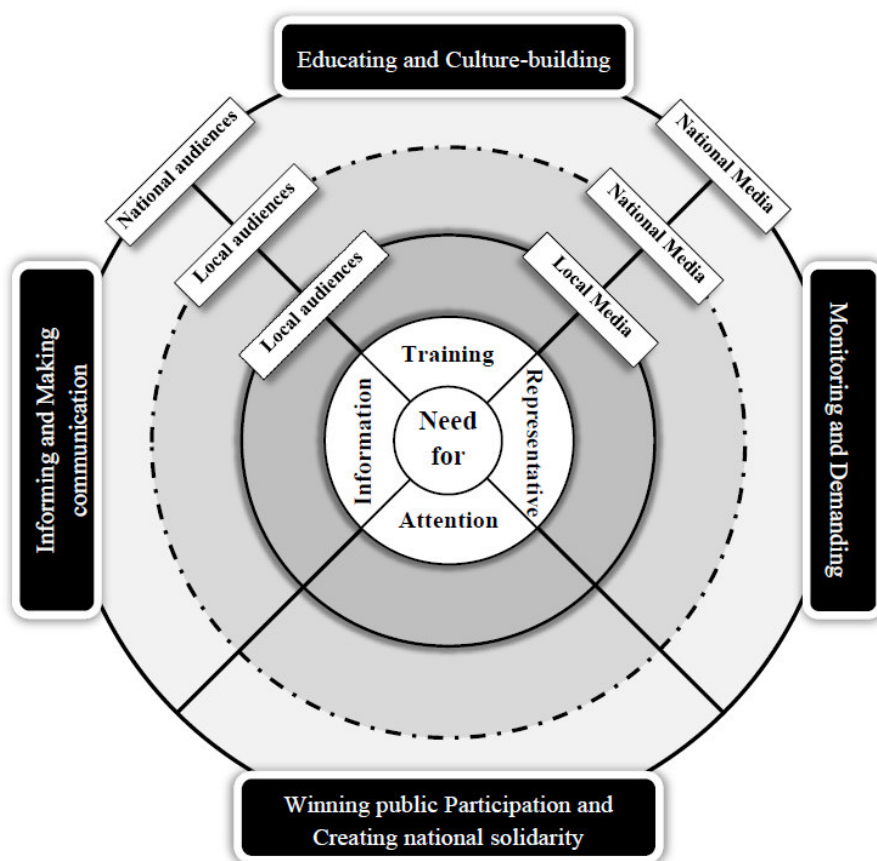


Figure 1 - Comprehensive model of the role of local and national radio and TVs in disaster management.

Findings of this study on the necessity of considering the media needs of the audiences affected by natural disasters, completely confirms the study of Kearns Dill (2006). Comparing the content of local and national newspapers involved in press coverage of a hurricane in America, Dill concluded that during first two weeks after the hurricane, the issues highlighted by the mainstream media were less covered by local newspaper. He considered this as a sign of the importance of audiences' needs in critical conditions by local media. By analyzing his findings, he argued that "readers of these newspapers consist of two groups. One is at the heart of the crisis and the other one is miles away. Due to their different information needs, the issues covered by these two groups of newspapers are also different" (Kearns Dill, 2006, p. 56).

In his study on the role of local media on the crisis management in Golestan province from the perspective of local journalists, Sharifi (2006) recognized six roles including increasing tolerance and patience of people, enhancing the sense of citizen participation, pursuing the promises of local authorities, building confidence in the victims about the crisis control methods, establishing order and security, and leading public opinion. Only two of these roles including enhancing the sense of citizen participation and pursuing the promises of local authorities were in agreement with the findings of this study. Other four roles were not found in our study.

In Green's (1983) study on the role of local media at the time of natural disasters, two main functions were identified including drawing public and major media attention to critical conditions of the community in crisis and forming a collective identity in the people in crisis as well as the audiences out of the crisis. Both functions are, to some extent, in agreement with the roles of winning public participation and creating national solidarity in this study that are mainly aimed at meeting the need of victims for media attention.

Morhead (2011) believes that the main goal of local media is to prepare and present the required information of those involved in the crisis during all three steps of preparation, response, and reconstruction. Spence et al. (2011) state that giving information and providing information required by local affected people affected are the most important roles of local media. Quarantelli and Wenger (1989) indicate that in addition to informing, local electronic media have the potential to transfer personal messages. Local media role for informing and making communication that are determined in this study, confirm the results of three above-mentioned studies.

From four functions of local radios in disaster management, according to Chhetri and Narayan (2010), the roles of informing and making communication are approved by this research. However, three roles of healing the victims' suffering, aiding vulnerable and marginalized groups, and non-media activities to deal with natural disasters were different from the findings of the current study.

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