# Lubna Zaheer\*

# Abstract

It is largely considered that mass media has an important role in mitigating the effects of natural catastrophes. This paper reviews the current knowledge about the role of media in the wake of natural calamities and hazards. It also discusses the role of Pakistani mass media during catastrophic situations. Although Pakistan is prone to natural calamities and has very vibrant media landscape, it has been observed that regrettably Pakistani media doesn't play substantial role in disaster risk management. The role is particularly absent in the pre-disaster period. It is said that in Pakistan media can be very helpful in crisis management if it functions aptly. It is suggested that Pakistani media organizations, disaster management officials and policymakers should establish a liaison with each other to alleviate the devastating impact of natural calamities. Besides, there is a dire need for some code of conduct for media coverage of natural hazards.

**Key words:** Natural catastrophes, mass media, disaster management, Pakistani media

# Introduction

A disaster is described as "a sudden, calamitous event that seriously disrupts the functioning of a community or society and causes human, material, and economic or environmental losses that exceed the community's or society's ability to cope using its own resources" (IFRC, 2015). In the last couple of decades, a considerable upsurge in natural disasters has been observed globally(Calvin, 2012; Pantti, Vasterman, Yzermans & Dirkzwager, 2005; Pelling, 2003; Wahl-Jorgensen & Cottle, 2012, WB, 2013) and this escalation of catastrophes has an outright correlation with the remarkable intensification in human sorrows and miseries (Yodmani, 2001). That's why all such elements that might support in alleviating the adverse effects of natural hazards are considered valuable. In this context, mass communication is amongst the essentials, which may contribute to mitigating a disaster or lessen its potential damage (Nair, 2010; Quarantelli, 1996). For the reason, the importance of information and communication is largely acknowledged during calamitous situation (Lee, 2008).

Subsequently, role of mass media is also considered important in the wake of natural catastrophes (Barnes et al., 2008; Brunken, 2006; Moges, 2013;

<sup>\*</sup>Author is Assistant Professor, Institute of Communication Studies, University of the Punjab, Lahore - Pakistan.

Harbert, 2010; Hoberman, 2011; Houston et al., 2012; Liu, 2010; Olson et al., 2010). The role is much considerable during hazardous events because crisis situations require a high degree of mass information and both 'new and old media' cannot be ignored in this regard (Cottle, 2014). It is also argued that media acts as a bridge of communication between affected people, general public and national and international disaster management units(Iqbal, Ali, Khursheed& Saleem, 2014). News media is the most prominent and crucial news resource, particularly for public who usually face disaster (Quarantelli, 1996; Wenger, James, & Fanpel, 1985).

Like other South Asian countries, natural disasters are also common phenomena in Pakistan. The meteorological diversity enhances Pakistan's multiple vulnerabilities to catastrophes and makes it one of the most disasterprone countries in the world (Ahmad, Kazmi,& Pervez, 2011). Moreover, as far as mass media is concerned, it has become very dynamic and liberated in last few years (International Media Support, 2009; Mezzera & Sial, 2010; Shoeb, 2008; Yousaf, 2012) and is involved in almost all affairs of the country. Since media's role becomes vital when it comes to reportage of disasters (Iqbal et. al., 2014), it is of much importance to establish some meaningful relationship between media and disaster management entities. So that media may be used to impact the general public, disaster victims, disaster management units, policymakers and national and international donors.

It is also relevant to mention that although literature on media in the wake of natural disasters is very well researched in the developed countries (Quarantelli, 1996; Szinell, Bussay, & Szentimrey, 1998; Rybalko, 2011; Tierney, Bevc, & Kuligowski, 2006), yet very few scholarly research studies cover the discourse in the developing countries and regrettably almost negligible scholarship is available in the context of Pakistan. This paper debates the importance and role of mass media in the times of natural disasters. In the second place, it discusses the role of Pakistani media during natural hazards and states that Pakistani media, if used properly, can be very helpful in dissemination of disaster related information, broadcasting warning and precautionary measures, and also mobilizing the local community and international donors.

### Media coverage of disasters and the public

Awareness is considered as one of the most important elements of disaster management, which is needed both before and after the occurrence of a disaster. It is argued that media may develop mass awareness and in this way can assist individuals regarding disaster (Ashlin & Ladle, 2007; Brown & Minty, 2006). It might be an extensive apparatus in civil training programs

about catastrophe prevention and risk reduction (Kreps, 1980; Scanlon et al., 1985). Media is particularly important in warning dissemination (Perry, 2007). It enlightens public in reinforcing disaster awareness and increases disaster resilience in the community (Romo-Murphy, 2014).

Rattien (1990) argued that mass communication and media is intertwined with calamities and hazard mitigation. Due to huge public attention and concern, both electronic and print media broadly cover natural disasters. It significantly affects how and what public learns about and how it perceives natural disasters.

Research scholars also explored about fatalities and damages, which could be heightened if media doesn't play supportive role in the wake of disaster. For instance, Eastern African country Ethiopia was badly affected by drought, famine and other hazards. Ethiopian media caused hurdle in disaster management by not concentrating on disaster risk reduction awareness and activities. Keeping in view the situation of the country, there was a dire need to disseminate awareness messages for public regarding disaster (Moges, 2013).

Amplified consumption of disaster coverage reveals that public retains much interest to know about disaster situations (Hodgkinson & Stewart, 1991). In the wake of disasters, individuals show concern to know factual reports (Duhe, 2008). Information is so important for the public during disasters that sometimes individuals want information as much as they want water, food, medication or a place to live (World Disasters Report, 2005). Mass media is better in spreading the information and awareness (Fisher 2005 as cited by Duhe, 2008) and news media is the most important source of catastropherelated information (Turner, Nigg, & Paz, 1986; Wenger et al., 1975). People most frequently turn to media for retrieving catastrophe updates and most of the time, trust the delivered material as well.

Moreover, people are interested to know about the potential impacts of disasters and search for information to decide whether the disaster will disturb them or not. On the basis of acquired information, they decide how they should react and get organized (Littlefield & Quenette, 2007). Moreover, mass media is a major source of information about catastrophes for fellows of community who reside in customary or catastrophe subculture societies (Goltz, 1984; Wenger et al., 1985). Media content is so important that it shapes public policy and its priorities during disasters (Barnes et. al., 2008).

Although the catastrophes-related news has amplified over the years, nonetheless there is a different trend among news recipients in terms of their

reliance on the medium of news. Because the visual impact is unforgettable (Brewin, 1994) that's why television has very important role to play during disasters. People also turn to local radio stations to get disaster-related information (Cohen, Hughes, &White 2007). Even print media has a prominent and traditional role in information dissemination and catastrophes have been a part of media debate since the origin of newspapers (Scanlon, 2007).

Besides, interpersonal communication is of much importance in rural cultures and individuals seek information through family members, close friends and well-informed colleagues in small towns (Hagar, 2010). However, in advanced societies, people use cell phones, Internet and interpersonal communication while teenagers rely more on social media (American Red Cross, 2011; Lachlan, Spence, & Nelson 2008) and this new media is considered very significant particularly in technologically advanced countries.

### Social media and natural Calamities

The worldwide use of social media has been growing over time (Alliance Strategic Research, 2011). Social media has become so important that its importance can't be ignored even during calamitous situations. The American Red Cross (2011) reported that one in six individuals from the overall general public use social media to seek information on a catastrophe. Social media is very beneficial during and after natural catastrophes for possible emergency response (Wilspon, 2012). One of the important reasons is that when all typical and conventional communication systems stop working during disasters, social media and networking services are very much active(Velev&Zlateva, 2011) which helps in establishing relationships locally and globally. People take constant interest in social media during disasters period to inform others about hazardous location or a situation as well as to update their friends and intimates about their safety. It was found that social media usage increased in the course of disasters as individuals had great tendency to search speedy and detailed information (Bates & Callison, 2008; Sweetser & Metzgar, 2007).

One of the important aspects of using social media is that it may also offer emotional and psychological welfare for the users. It has been observed that the more people keenly get involved in social media communication, the more they feel emotionally comforted during time of certain adversity (Neubaum, Ronser, Putten, & Karmer, 2014). Disasters are naturally painful, so social media provokes people not only to look for information but also for social interaction, discussion and emotional attention (Shklovski, Palen, & Sutton, 2008). Certainly, it has been seen that social media on the whole and especially blogs are helpful for providing emotional assistance during and after disasters (Macias, Hilyard, & Freimuth, 2009) and also for sharing their

feelings with the others (Neubaum et. al., 2014). Therefore, it might be asserted that social media is set to provide emotional assistance, letting people to stand-in cybernetic groups and interact, share facts and emotions and even request for solution (Choi & Lin, 2009; Stephens & Malone, 2009).Al-Saggaf and Simmons (in press) found that even in Saudi Arabia, where civilian input in governmental and public issues is controlled, in the course of disaster, social media helped its users to express their profound grief over tragic deaths in a manner that ultimately unified individuals. Also, it provided a platform for discussion on damage, governmental performance and call for action accordingly.

# **Disaster coverage and charities**

Media reporting of catastrophe leaves long-term effect on the attitude of people and encourages them to help others in need (Ali, 2013). Media reports possess a potential to stimulate charitable desires amongst local and global masses(Ali & Mahmood, 2013). This mobilization for relief assistance may put the country and sufferers on fast recovery track (Franks, 2014). It may also support rescue and help in generating struggle by imploring generous actions of a member of society (Brown& Minty, 2006). Mass media reporting of Ethiopian food crisis was an exemplary news event that ended in extraordinary philanthropic behavior. That crisis came to light with news report from Michale Buerk and Mohamed Amin on BBC in October 1984 (Wilson, 2014). Simon (1997) studied 22 foreign earthquakes and their media coverage. Results suggested that heavy media coverage of disasters increased collection of altruistic donations by citizens. It was found that media coverage was a causal agent for fundraising and heavy news coverage functioned as a facilitator for heavy donation influx. Donations and charities are dependent on the extent of media coverage and the disasters that receive more media coverage receive more donations (Ferris, 2010).

Media coverage stimulates humanitarian passions among mass addressees, which may impart the possible prompt response of public in supporting relief activity for the victims (Franks, 2014). Not only this has the material support, audiencesalso contribute immaterial support as they express their concern for relief efforts. As a matter of fact, rescue, relief and recovery efforts by imploring altruistic and philanthropic response of audiences might be a spinoff of the media reporting of a natural catastrophe. Media holds a stair for developing mass awareness and in the facilitation of public assistance for the timely emergency response (Brown& Minty, 2006; Oosterhof, Heuvelman, & Peters 2009).

Additionally, free, independent and hard-hitting media can play an important

role in curbing corruption (Nogara, 2009). Thus, media may be construed as "Watchdog" (Francke, 1995), which might keep an eye on the flow of funds and humanitarian aid. Its stringent reportage on the utilization of funds might not only enhance the effectiveness and efficiency of relief effort, but may also offer a narrative to the donors on fair and need-based utility of their donations (Muzamill, 2012). It should be remembered that the role of media as watchdog during natural hazards and disasters is constantly monitored, as it thoroughly affects public opinion and leaves a lasting impact on the responses of the international community, foreign aid agencies and relief activities (Ali, 2013).

# Natural hazards and adverse role of media

Media is not only important for general public but also for disaster management officials. Mass media (electronic and print) are considered as playing a pivotal role in constituting disaster-related perception of public (Brown& Minty, 2006; Franks, 2014;Haddow&Haddow, 2009; Oosterhof et al., 2009; Wenger et al, 1985) as well as disaster managers (MacDougall & Reid, 1987; Shklovski et al., 2008). Disaster managers have to rely heavily on timely information influx for not only quick decision-making during early recovery but also to form policy on later level (Shklovski et al., 2008). Media stories, over and above, contain an explicit tendency to influence disaster-related decision-making (Tierney et al., 2006), which may impact whole process of disaster management. Media reporting can also be helpful in bringing disaster management on policy agenda (Scheufele, 1999).

Crisis managers and media correspondents need to work together because they share a mutual purpose of informing masses in the hour of catastrophe (Veil, 2012). It is argued often that media can perform as a sole bond between community and executives, and be the single most significant source of public information. Different studies have revealed that media's framing of an incident may influence agenda of crisis management and strategy makers (Vasterman et. al., 2005). Interestingly, crisis management officials have a love-hate association with mass media. In the time of a catastrophe, this relationship is exceptionally dependent on the level of trust between disaster managers and reporters (McLean & Power, 2014).

Sometimes mass media creates obstacles in disaster management. Often government officials view media as complicating their disaster risk reduction efforts (Scanlon et al., 1985). For instance media is involved in blame games (Littlefield &Quenette, 2007) and in propagating invalid views about catastrophe (Tierney et al., 2006). It is also noted that most of the timemedia content is led by accountability frame instead of the social concern frame

(Poudelet al., 2014). This sort of behavior creates hurdle in working of disaster managers and makes their work difficult.

It has also been noted that risk communication role of media is limited to news regarding damages, loss and destructions. While the crucial elements of a pre-disaster management phase i.e. mitigation and prevention, is completely ignored in the coverage (Pasquare & Pozzetti, 2007). Media contributes less towards directing public attention on mitigation pursuits. For instance, Harbert (2010) noted that intensity and frequency of hurricanes is increasing, but little attention is being paid to reducing the impact on mitigation side.

As mass media creates images in our heads, so if the created image is incorrect, not fully formed or enclosed in an incorrect way, then the truth is misinterpreted and this is frequently the case (Lippman as cited by Balm, 1993). During a catastrophe, the role of national and international media can either accelerate or delay rescue and relief actions. Many scholars have criticized the content of mass media in the course of disaster. Sometimes, content and coverage of mass media depicts a misleading, untrue, possibly erroneous portrayal of the actual disaster activities (Turneret al., 1986). Another problem with mass media is that they count the buzz and fear news to report (Lazic, 2013).

Moreover, occasionally news settings, or underlying subjects, are overstated, distorted, or totally wrong, which results in overall misinterpretation of catastrophe by media's spectators (Barsky, 2006; Rodriguez& Dynes, 2006). At times, media plays a role of pressure group by propagating false beliefs regarding victims. Sometimes it gathers exclusive information or photos just to sell in the open market of audience (Ali, 2013).

It should also be kept in mind that media is also a corporate industry, which works through attention and money from their spectators. So, media organizations have to adopt interest of their audience while formulating their content (Balm, 1993). This lays significant pressure on media organizations to discover exaggerated and dramatic news at the fastest speed in order to get the initial news item. If the actual news is not dramatic enough to be admired, then media end up avoiding reality and constructing their report on unreliable or imaginative evidence. Probably that's why mass media wrongly frame catastrophes to concentrate more on mortal loss and damage in reporting (Svitak, 2010).

# Natural disasters and Pakistan

The repetitiveness and severity of natural calamities have been continuously increasing in recent years (Calvin, 2012; WB, 2013). This growing occurrence

of catastrophes is critically correlated to the exceeding fragility of underdeveloped societies (Rodríguez-Oreggia, Fuente, & Torre, 2008). The reason is that the structure of underdeveloped societies made them sensitive to a variety of risks (Mileti, 1999).Since the societies are not homogeneously developed, the risk factor also varies from society to society and some of them are relatively more vulnerable (Boyce, 2000). It may be stated that there is an "absolute correlation between poverty and vulnerability" (Yodmani, 2001). The marginalized strata of a community around the world suffer the greatest disaster losses (Blaikie et al., 1994; Fothergill& Peek, 2004). So is the case with Pakistan, which is a developing country.

Pakistan is a diverse country in terms of its geography categorized into eight different meteorological zones (GoP, 2003). This meteorological diversity enhances its vulnerability to multiple forms of catastrophes and makes it one of the most disaster-prone countries in the world (Ahmad et al., 2011). These disasters not only cause huge damage to human lives, property and livelihoods at a large scale, but also to the flora and fauna that exist in the country (Sayed & González, 2014).

Floods, earthquakes, droughts, windstorms, desertification and landslides are identified as leading natural risks in Pakistan with regard to the frequency and scale of impact (Khan, 2010). North of the country remains under a consistent hazard of earthquakes, avalanches, glacier retreats, snowstorms and landslides, whereas coastal sites of Pakistan are susceptible to storms, typhoons, cyclones and floods. Moreover, deltaic region is very much prone to flood risks. Subtropical desert areas, including *Thar* and *Cholistan* desert, are exposed to droughts and famines.

The data retrieved from Emergency Event Database (EM-DAT), ranging from 2001 to 2015, unfolded that during the period of almost one-and-a-half decade 25 major catastrophic events were recorded in Pakistan, which include earthquakes, floods and landslides. A large population of the country is exposed to sea level rise and flooding due to temperature variation caused by global warming. This temperature variation brought dramatic threats to the marginalized strata of Pakistani society (Farooqi, Khan, & Mir, 2005).

Floods hit the country almost every year (Rahman& Shaw, 2015). There is evidence of Pakistan's growing susceptibility to natural hazards, especially floods. It also appears as a more frequent phenomenon in the country attributed to global climate change. It may also be deduced from the referred data that among other climatic disasters, floods are becoming a prevalent source of damage to the lives, livestock, livelihoods, belongings, and infrastructure, natural and environmental resources.

### Media and natural disasters in Pakistan

While natural catastrophes are increasing around the globe, the significance of relationship between media and catastrophes is also increasing (Cottle, 2014). As far as media in Pakistan is concerned, during the past one-and-a-half decade, a change in the mood of Pakistan's mass media has been noticed. In recent years, Pakistani media has become more free and liberated (International Media Support, 2009; Mezzera & Sial, 2010; Shoeb, 2008; Yousaf, 2012). Role of media has enhanced in different affairs of Pakistan whether it's about supporting civil society and their rights (Hassan, 2012), strengthening the legitimacy of parliament and judiciary in dictatorial regime (Mcdowell et. al., 2012), promoting nationalism (Sabir, 2011) or creating political awareness among public (Yousaf, 2012).Media's role has been esteemed frequently.

But besides this appreciative role, Pakistani media often ignores certain important issues related to culture (Rasul & Proffitt, 2013), industrial and business development (Ali et al., 2012) and religious minorities (Ambreen, 2014). So is the case with natural disasters and disaster-related issues that are overlooked. Preferably, the freedom and authority of media should come with responsibility, particularly in the coverage of sensitive events, e.g. natural disasters. Iqbal et al. (2014) argued that the role of media becomes crucial when it comes to reporting in disaster situation. However, the state of affairs is that in Pakistan role of media is often criticized during crisis situations due to being inappropriate. Naeem (2013) highlighted the ineffectual character of media in the context of natural disasters in following words:

Some communications instructors and media practitioners also claim that for a country that is devastated regularly by natural disasters — Pakistan has suffered from floods of varying intensity each year since 2010 and two major earthquakes since 2005 — local media organizations have failed to generate a debate on disaster risk reduction (para. 3).

It is not so that Pakistani media never played any role in the times of disasters and remained inactive. It did play important role in the past in the wake of disasters and that role was appreciated too. Particularly, during the Earthquake 2005 media remained very watchful and vigilant in response phase. Print and electronic media provided extensive coverage to affected areas and people. It was due to media that local and global community came to know about the huge devastation in the country.

Since media is considered very supportive to stimulating the general public

(Brown & Minty, 2006), it could benefit disaster victims (Macias, et al., 2009; Perez-Lugo, 2004)and disaster managers (Veil, 2012). In the Earthquake 2005, media stimulated and mobilized the general public (Syed, 2015) and thousands of volunteers travelled to the affected region to serve the victims and disaster-management officials. In this way media not only relieved the disaster victims but also helped the disaster managers. It is held that media is very helpful in acquiring donations and charities (Bennett & Kottasz, 2000) and the disasters discoursed extensively in media obtain more donations from global community (Becerra, Cavallo, & Noy, 2012; Ferris, 2010). In the Earthquake 2005, media coverage stimulated local and global donors. The received donations helped a lot in disaster management.

Moreover, in the Earthquake 2005, media also helped settle many issues faced by the affected community. It highlighted the want of basic necessities of the community and also raised other thoughtful issues. At that time, media reported cases of kidnapping of young victims, particularly girls, who had lost their parents in the disaster and were smuggled to other parts of the country and sold for prostitution. Soon after the media reports, the government outlawed the travelling of children, especially girls, from the earthquake-affected areas. Check posts were established to scrutinize all vehicles leaving the area (Syed, 2015). Also during the other natural disasters that occurred after 2005, media remained active but not to the extent it was during the Earthquake 2005. Then again in 2014, media revealed Tharparker famine in Sindh province. Media reports compelled federal and provincial governments to start providing foodstuff, medical treatment and other aid to the famine-affected people.

Although the significant role of Pakistani media in the wake of natural calamities can't be denied entirely, however, this role has to be enhanced. Media is considered most significant mean of information dissemination, its role is very crucial in mitigation (Fisher 2005 as cited by Duhe, 2008). Its effective usage could significantly lessen the impact of possible natural disasters (Scanlon et al., 1985; Kreps, 1980). It is also maintained that media holds an important role in preparedness phase of disaster management (Scanlon, 2011), particularly by delivering pre-disaster education, predictions (Kreps, 1979) and warnings (Kreps, 1979; Nayak, 2012). Through timely mass awareness, the losses may be prevented and/or mitigated (Rattien, 1990).

In Pakistan, although media is very vibrant International Media Support(2009) and influential Nazir(2013), it is often passive and disinclined in the times of calamities. Focus of the media is limited to the "happening" of the event most of the time and it is engrossed on devastating components like deaths, injuries and destruction, etc. Pre-disaster period is overlooked mostly. The natural

disasters, which strike abruptly and without warning (Harbert, 2010) don't retain pre-disaster phase and therefore absence of media is quite justified in pre-disaster period. For instance in case of an earthquake, warning is not available (Rausch, 2011). But also in case of predictable and foreseeable natural disasters like floods and famine, Pakistani media is inattentive in pre-disaster periods, which is quite unjustified.

Generally, there are hardly some news stories of warning, protective and preventive measures in pre-phase of predictable disasters like famines and floods. For instance, in recent Tharparker famine (2014), media disclosed the fatalities of children due to scarcity of nutrition and forced the government to begin restoration efforts. However, local and national media was inattentive when famine was expanding and people were confronting the dearth of water and food. Although famine is a foreseeable occurrence and creeping phenomena (Szinell et al., 1998), yet Pakistani media did not play any role in mitigation phase and provided no coverage to stir the government. It remained active in "happening" phase after the deaths of hunger-stricken children. Likewise, flood is a frequent occurrence in Pakistan and there are floods almost every year (Rahman & Shaw, 2015). But media is passive in the pre-flood phases and unenthusiastic most of the time to educate the public about evacuation and other preventive measures.

Mostly, Pakistani media and particularly electronic media is largely involved in creating hype (Asif, 2011; Raza & Jumani, 2012), sensation (Jamali, 2014) and exaggeration (Paracha, Shahzad, Ali, &Nazir, 2013). During disaster events also, news media contents are loaded with hype, sensation and sometimes exaggeration too. But soon after the "happening" phase is over media doesn't bother to produce follow-up stories about victims and their miseries. Media in Pakistan needs to improve its role in pre-disaster phase instead of focusing on early post-phase only. Additionally, there is a dire need for media to work in collaboration with disaster management authorities and help in disseminating warnings and other pre-emptive measures well in advance to mitigate the impact of disasters.

It is also noticed that in a disastrous situation there are other news on the priority of media organizations, e.g. political, game events, etc. Research scholars observed and found that when there are some other important newsworthy events in media, disaster news are crowded out (Eisensee & Stromberg, 2007). Moreover, it is also observed that in the immediate aftermath, although media does cover the event but the coverage swiftly evaporates after few weeks (Houston, Pfefferbaum, & Rosenholtz, 2012). Pakistani media is also focused on political issues most of the time (Sabir, 2010) and other social issues are ignored (Editorial, 2015, November 1;

Jamali, 2014). So is the case with disaster-related issues that are often ignored after short period of time.

As a matter of fact, when considering the role of media, it is important to keep in mind that it is not just a means of information transfer; rather it is also an independent actor with its own biases and vested interests (Boykoff & Boykoff, 2004). Mass media are owned by entities or corporate organizations, thus their content, editorial and news agendas apparently mirror their political and financial securities (Fu et al., 2012).Consequently, media sells news information as a commodity and also as a safeguard for their political agendas. Their media content, editorial and news agendas openly reflect their political and economic interests (Monbiot et al., 2005; Oreskes, 2004).So is the situation in Pakistan and particularly commercial interests influence the quality of journalism and give way to sensationalism (International Media Support, 2009). But role of mass media should be different when it comes to natural disasters and human miseries. It must keep the issue alive through continuously bringing it into media discourse.

Another important aspect of the issue is that emergency circumstances need effective and operative governance that may help sufferers in finding relief (Joshi & Aoki, 2014). However, Pakistan lacked such kind of disaster management governance system prior to 2006. The catastrophic event of 2005 exposed the need for an organized disaster management governance system. Consequently, the National Disaster Management Authority (NDMA) was established in 2006 to deal with the (possible) catastrophes. These authorities are also working at provincial and district level but their performance is questioned frequently. But the problem is that media talk about the weaknesses and incapacity of disaster management authorities shortly after any disaster happens. Such debates are not part of media's long-term planning.

For instance, the Earthquake2005 has recently completed its 10 years. On its 10<sup>th</sup> anniversary, media conversed much about the decade long weaknesses and lapses of governments and disaster management authorities. <u>Syed</u> (2015) wrote: "It was also disturbing to note that in the last 10 years, we have not been able to build a proper sewerage and clean water distribution system. It seems the government officials have no realization about the vulnerability of this mountainous area". Zaidi (2015) noticed the role of Earthquake Reconstruction and Rehabilitation Authority (ERRA) and stated: "But just over a decade later, the body's most ambitious project — the construction of New Balakot City at Bakrial —remains a pipedream" (para. 2).

Apart from all weaknesses and mismanagement of governments and authorities, important question is that where was the media during the 10 years? Did it play its socially responsible role? Editorial of daily 'The Nation' (2015) rightly pointed out the role of media and wrote: "The national media is so focused on the politics at the Centre that the Northern Areas get an 'out of sight, out of mind' kind of treatment — whether it is Zarb-e- Azb, the IDP crisis or the earthquake".

This unfortunate "out of sight, out of mind" behavior of media can be observed almost after every natural calamity. Regrettably disaster-related issues have never been the priority of media. For instance, the disaster risk management (DRM) in Pakistan is unstable (Ahmed, 2013). It does not involve native individuals, so the involvement of catastrophe sufferers concerning decisionmaking stays the same as none (Ainuddin et al., 2013). It is often suggested that the Pakistan Disaster Management Act (PDMA) 2010 needs to be revised in order to make it preventative (Ahmed, 2013). But Pakistani media hardly discusses these issues.

Pakistan's mass media is expected to repeatedly raise these issues because media can impact decision-making (Lowrey et al., 2007). Media is firm to impact policymakers and policymakers also depend on media to be seen as good managers of disaster (Barnes et al., 2008). As a matter of fact, media reporting can help bring disaster related issues to policy agenda (Scheufele, 1999) and in this way can influence policymaking process. That's why it is said that media and policymaking has forceful relationship (Yanovitzky, 2002). Hence media can assist disaster management by facilitating debates about disaster (Space, 2015) and can influence policy agenda in the early stages (Soroka et al., 2013) because public don't have power to influence the decision-makers without the help of media (Pasquare & Pozzetti, 2007). Besides, media impacts the policymakers to allocate more resources towards recovery of disasters (Barnes et al., 2008).

It is responsibility of Pakistani journalists to follow the instructions mentioned in Disaster Reporting Handbook (2011), which states that in non-disaster phase, due to an apparent calm and no possibility of disaster, public and policymakers both drift into forgetfulness and become oblivious to the fact that disasters can happen anytime. In this phase, journalists can possibly write on issues pertaining to disaster-related policy and legislation. They can also highlight the significance of long-term disaster mitigation measures by public and private sectors.

Another serious problem is that occasionally reporting of the mass media depicts a deceptive, untrue and erroneous depiction of the real disaster events

(Turner et al., 1986) and news events are overstated, misrepresented, or completely wronged. This results in overall false impression of the catastrophe by media's audiences (Barsky, 2006; Rodriguez & Dynes, 2006).Besides, there are elements of sensation and drama in disaster coverage (Harbert, 2010) and people panic in disaster situation (Heide, 2004). This sort of coverage pattern is rampant in Pakistan's mass media because no code of conduct regarding disaster coverage is available in the country. Thus, there is a dire need for some code of conduct (Iqbal et al., 2014), so that such practices may be avoided. Media must be deemed responsible to spread information during disasters and it should make sure that any event is portrayed in a way that doesn't create unnecessary panic and fear (O' Brien, 2006).

It is also relevant to mention that media also performs some underlying tasks during calamities and catastrophes. These involve emotional backing and comradeship. Media relieves individuals to feel linked with the outer world (Perez-Lugo, 2004). It persuades people to battle against catastrophes (Ali, 2013). The role of social media is particularly relevant in this regard. Although Pakistan is not very much advanced technologically, yet social media is used in urban areas in particular. It is used for political campaigning and also for giving opinion on certain other social issues (Ahmad & Sheikh, 2013). It should also be used in the times of disaster to influence the national and international community, particularly to mobilize the national and international donor agencies and individuals as it is used in the developed world in the times of disasters.

Media persons should remember that the way a media house treats and transmits the flow of information defines the credibility of that media group (Haddow & Haddow, 2009). Therefore, Pakistani media should ensure the authenticity of news contents and there should be a disaster sensitive communication according to the phase of the disaster management cycle. As Pakistan is considered to be a disaster-prone country (Saved & González, 2014), it is worth recommending that media organizations should set up crisis cells which could monitor disasters in all the phases and report it accordingly while ensuring sensitivity and responsibility. The problem is that occasionally media outlets have to suffer in disasters. It often happens in the case of war reporting but could also be possible while covering a natural catastrophe (Magandy, 2007; Pope, 2007; Poynter online, 2005 as cited by Duhe, 2008). In a developing country like Pakistan, where media houses, particularly their local bureaus, are not well-equipped technically and don't have well trained human resource, are unable to cover all the phases of disaster cycle as it is required. The media houses in Pakistan need to be regulated in this regard.

Last but not the least, there is also a dire need to analyze the contents of media about the ways of reporting disaster situations in Pakistan. Globally a number of scholarly studies were carried out to examine the role of media while covering natural disasters (Liu, 2010; Barnes et al., 2008) and its impact (Perez-Lugo, 2004; Velev & Zlateva, 2011; Wilpson, 2012). However, hardly a few studies were conducted to analyze and examine the contents of media coverage of catastrophes in Pakistan. It is suggested that Pakistani research scholars should focus this neglected area and researches should be conducted for the guidance and consumption of Pakistan's media industry.

# Conclusion

The article presented different angles and aspects regarding role of mass media during natural calamities. A larger section of research explored the positive role of media in disaster management and its different aspects. Particularly, role of media to educate victims and potential victims, to guide and stimulate disaster managers and officials, to influence and induce national and global donors, are among the important abilities of media. Besides, negative and/or negligent role of media in the wake of disasters and its subsequent impact on disaster management was also discussed.

The study also reasoned the role of Pakistani media during natural catastrophes. Although role of Pakistani media has been positive in the past disasters, particularly in the wake of Earthquake 2005, unfortunately it never prioritized the natural disasters and related issues, and pre-disaster period was particularly overlooked. Even predictable disasters like floods and famines are not focused and discoursed during pre-disaster phase. Additionally, rehabilitation or long-term recovery period is also ignored and "out of sight, out of mind" behavior is adopted. Pakistan's media remains focused on "happening" period and soon after that period coverage declines.

The study suggests that media must work in collaboration with disaster management authorities and must discourse the disaster-related issues throughout the year. Improving and refining connections between media and disaster-managers, we could prepare and train public to act quickly on warnings. This could be helpful in mitigating disasters. This might also accelerate the shift of societal stress and emphasis from post-disaster response toward pre-disaster preparations and initiatives. This practice could be extremely supportive for mitigation phase of disaster management process.

It is also suggested since no code of conduct is available in Pakistan for disaster reporting, a code must be formulated to ensure disaster-sensitive communication. This research also suggests that Pakistani research scholars

should conduct research studies in this neglected area i.e. media and natural disasters, so that potential benefits of Pakistan's mass media may be acquired in calamitous situations.

# **End Notes**

- Ahmad, F., Kazmi, S. F., & Pervez, T. (2011). Human response to hydrometeorological disasters: A case study of the 2010 flash floods in Pakistan. *Journal of Geography and Regional Planning*, 4(9), 518.
- Ahmad, K., & Sheikh, S. K. (2013). Social Media and Youth Participatory Politics: A Study of University Students. A Research Journal of South Asian Studies, 28 (2), 353-360.
- Ahmed, Z. (2013). Disaster risks and disaster management policies and practices in Pakistan: A critical analysis of Disaster Management Act 2010 of Pakistan. *International Journal of Disaster Risk Reduction*, *4*, 15–20.
- Ainuddin, S., Aldrich, D. P., Routray, J. K., Ainuddin, S., & Achkazai, A. (2013). The need for local involvement: Decentralization of disaster management institutions in Baluchistan, Pakistan. *International Journal* of Disaster Risk Reduction, 6, 50-58.
- Alliance Strategic Research.(2011). Social Media in the 2011 Victorian Flood.Office of the Emergency Services Commissioner, Melbourne.
- Ali, S. (2013). *Environmental problems of Lahore and their reporting* (Doctoral dissertation, Lahore School of Economics).
- Ali, A., & Mahmood, S. (2013). Photojournalism and Disaster: Case Study of Visual Coverage of Flood 2010 in National Newspapers. Academic Journal of Interdisciplinary Studies, 2(9), 168.
- Ali, S., Lu, W., Cheng, C., Chaoge, L. (2012). Media Inattention for Entrepreneurship in Pakistan. European Journal of Business and Management 4, 96-100
- Al-Saggaf, Y., & Simmons, P. (in press). Social media in Saudi Arabia: Exploring its use during two natural disasters. *Technological Forecasting* and Social Change, 95, 3-15.
- American Red Cross.(2011). Social Media in Disasters and Emergencies. American Red Cross, Washington.
- Ambreen, Q. (2014) Representation of religious minorities in Pakistani print media: a case study of Daily Dawn, The News and The Nation. *American International Journal of contemporary Research 4.*
- Asif, M. (2011). Violence against Women in Pakistan: Role of Police and Media. Social sciences review of Pakistan, 13.

- Ashlin, A., & Ladle, J. R. (2007). Natural Disasters and Newspaper: Post-Tsunami Environmental Discourse. *Environmental Hazards*, 7(4), 330-341.
- Barnes, M. D., Hanson, C. L., Novilla, L. M., Meacham, A. T., McIntyre, E., & Erickson, B. C. (2008). Analysis of media agenda setting during and after Hurricane Katrina: Implications for emergency preparedness, disaster response, and disaster policy. *American Journal of Public Health*, 98(4), 604.
- Balm, R. (1993). Harm's narrative: Media framing of contemporary risk: A review of the sociological literature.
- Barsky, L. E. (2006). Disaster realities following Katrina: Revisiting the looting myth. *Learning from catastrophe: Quick response research in the wake of Hurricane Katrina*, 40, 215.
- Bates, L., &Callison, C. (2008). Effect of company affiliation on credibility in the blogosphere. Retrieved n 15<sup>th</sup> April from: <u>http://www.aejmc.org/home/2011/03/pr-2008</u>.
- Becerra, O., Cavallo, E., &Noy, I. (2012). Foreign Aid in the Aftermath of Large Natural Disasters. *Inter-American Development Bank.*
- Bennett, R., &Kottasz, R. (2000). Emergency fund-raising for disaster relief. *Disaster Prevention and Management: An International Journal*, *9*(5), 352-360.
- Blaikie, P., Cannon, T., & Davis, I. B. Wisner. (1994). At Risk: Natural Hazards, People's Vulnerability and Disasters.
- Boyce, J. K. (2000). Let them eat risk? Wealth, rights, and disaster vulnerability. *Disasters*, *4* (3), 254-261.
- Boykoff, M.T., Boykoff, J.M. (2004). Balance as bias:global warming and the US prestige press. *Glob. Environ. ChangePartA* 14,125–136.
- Brewin, T. B. (1994). Chernobyl and the media. *BMJ: British Medical Journal*, 309(6948), 208.
- Brown, P., & Minty, J. (2006). Media coverage & charitable giving after the 2004 tsunami.
- Brunken, L. B. (2006). Hurricane Katrina: A content analysis of media framing, Attribute agenda setting, and tone of government response.
- Calvin, J. (2012). Community recovery, A new value proposition for community investment. *Community Development, 43 (5),* 645-655.
- Choi, Y., & Lin, Y. H. (2009). Consumer responses to Mattel product recalls posted on online bulletin boards: Exploring two types of emotion. *Journal of Public Relations Research*, *21(2)*, 198-207.

- Cohen, E., Hughes, P., & White, P.B., (2007). Media and bushfires: A community perspective of the media during the Grampians Fires 2006. *Environmental Hazards*, *7*(*2*), 88-96.
- Cottle, S. (2014). Rethinking media and disasters in a global age: What's changed and why it matters. *Media, War & Conflict, 7*(1), 3–22.
- Disaster Reporting Handbook (2011).National Disaster Management Authority, United Nations Development Programme, Islamabad. Pakistan.
- Duhe, F. S. (2008). Communicating Katrina: A Resilient Media. International Journal of Mass Emergencies and Disasters, 26 (2), 112-127.
- Editorial. (2015 November 1). 'Aftermath'. The Nation.N.p., 6 November. 2015.
- Eisensee, T., & Stromberg. (2007). News Droughts, News Floods, and U. S. Disaster Relief, *The Quarterly Journal of Economics*, 122(2), 693-728.
- Emergency Events Database (EM-DAT). (2015) retrieved 12 April 2015 from www.emdat.be/publications
- Farooqi, A. B., Khan, A. H., & Mir, H. (2005). Climate Change Perspective in Pakistan. *Pakistan Journal of Meterology*, 2(3), 11-21.
- Fothergill, A., & Peek, L. A. (2004). Poverty and disasters in the United States: A review of recent sociological findings. *Natural hazards*, *32*(1), 89-110.
- Ferris, E. (2010). Natural Disasters and Human Rights: Comparing Responses to Haiti and Pakistan, *Brookings Institution*.
- Franks, S. (2014). Book Review: Reporting Disasters: Famine, Aid, Politics and the Media. *Media Culture Society*, *36*(7), 1063-1065.
- Francke, W. (1995). The evolving watchdog: The media's role in government ethics. *The Annals of the American Academy of Political and Social Science*, 109-121.
- Fu, K., Zhou, L., Zhang, Q., Chan, Y, & Burkhart, F. (2012). Newspaper coverage of emergency response and government responsibility in domestic natural disaster: China-US and within China comparisons. *Health, Risk & Society*, 14(1), 71-85.
- Goltz, J. D. (1984). Are the News Media Responsible for the Disaster Myths? A Content Analysis of Emergency Response Imagery. *International Journal of Mass Emergencies and Disasters (IJMED), 2*(3), 345-368.
- Government of Pakistan. (2003). *Pakistan's Initial National Communication on Climate Change.* Islamabad: Ministry of Environment, Government of Pakistan.
- Haddow, G. D., & Haddow, K. S. (2009). *Disaster Communications in a Changing Media World*. Oxford: Elsevier.

- Hagar, C. (2010). Farmers' search for information during the UK foot and mouth disease crisis what can we learn?. *Australian Journal of Emergency Management, 25 (4),* p. 4.
- Harbert, S. (2010). Agenda setting and framing in hurricane ike news.
- Hassan, T.-u. (2012). Imbibing Pluralism? Analysis of Pakistan's Press. Acta Universitatis Danubius. *Communication 6.*
- Heide, E. A. (2004). Common misconceptions about disasters: Panic, the "Disaster Syndrome," and looting. The first 72 hours: A community approach to disaster preparedness. 337.
- Hodgkinson, P. E., & Stewart, M. (1991). *Coping with catastrophe*. 74-75. London: Routledge.
- Hoberman, G. (2011). Media and the 'Politics of Disaster' in the U.S., Latin America, and the Caribbean.
- Houston, B. J., Pfefferbaum, B., &Rosenholtz, E. C. (2012). Disaster News: Framing and Frame Changing in Coverage of Major U.S. Natural Disasters, 2000–2010, *Journalism & Mass Communication Quarterly* 89(4), 606–623.
- International Federation of Red Cross and Red Crescent Societies. (2015).What is Disaster? –IFRC. Cited 2015 August 12. Available from URL: <u>http://wwwfree.org/enwhat-we\_do/disaster/management/about-disaster/whatis-a-disaster/</u>.
- International Media Support, (2009).Between radicalization and democratization in an unfolding conflict: Media in Pakistan.
- Iqbal, M. J., Ali, F. M., Khursheed, M. B., & Saleem, S. (2014). Analysis of role of media in disaster reporting in Pakistan. *Europen Scientific Journal*, 1, 570-575.
- Jamali, Y. (2014). Information overload in Pakistani media: Case study of Sumbal. *Global Media Journal: Pakistan Edition*, 7(2).
- Joshi, A., & Aoki, M. (2014). The role of social capital and public policy in disaster recovery: A case study of Tamil Nadu State, India. *Internationa Journal of Disaster Risk Reduction*, *7*, 100-108.
- Khan, A. N. (2010). Climate Change Adapatation and Disaster Risk Reduction in Pakistan. In R. Shaw, J. M. Pulhin, & J. Pereira, *Climate Change Adaptation and Disaster Risk Reduction: An Asian Perspective*, 197-215. Bingley, UK: Emerald Group Publishing.
- Kreps, G. (1979). Research Needs and Policy Issues on Mass Media Disaster Reporting. In Disasters and the Mass Media: Proceedings of the

Committee on Disasters and the Mass Media Workshop. National Academy of Sciences: Washington DC.

- Kreps, G. A. (1980). Research needs and policy issues on mass media disaster reporting. *In Disasters and the mass media*, 35-74. National Academy of Sciences.
- Lachlan, K., Spence, P., & Nelson, L. (2008). *Running Head: age, gender and information seeking.* NCA, San Diego, California, 21-24 November.
- Lazic, D. (2013). News analysis of the Fukushima accident: Lack of information disclosure, radiation fears and accountability issues. *Journal of Contemporary Eastern Asia*, *12*(2), 19-34.
- Lee, M. (2008). Media Relations and External Communications during a Disaster. In J. Pinkowski, *Disaster Management Handbook*, 387-396. Boca Raton: CRC Press.
- Liu, D. (2010). A comparative look at the coverage of the Sichuan earthquake in Chinese and American newspapers.
- Littlefield, S. R., &Quenette, M. A. (2007). Crisis Leadership and Hurricane Katrina: The Portrayal of Authority by the Media in Natural Disasters. *Journal of Applied Communication Research*, *35(1)*, 26-47. 10.1080/00909880601065664.
- Lowrey, W., Evans, W., Gower, K. K., Robinson, J. A., Ginter, P. M., McCormick, L. C., & Abdolrasulnia, M. (2007). Effective media communication of disasters: pressing problems and recommendations. *BMC Public Health*, 7(1), 97.
- MacDougall, C. D., & Reid, R. D. (1987). Interpretative Reporting. New York: MacMillan.
- Macias, W., Hilyard, K., & Freimuth, V. (2009). Blog functions as risk and crisis communication during Hurricane Katrina. *Journal of Computer-Mediated Communication*, *15*(1), 1-31.
- Magandy, K. (2007). Katrina's Aftermath: News With No End in Sight. *NiemanReports*, Fall. http://www.nieman.harvard.edu/reports/07-3NRfall/p42-magandy.html7, accessed March 25, 2008.
- Mcdowell, S.D., Rasul, A., Shaikh, M., Gul, M. (2012). Perspectives on Media Performance: Media, Conflict and Institution Building in Pakistan. *Pakistan Vision, 13.*
- McLean, H., & Power, M. R. (2014). When minutes count: Tension and trust in the relationship between emergency managers and the media. *Journalism*, *15*(3), 307-325.

- Mezzera, M., &Sial, S. (2010). Media and Governance in Pakistan: A controversial yet essential relationship. *Initiative for Peace Building.*
- Mileti, D. S. (1999). *Disasters by Design: A Reassessment of Natural Hazards in the United States*. Joseph Henry Press.
- Moges, A. M. (2013). A Study on How Disaster Issues Reported On the Ethiopian Print Media, Online Journal of Communication and Media Technologies, 3(4).
- Monbiot, G., Lynas, M., Marshall, G., Juniper, T., &Tindale, S. (2005). Time to speak up for climate-change science. *Nature*, *434*(7033), 559.
- Muzamill, A. (2012). A Comparative Study oF Natural Disasters News CoverageinPakistan by Dawn & the News (The Case of Earthquake 2005, & Floods 2010). *International Conference on Communication, Media, Technology and Design*, 1-5. Istanbul: ICCMTD.
- Nair, P. (2010). Role of media in disaster management. *Mass Communicator*.
- Naeem, W. (2013). Disaster Reporting: 'Not Only Reporters but Also Editors Need Sensitisation Training' - The Express Tribune. The Express Tribune. N.p., 20 Oct. 2013. Web. 02 May 2015.
- Nayak, K. H. (2012). Role of Media in Disaster Reduction, Odisha Review.
- <u>Nazir</u>, J. S. (2013).Pakistani journalism: at the crossroads of Muslim identity, national priorities and journalistic culture, *Media Culture Society*, 35 (5), 640-665.
- Neubaum, G., Ronser, L., Putten, M. R. A., Karmer, C. N. (2014). Psychological functions of social media usage in disaster situation: A multi-methodological approach. *Computers in Human Behavior*, 34, 28-38.
- Nogara, M. (2009). Role of Media in Curbing Corruption: The Case of Uganda under President Yoweri K. Museveni during the 'No-Party'System.
- O'Brien G. (2006). UK Emergency Preparedness: A step in the right direction? Journal of International Affairs, 59(2), 63-85.
- Oreskes, N. (2004). The scientific consensus on climate change. *Science306, 1686.*
- Olson, S. R., Prieto, S. P. J., &Hoberman, G. (2010). Disaster Risk Reduction, Public Accountability, and the Role of the Media: Concepts, Cases, and Conclusions.
- Oosterhof, L., Heuvelman, A., & Peters, O. (2009). Donation to disaster relief campaigns: Underlying social cognitive factors exposed. *Evaluation and Program Planning*, *32*(2), 148–157.
- Pantti, M., Wahl-Jorgensen, K., &Cottle, S. (2012). Disasters and the Media.

- Paracha, S. A., Shahzad, M., Ali, S., &Nazir, J. (2013). To Analyze the News Contents of Electronic and Print Media in Pakistan, Whether Media is Terrorizing or Informing the Community. *International Journal of Academic Research in Business & Social Sciences*, *3*.
- Pasquare, F., &Pozzetti, M. (2007). Geological hazards, disasters and the media: The Italian case study, *Quaternary International*, 166–171.
- Pelling, M. (2003). Natural disaster and development in a globalizing world. Routledge.
- Perry, D. S. (2007).Tsunami warning dissemination in Mauritius. *Journal of Applied Communication Research*, 35(4), 399-417.
- Perez-Lugo, M. (2004). Media Uses in Disaster Situations: A New Focus on the Impact Phase. *Sociological Inquiry*, 74(2) 210-225. 10.1111/j.1475-682X.2004.00087.x.
- Pope, J. (2007). Personal Circumstances Intersect with Professional Obligations. *Nieman Reports.* 61(3), 29-31.
- Poudel, R. B., Fitzgerald, G., Clark, J. M., Mehta, A., &Chhetri, B. P. M. (2014). How does Nepal Television (NTV) frame natural disaster? A qualitative content analysis of news scripts using frames and PPRR cycle. 5<sup>th</sup> International Disaster and Risk Conference, 24-28 August 2014. Davos, Switzerland.
- Quarantelli, E. L. (1996). Local mass media operations in disasters in the USA. Disaster Prevention and Management: An International Journal, 5(5), 5-10.
- Rausch, S. A. (2011). The Regional Newspaper in Post-Disaster Coverage: Trends and Frames of the Great East Japan Disaster, *Keio Communication.*
- Rahman, A., & Shaw, R. (2015). Hazard, Vulnerability and Risk: The Pakistan Context. In A. Rahman, A. N. Khan, & R. Shaw, *Disaster Risk Reduction Approaches in Pakistan*, 31-52. Tokyo, Japan: Springer.
- Rasul, A., & Proffitt, J. M. (2013). Diversity or homogeny: concentration of ownership and media diversity in Pakistan. Asian Journal of Communication, 23(6), 590-604.
- Rattien, S. (1990). The role of the media in hazard mitigation and disaster management. *Disasters*, *14*(1), 36-45.
- Raza, M. R., & Jumani, N. M. (2012). Audience Perception of Sensationalism in Programmes of Pakistani Private News Channels. *The Pakistan Journal of Social, 3*, 12.

- Rodriguez, H., & Dynes, R. (2006). Finding and framing Katrina: The social construction of disaster.
- Rodríguez-Oreggia, E., Fuente, A. d., & Torre, R. d. (2008). *The Impact of Natural Disasters on Human Development and Poverty at the Municipal Level in Mexico.* New York: Regional Bureau for Latin America and the Caribbean, United Nations Development Programme (UNDP).
- Romo-Murphy, E. (2014). *Developing disaster preparedness education via broadcast media and community involvement.* University of Jyvaskyla: Jyvaskyla University Printing House, Jyvaskyla.
- Rybalko, S. (2011). Russian disaster coverage is no accident: How two Russian newspapers and their readers frame a Russian plane crash. *Russian Journal of Communication*, *4*(1-2), 53-71.
- Sabir, M. (2010). Performance of Media in Pakistan in Creating Awareness about Population as an Economic Problem.
- Sabir, M., (2011). The Role of Media in Creating Values of Nationalism in Pakistan. *Journal of Political Studies, 18(2),* 17-36 17.
- Sayed, S. A., & González, P. A. (2014). Flood disaster profile of Pakistan: A review. *Science Journal of Public Health*, 2(3), 144-149.
- Simon, A. F. (1997). Television news and international earthquake relief. *Journal of Communication*, 47(3), 82-93.
- Space, M. Y. (2015). Role of media in disaster management. Asian Journal of Multidimensional Research, 3(5).
- Svitak, T. (2010). *Chile vs. Haiti: How did the media frame the earthquakes in Haiti and Chile?* Disaster Research Center, University of Delaware, USA.
- Scheufele, D. A. (1999). Framing as Theory of Media Effects. *Journal of Communication, (49),* 103-122.
- Scanlon, J. (2011). Research about the Mass Media and Disaster: Never (Well Hardly Ever) the Twain Shall Meet.InDetrani, R. J., (Ed.), *Journalism Theory and Practice*, 233-269. Apple Academic Press.
- Scanlon, J., Alldred, S., Farrell, A., &Prawzick, A. (1985). Coping with the Media in Disasters: Some Predictable Problems. *Public Administration Review*, 45(Special Issue), 123-133.
- Scanlon, J. (2007). Unwelcome Irritant or Useful Ally? The Mass Media in Emergencies. In H. Rodríguez, E. L. Quarantelli& R. R. Dynes (Eds.), Handbook of Disaster research, 413-429. New York: Springer.
- Shklovski, I., Palen, L., & Sutton, J. (2008). Finding Community Through Information and Communication Technology During Disaster Events.

ACM conference on Computer Supported Cooperative Work (CSCW), 127-136. New York, NY: ACM.

- Shoeb, N. F. (2008). An analysis of Urdu and English editorial coverage of the 2007 emergency from Pakistani newspapers. *ProQuest.*
- Soroka, S., Lawlor, A., Farnsworth, S., & Young, L. (2013).Mass Media and Policymaking,Routledge Handbook of Public Policy, London and New York.
- Stephens, K. K., & Malone, P. C. (2009). If the organizations won't give us information...: The use of multiple new media for crisis technical translation and dialogue. *Journal of Public Relations Research*, *21*(2), 229-239.
- Sweetser, K. D., &Metzgar, E. (2007).Communicating during crisis: Use of blogs as a relationship management tool. *Public Relations Review*, *33(3)*, 340-342.
- Syed, S. (2015).<u>10 years on, we have learnt no lessons from the earthquake</u>. *Dawn.* N.p.,04 Oct 2015.
- Szinell, C. S., Bussay, A., &Szentimrey, T. (1998). Drought tendencies in Hungary. *International Journal of Climatology*, 18(13), 1479-1491.
- Tierney, K., Bevc, C., &Kuligowski, E. (2006). Metaphors matter: Disaster myths, media frames, and their consequences in Hurricane Katrina. *The Annals of the American Academy of Political and Social Science*, *604(1)*, 57-81.
- Turner, R. H., Nigg, J. M., & Paz, D. H. (1986). *Waiting for disaster: Earthquake watch in California*. Univ of California Press.
- Vasterman, P., Yzermans, C. J., &Dirkzwager, A. J. (2005). The role of the media and media hypes in the aftermath of disasters. *Epidemiologic reviews*, 27(1), 107-114.
- Veil, R. S. (2012).Clearing the Air: Journalists and Emergency managers Discuss Disaster Response. *Journal of Applied Communication Research*, 40(3), 289-306. 10.1080/00909882. 2012.679672.
- Velev, D., &Zlateva, P. (2011). An innovative approach for designing an emergency risk management system for natural disasters. *International Journal of Innovation Management and Technology*, 2(5), 407-413.
- WB. (2011). Disaster risk management programs for priority countries. Retrieved on March 4, 2013, from <u>https://www.gfdrr.org/sites/gfdrr.org/files/publication/DRM\_CountryPrograms\_2011[1][1].pdf</u>

- Wenger, D. E., James, T. F., & Faupel, C. E. (1985). Disaster beliefs and emergency planning. New York, NY: Irvington.
- Wenger, D. E., Dykes, J. D., Sebok, T. D., & Neff, J. L. (1975). It's a Matter of Myths: An Empirical Examination of Individual Insight into Disaster Response. *Mass Emergencies*, 1(1), 33–46.
- Wilson, B. (2014). Book Review: Reporting Disasters: Famine, Aid, Politics and the Media, by Suzanne Franks. *Journalism & Mass Communication Quarterly*, *91*(*3*), 607-609.
- Wilspon, J. (2012). Responding to natural disasters with social media: A case study of the 2011 Earthquake and Tsunami in Japan. (Master's thesis, University of Guelph, Canada).
- World Disasters Report. (2005). Focus on information in disasters by the International Federation of Red Cross and Red Crescent Societies.
- Yanovitzky, I. (2002). Effects of News Coverage on Policy Attention and Actions: A Closer Look Into theMedia-Policy Connection, COMMUNICATION RESEARCH, Vol. 29 No. 4, August 2002 422-451.
- Yodmani, S. (2001). *Disaster risk management and vulnerability reduction: Protecting the poor.* Paper presented at the conference "The Asia and Pacific Forum on Poverty". Retrieved on April 27, 2015, from <u>http://drr.upeace.org/english/documents/References/Topic%205-</u> <u>Risk%20Management%20and%20Adaptation%20to%20Climate%20Ch</u> <u>ange/Yodmani%202000%20Disaster%20Risk%20Management.pdf.</u>
- Yousaf, Z. (2012). Private News Channels: Altering the Political Perception Of Pakistani People. *Academic Research International*,*3*(*3*).
- Zaidi, B. H. (2015).Returning Jolts: 'End of an Erra?'*Dawn*.N.p.,6 November. 2015