Role of Stakeholders in Mitigating Disaster Prevalence: Theoretical Perspective

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Abstract. A search into the literature showed that there is still a dearth of studies on the categorisation and roles of stakeholders involved in disaster management. This might not be unconnected with the soaring trend of both natural and man-made disaster globally. Therefore, the aim of this study is to examine the role of stakeholders in mitigating disaster prevalence in our contemporary society. The method used in assembling relevant data is a review of the relevant literature. The study found out that there are diverse ways of categorizing stakeholders of disaster management in previous studies. This study, after perusing through existing literature came out with the harmonisation by identifying the key stakeholders which include but not limited to government and its parastatal, NGOs, donors, the private sector, media, academia, regional cooperation, community/citizen and the immediate environment. Dwelling on the tenets of stakeholders' theory, the study is of the opinion that much could be achieved in the area of disaster management if all the stakeholders are fully recognised, well-coordinated and respected. In conclusion, this study provides useful information related to the role of stakeholders in mitigating disaster prevalence to ensure effective disaster management.

1 Introduction

Disasters are of different kinds and this explains the fact that there will be different ways of managing. The risk is conventionally defined as a 'possibility for harm.' However, within the context of disasters, the risk is the probability of consequential harms being reeled out from the hazardous events, such as deaths, economic losses, wounds, ecological deterioration, and demolition of sustenance. Thence, the term disaster risk is, to say the least, very multidisciplinary and may as well be used in a variety of contexts [1]. It is of the view that several callings also define risk in various dimensions and that the definitions that are given to risk depending on the context of the professional calling [2]. Firstly, with respect to the standpoint of disaster, peril mitigations has particular considerations. United Nations Development Programme [1] sees risk as that which customarily related to a person's inability to deal with a certain condition. Along the same vein, the risk is being seen as that which embraces acquaintances to hazards, antagonistic or unwanted predictions, and the conditions that contribute to danger [3]. It is further being widely recognised that in order for disaster risk mitigation to be efficacious, it should be pragmatic at the local or community level.

Disaster management is an integrated process of planning, organising, coordinating and implementing measures to effectively deal with their impact on people [4]. The basic phases of disaster management are defined

as long-term mitigation, preparedness, relief, and reconstruction. Mitigation or risk reduction activities include structural and non-structural measures to reduce the adverse effects of natural hazards [5-7]. Preparedness deals with activities and measures taken in advance to guarantee operative reaction to the influence of hazards, including the issuance of timely and effective early warnings and temporary evacuation of people and property from threatened locations [5][7]. Provision of assistance or involvement throughout or after a disaster to light the life protection and basic living needs of those affected are provided during the relief phase. Renovation denotes the reconstruction of the exaggerated existing circumstances of the exaggerated civilisation with the aim of long-term sustainability [7].

As a matter of fact, when considering the various facets of disaster management the role of the various stakeholders involved in the entire process cannot be underestimated [8]. This includes the government sector, parastatals, and even the parliament. An effective synergy among the stakeholders has been described as a potent driver for effective disaster management and mitigation [7],[9]. Different researchers have categorised disaster management stakeholders in different ways [6], [9-11]. It is the intention of this study to harmonise these diverse categories as mined from the previous study. This, however, seems to be the main contribution of the study to knowledge.

Consequent to the above, this study is set out to systematically reel out from previous studies the key

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stakeholders as well as their roles in disaster management and mitigation. In order to accomplish this task, the entire article is divided into 4 parts namely: an introduction which gives general view to the keywords in the topic; components of disaster controlling which include attentiveness, response, and recovery; followed by a discussion on the content and relevance of stakeholders' theory. The next section contains the classification of disaster management stakeholders as well as their roles while the last part of the paper centers on the conclusion. This study is put in place to add its view to existing literature on the need for effective coordination of the various stakeholders with a view to ameliorating disaster occurrence as well as ensuring effective management.

2 Literature review

2.1 Disaster management and mitigation

Disaster management and mitigation are generally made up of 3 components; namely: readiness, reaction, and recuperation. Readiness exercises include creating crisis systems and partner institutional ability ahead of time so as to improve a protective reaction to the negative impact of calamities. Exercises incorporate creating cautioning frameworks, recognizing clearing courses and safe houses, keeping up crisis supplies and correspondence frameworks, and directing debacle activities to instruct and prepare staff, network pioneers and natives [12,13]. A grateful level in a proactive way to deal with debacles helps to diminish passing's, wounds, property harm and loss of cash. Readiness acknowledges the presence of remaining, unmitigated hazard, and endeavours to help society in wiping out certain unfavourable impacts that could be experienced once a physical occasion happens [14].

Reaction means exercises taken promptly amid and following a calamity. The fundamental objective of a powerful reaction to a catastrophe is to spare the network and diminish harm. Reaction exercises give assistance amid or promptly after a catastrophe to meet the existing conservation and essential subsistence needs of those individuals influenced [13]. Basically, reaction exercises incorporate initiating the crisis task design and focus, emptying and shielding casualties, seeking, safeguarding and giving restorative care [14]. Altay and Green [12] showed that actuating crisis focuses appropriately, emptying undermined populaces and vehicles, working sanctuaries, assessing monetary harm, executing powerful coordination's administration and actualizing compelling preparation and dispensing of assets are imperative amid reaction exercises. The successful joint effort between catastrophe reaction partners, including the neighbourhoods populace, nearby chambers, and philanthropic associations is a fundamental piece of reaction exercises [15].

Recuperation exercises identify with restoration in here and now and recreation in long-haul tries which went for re-establishing fundamental emotionally supportive networks and returning life to ordinary. These

exercises cover remaking private and non-private structures, streets, extensions, and foundation, and planning administrative exercises [13],[14]. Partners regularly take the receptive system to oversee fiascos [16],[17]. The investigation additionally stressed that post-fiasco recuperation gives a chance of lessening the danger of debacles and for advancing versatile limit. Post-debacle lean recreation as indicated by Mojtahedi and Oo [9] takes out waste, enhances the nature of the fabricated condition, smoothen the work process and improves the execution of post-fiasco remaking in calamity administration. Altay and Green [12] found that developing transitory offices, actualizing an execution anticipate post-debacle remaking, and archiving exercises learned are the exercises most honed by partners in the recuperation organize after disasters. In conclusion, disaster management and mitigation process involve a wide range of activities which definitely will involve a good number of stakeholders.

2.2 Stakeholder definition and its relevance to effective disaster management

The crucial meaning of stakeholder is "any gathering or person who can influence or is influenced by the accomplishment of the association's goals" [18]. The general thought of the stakeholder idea is a redefinition of the association. Basically, the idea is about what the association ought to be and how it ought to be conceptualized. The stakeholder idea has picked up a broad notoriety among scholastics, media, and chief in the zone of the effective fulfilment of tasks as it is acclaimed of equipped for changing the administration hone [19]. Moreover, the association itself ought to be to deal with their advantage, needs, and perspectives.

Stoney and Winstanley [20] characterized stakeholder as those gatherings with high adequate impacts in an association that would make that association stop to exist without the partner's help. [18] depicted a stakeholder in an association as "any gathering or person who can influence or is affected by the accomplishment of the association's goals". PMI [21] expressed that "a stakeholder is an individual, gathering, or association who may influence, be affected by, or comprehend itself to be impacted by a choice, action or the result of an undertaking. The Project Management Body of Knowledge (PMBOK) noticed that a task has numerous partners whose interests might be connected, or in the struggle. The recognisable proof and administration of such partners, in this way, turn into a generous capacity for any association in an emergency.

3 Methodologies

The methodology adopted for this study was by using a review of the existent literature, this work scrutinises disaster theories and their applications in the built environment to provide useful information related to the role of stakeholders in mitigating disaster prevalence to ensure effective disaster management for perceiving

stakeholders' proactive and/or reactive approaches in disaster risk reduction.

4 Findings and Discussion

4.1 Stakeholders in disaster management and mitigation

For the purpose of this study, the review of the literature has pointed out the fact that various categories of stakeholders exist in disaster management. Government and its officials are expected to carry other stakeholders along especially the people/communities who are usually at the receiving end. The role of the private sector also must not be undermined. The government must yield to their professional advice for the purpose of improving the status quo. Table 1 is presented to summarise different ways by which different authors categorise stakeholders in disaster management with a view to mining the generally mentioned ones to serve as a framework for this study.

Table 1. The categorisation of Stakeholders in Disaster Management

Author & Year	Research Topic	Stakeholders' classification
[26]	Critical attributes for proactive engagement of stakeholders in disaster risk management	Dormant, Discretionary, Demanding, Dominant, Dangerous, Dependent, and Definitive
[27]	Attaining improved resilience to floods: a proactive multi-stakeholders approach	Emergency insurers services, End users, and Government agencies
[28]	Public-private-people relationship stakeholder model for disaster and humanitarian operations	Public, Private organisations, and the people
[11]	Institutional framework, key stakeholders and community preparedness for earthquake-induced disaster management in Balochistan	Government, Community, and NGOs/Donors
[8]	A partnership approach to disaster management in Bangladesh: A critical policy assessment	Government, NGOs, Informal Support Mechanisms

4.2 Analysis of the role of stakeholders in mitigating disaster prevalence

As per Freeman [18], a stakeholder is said to incorporate any element without the help of which an association would not survive. Mojtahedi and Oo [9] opined that partners have an enthusiasm for the activities of a foundation and that they can impact or be influenced by the accomplishment of the association's objectives. R. Phillips et al [24] reported the meaning of a partner from another edge by portraying him as a man or an element who gives a contribution to basic leadership and additionally who profits by the aftereffects of choice makings. From the prior, along these lines, relating the idea of stakeholders to calamity administration, it implies people, gatherings or associations who may influence, be influenced by or see themselves to be

influenced by the effects of fiascos [6]. By augmentation, any sort of substance that is effectively associated with overseeing calamity previously, amid and after occasions or whose interests might be adversely influenced in the result of a catastrophe can be a partner in a debacle chance administration [25]. Subsequently, nearby individuals, gatherings, associations, establishments, social orders, and even the regular habitat are by and large idea to qualify as genuine or potential stakeholders [9].

4.3 The role of stakeholders in mitigating disaster prevalence

Disaster risk management has been categorized in a diverse manner by different researchers. For instance, Mojtahedi and Oo [26] demonstrate how these seven partner bunches conceivably are mapped or lined up with other stakeholder orders (i.e. private/public sector, policy/practitioner, informal/formal, community groups/individuals). However, from the available literature reviewed, the following summary can be made regarding the list of stakeholders in mitigating disaster prevalence as well as their basic roles.

4.4 Government at different levels

Essentially, considering the key stakeholders in disaster management and mitigation, different tiers of government forms the forefront. This cuts crosswise over Federal, State, and Local experts. Essentially, the exercises and targets of the government, state, and nearby crisis administration organisations depend on a thorough crisis administration show. The model partitions the crisis administration work into four stages [29].

- Mitigation - evaluating the hazard postured by a danger or potential fiasco and endeavouring to decrease the hazard;
- Preparedness- - building up a reaction design in view of the hazard appraisal, preparing reaction staff, masterminding fundamental assets, making courses of action with different locales for sharing of assets, elucidating jurisdictional obligations, et cetera;
- Response - executing the plans, diminishing the potential for auxiliary harm, and planning for the recuperation stage; and
- Recovery - restoring life emotionally supportive networks, for example, repairing electrical power organizes and giving impermanent lodging, sustenance, and garments. Recuperation is accepted to hold back before remaking.

As a result of the incessant occurrence of natural and man-made disasters or the fact that no country is said not to be immune to either natural or man-made disaster or both, countries around the world have devised a mechanism of setting out Disaster Management units under different name with aim of providing rapid response and as much as possible encourage preventive measures [30]. Consequently, the government has it as a culture to an annual basis, the budget considerable amount for the purpose of disaster management. The

national parliament is also involved under this category. National parliament should be utilitarian, with the full investment of both position and resistance individuals. Fiasco administration is a rational reason and there must be bi-divided accord over the essential issues. The parliamentary panel must play its controlling and supervisory part. In this specific circumstance, the common society, the scholarly world, and the NGOs need to put solid weight, with the goal that the parliament and its boards of trustees wind up using.

4.5 Role of Non-Governmental Organisations (NGOs)

The Disaster Management unit under any given country is generally doled out the part of organizing the NGO exercises. NGOs make up a lively part in any economy, particularly creating countries, which has been acclaimed overall [31]. NGOs are effectively required, among others, in a debacle administration, small-scale credits, family arranging, human rights, and so on. In actuality, the approach of NGO exercises in any nation of the world can't be belittled. Hence, their commitment, especially to the social administration division and preparation of poor people, is very noticeable, and this has been acclaimed by the global network. NGOs Disaster Forum are especially engaged with different exercises in pre-, amid, and post-fiasco exercises [32]. Different parts of NGOs incorporate support, state-funded instruction crusades, and preparing programs for workforce engaged with calamity administration starting from the national to the association or network level. NGOs are additionally dynamic in crisis departure and protecting of the casualties. The post-catastrophe exercises incorporate offering new miniaturized scale credits or rescheduling their installment programs for recovery.

4.6 Role of donors in disaster management

Givers are a critical partner being developed administration in the creating economy, especially in the catastrophe administration segment, both at the national and the neighbourhood levels [33]. Global help is given to influence nations following each real calamity because of Government's solicitations for alleviation, recovery, and reproduction. Such help has been given by the UN offices, between legislative and reciprocal advancement accomplices. As of late, there is a Disaster Response Group, made out of giver delegates and headed by the UNDP Resident Representative in various parts of the world [32]. The improvement accomplices gave help to the different parts of debacle both for relief and aversion, which went for diminishing the danger of serious common and man-made. Help from the International Federation of Red Cross/Crescent Societies has supported fiasco in various nations. Over the years, the role of international and local donors has played a tremendous role in disaster prevention as well as mitigation which come mostly from UNDP, UNESCO and World Bank among others.

4.7 Media

The media is another important stakeholder, identified in the literature, in disaster management from one country to the other [33]. Media participation has been dynamic in distributing news, especially on post-debacle effect. There has been a little advance in imparting messages by the media on calamity hard diminishment. [26] Prescribe for the media to "feature imperative direction in the media for individuals to take after". In such a manner, media delegates need to sharpen themselves, first through preparing programs on ways and methods for calamity hazard diminishment. At exactly that point they would have the capacity to complete viable correspondence with people in general and in addition to the legislature [36].

4.8 Academia

The cooperation of the scholarly world which has been recognized to be so far constrained has been believed to be extremely significant in calamity administration [9]. The connection between the applicable scholastic and research network with national or neighbourhood establishments managing debacle lessening is emphatically important. Some scholastic and research networks in various nations are producing such connections [35]. The scholarly world, with officially some institutional help at both open and private college levels, has the best potential to add to chance displaying, hazard examination, debacle recuperation components and also to creating preparing modules for various levels of the limit building. Every other partner, for example, the Government Organizations (GO), NGO, the private division, media, and givers will profit by an association with the scholarly world [38].

4.9 The private sector

The private sector according to Mojtahedi and Oo [26] is categorised as dormant stakeholders as they are described to have next to zero communication with an association; they have the ability to force their will on an association and their capacity stays unused [28]. The private areas incorporate different experts in modifying, financing, and advertising. Private part operators—the manufacturers, business people, framework engineers, protection specialists, agriculturists, and traveller office proprietors—must be acquired the basic leadership and execution undertakings through steady associations all the time.

In a given arranged venture on Sustainable Development and Disaster Risk Reduction for the poorest, the administration intends to advance budgetary and monetary instruments including the private part in calamity administration. Protection is viewed as an entrenched instrument for chance exchange, yet access to the formal protection showcase by the poor is not really a reality. This absence of protection scope and the feeble social wellbeing nets in the nation infer an abnormal state of helplessness, which is just exacerbated by dangers of cataclysmic events. Small-scale protection is

a territory where there is a genuine potential for manufacturing an organization between general society and a private area at universal, national and neighbourhood levels.

4.10 Regional Cooperation

As a matter of fact, because of the devastating nature and effect of the disaster, neighbouring countries used to be affected directly or indirectly [37]. This overtime has called for regional cooperation among neighbouring country to assist one another in preventing and mitigating the natural hazard.

4.11 Community and Citizen

This category of stakeholder is usually at the receiving end of any disaster. Hence, the need to carry them along in any policy made relating to disaster management. This may cut across training and public enlightenment on first-aid treatment, immediate rescue response and the concept of disaster prevention as much as possible [38].

4.12 Regional Cooperation

It is pertinent to include the immediate environment as one of the stakeholders of disaster management [39]. This is as a result of the fact that the immediate environment forms the platform upon which disaster occurs. In most cases, it has been argued that intensity or wrong use of land resources has ignited some environmental disasters in the past. Prudent use of the environment must be canvassed in order to reduce if not prevent disaster. Figure 1 is presented to further and succinctly demonstrate the list of stakeholders as harvested from the previous studies.

Figure 1. Stakeholders in Disaster Management

5 Conclusion

This study was set to suggest one of the major ways of managing and mitigating both natural and man-made

disaster which is through effective coordination among the stakeholders involved in disaster management. This study was able to appraise previous studies on this subject matter and found that the key stakeholders in disaster management to include: government and its parastatal, NGOs, donors, the private sector, media, academia, regional cooperation, community/citizen and the immediate environment. The tenet of stakeholders' theory was adopted to unearth the benefits inherent in well-coordinated stakeholders. This study believes in the opinion that disaster associated with the environment could be drastically reduced if not eradicated where the right of each stakeholder is well respected, and its role is adequately defined. This study can be useful to the government in making relevant policies relating to disaster management by involving all the stakeholders to ensure proper execution. For the purpose of future research, an empirical study is recommended to determine how relevant each stakeholder is in disaster management.

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