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Towards efficient disaster management in Egypt



Adham Hany Abulnour ^{*,1}

Architecture and Environmental Design Department, Faculty of Engineering, Arab Academy for Science and Technology, Egypt

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Abstract The concept of disaster management enables the appropriation of actions in complex and confusing disaster scenarios. In Egypt, the situation calls for the adoption of efficient disaster management policies which take into consideration the attentive allocation of resources to alternative and competing demands.

The main aim of this paper is to investigate routes to a better management of disasters in Egypt. The discussion commences by defining and classifying disasters. The paper then focuses on investigating the concept of disaster management. Progressively, the discussion depicts the concept of 'disaster management programs'.

Having laid down the research foundation, the paper proceeds to numerate the different types of disasters to which Egypt is susceptible. This is accompanied by a general depiction of the problems affronting disaster management in Egypt.

The paper strives to find solutions to the disaster management problem in Egypt by proposing a set of guidelines. Such guidelines are formulated in the trial to overcome the clearly undermined disaster management procedures in the country. In correspondence to such guidelines, the paper recommends the attentive study and examination of a particular set of considerations in order to ensure the sound implementation of the deduced guidelines.

To give the discussion a practical sense, the paper applies its deduced guidelines and recommended considerations to an important disaster management activity; the provision of temporary settlements. The main goal is to demonstrate the applicability of the guidelines along with the recommended considerations in order to achieve beneficial outcomes on the economic, socio-cultural and ecologic multidisciplinary levels.

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* Tel.: +20 1002489202.

E-mail address: Adhamabulnour.devco@gmail.com

¹ Member of the Italian Syndicate of Architects (Albo Milanese) Number 17223.

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Definitions and classifications of disasters

Despite that disasters are commonly named after the causing event or phenomenon; a disaster is not the event or phenomenon itself. An earthquake is a natural phenomenon that is not described as a disaster unless it strikes a populated area of weak physical constructions. Moreover, the definition of a 'disaster' depends to a great extent on who is making the

definition. Oil refinery explosions can constitute a major disaster for local or national governments, but they are unlikely to trigger a massive response from the United Nations unless hundreds of families are hurt in the explosion. In contradiction, long-term environmental degradation like desertification will be noted on the agenda of international organisations as a probable disaster long before local or national governments mobilise their resources to combat against the threat.

Moreover, it is often difficult to differentiate between disasters and accidents. In a sea cruiser accident, the number of people affected is relatively small in comparison to an earthquake or a landslide striking a city. However, a sea cruiser accident can be severe and costly. The accident can have other offsets like the need for search and rescue as well as providing temporary dwellings (shelters or houses) for the victims relatives whilst the search and rescue operations are in action. Otherwise, more human suffering is inevitable.

Yet despite this ambiguity regarding the clear cut definition of disasters, the term 'disaster' is generally used to describe a situation resulting from an environmental phenomenon or from an incident resulting in human injury and loss, physical property damage and economic disruption of great magnitude [1]. During the course of this paper, severe accidents that induce great losses in human and physical assets are considered as a major type of man-made disaster that calls for attentive handling and management.

Disasters can be typologically classified into natural and man-made disasters (Fig. 1). Yet taking into consideration that the disaster correlated between the event or phenomenon and the resultant repercussions, human-related activities are commonly revealed as a major contributing factor to the rise of disaster. For instance, if settlements or farms are located in flood plains, disasters will be caused by the floods. In a more attentive scenario, the flood would not have given rise to a disaster situation if careful urban planning would have avoided the deployment of settlements in such flood prone areas. On a similar note, houses that comply with earthquake resistant standards would prevent the evolution of the hazard into a disaster and such hazards would then be only interesting on scientific fronts.

Elaborating more on the typological classification of disasters, natural disasters are triggered by natural phenomena.

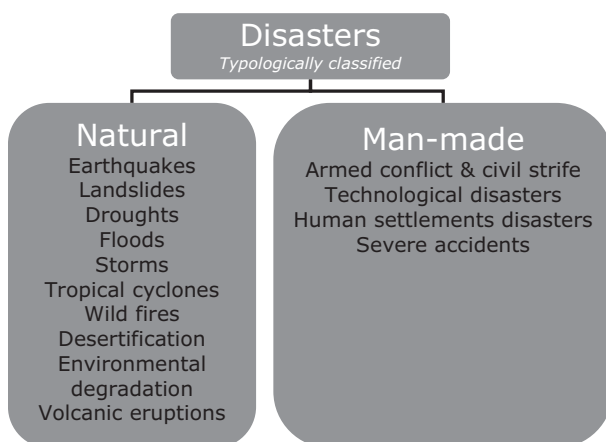


Fig. 1 The typological classification of disasters (by the author).

Earthquakes, cyclones, and floods amidst other phenomena are known as natural hazards.

On another front, man-made disasters can be divided into four categories: armed conflict and civil strife, technological disasters, disasters that occur in human settlements and severe accidents.

Amidst the main concerns of disaster management are the various aspects of armed conflicts and civil strife. Such aspects include the protection and support of displaced persons and refugees during the conflict, the physical and economic reconstruction and the social rehabilitation in the aftermath of the conflict. Technological disasters are often a result of accidents or incidents occurring in the manufacture, transport, or distribution of hazardous substances such as inflammable chemicals. Technological disasters can also be affiliated with structural failures where improperly constructed structures suffer damages or failures commonly due to acts of cheating or negligence by contractors and/or consultant's. Third World nations are primary houses of technological disasters due to the common inability to cope with rapid developments and also due to lack of proper supervision.

Fire accidents are important examples of disasters that occur in human settlements. When fires break out in Third World shantytowns or factories they can have a devastating effect. As unchecked urban growth continues throughout the Third World, this will grow even more. Landslides are another example of urban disasters that can cause a great loss in human and physical assets. On a similar note, severe accidents like sea cruisers sinking and transportation (airline, trains, vehicles, etc.) crashes can be of tremendous magnitude. Such accidents can have various impacts which necessitate the applicability of a lot of interventions other than those offered by civil defence forces. For example, medical on-site units equipped with surgical units, search and rescue teams and temporary storages for equipments and supplies are a basic example of the needs and amenities that could be delivered through careful disaster management.

Disasters can be further classified according to how rapidly they begin and also in relation to their duration. According to these two criteria, there are two types of disasters: rapid-onset or cataclysmic disasters, and long-term or continuing disasters. Rapid-onset disasters include earthquakes, floods and tsunamis. Long-term or continuing disasters include civil wars, droughts, famines and epidemics. This classification aids in defining general approaches required to respond to such disasters in each category. As an example, the feeding programmes adopted in supporting refugees and displaced persons, are similar to those adopted in famines.

A large scale event causes the damage and destruction in a cataclysmic disaster which is then followed by a tremendous amount of suffering and chaos or even secondary disasters such as landslides. The damaged area can be relatively small. On the other hand, a continuing disaster situation remains constant or may even deteriorate as time passes. The area stricken by a continuing disaster may be extremely large.

In relatedness to disaster terminologies, a disaster victim is the person affected by the disaster in a direct way or indirect way. For example, a victim could be the person injured in an earthquake or the person living in a nearby village which depends economically on the earthquake stricken area. The latter is a victim because after the earthquake, the stricken area can not establish an economic relation with his village. Because the

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