AN EXPLORATION OF THE DISASTER-DEVELOPMENT INTERFACE: TOWARDS SUSTAINABLE DEVELOPMENT THROUGH DISASTER MANAGEMENT

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ABSTRACT

The essay is an anatomy of the interface of disaster management and development, with the aim of drawing a framework for understanding how and why outright development strategies should mainstream disaster management as an elementary ingredient for sustainability. It accounts for why developing countries should consider disasters as a developmental issue insofar as they suffer a double tragedy, that of being 'underdeveloped' and abhorrently vulnerable to disasters. The paper methodologically thrived on desktop research to find out and highlight multifarious case illustrations of the negative ramifications of disasters on development. The analysis proceeded within the theoretical lens of the structural and technocratic approaches to disaster management as conceptual framework. It was avowed that, indeed there is a convoluted relationship between disasters and development, and therefore was seen imperative to mainstream disaster risk management in development planning in order to ensure optimum development outcomes in the long run.

KEY WORDS

Disaster Management; Risk Management, Mitigation, Disaster Prevention, Technocratic Approach; Sustainable Development.

From a definitional perspective, a disaster has been conceptualized as a progressive or sudden, widespread or localized, natural or human-caused occurrence which causes or threatens to cause death, injury or disease, damage to property, infrastructure or the environment; or disruption of the life of a community; and is of such a magnitude that it exceeds the ability of those affected by the disaster using only their own resources (Sec. 1 Disaster Management Act, Nr. 57 of 2002). This definition comprehensively lays down multifarious facets which can be negatively affected by the occurrence of disasters and it is the relationship of these threatened facets to significant social and macroeconomic variables that determine long run development, which in turn renders the effects of disasters a developmental issue as envisaged by the structural approach to disaster management. Precisely, the correlation of disasters with development precipitates from the acknowledgement that, disasters do affect human life in which case this may compromise human capital; they cause infrastructural destruction and environmental degradation in which case this disturbs the habitat and livelihoods; they also culminate in social and political turmoil thus suffocating the harmonious nature of various societal institutions; and they exerts pressure on already limited resources during mitigation efforts. This symbiotic relationship between disasters and development was further elaborated in the ensuing discussion.

UNDP (2003) defines disaster as a sudden adverse or unfortunate extreme event which causes great damage to human beings as well as plants and animals. Disasters occur rapidly, instantaneously and indiscriminately. These extreme events either natural or man-induced exceed the tolerable magnitude within or beyond certain time limits, make adjustment difficult, result in catastrophic losses of property and income and life is paralyzed (UNDP, 2003). These events which occur aggravate natural environmental processes to cause disasters to human society such as sudden tectonic movements leading to earthquake and volcanic eruptions, continued dry conditions leading to prolonged droughts, floods, atmospheric disturbances and collision of celestial bodies, (Jun, 1986).

On the other hand, Whilite (2003) views a disaster as a sudden, calamitous event bringing great damage, loss, and destruction and devastation to life and property. He notes that, the damage caused by disasters is immeasurable and varies with the geographical

location, climate and the type of the earth surface and degree of vulnerability. This influences the mental, socio-economic, political and cultural state of the affected area. Generally, disaster has the following effects in the concerned areas; it completely disrupts the normal day to day life; it negatively influences the emergency systems; normal needs and processes like food, shelter, health, are affected and deteriorate depending on the intensity and severity of the disaster (Whilhite; 2003:68). It may also be termed as “a serious disruption of the functioning of society, causing widespread human, material or environmental losses which exceed the ability of the affected society to cope using its own resources” (Alley, 1984:12). It is imperative to note that, no matter how the definitions are at variance, they all, directly or indirectly embodies the following common attributes of a disaster; unpredictability; unfamiliarity; speed; urgency; uncertainty; threat. Put simply, a disaster can be conceptualized as a hazard causing heavy loss to life, property and livelihoods which all directly and indirectly affect development as shall be alluded in the ensuing discussion.

Impact of disasters on natural resources. Disasters affect the natural resource base of nation states. Hurricanes and natural fires may topple vast stretches of forest for instance; Hurricane Isabel in 2003 is alleged to have inflicted a damage of US\$550 million to timber in North Carolina in United States of America (Trickel, 2003:3). In Zimbabwe, Cyclone Japheth in 2002 caused the flooding of vast agricultural land, erosion of topsoil and crops and siltation of rivers and dams due to excessive prolonged precipitation (Chigana, 2004). The negative effects of these floods manifested themselves in reduction of agricultural yields, death of livestock and the destruction of major surface water sources such as in Mukuvisi River and Lack Mutirikwi not mentioning other dams in most rural areas (Chigana, 2004). This seems to have been compounded by the successive droughts in 2004-2008, which also catalyzed the food crisis that in food riots of 2008 and 2009. Again, in 2008 there was a cholera outbreak in the whole country which claimed more than 3000 lives majority of whom were in the economically active age group (WHO, 2009). This shook the human capital base responsible for economic production and development, which was already nearing depletion due to migration to other countries for greener pastures. Considering the fact that these constitute major sources of livelihoods for the rural poor relative to national food security and engine for national growth, the fiscal pressure exerted on government in trying to rectify the anomaly compromised development in the long run since the funds could have been harnessed to other development projects or purposes for sustainability. The writer further submits that this, however, does not withstand the acknowledgement that disasters for instances natural ones such as volcanoes and floods can be positive in providing fertile alluvial soils which may boost agricultural yields. It should rather be understood that these benefits are only incidental and therefore should not be celebrated in comparison to the demerits associated with such benefits such as loss of life. Thus indeed the consequences of disasters on natural resources which are elementary in development such as land and human capital seem to render it tenable to argue for disasters as a developmental subject, particularly considering the realization that the impact of the disaster has ripple effects in the long run.

The impact of disasters on technology. It is imperative to note that technology is an essential ingredient for development since it aids in improving productivity. However, it has spontaneously been the prime target of numerous natural and artificial disasters. For instance, telecommunication, electricity power, transportation systems and various other technological infrastructures are all vulnerable to destruction perhaps due to intensive storms, winds, natural fires and even are targets in conflict torn zones. For example in Democratic Republic of Congo (DRC), power sources, transportation and telecommunication networks have been destroyed as part of sabotage and retribution by rebels in light of the civil conflict (USAID, 2009). In Zimbabwe, the current power load outings have though subjectively, been attributed to the wearing off of national power turbines in Kariba Dam due to unresolved technical faults sustained during the 2002-2003 cyclones (Munonyu, 2004). These scenarios, respectively demonstrate how technology can be retrogressive in terms of development as Skoufias (2003) suggests. The writer notes that, the DRC case explains why due to the conflict, which legitimately qualifies to be a disaster, the economy has remained stagnant because even in regions which are under government control and more stable there

has not been significant improvements in production especially the mining sector due to shortages of power and efficient transportation systems. Thus the vast diamond deposits have remained untapped however to the detriment of the development of those areas. By the same token, in Zimbabwe the power outages have stifled the functioning of already staggering industries. For instance the food industry has been completely paralyzed. The agricultural industry has also been suffocated due to disruption in irrigation water because limited electricity power. If indeed these technological quagmires are a product of these man-made and natural disasters as alleged, then it would be equally justifiable to implicate disasters in underdevelopment, thereby qualifying them to be a developmental matter.

An explicit case in point which further supports the fact that disasters are a developmental issue is that of Haiti earthquake in January 2010. The incident can be summed up in the following extract of the report dated January 15, 2010:

People in the nation of Haiti are struggling to recover after a powerful earthquake caused massive destruction there. Tens of thousands of people in the Caribbean nation were killed, and many more were injured. The Presidential Palace, which is like the White House here in the U.S., was among the many government buildings that collapsed. Hospitals were destroyed, as were countless homes. The disaster added more suffering to people already struggling to cope with everyday life. Haiti is one of the poorest nations in the world. International aid groups are rushing to provide food, water, and medical aid to Haiti; people worldwide are donating money to help. Many nations, including the U.S., are sending aid as well as money. The U.S. is sending troops to help with rescue and relief efforts, and to police the streets. "This is a time when we are reminded of the common humanity that we all share," U.S. President Barack Obama said.

The writer opines that this account paints a picture of how infrastructure was destroyed, industries, houses, lives. Most pathetic is the fact that Haiti is one of the poorest nations, and this disaster indeed compounded the poverty condition of the country as exhibited by the fact that it could not cope with the damage and therefore depended and still does on external intervention in providing welfare. The fact that this marked a reversal of whatever the meager gains the country had accrued before the disaster, does not only demonstrate how disasters derail development, but also justifies the need for nation states to be conscious of the implications of the interplay between these two variables.

Disasters and political environment. It should be noted that political environment constitute one of the fundamental determinants of development. In cases where there are wars and civil unrest as in DRC, development has been grossly compromised due to absence of a peaceful and stable environment for Foreign Direct Investment to take place. Thus the tense political environment has not only deterred investor confidence, but it has also choked the prospects of employment creation since the industries does not expand to accommodate extra labor force. As a consequence, unemployment has remained high and government revenue has dwindled since there are no corporations from which tax and revenue can be claimed. This implies high incidence of poverty and probably malnutrition and in turn high mortality rates. This unstable political environment due to wars and other forms of conflict may degenerate into sour multilateral and bilateral relations and this would threaten hopes for harmonious foreign relations, which are vital and strategic for long term development through regional blocks and international economic partnerships. Hence disasters, in the form of wars are significant in determining the environment in which economic relations can be beneficial or retrogressive, thus being developmental.

Other disaster-development interface. Expanding infrastructure is often a way of attracting votes during elections. When implementing these measures, however, construction quality standards that are important for disaster risk reduction are often neglected such as streets without drainage systems, and or sub standard houses Butkiewicz and Yanikkaya, (2005). The writer notes that under these circumstances, these infrastructural enhancements apart from fueling the vulnerability of the residents, they also compromise the need to erect sustainable infrastructure which is essential for long term community development. The writer observes that this notion seems so in that, the threat posed by these sub-standard infrastructures does not only ascertain susceptibility to hazards such as disease outbreaks

and collapse of houses due to floods or cyclones, but, these variables also constitute as indexes in determining poverty levels or the level of development. Poverty increasingly compels people to settle in endangered areas such as riverbanks as the Tonga people along the Zambezi Valley; and steep on slopes as in the case of Brazilian shanty suburbs; and in squatter settlements such as Khailitsha, Langa and Gugulethu in Western Cape Province of South Africa. Governments of these respective areas cannot evacuate these people both because they do not have a better alternative, and if they involuntarily do so they would be compromising their electoral support base, a deliberation which Chiwera (2004) allegedly attributes to ZANU PF's loss of general elections in 2004 in Zimbabwe after the coercive displacement of people and destruction of undesignated settlements under the "operation cleanliness". It is the writer's view that this would compound the vulnerability of the residents to risk from disasters. In that case, the dual effect of disaster mitigation efforts which are propelled by political convictions on exacerbating vulnerability to disasters, and worsening the poverty condition of the residents, goes a long way in justifying the intricacy prevalent between disasters and development.

Moreover, uncertainty as to whether an extreme natural event is actually going to occur often deters decision makers from investing scant existing funds in risk-reduction measures. In addition, (Skoufias, 2003) submits that, many disaster risk management technologies are still too costly and sometimes too complicated to be easily applied by poorly equipped and funded organizations and populations. The writer notes that, suggestively, this view supports the notion that the severity of disasters is more pronounced in the developing world than it is in the development world inasmuch as it would be a luxury for developing countries to spare limited funds for such unlikely precautionary measures yet there are more other pressing issues at hand, such as HIV and AIDS, TB and high infant mortality rates especially in Sub-Saharan Africa. This can also be understood from the structural approach to disaster management which emphasizes the need to eliminate the social structures that generate and perpetuate vulnerability of people to hazards and disasters in that poverty, which is rife in developing countries is one of those factors (Fara, 2001). As such, this would become more a matter of technological endowment and financial capacity than it would be the desire to take preventive measures against the impact of disasters. This already categorically qualifies to be a development question in which the availability of disaster risk management technologies and funds depends on the developmental status of the implementing country. It is in this very context where a culture of prevention has been obstructed or insufficiently promoted in most developing nations. Therefore, disasters no matter positive or negative, they perfectly fit to be comprehended as bearing developmental implications.

Policy Implications. Literature is abound with information which acknowledges that in African context, large-scale disaster interventions are external in which case they assume humanitarian aid from developed countries to the affected countries (Holloway, 2003). This deliberation has promoted the dependence syndrome which in turn stifles the necessary innovation and efforts towards development of home grown solutions that would focus on preparedness, mitigation and vulnerability reduction. This however should not be misconstrued as a complete denial of the prevalence of such efforts in developing nations. Nonetheless, it should be noted that in instances where these efforts have been present, they have been rendered futile due to other inherent factors, some of which have been examined. It is therefore perceptible to ensure effective institutionalization of disaster risk management in all development strategies and planning. This would go a long way in inclining development policies towards a disaster risk reduction orientation since this would instill sustainability. Pragmatically, this should be realized through mainstreaming disaster risk management in the governance systems of developing states since this would ensure prioritization of the socio-economic harm inflicted by disasters if they are not monitored, prepared for and prevented. This would ultimately sensitize disaster risk management in the broad development continuum.

In conclusion, it should be noted that, the disaster development nexus is firmly inextricable. However, comparatively in most instances, it is the developing countries which are hard hit with a multiplicity of disasters because they have limited technological and fiscal

resources to embark on effective disaster risk management programs, and this proves the inseparability of disasters and development. This however should not be misconstrued as an exoneration of developed countries from being victims of disasters, but a concretization of the alleged notion that disasters are a developmental subject. The most convincing reason why disasters are a developmental issue is merely that they indirectly and directly affect the very institutions and structures upon which development is hinged on, physically in terms of resources and structurally in terms of social, political and economic organization in a given area. This has been supported by the cases cited in the discussion. This overwhelmingly available evidence seem not only to qualify disasters as a developmental issue, but, also justifies the recommendation for the need for effective institutionalization and mainstreaming of disaster management in development planning especially in Third World Countries in order to inform pragmatic development policies and strategies that are compatible with these circumstances, such that a balance between the risk of disasters and the development needs of affected countries can be easily reached.

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