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## Disaster and Development Nexus: Theoretical Perspectives

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### **Abstract:**

*This article unpacks the disasters and development nexus from a theoretical perspective. In particular, the article tries to philosophically define disaster and development terminology and move on to show that these two are intricately interwoven through a correlational nexus in which disasters can both destroy development initiatives and create development opportunities, and that development schemes can both increase and decrease vulnerability. Therefore, the two aspects should be viewed as union friends that can influence each other positively or negatively.*

**Keywords:** Disaster, development, nexus and theoretical perspective

### **1. Introduction**

Disasters and development fields are shrouded with myths and misconceptions. Hence, this makes these two fields to be viewed as diametrically antagonistic yet they have some correlation as revealed in this article. In other words, disasters and development are viewed at face value as miles apart or irreconcilable partners, a view that is challenged through this article from a theoretical analysis. In particular, the article is premised on the notion that: disasters and development are correlated, as disasters can both destroy development initiatives and create development opportunities, and that development schemes can both increase and decrease vulnerability (Collins 2009; Stephenson 1994). Instead of viewing disasters negatively, this article further proposes that development gains and opportunities are congealed within disasters as postulated by (Collins 2009).

### **2. Conceptualizing Disaster**

A review of disaster literature reveals that it is defined from multi-dimensional perspectives. Further, the concept disaster is marred in a thick cloud of mists due to the conceptual and philosophical focus of different scholars. For example, some scholars take a typological view, while others opt for taxonomical or conceptual theoretical views. It is important to note that the radical and cultural/institutional theories presented by Marx and Weber have had a profound impact on disaster scholarship (McEntire, 2004:195). Furthermore, the radical thesis asserts that poverty is a major causal explanation of disaster (McEntire, 2004). Hence, the need to advocate for the restructuring of social, economic, political and technological relations as a way to reduce calamities or disasters. In particular, this genre is best represented by scholarly views drawn from Hewitt (Hewitt, 1983a). On the other hand, the conservative thesis asserts that culture plays a determinant role in catalysing disaster manifestation, and recommends alterations in beliefs or behaviour and increased rationalization and bureaucratization as means to reduce the effect of hazards and promote resilient communities (McEntire, 2004). This school of thought is advocated by scholars like Mileti (1999) and Mileti et al. (1995). The scholarship of Oliver-Smith (1996 and 1999), Perry (1998) and Kroll-Smith and Gunter (1998) conceptualize disaster from an anthropological perspective, converging to the point that; "...disasters are disruptive to social intercourse, and that disasters should be understood in a context of social change (human and institutional adaptability)" in (Perry and Quarantelli (2005:313). Putting this to context in countries like Zimbabwe, because of the extended family system, the disruption of the social intercourse by disasters has negative effects on the whole family or village or neighbourhood. Von Kotze and Holloway (1999) defined disasters as an event that is disruptive, thus causing losses on lives, livelihoods, economy, infrastructure, social and development gains. Further, Von Kotze and Holloway (1996), in defining disaster, assert on the inability of the community to cope using their own resources, hence the need for external support. Additionally, Von Kotze and Holloway (1996) propose a disaster continuum theoretical view guided by the "Expand-Stretch Model".

Oliver-Smith (1999:19) suggests that: "The definitional debate regarding disaster is significant because it prompts an exploration of the past and emerging dimensions of disaster in an increasingly hazardous present..." The 'Expand-Stretch Model' is one such emerging explanatory variable in the disaster conceptualization literature.

The Disaster Conceptualization - Expand-Stretch Model

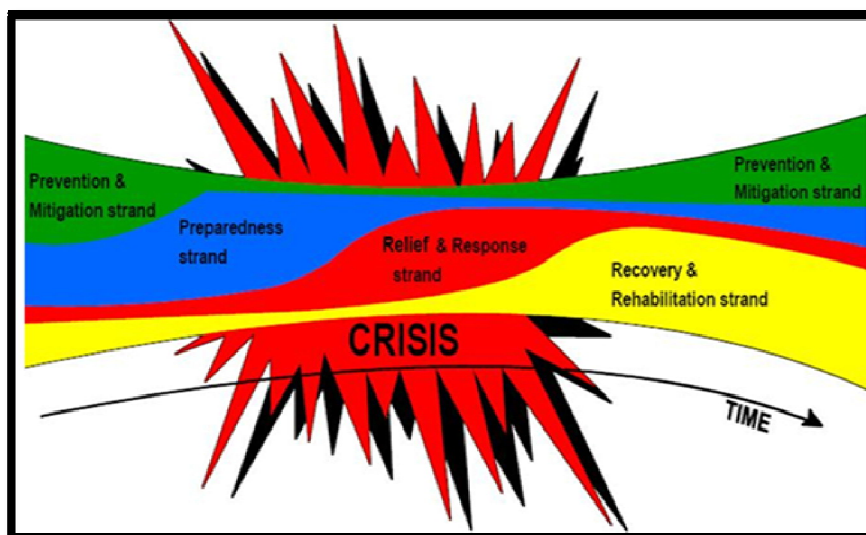


Figure 1: Expand-Stretch Model of a Disaster – Source: Von Kotze and Holloway (1996:37)

Some disaster scholars look at its scope and scale, likewise its magnitude or intensity causing widespread suffering coupled with a culture of responding to an abnormal event reactively or proactively (Van Niekerk, 2011). An empowered community takes a proactive approach in understanding and managing disasters through implementation of disaster risk reduction and emergency response preparedness.

Scholars like Wisner, Blaikie, Cannon and Davis (2004) conceptualize disaster with a focus on the core elements or ingredients that constitute a disaster viz; hazard, vulnerability, risk, capacity, resilience or coping capacity (individual, societal and institutional), manageability, response preparedness and risk mitigation measures.

The International Strategy for Disaster Reduction (2009:09) precisely, eloquently and theoretically defined disaster as; “a serious disruption of the functioning of a community or society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources”. Notably, ISDR’s (2009) definition of disaster progressively harmonized the diverse, legion and fruitfulness views by postulating a generically and globally accepted working definition in the theoretical pillars of social science disaster literature and research. Similarly, IFRC (2012) concurs with most aspects suggested by ISDR (2009) when they defined a disaster 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”. Therefore, the ISDR disaster definition is adopted as the theoretical and philosophical definition in this article. However, theoretical and philosophical debate can be further retrospectively and contemporarily discussed.

Notably, the myriad definitional debate for disaster did not mean intellectual retardation or stasis as research in this area has grown across different fields. Drabek (1986) is of the view that disaster literature survey since the 1950s has gained substantive research in an effort to get a common ground on what constitutes a disaster definition.

Literature reviewed from Wisner, et al., (2004:10) postulated that conventional views on disaster emphasize on the ‘trigger’ role of geo-tectonics, climate or biological factors arising in nature. Thus, examples on this can be drawn from Bryant, Alexander, Tobin and Montz and Smith (Bryant, 1991; Alexander, 1993; Tobin and Montz, 1997; Smith, 2001). On the other hand, some scholars focus disaster’s definition on the human response, psychological and physical trauma, economic, legal and political or governance consequences (Dynes et al., 1987; Lindell and Perry, 1992; Oliver-Smith, 1996; Platt et al., 1999). In both views, it shows the naturalness and human induced trigger factor in disasters causing suffering and washing away of development gains, while at household/community or society levels, lives and livelihoods are lost. Hence, this continuum view shows that disasters and development have some linkages and vulnerable people should be aware of trigger factors especially in disaster prone areas.

It is worth mentioning that disaster definition continued for decades to pause a challenging scholarly debate. Boin, Stallings and Dombrowsky (1988 cited in Perry and Quarantelli 2005:315) put their credence to the disaster literature by emphasizing the need to explore the meaning through taxonomy and classification. They argue that “...the term disaster – particularly the vernacular – is ambiguous and researchers need to refine the ‘conceptual’ space into theoretical meaningful units” (Perry and Quarantelli, 2005). Similarly, translating the term disaster into local or vernacular languages may result in different meanings. Hence, the need to adopt simplified disaster terminology suggested by ISDR (2009) in their harmonized definition.

In summary, the conceptual and philosophical definition of disaster is legion, encompassing, interdisciplinary as well as trans-disciplinary in nature. Hence, there is a need to have an open-minded view when dealing with disasters that affect the most vulnerable people in rural, peri-urban and urban areas across the globe.

### 2.1. Varieties of Disaster Concepts

A number of scholars and practitioners concur that the notion of disaster conceptual and philosophical definition cannot be divorced from its crucial elements (hazards, vulnerability, capacity/capability, resilience and risk). Theoretically and practically, these elements enhance one's microcosm view of disaster. For instance, the term 'hazard', has been often confused with 'disaster' and at times used synonymously. Arguably, hazard and disaster 'are not the same and should not be used synonymously or interchangeably'. Twigg (2004) conceptually describes a hazard as a 'potential threat' to humans that can be natural or human induced.

A refined and harmonized view of hazard by ISDR (2009:17) postulated that it is: "A dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage". The key words that differentiate a hazard from a disaster are: 'potential' and 'may' which brings in the aspect of probability if combined with other aspects like vulnerability, exposure, risk and weak capabilities or weak resilience which then can result into a disaster. For instance, hazards in countries like Zimbabwe in Africa, South America and other developing countries in Asia can be reduced before incubating into disasters based on individual, collective community and institutional capacities. A good example is the strong floods/cyclone early warning system in countries like Mozambique, Bangladesh, the Philippines and other Asian countries.

The typology of hazards shows that they can be further classified as natural or human-induced. Further, hazards are categorized as rapid or slow onset, while other scholars prefer categorizing them according to their origin or source such as geological, meteorological, hydrological, oceanic, biological, and technological, sometimes acting in combination as suggested by ISDR, Twigg, Alexander and Department of Civil Protection (ISDR, 2009; Twigg, 2004; Alexander, 1993; Department of Civil Protection (DCP), 2009).

In the same vein, vulnerability is another key aspect in understanding disasters from a post-conventional scholarship. Wisner et al. (2004) suggested that vulnerability can literary mean exposure, being prone to or susceptible to damage or injury. Consistent with the above definition, ISDR (2009:30) puts forward an orchestrated vulnerability definition by positing that it is: "The characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard". Therefore, the susceptibility of the community plays a critical function in the progression and curtailing of vulnerability. Notably, vulnerability in human-induced hazards varies as the conflict dynamics evolves and according to the intensity. In other words, social and environmental factors play a major role in how society is exposed to human induced hazards. Crucial to note in vulnerability is the aspect of coping capacity as it differentiates the levels of vulnerability among individuals or groups in society as espoused by Eade, Anderson and Woodrow, IFRC, Wisner and ISDR (Eade, 1998; Anderson and Woodrow, 1998; IFRC, 1999; Wisner, 2003; ISDR 2009). Vulnerability varies based on sources of economy and livelihood activities. Contextually, in Zimbabwe, the rural economy constitutes 67%, and it is viewed as the less productive sector compared to the urban sector (ZIMSTAT, 2013). Hence, there is a danger for gargantuan vulnerability progress in rural areas among the poor.

Twigg (2004) suggests that it is the weaker groups in society that suffer most because of the levels of exposure and weak resilience or frail coping capacity. However, "vulnerability is more than just poverty, but the poor tend to be most vulnerable" (Twigg, 2004:16). In Zimbabwe, the economic challenges and low income levels pushes people to stay in cheap and hazardous places in both rural and urban areas, thereby increasing their progression of vulnerability.

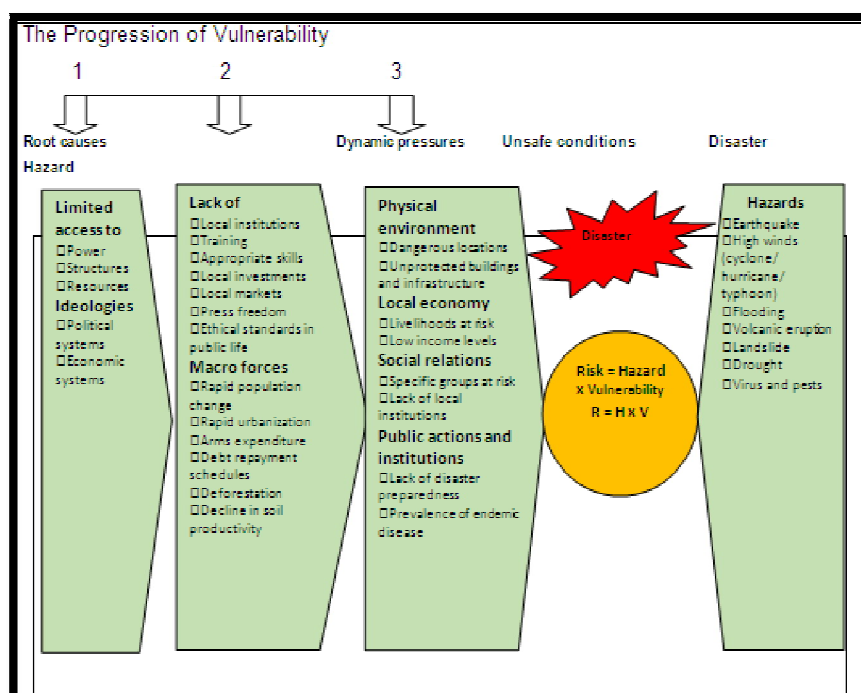


Figure 2: The Pressure and Release (PAR) Model

Figure 2 The Pressure and Release (PAR) Model: The Progression of Vulnerability or Disaster Crunch Model. Source: (Wisner, Blaikie, Cannon and Davis 2004:51) 2<sup>nd</sup> (ed) *At Risk: Natural Hazards, People's Vulnerability and Disasters*, Oxon, Routledge.

Remarkably, Wisner et al. (2004) and Blaikie et al. (1994) popularized the progression of vulnerability in the disaster realm as the "crunch" or "pressures" that results in a disaster. This is illustrated in the "Pressure and Release (PAR) Model in figure 2 above. Vulnerability therefore cannot be viewed as static. However, it is influenced by the interaction with root causes, dynamic pressures, unsafe conditions coupled with hazards. When vulnerability is combined with a hazard, it results in a risk which can easily incubate into a disaster as illustrated in Table 1 below.


Terminology	Explanation
Hazard	Potential threat to humans and their welfare
Vulnerability	Exposure and susceptibility to loss of life or dignity
Capacity/Capability	Available and potential resources
Risk	Probability of disaster occurrence
 Disaster	Realisation of a risk

Table 1: The Risk Pseudo Equation:  $Risk = Hazard \times Vulnerability$   
Adapted from Sphere (2004)

In a milieu, the risk pseudo equation as postulated by (Wisner et al., 2004:51) suggests that  $Risk = Hazard \times Vulnerability$ . This formula amplifies the disaster ingredients theoretical look and their interface. This gives credence to the notion that one cannot discuss the disaster conceptualization without giving adequate attention to the elements that make up the recipe particularly in Sub-Saharan Africa, Asia and other developing countries with high vulnerability. The scholarship of Wisner et al. (2004:10) hypothesized that: "Until the emergence of the idea on vulnerability to explain disasters, there was a range of prevailing views, none of which dealt with the issue of how society creates conditions in which people face hazards differently". Therefore, if disasters are not mitigated together with their cataclysmic ingredients of vulnerability, hazards, risk, coupled with low capacity, it is assumed that normal living conditions and development will continue to suffer. In practice, if the capacity/capability or coping capacity or resilience is low/weak, it pessimistically results in a traumatic, ruinous, calamitous disaster and its associated consequences, thereby exceeding the capacity of the affected community or society to cope (Cutter, 1994 and 2001a; Gupta, Kakhandiki and Davison, 1996; Davison, Gupta and Kakhandiki, 1997).

In most cases, capacity to recover from drought disaster effects are challenging for countries like Zimbabwe whose agriculture contributes 20.1% of the GDP (dropping from 40% in 2002) reports ZIMSTAT (2014) and about 60% of the total raw materials for the manufacturing industry (Bautista et al., 2002). This is similar to most African countries where resilience of individuals, community and society is low. Hence, perpetual poverty and high levels of vulnerability will continue to reign.

The taxonomy of disaster literature survey reveals naturalness or the human-induced nature of disasters. Examples of human-induced disasters include; World War I (1914 – 1918), World War II (1939 – 1945). In Africa, examples can be drawn from the Mozambican civil war 1977 – 1993 and the Zimbabwean civil war 1981 – 1987 confined in Matabeleland and Midlands areas. Other African examples include: the 1994 Rwanda Genocide and most recently, the 2013/2015 civil religious/sectarian and ethnic wars in Central Africa Republic and South Sudan, respectively. Similarly, natural-hazard induced disasters in Zimbabwe include: the 2008/2009 cholera outbreak that claimed 4,276 lives, while drought in 2001 affected more than 6 million people, and floods in 2000 killed 70 people (Preventionweb, 2014; WHO, 2009). All these events were disastrous and increased people's vulnerability. Table 2 below highlights some of the major ancient disasters and their impact on human lives.

Year(s)	Description of Event and Its Consequences
1201	Deadliest earthquake that affected mainly Egypt and Syria claiming lives for more than 1.1 million people.
1347 - 1350	The Bubonic plague that killed almost 33% of the European population believed to have been caused by zoonotic disease and poor hygiene.
1769 - 1773	The Indian famine which claimed over ten million lives. This was equal to one third of India's population at that time.
1845 - 1848	Irish potato famine that is estimated to have taken over a million lives.
1876 - 1879	The China drought that affected crops, livestock and human beings. Over nine provinces affected and over nine million lives lost.
1918 - 1919	The Flu Pandemic struck across the world, resulting in 35 – 75 million deaths. India alone recorded more than 16 million deaths.
1931 -	China floods whose impact was felt in 1931 after three years of consecutive droughts. The Yangtze, Yellow and Huai Rivers burst their banks causing flooding that claimed nearly 4 million lives and affected 51 million people, including their livelihoods, the economy and infrastructure.
1956 - 1961	Chinese famine killed more than 20 million people.
1981 - 1984	Drought in most parts of Africa, including Zimbabwe. Approximately, 20,000 people starved to death each month.
1995 - 1998	Famine and floods in North Korea resulting in more than 3 million deaths.

*Table 2: Top Ten Worst Disasters: Triggered by Natural Phenomenon*

*Top Ten Worst Disasters: Triggered by Natural Phenomenon*

*Source: [Http://www.Disasterium.Com/10-Worst-Natural-Disasters-of-All-Time/](http://www.Disasterium.Com/10-Worst-Natural-Disasters-of-All-Time/)  
[Accessed 23 August 2014] Disasterium*

Further examples of disasters in recent years include: Ebola outbreak that paralyzed business and overwhelmed health services in West Africa in 2014 and 2015 Nepal earthquake. With the above information serving as a foundation, it can be argued that understanding disaster theoretical look requires a multi-dimensional approach. For instance, in Zimbabwe, a limited view to disaster and its associated ingredients may result in increased vulnerability and weakened resilience that makes it difficult to bounce back from the realms of poverty.

In summary, disaster therefore is an encompassing term that includes aspects of hazards, vulnerability, capacity or capability and risk. Hence, in unpacking the disaster and development nexus one cannot ignore hazards, vulnerability, community's capacity and their exposure to risks as these ingredients can accelerate the incubation of disasters or negatively impact on development strides. However, disaster management and development practitioners tend to ignore this union marriage between disaster and development leading to parallel programming whose consequences are recurrence of disasters and erosion of development gains, particularly in developing countries like Zimbabwe and other African, Asian and South American countries. Therefore, contributions in this article are meant to provoke disaster management and development practitioners to re-think the way they address issues of disaster and development. Most importantly, disaster brings in an opportunity for development: modernization and freedom. Hence, the need to discuss the correlated nature of disaster and development.

### 3. Understanding and Appreciating the Meaning of Development

Development is an important aspect of society in both rural and urban areas as it helps in curtaining poverty and vulnerability. Hence, in unpacking the disaster and development linkages, it is equally important to understand and appreciate the meaning of development. It is worth mentioning that, development is conceptualized from several angles, similar to disaster conceptualization discussed earlier has been conceptualized from several angles. For instance, Sen (1999) asserts to development as freedom and enhanced capabilities. In this regard, Sen's conceptual view of development is that development should enrich human lives, not richness of economy which is only a part of it. On the other hand, progressive development proponents like Kanbur (2006) argue that there is no unique or uniform answer to the concept of development because it is anchored on values and on alternative conceptions of good life. Hence, development is philosophized from diverse scholarly views based on the scholar's background or orientation. Concurring with the issues of values suggested by Kanbur (2006) above, the scholarship of Todaro and Smith (2006) in conceptualization development emphasize on three core values of sustenance: that is the ability to meet basic needs, self-esteem: a sense of worth and self-respect, and freedom from servitude. These values are presumed to contribute to good life contextually. However, the perceived good life cannot manifest steadily in developing countries with high vulnerability and frequent disasters with intensity. For instance, in Zimbabwe droughts in 2001, 2007/2008, 2010, 2015/2016, floods in 2000, 2001 and cholera outbreaks in 1996 and 2008 as reported by Prevention Web (Prevention Web, 2013).

In other words, development does not happen in a vacuum or in isolation. It takes place in a society where basic needs, esteem and self-actualization takes place too. A society that is, at times, ridden with poverty, high levels of vulnerability, multiple hazards and extreme exposure to disasters, coupled with weak resilience or capabilities. If chronic

poverty is not eradicated and development is not sustained, as suggested by Todaro and Smith (2006) and Sen (1999), there are high chances of a relapse or high progression of vulnerability leading to a disaster. In such a case development strides are wiped out thereby vulnerability and poverty taking a toll order on historical legacy that affects human development in totality.

Further, Todaro and Smith (2006:22) further suggest that development should be rooted in at least three of the following objectives:

- To increase the availability and widen the distribution of basic life-sustaining goods such as food, shelter, health and protection;
- To raise levels of living, including in addition to high incomes, the provision of more jobs, better education, and greater attention to cultural and human values, all of which serve not only to enhance material well-being but also to generate greater individual and nation self-esteem; and
- To expand the range of economic and social choices available to individuals and nations by freeing the servitude and dependence not only in relation to other people and nation-states but also to the forces of ignorance and human misery.

Consistent with the above views, Sumner and Tribe (2008:11) suggest that "... 'Development' encompasses continuous 'change' in a variety of aspects of human society. The dimensions of development are extremely diverse, including economic, social, political, legal and institutional structures, technology in various forms ... the environment, religion, the arts and culture". For these reasons, development cannot be divorced from disasters, risks, vulnerability and hazards which are part of society. Because, human beings interact with the environment. Likewise, the scholarship of Goulet (1971 cited in Todaro and Smith 2006:21) supports the goal-oriented aspect above by postulating that; "Development is legitimized as a goal because it is an important, perhaps even indispensable, the way of gaining esteem". Hence, development should be visionary viewed in totality. Sumner and Tribe (2008:11) summarized their conceptual views on development graphically as illustrated in Figure: 3 below.

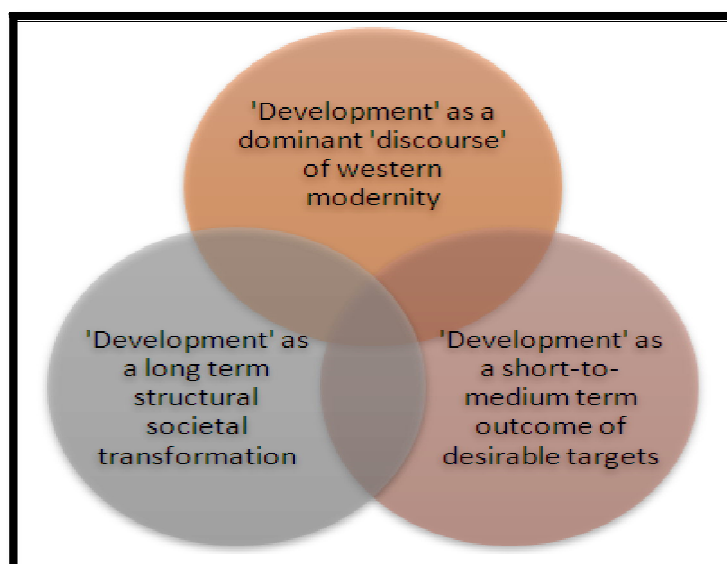


Figure 3: What is 'Development'?

Figure 3: What is 'Development'? – Adapted from Sumner and Tribe (2008:11), *International Development Studies: Theories and Methods in Research and Practice*, London, Sage.

This article adopted the values-based approach definition in conceptualizing development as espoused by Todaro and Smith (2006) and borrows heavily from development theoretical views suggested by Sen (1999). Admittedly, both views give a thrust on individuals and institutions they work for or that serve them. Hence, this allows discussing vulnerability, disasters and development in rural, peri-urban and urban areas. Notably, development, vulnerability and disasters affirmatively or negatively affect both rural and urban areas though at times at varying degrees depending on individual, community and institutional capacities or susceptibility. In other words, both rural and urban people are entitled to development in any country. The same people have political, economic, social, technological and environmental rights. Hence, disaster and vulnerability reduction and development programmes should be afforded to all citizens through appropriate and pragmatic policy frameworks. Furthermore, development conceptualization by Sen (1999) and Todaro and Smith (2006) provides a platform to discuss theoretical aspects like modernization, capabilities and sustainable development and how they relate to concepts of disaster and vulnerability in society.

### 3.1. Modernization and Disaster

In the field of social sciences, modernization can be traced to the time of Industrial Revolution that began primarily in England during the last quarter of the 18th century which ushered in a new era of mass-production and mass-consumption dictated by the market economy. In other words, there was a move from hand production approaches to

automated and machine assisted mass production across all sectors, including agriculture as well as among individually used gadgets (Mark, 1996). This was move that was perceived to mitigate disaster effects, reduce poverty and vulnerability. However, in developing nations poverty, vulnerability and predictable hazards continued to escalate albeit the move to modernity. Summing up the above views reveals that modernization created a myth that purported to be a panacea of all problems in the development discourse.

Precisely, modernization is therefore a key contributor to environmental disasters and increased vulnerability, especially in developing and emerging economies like Zimbabwe, where industrial toxic waste has polluted water bodies. Fundamentally, modernization, mechanization, automation and more generally technological advancement will not be in a position to solve environmental degradation and climatic variations. Instead, sustainable development is compromised at the expense of modernity through impact to the environment and its biotic and abiotic resources. However, modernization consequences to the environment, arguably, can be rescued limitedly by basic facts that strongly suggest that substantial impacts to the ecosystems predate modern era by thousands of years (Turner et al., 1991). Though, modernization has fast-tracked ecological impact dramatically which has resulted in altering the global environment, including the land cover of vast areas on earth (York, Rosa and Dietz, 2003). This can be exemplified by increased desertification and deforestation, as well as the extinction of flora and fauna. Furthermore, in recent years the chemical composition of the atmosphere has changed due to modernization consequences resulting in depletion of the ozone and accumulation of greenhouse gases (York, Rosa and Dietz, 2003; Harrison and Pearce, 2000; Turner et al., 1991; Vitousek et al., 1997). Generally, modernization through unplanned development and exploitation of natural resources has had an impact on lives of people for example; water pollution in Harare's water catchment areas, and increased environmental degradation has resulted in erosion as well as siltation of major rivers.

Furthermore, in most developing countries, modernization has had its toll on poor waste management, particularly the end-of-life management. Resultantly, chemicals, oils, fossil fuels, tar sands, plastics and other materials end up polluting the environment and clogging drainages causing flash floods in urban areas. In this view, this increases toxicity, and eutrophication (over-fertilization caused by pollution with nitrogen and phosphorus) in the environment which have a negative effect on people's health, especially the poor, when fresh water bodies get polluted. In addition to the above, mining extractives and refining also contribute to environmental degradation. Environmentalists argue that demand for energy is high at extraction and refining stages of mining minerals. Henceforth, this may cause substantial air, water and soil pollution (Althaus and Classen, 2005; Classen et al., 2007; Norgate et al., 2007; Norgate and Ranklin, 2001; Allwood et al., 2010). UNEP's (2010) prominent study on the impact of the environment asserts that metals are not degradable because once they are in the environment, they accumulate in soils and sediments. In such a scenario, metals affect human and ecosystems health, especially in areas where metals tend to accumulate (Bard, 1999). Furthermore, most open cast mining leaves open pits that can trigger landslides. Equally, the environmental damage caused compromises sustainability of the ecosystems. Pragmatically, all this points to a strong synergy between modernization and its effects of increased vulnerability, poverty and disasters.

In some countries, modernization has enhanced loss of biodiversity including biotic resources like fisheries and forests according to scientific research carried out by UNEP (UNEP, 2010). Similar effects have been felt on issues related to deforestation, soil erosion, fresh water scarcity, pollution, depletion of the ozone layer, and climate change tend to progress rapidly at the expense of modernity (UNEP, 2005; UNEP, 2007; IPCC, 2007; Howes, 2009). This has been worsened by haphazard approach to modernization and urbanization in developing countries' major cities, for example: Dhaka (Bangladesh), Jakarta, Kolkata, Manila, Kabul and many other cities. When all the above modernization impacts are aggregated, they point to a gradual increase in hazards that incubator easily into disasters in the guise of modernity and development. Consequently, the development gains are outweighed by the losses, especially when disasters strike vulnerable communities whose resilience maybe low. Theoretically and practically, such weaknesses in modernization may be salvaged to some extent by ecological modernization thesis which gives a thrust on better technological and institutional design (Howes, 2009). More specifically, York and Rosa (2003:275) clearly articulating ecological modernization suggests that modernizing institutions helps in reducing environmental problems and facilitate progression towards sustainability.

Contextually, guided by the regulatory principles or policies and their implementation, the myopic look of modernization may completely overlook the environmental issues which are unsustainably extracted at the expense of maximizing on profits. Accordingly, this results in substantial environmental degradation. This is epitomized by the 2010 Gulf of Mexico oil spill that affected coastal areas/aquaculture. Likewise, air pollution in countries like China, deforestation in most African countries in search of hardwood timber and mining extractives in Zimbabwe and across the globe. In this sense, modernization as a development agenda becomes a catalyst for increased vulnerability that exposes society to multiple hazards and environmental disasters, instead of promoting sustainable development or enhancing human capabilities and resilience. Hypothetically, this confirms Stephenson's (1994:10) hypothesis that "development programmes can increase an area's susceptibility to disasters".

Notably, within the modernization paradigm, mechanization and industrialization are key ingredients meant to spur economic growth (Armer and Katsillis, 2000). In practice, mass-production using greenhouses resulted in increased profits mostly in developed countries, but the effects of global warm as result of greenhouses gases where felt globally, including in poor countries. Africa has not been spared from the greenhouse effects as it is witnessing climate change and climate variability that has resulted in frequent and recurrent droughts. Typically, the rural isolated communities do not exhibit sufficient financial and technical capacities to manage the risks associated with (climate risk) in the context of climate change and adaptation (Skoufias, 2012). Thus, the celebrated gains through greenhouse mass production quickly

fade away for most developing countries in Africa, Asia and South America. In such cases, development is viewed as an incubator of vulnerability, poverty and hazards that lead to climatologically related disasters. In sum, the ecological health of the environment literary gets punctuated by huge environmental degradation, poverty, vulnerability and a spiral increase in environmental hazards.

In addition to the above, the use of chemicals/fertilizers as opposed to organic farming has contributed to environmental pollutants that are hazardous health in nature. Similarly, a shift from traditional conservation farming in countries like Zimbabwe has contributed to increased soil erosion in areas without good contour system. Hence, one can conclude that development anchored on modernization only is not sustainable. Though achieving a 'disaster free or disaster proof world' may not be realistic, given that disasters have been in existence pre-modernization era. However, the rapid growth and modernization in countries like China and India have also resulted in a surge in environmental disasters through air and water pollution (Panda, 2014). Likewise, high-rising buildings in many countries may cause mass fatality caseloads in the event of an earthquake. In fact, lessons can be drawn from Nepal's 2015 earthquake where buildings were reduced to rubbles because of the poor structural quality. Hence, one can conclude that development anchored on modernization only is not sustainable without paying attention to building codes.

Furthermore, disaster response to remote locations maybe delayed when road and communication infrastructure is cut off, thereby delaying the much needed life-saving humanitarian assistance. In addition, the use of chemicals/fertilizers as opposed to organic farming has contributed to environmental pollutants that are hazardous health in nature. Similarly, a shift from traditional conservation farming in countries like Zimbabwe has contributed to increased soil erosion in areas without good contour system.

In the same vein, some aspects of modernization ignored fundamental human rights and ecological facets by focusing exclusively on economic richness. Hence, this prompted scholars like Sen (1999) to advocate for capabilities and human development: ethics of development in totality not just richness of economy. A new strand of literature from D'Alessandro (2008) suggests that although the introduction of new modes of production and the modernization of infrastructures imply a greater stability of wages, capitalist decisions can easily exacerbate the risk of famine. Therefore, increased mass production of agricultural produce did not necessarily mean weaning the vulnerable people from the servitude of poverty especially those in rural areas. On the other hand, weaknesses in modernization theory and perceptions did not mean that there were no recoupable benefits.

Generally, as a result of modernization, Chaudhary (2013:36) asserts that "...new technologies have transformed almost every aspect of life". This includes the use of technology in disaster preparedness and response such as; global positioning system (GPS), smart phones, geographic information system (GIS), geo-sensors and hydro-sensors for flood risk management. Likewise, the use of internet, laptops, computer-aided designs, google maps and satellite dishes in hazard mapping, vulnerability analysis and disaster risk management.

Development scholarship views from Armer and Katsillis (2000) reveal that at its core, the modernization theory suggests that advanced technology does not only produce economic growth in societies but cultural and structural changes, including good governance. In the field of disaster risk management, good governance and institutional preparedness for response capacity are critical in saving of lives and livelihoods. Thus, one can draw good examples from the way the Philippines was able to quickly recover from the effects of typhoon Haiyan because of good policies, good governance, institutional preparedness for response capacity as well as individual/community resilience built over time to withstand disaster shocks. However, in contrast, countries like Haiti in the case of 2010 earthquake, Liberia, Guinea and Sierra Leone (2014/2015) Ebola outbreak could not quickly recovery from the disasters and vulnerability immediately. This can be attributed to weak governance/institutional capacity, cosmetic implementation of policies and marginalization of the poor/vulnerable people in society. Drawing from the Philippines examples above, on the use of GIS and GPS and other mechanical gargets in disaster management, one is justified to suggest that modernization theory has a lot of positive aspects that benefit development, mitigate vulnerability, reducing disasters and their effects to some extent. On the other hand, as a result of modernization, some disasters maybe accelerated. For instance, the increasing reliance on raw materials and creating infrastructure such as highways, hydroelectric dams, irrigation projects, mining/extractives has adversely affected environment and climate.

Moving forward, the above modernization critique can be rescued by capitalizing on its strengths. For example, when disaster affected communities are cut off in the case of floods or are not accessible due to conflict (South Sudan 2013/2015, Syria 2011/2015, Afghanistan protracted conflict since 2002) innovative approaches like 'cash transfers' (can be used to reach out to those affected if food, non-food items will be still available in the market. Countries like Zimbabwe can benefit from already existing similar programmes like ecocash, tele cash and one wallet, while Kenya has the M-Pesa. In terms of disaster economics, 'cash transfers' are swift and cut down on transportation cost, as well as reduction in the risk of leakages and theft. Similarly, cash transfers can be electronically managed or monitored. More specifically, cash transfers have been used to address social and economic vulnerabilities such as poverty, old age, gender, disability or unemployment and to complement household income in times of exposure to disaster impact (UNICEF, 2006).

In addition to the above modern technological applications like 'Eco Farmer' can mitigate vulnerability to meteorological/agricultural drought. Accordingly, Eco Farmer is Zimbabwe's first micro-insurance product intended to insure agricultural inputs and crops against drought or excessive rainfall. It also provides insured farmers with weather information, farming tips and information on when and where to sell, and the best price for their produce. Econet (2015) suggests that farmers use mobile phones as an information and communication tool. Hence, the through modernized technology farmers access technical and market information that can improve their farming practices, yields and incomes. In this case, one cannot double the substantive value of modernization in reducing vulnerability and realms of poverty.



Finally, through modernization technology like Geographic Information System (GIS) can be used to map hazards/vulnerability, forecast or model disaster impacts, provide spatial population and geographic information and provide early warning information in the case of recurrent and predictable disasters like floods, typhoons, storm surge, tornados, landslides, avalanches, droughts, epidemics, volcanic eruptions and conflicts. Practically, GIS provides valuable information before, during and after a disaster. For example, satellite information can be taken for an area like Muzarabani in Zimbabwe just before heavy rain falls, and comparative ones can be taken during and after flooding. This information can be used to visualize the disaster impact, inform communities through an early warning system (EWS) to be alert or to evacuate. In addition, disaster practitioners can zoom-in the information to determine the population that is affected based on spatial and demographic or population census information. Similarly, the same GIS can be used for seismic disasters like earthquakes for monitoring, locating earthquake epicentre, measuring impact and extent of shocks. Hence, response to the earthquake disaster affected population is accelerated based on precise information.

### 3.2. Capability Approach and Disaster

The capability approach (CA) espoused by Sen (1999) also plays a key role in conceptualizing development and how it relates to disasters and vulnerability. Basically, Sen's theory focuses on people especially the poor/vulnerable and their Capabilities. For Sen, development means expansion of people's capabilities. Hence, freedom is a vital element of the individual centric capability approach (CA) of development (Goodpal, 2015). In the development discourse, Sen's capability theory emerged as a paradigm shift that emphasizes on capitalizing on opportunities to assess people's positions in the development discourse.

Theoretically, the capability theory posits that rather than talking of philosophical equality of people it explicitly recognizes the individual differences coming from age, gender, race, creed, class, health, intelligence, education/professional background and so on. It also accepts that people's capacities are influenced by external factors such as; people, social circles, access to infrastructure and public services, freedom to speak and participate, and so on (Goodpal, 2015). In this regard, Sen (1999) suggests that development should be guided by inclusivity and capitalize on individual uniqueness to facilitate acquisition of essential life skills and resources to enhance freedom and capacity to bounce back from vulnerability and disasters. Hence, sustainable development is catalysed by paying attention to the heterogeneous nature in society.

In addition, Sen suggests measuring the welfare of individuals by focusing on their capabilities (what an individual is able to do or be) instead of analysing the welfare problem through resource based approaches (e.g. income and expenditure) and generating a framework for comprehension of context attributes (Yorulmaz, 2008). Pointedly, the capabilities approach can be viewed as an outcome based theory that holistically looks at vulnerability reduction based on individual capacities. In the other words, Sen's capability approach can be viewed as an outcome based theory applicable in managing disasters which normally have a local impact but with a trans-boundary consequence. Applying this view to local context, shows that when there is investment in building someone's capabilities there are high chances that the acquired skills can be used for both development and disaster mitigation. In the case of development, it can result in increased productivity and economic growth, while in disaster mitigation the outcome maybe swift response to a catastrophic situation because of multi-skilled nature that enhances individual/community resilience over time. The illuminating view shows that in the context of disaster response, when affected people need food or hygiene kits, offering them blankets can be seen as a waste of money and resources (Yorulmaz, 2008). Therefore, it is important to conduct thorough vulnerability and needs assessments through comprehensively designed tools that capture most aspects such as; health, shelter, water and sanitation, food/nutrition, psychosocial needs, gender dynamics, culture, religion, age, social roles, protection and other multi-sector needs.

Remarkably, achieving a disaster-free world may not be pragmatically feasible. However, investing in holistic development of people in society narrows the rich and poor divide. Thus, the scope of the capability approach is quite enormous. It considers all possible factors – personal, economic, social, cultural, political, technological and environmental as well as gender. These key factors should possibly influence human capabilities which dictate the real well-being of people (Goodpal, 2015).

Sen (1999: xii) postulates that "Development consists of the removal of various types of 'un-freedoms' that leave people with little choice and little opportunity of exercising their reasoned agency". Further, the capability development paradigm is observed to have strong relevance for moral evaluation of social arrangements beyond the development context, for example gender justice considerations (Wells, 2012). However, in Africa, particularly in the agricultural sector and other fields, most governments fail to pay attention to gender concerns. Hence, the poverty circle rages on and on from generation to generation. This is worsened by increased mortality on pregnant and lactating women, while the girl child is not prioritized for education. This is mainly due to irrational governance policy implementation.

For instance, Africa has had her fair governance challenges that have seen the continent as a major importer of food to mitigate vulnerability, despite vast natural agricultural resources lying to waste. This is because African leaders have been playing around with customary laws thereby depriving women their land rights as smallholder farmers, yet they constitute 60 – 70% of the labour force, (Rahim, 2011; World Bank, 2007; Rosset, 2006; McMichael 2000). It is without qualms that failure to address these disparities vulnerability in Africa will continue and development will be on a downward trend. Unfortunately, this leaves multitudes of people to swim in the realms of poverty, continue to suffer from disasters and underdevelopment coupled with huge food imports. At the same time, African leaders continue to rhetorically discuss gender protocols, food insecurity, disaster impacts and poverty at their summits.

Clifton (2013) is of the view that Sen (1999) alerts the reader that poverty, unfulfilled elementary needs, the occurrence of famines, the violation of political freedoms and neglect of the agency of women remain today despite 'unprecedented opulence'. Furthermore, Sen (1999 cited in Clifton, 2013) makes it clear that previous strategies to reduce these catastrophes (disasters) are erroneous. Hence, the capability approach focuses on human flourishing as the entry point to the problem of poverty and global inequality rather than economic growth (Reid-Henry, 2012). Additionally, Sen (1999) contends that all human beings are equally entitled to enjoy a life that they value. Despite the institutional capacity and resource challenges faced Zimbabwe as a country has tried to invest comprehensively on its population, particularly in the areas of academic literacy and general development. This included progressive gender policies that positively advantaged the girl child in terms of access to education. In this regard, women are valued in society and they play a key role in poverty reduction including access to land through the agrarian land reform programme introduced in 2000s where women were allocated a percentage in the allocation system. In addition, women, men, boys and girls are all involved in disaster management and development programmes. Additionally, fully fledged ministries on gender, youth/women empowerment, development planning, small-scale enterprising and agriculture do exist in Zimbabwe. However, in terms of disaster management, a small unit is housed in the ministry of local government with a very thin human resource capacity at provincial and district levels. In such a case, disaster risk and vulnerability reduction are limitedly cascaded to community levels. Hence, the holistic focus on people and their capabilities, as espoused by Sen (1999), may be missed in a bid to achieve resilience to calamity. The issue of capability is synonymous with resilience-building in the field of disaster management.

The resilience of rural and urban communities in Zimbabwe is determined by the degree to which individuals and communities have the necessary resources, knowledge and organized leadership both prior to and during disaster times. However, such disaster preparedness and management capabilities remain a challenge in the case of Zimbabwe, where even the legislative framework still refers to "Civil Protection" with a thrust on response as opposed to preparedness and disaster risk reduction.

It is worth noting that capability has a much deeper meaning than just physical and mental capacity as suggested by Sen (1999), though Collins (2009:20) views the concept of capacity as synonymous with capability in the disasters and development discourse. The (ISDR 2009:5) defines capacity as: "The combination of all the strengths, attributes and resources available within a community, society or organization that can be used to achieve agreed goals". It can be further argued that "... the concept of capability lies in at the heart of much of the development and disaster reduction discourse..." (Collins, 2009:21).

Additionally, Dreze and Sen (2013: ix - x), in their quest to amplify the definition of development in relation to capabilities, postulated that:

Development is best seen in terms of an expansion of people's basic freedoms, or human capabilities. In this perspective... ... recognize the importance of two-way relationships between economic growth and expansion of human capability, while keeping in mind the basic understanding that expansion of human freedom and capabilities is the goal for which the growth of GDP, among other factors, serves as important means. Growth generates resources with which public and private efforts can be systematically mobilized to expand education, healthcare, nutrition, social facilities, and other essentials of fuller and freer human life for all".

Dreze and Sen (2013:x) reiterate that development entails "...the expansion of human capability, in turn, allows a faster expansion of resources and production, on which economic growth ultimately depends".

The growing body of development literature has demonstrated that 'development' should be inclusive in nature, with growth and development aiming at improvement in peoples living conditions. The breakdown of key social services and social safety nets like healthcare, nutrition, water supply, sanitation provision, ecosystems management and shelter provision can easily trigger catastrophes, on the backdrop of weak capabilities and resilience. For example, Zimbabwe suffered a major cholera outbreak in 2008/2009 claiming 4,288 lives when health and social services had broken down (WHO and Ministry of Health and Child Welfare, 2009). Once vulnerability is high, as espoused by post-conventional disaster literature scholars, there are high chances of sliding into a disastrous situation. In such cases, the disasters and development linkages are reinforced even in situations where economic growth is thriving. Ironically, economic growth does to equate to holistic development.

In view of the above information, Dreze and Sen (2013) highlighted that while India is one of the rapidly growing economies in the World, it has fallen relatively behind in the scale of social indicators of living standards. In contrast, countries like Bangladesh are performing much better compared to India because of its huge proportion of under-nourished children, lack of systematic health care, extreme deficient, and half of the homes without sanitary facilities like toilets (Dreze and Sen, 2013). The holism of development should therefore take note the inter-dependence with other factors and the interface with calamities, for development to be meaningful. Otherwise, it will remain cosmetic as alluded to in the Indian example.

Notably, Sen's (1999) definition of development puts forward the need for a 'just and humane' society for development to be realized, by freeing them from un-freedom. The general assumption suggests the attainment of basic human rights that does not excludes or marginalizes people in society, but the extent to which this is achieved in society remains questionable given the structural nature of society or its hierarchical social or economic classification. The views by Sen (1999) on development as a freedom cannot go unchallenged. Accordingly, O'Hearn (2009) opines that the progressive and humane aspects of Sen's thesis are outweighed by several problems such as; individualism, localism, and lack of historical understanding. However, the inclusivity of the capabilities approach is a spring board for sustainable development in emerging economies like Zimbabwe. In addition, one of the key strengths of Sen's capability framework is

that it is flexible and exhibits a considerable degree on internal pluralism, which allows researchers or development/disaster management practitioners to develop and apply it in multidimensional ways (Aikire, 2002).

### 3.3. Sustainable Development

The concept of sustainable development has its pedigree initially manifesting itself as a rhetoric phrase used by politicians, international institutions and development workers as highlighted in the literature survey. Arguably, the World Bank (2004) suggests that at its infancy, the concept of sustainable development lacked uniformity in interpretation and conceptualization. Similarly, Escobar (1995) postulated that: "sustainable development" remains a vague and ambiguous term, difficult to define and even more difficult to implement just as the term development. However, despite these limitations some scholars like Todaro and Smith (2006) argue that the core focus of sustainable development can be rescued through an intra-generational and inter-generational thrust (Haines, 2000 cited in De Beer and Swanepoel, 2000:31). Sustainable development is part of the disaster risk reduction framework, a conceptual framework adopted for this article as put forward by ISDR (ISDR, 2013).

Sustainable development is succinctly defined by 1987's Brundtland Commission, as 'the development that meets the needs of the present without compromising the ability of the future generations to meet their own needs' as espoused by WCED and ISDR (WCED, 1987:45; ISDR, 2009). Therefore, in other words, sustainable development emphasizes the importance of protecting natural environment and resources as key assets for development so that current and future generations' needs are met. However, in both rural and urban areas in Zimbabwe indiscriminate cutting down of trees without replanting some is rampant. Hence, it needs a pragmatic shift in behaviour/practice to curtail deforestation and environmental degradation, which have been the root causes of siltation and gulley erosion. Notably, major rivers in Zimbabwe like Save, Mwerahari, Nyazvidzi in Buhera, Manyame in Harare and Musengezi in Muzarabani are no longer perennially flowing as they used to be in the 1980s. Unfortunately, such environmental degradation and deforestation are happening despite Zimbabwe having one of the best-crafted laws (Environmental Management Act) popularly known in Zimbabwe as EMA.

A review of contemporary literature reveals that sustainable development has gained ground both conceptually and in pragmatic application in the development as well as disaster management fields. Hence, the thrust is on the need for a paradigm shift towards sustainability of resources. In most countries in Africa including Zimbabwe, it is a daunting challenge to achieve the sustainable development goals, because firewood is used as the main form of energy for cooking, heating, lighting in rural areas, in tobacco furnaces and well as hardening bricks that are used for most structural construction.

The global linkages between the 2030 Agenda for Sustainable Development Goals (SDGs), and the Sendai Framework for Disaster Risk Reduction 2015-2030 clearly shows that the sustainable development concept or framework has become the development literature 'mantra' linking with disaster risk reduction (DRR) especially the Ecosystems DRR approach that gives a thrust on the efficient management of the environment and natural resources as well as the need for climate change adaptation. Zimbabwe herself is signatory to these global agendas and frameworks, but she has not been capitalizing much on eco-tourism as observed in areas like Muzarabani where wildlife that used to be touristic attractions have moved to neighboring Mozambique or other areas within Zimbabwe. Communities, around some of these potential eco-tourism areas are involved in poaching and burning of veldt fires as a hunting technique. Similarly, ineffective application of policies such as EMA and city by-laws building have been mushrooming on wetlands in Harare, Chitungwiza, Ruwa and Norton. A practice that affects potable water quality in water reservoirs includes Harava/Manyame dams and Lake Chivero. Likewise, toxic waste discharges in major water bodies in urban areas have resulted in the use of huge quantities of chemicals in an effort to purify potable water for residents in major urban areas. In this case, the sustainable development focus fades away incrementally and hazard and vulnerability exhibits.

However, sustainable development has its strengths in resilience or capabilities building. This is enhanced with the use of sustainable livelihood frameworks (SLF). Variably, this promotes equity among heterogeneous groups in society, which was a key weakness of sustainable development at its infancy or initial conceptualization stages. A clear analysis of sustainable development show that it provides a paradigm shift from looking at development economically or with a modernity focus to a thrust on wholesome view of natural and environmental resources use with the future in mind.

Taking a global focus, contemporary debates on sustainable development includes: the 2012 'Rio+20 conference' that renewed and reaffirmed commitments made earlier on. Additional examples include: the 1987 Brundtland Report, 1992 Rio Conference and the 2002 World Summit on Sustainable Development (WSSD) which reaffirmed the international community's commitment to 'full implementation' of Agenda 21, alongside achievement of the Millennium Development Goals and other international agreements (SIDSnet, 2013; The World Bank, 2004; IISD, 2010).

Conceptually, sustainable development is anchored on three core elements viz; social, economic and environment. These key elements have already been cited by Dreze and Sen (2013) and Todaro and Smith (2006) as key factors to holistic conceptual understanding of development. Guided by the three key interrelated elements, sustainable development could be probably called 'equitable and balanced' which means for development to continue indefinitely, it should balance the interests of groups of people in society and future generations. Thus, the key elements of sustainable development enhance development and mitigate vulnerability/poverty and calamities if they are effectively put to practice. Illustratively, the key elements of sustainable development are shown in Figure 4: below.

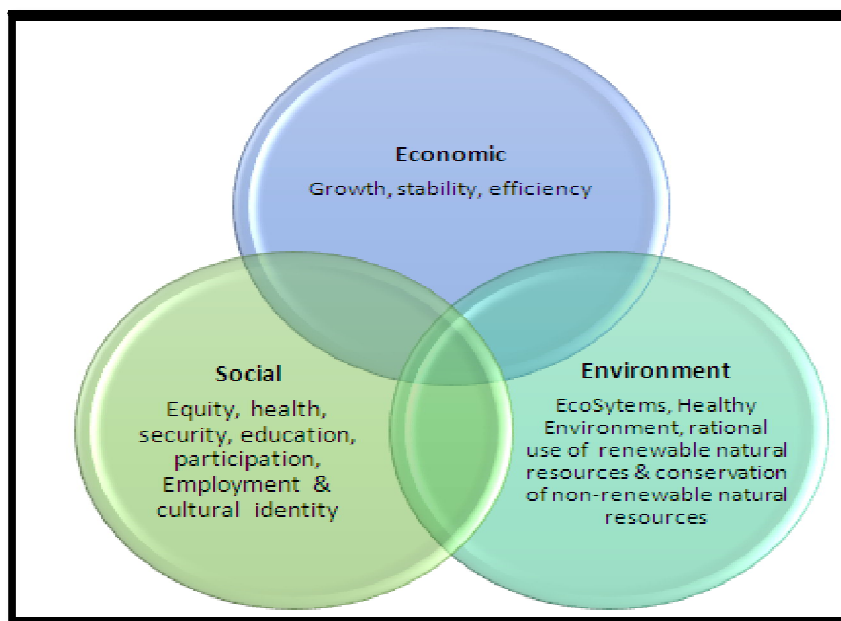


Figure 4: The Key Elements of Sustainable Development

Figure 4: Key Elements of Sustainable Development – Adapted from The World Bank (2004:10), *What is Development?* – Washington DC, the World Bank.

Remarkably, sustainable development became the 'game-changer' in the development debate globally. This has been further strengthened through global frameworks like Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs) (MDGs, 2000; SDGs, 2015). However, pragmatic equity crystallization remains a challenge in some cultures or societies in Africa and Asia. In particular, because of disparities in: gender, ethnicity, educational, social, political, religious, economic and technological backgrounds passed on from generation to generation in the kingdoms of poverty. It is worth mentioning that disasters and development affects gender differently, with women and children being more exposed particularly in developing countries like Zimbabwe UNICEF (2014). Understandably, development cannot be sustainable if it fails to analyse the hazards, vulnerability, risks and capabilities in which it exists.

Finally, it is critical to acknowledge efforts being put in place by public authorities, public institutions and individuals towards the use of renewable, sustainable and eco-friendly solar energy. Key examples, include installation on solar powered water geysers, solar street lights and solar powered traffic lights in some areas in Harare. Similarly, the Zimbabwe Electricity Supply Authority (ZESA) has been encouraging the use of energy saving bulbs for lighting in domestic and business areas. This is despite constant loading shedding across the country. Hence, some people may not see the benefits of energy saving except electricity users who have seen a reduction in the utility bills.

#### 4. Conclusion

In summary, this article provided the philosophical and conceptualization of disaster and development underpinned on analysing their nexus. The discussion revealed that the term disaster should be viewed as encompassing to include aspects of hazards, vulnerability, risk and capacity. Furthermore, in conceptualizing disaster, a number of scholars and practitioners concur that the definition cannot be divorced from its crucial elements (hazards, vulnerability, capacity/capability, resilience and risk). Most importantly, these elements enhance one's microcosm view of disaster. For instance, the term 'hazard', has been often confused with 'disaster' and at times used synonymously. Arguably, hazard and disaster 'are not the same and should not be used synonymously or interchangeably Twigg (2004 ISDR (2009:17) harmonized disaster definition by postulating that it is: "A dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage". Further, ISDR (2009:17) suggest that the key words that differentiate a hazard from a disaster are: 'potential' and 'may' which brings in the aspect of probability if combined with other aspects like vulnerability, exposure, risk and weak capabilities or weak resilience which then can result into a disaster. In this view, adopting and implementing holistic disaster risk reduction strategies mitigates against the rapid progression of vulnerability and hazards into disasters, as well as protect development gains from being eroded.

In the same vein, development was conceptualized guided by modernization, capabilities and sustainable theoretical frameworks. Development conceptualization also revealed that it is an encompassing term that is not just economic or points to growth, hence a totality view to development is required. Sumner and Tribe (2008:11) suggest that "... 'Development' encompasses continuous 'change' in a variety of aspects of human society. The dimensions of development are extremely diverse, including economic, social, political, legal and institutional structures, technology in various forms ... the environment, religion, the arts and culture". For these reasons, development cannot be divorced from disasters, risks, vulnerability and hazards which are part of society. Because, human beings interact with the environment. Likewise, the scholarship of Goulet (1971 cited in Todaro and Smith 2006:21) supports the goal-oriented aspect by postulating that; "Development is legitimized as a goal because it is an important, perhaps even indispensable, the way of

gaining esteem". Hence, development should be visionary viewed in totality and from a sustainable perspective as put forward in the MDG (2000) and SDG (2015).

Pointedly, both disaster and development can be scholarly viewed as legions as they take a multidimensional approach in their definitional debate. In mitigating the progression of vulnerability, reducing the accelerated incubation of hazards into disasters and promoting sustainable development, one needs to understand that disasters and development are correlated as alluded by Stephenson (1994), Collins (2009), UNDP and OCHA (2012), DuFrane (2002 and 2005).

## 5. Recommendation

This article recommends that disaster and development should be viewed as union friends with a correlational nexus theoretically and pragmatically. In particular, disasters and development are correlated, as disasters can both destroy development initiatives and create development opportunities, and that development schemes can both increase and decrease vulnerability (Collins 2009; Stephenson 1994). Instead of viewing disasters negatively, this article further proposes that development gains and opportunities are congealed within disasters as postulated by (Collins 2009).

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