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A Review Study of the Role of the Corporate Sector in Disaster Management

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Introduction
The paper seeks to explore the level of involvement of the corporate sector in disaster management. This is against a background of increasing disaster risk in the developing world where 90% of the total disasters and 95% of the total disaster related deaths is recorded (Allardce 2009). In the past in most countries round the globe it was the government through its various arms that played a major role in disaster relief and rehabilitation. As the concept of disaster management gradually took root, encompassing not merely disaster relief and rehabilitation, but also preparedness and mitigation, the need to involve the community at large was also realized. Thus the ever expanding extend and scale of natural disasters have made it imperative for the corporate sector to initiate and integrate disaster risk prevention and mitigation measures in the various facets of their functions and operations with the objective of safeguarding the built environment, protecting investments and ensuring the sustainability of communities. With corporate entities investing in disaster prone regions in Africa it is also important to observe that the companies thrive on the health, stability and prosperity of communities in which they operate. Therefore, it becomes imperative for the corporate sector to initiate disaster risk management programmes in their operations as part of their CSR initiatives. The purpose of this paper is to explore and justify the role of the corporate sector in disaster management doth as a measure of safeguarding their investments against disaster risk and as part of corporate social responsibility.
Keywords: Natural disaster, disaster management, corporate sector, corporate initiatives

Global overview of disasters
Since the final years of the 1990s, several powerful natural disasters have occurred in different parts of the world. Hurricane Mitch damaged up to 70% of the infrastructure in Honduras and Nicaragua in 1998 devastating the economies of Central American countries which are yet to recover fully (Allardce 2009). One year later, the worst cyclone in 100 years hit the Indian state of Orisa affecting 10 times as many people as Hurricane Mitch and destroying 18 000 villages in one night, (UNSDR 2004). Hardly a year later, in 2000, tropical cyclone Eline induced floods of an unprecedented scale in all southern African countries destroying homes and infrastructure on a previously unknown scale. (Allardce 2009). The economic impact of natural disasters has also become more severe. It has been estimated that economic losses due to natural catastrophes totalled $145 billion in 2004 more than twice the amount in 2003 and in 2005 economic losses further increased to a record high of over $200 billion (Munnich Re 2004). The damage casts tremendous negative effects on economic, environmental and societal dimensions in the affected communities and countries.

Disasters have in recent years become an undeniably grim feature of our lives. Barely had the world begun the process of recovery after the devastation of the tsunami, which in its wake overran all geographical, social and economic demarcations, then hurricane Katrina brought the world's most powerful nation (USA) to its feet. In the interim there was the Mumbai deluge, the terrorist strikes at London and innumerable local disasters, which had an equally devastating impact (ADRC 2005).

Zimbabwe is no exception to these trends as disaster risk continues to be one of the serious threats to the welfare of the Zimbabwean society and economy. More than half of the previous decade has been hit by droughts, floods and cholera (Allardce 2009). The 1992 drought affected about 10.5 million people necessitating food imports and in addition to this, 20% of the national herd and wildlife was lost. The 2002 and 2008 drought also affected 5.2 and 12 million people respectively (ZIMVAC 2010). The UNDP 2009 report also indicated a breakdown of drought mitigation efforts in the past 2 decades as follows: central government contributed 40%, civil society contributed 56%, and other players including the private sector contributed 4%. The joint study by the German Development Institute and UNDP in 2005 revealed that Zimbabwe was increasingly becoming more vulnerable to disasters and government and civil society efforts without the compliment of the private sector seemed inadequate to address disaster risk in the country (UNEP 2005). A report by WHO (2009) indicated that 90% of water in Harare has a substantial amount of faecial content exposing the country to the risk of a cholera outbreak. This is despite the fact that the city is the center for economic development in the country hosting most headquarters of major companies operating in the country.

The cholera outbreak in 2003 in Zimbabwe resulted in 870 cases being recorded in one month in Kariba. In 2008, 4000 lives were lost according to the government's central statistics office and an estimated cost of US$1 billion dollars of the national budget was used to control the scourge with funding coming mainly from the central government, the international donor community and local NGOs (UNDP 2008). However, this was despite the fact that the disaster had substantial impact on the welfare of the private sector employees and insurance and risk management institutions in the country.

The HIV/AIDS pandemic has affected every sector and has far reaching social and economic implications. Recent estimates indicate that 2 million people are living with HIV/AIDS with an adult prevalence rate of 24.6%. The Zimbabwe Aids Network observed that 60% of funding for HIV/AIDS related programmes was coming from the donor community, 33% from central government and 7% from other players including the private sector, representing a relatively small figure from a fairly large sector.

Justification of corporate sector involvement in disaster management

The impact of disasters on the corporate sector is enormous. It is reported that 85% of the total insurance accumulated cost are from the natural disasters and more than half of those losses have occurred since 1990 (World Bank 2002). And the average annual economic loss worldwide from natural disasters between 1997 and 1998 amounted to $62 billion of which $28 billion was in Africa. Facing such disaster risk, the corporate world inherently faces concerns over safety in their operations and compromising environmental health of the area. It is thus imperative that the corporate sector, be it multi- national or domestic take necessary measures against disaster risk and also be involved in the management of such disasters.

The ever-expanding extent, sweep and scale of natural disasters has thus made it imperative for the corporate sector to initiate and integrate disaster risk prevention and mitigation measures in all facets of their functioning and operations with the objective of safeguarding the society as markets and the painstakingly built industrial assets from the impact of natural disasters. During the last decade, the frequency and fury of disaster occurrences in different parts of the country has imposed a colossal economic cost in terms of financial losses, disruption in industrial activities, retardation of expansion and growth plans and dissipation of investment and precious resources on rebuilding the same assets and infrastructure to make the operations sustainable.

Guzman (2000) also stressed that natural disasters affect everyone alike although the nature of impact varies from region to region and sector to sector with the coping capacity of an individual sector being the differentiating factor. The catastrophic fallout of natural disasters on the community and the people is very well documented by now. At the same time, it is their impact on the existence, survival and viability of the economic muscle of a nation, community and region, i.e. the corporate sector, which also merits equally focused attention. The critical and catalytic role the corporate sector can play in mainstreaming disaster management into not only its own functioning but also in other sectors and among the community is now being appreciated and duly recognized as an inalienable part of corporate social responsibility.

Gommes (2006) extended Guzman's view when he asserted that globally disaster risk mitigation and management is now taken up as everybody's business. It is increasingly realized that private, or more appropriately, corporate sector cannot remain insulated from either the effects of increasing natural disasters or the responsibilities of reducing the risks of disasters.Allardce (2009) alsocommented that the corporate sector depends on community at large for sustenance, not only as a source of labour, capital and material but also as a market for products and services. If the community life itself is destroyed by disaster the lifeline of the corporates gets threatened. Further in a globalized economy, market in the remotest part is integrated by a long supply chain, which is disrupted by disasters.

Madamombe (2005) also stressed that developing economies are additionally vulnerable to the vagaries of international capital flows, which makes them particularly susceptible to the devastating impact of natural disasters. The key elements for economic growth include investment, effective governance and social stability. Unfortunately, disasters lead to exactly the opposite conditions. Loss of manmade and natural capital causes sudden disinvestments; post disaster relief increases both the financial and administrative burden on government

Corporate sector's role in disaster management

The corporate sector is a broad entity that covers businesses that produce goods and provide services for profit. It includes businesses of all sizes from local enterprises to transnational corporations, as well as businesses in the unorganized informal sector to registered and regulated businesses (ARDC 2005).

According to Nashikawa (2003) the corporate sector is a lead player today in global polity and economy. Of the 100 largest economies in the world, 51 are global corporations. The combined sales of the world's top 200 corporations are far greater than a quarter of the world's economic activity. The top 200 corporations' combined sales are bigger than the combined economies of all countries minus the biggest 9 that is they surpass the combined economies of 182 countries.

In the light of the debilitating socio-economic impact of disasters it becomes imperative that the major stakeholders play an increasingly pro-active role in all aspects of disaster management. In the past in most countries round the globe it was the government through its various arms that played a major role in disaster relief and rehabilitation. As the concept of disaster management gradually took root, encompassing not merely disaster relief and rehabilitation, but also preparedness and mitigation, the need to involve the community at large was also realized (Kutz 2004).

The AU (2005) further qualified Kutz's position when it stressed that, the corporate sector is an integral part of the community and draws its sustenance from it, and consequently cannot remain isolated from disaster reduction initiatives. Additionally it possesses huge resources – human, material, technical and financial and has significant presence in every region in the world.

According to Gommes (2006) the corporate sector can play a pioneering role in leading and supporting the community in disaster management activities and in mobilizing human and financial resources as well as materials for utilization during a disaster situation. In addition to this, the corporate sector can be a vital font of technical knowledge, as for example in the case of identification and research on technological solutions to prepare for and respond to disasters.

The earliest images of the devastation from Hurricane Katrina came from a specially equipped helicopter from a US company Helinet Aviation Services. A small crew from Helinet chronicled the destruction; the flooding and the rescues in HD and in so doing created a visual record with an unprecedented level of resolution and immediacy. They documented the effects of Katrina as well as used the Cineflex camera system and technology to identify where survivors were (ARDC 2005).The corporate sector thus has the potential of assisting both the business community in protecting itself and the community at large in increasing its resilience to disasters.

In addition, the recovery of the community cannot be complete if the business community itself is seriously affected as disasters can also adversely affect the corporate sector. For business to acquire capacity in disaster risk management would also entail protection of its employees and dependents. Corporate sectors' cooperation in reducing people's vulnerabilities to natural disasters would also help it in protecting its potential markets Gommes (2006).

In the aftermath of a catastrophe, the resources of the community are more likely to be utilized in protecting and rebuilding livelihoods rather than in acquiring goods and services offered by the corporate sector. Thus, their involvement in minimizing the impact of a disaster or in facilitating speedy and sustainable recovery should be viewed as a form of investment (ARDC 2005).

Allardce (2009) observed that, the corporate sector's participation in disaster mitigation apart from being an integral part of its CSR would also be a vital part of its business continuity planning. Business continuity planning can help with high impact low frequency risks, and following the 11 September attacks it has increasingly gained credence in executive circles. According to a recent study, carried out by Deloitte that examined major losses in shareholder value in the past ten years and found that in many cases, the losses were so severe that the companies never recovered.

Natural disasters can inflict huge losses on businesses. Destroyed or damaged property and loss of revenue from disruption of critical services and customer base in the aftermath pose great threats to the survival of businesses and the economic well-being of owners and employees (Gommes 2006). The Insurance Institute for Property Loss Reduction estimates that 50 percent of businesses that suffer major disasters are unable to resume operations.

On the whole, the corporate sector has the potential for strengthening and promoting its own safety and protection against catastrophes as well as in assisting the community at large in reducing its vulnerability.

Some Corporate Initiatives in Disaster Management

The Cascadia Region Earthquake Workgroup (CREW)is a not for profit organisation active in the Pacific North West of USA and Canada since 1996. CREW seeks to reduce the impact of earthquakes, raise awareness among decision makers in public and private sectors and fostering links between scientists, businesses and government agencies. It organizes meetings, provides speakers to other organizations, publishes safety guidance for businesses and homeowners and produces other educational materials. Its membership includes members of the private sector like Boeing, Intel, Microsoft and government departments (Gomes 2005).

Cargill's Natural Disaster Relief Fundallows the company and its employees to respond quickly to natural disasters that strike the communities " where we live and work". Following a natural disaster, Cargill partners with the Red Cross to support relief efforts in the affected region. Cargill also matches employee donations to those Red Cross relief efforts (Allardce 2009).

Ericsson Responseis a global initiative aimed at faster and more effective response to disasters. Ericsson Response's GSM equipment for disaster situations has been sent to the USA to provide mobile communications in areas where ordinary telecommunications systems were damaged in the catastrophe following the hurricane Katrina. Designed for fast deployment and, once on location, it is only a matter of a day or two before the people in need can be connected to this temporary mobile system. Following the January 2001 Gujarat earthquake in India, local Ericsson offices started working to restore the communications networks in the affected areas. A project manager from Ericsson, India was appointed to coordinate the actions, which included supplying the International Red Cross and Red Crescent Societies with mobile telephones and additional requested supplies

(UNDP 2008).

The Home Depot,a US company with over 1000 stores in North and South America, gives on its website information on hazards, including advice on what to do during earthquakes and hurricanes. It gives directions on how to protect property and the essential list of supplies.

To combat the threat of diarrhoea in the wake of the torrential rains that wrought havoc in Mumbai, Lifebuoy Hindustan Lever Ltd's (HLL)health soap brand, announced its support of a total of 1, 50,256 soaps to UNICEF. UNICEF was in urgent need of soap and the one lakh units provided by Lifebuoy were distributed through volunteers who also communicated the importance of washing hands with soap and water (UNEP 2007).

Guzman (2003) noted that; post Hurricane Katrina, the US firm Nova Engineering announced that it will provide NovaRoam Mobile Routers free of charge. NovaRoam's mobile ad hoc networking technology allows it to quickly create infrastructure-less wireless mesh networks in both fixed and mobile environments. Each NovaRoam, deployable in a vehicle or a fixed location, is able to communicate with its peers in a several-mile radius.

Proctor and Gambledeveloped PuR, Purifier of drinking water treatment system for use in disaster relief. It was awarded the 2005 Stockholm Industry Water Award. The product contains sachet of chemicals used in municipal water treatment. Each sachet can treat 10 litres of water and is effective against bacteria, virus, parasites and heavy metals in contaminated water. PuR has been widely used in Philippines, Morocco, Pakistan, Bangladesh, Guatemala, Kenya, Chad, Botswana, Iran, Ethiopia and Iraq. Fifteen million sachets were delivered in Tsunami affected South East Asia. Population Services International partner of P&G provided nearly 3 million litres of safe drinking water to Haiti (Allardce 2009).

Deloitte ToucheToumatsuprovided pro bono advisory services to UNDP to ensure tsunami funds are used efficiently and transparently. Deloitte team studied Indonesia, Maldives, Sri Lanka and India. It reviewed and advised opportunities to strengthen financial systems, procedures and processes. Wal–Mart"stotal contribution to the Hurricane Katrina relief effort has been $ 38 million. It was among the first to reach the region, distributing water and emergency supplies and setting up donation centres. It opened seventeen of its vacant facilities including a 1,00,000sq.ft new store in Texas for relief agencies. The Indian BPO industry under the aegis of NASSCOMoffered 1000 call centre seats to assist rescue and relief operations (UNDP 2008)

Compact Power Systemsprovided its cell boost to relief organizations working in the areas affected by Hurricane Katrina. It is a single use charger for recharging cell phones without connecting to a power outlet or outside source of electricity and provides a combination of 60 minutes of talk time and 60 hours of standby time. It can prove most helpful in post disaster situations and can help survivors get in touch with their loved ones (Allarce 2009).

High tech companies atSilicon Valleyworked with Red Cross in the US to build voice and data communications at hundreds of evacuation shelters for Katrina refugees to link them together. Equipments like laptop computers and wireless access systems helped relief agencies track evacuees and track lost relatives (Guzman 2002).

Mutual Aid Schemewas established in 1989 in Jamnagar district of Gujarat and works as a non-profit, non-governmental, emergency response organization committed to delivering emergency preparedness and response services. MAS can be cited as one of the best examples of public private sector participation in disaster management and the commitment between the industries and government to help each other in times of disaster. The objective is to provide an effective mutual aid system to its members in the event of any major incident and in turn influence the community for the elimination, containment and mitigation of technological disasters. The effectiveness of the scheme was demonstrated when shortly after its formation there was a fire at TATA chemicals Ltd, the network was immediately activated and rescue could be expeditiously carried out. The members of MAS meet frequently to discuss and formulate strategies. During the meeting a representative from each company gives a status update regarding the equipment and volunteers available with the company. It also works towards creating awareness among the member organizations by conducting mock drills to enhance co-ordination and communication skills as well as holds periodical meetings and site visits to share information (Gommes 2006).

Conclusion

The corporate sector has become an inalienable part of our socio-economic and national life and a vibrant industry is not only better placed to make itself sustainable but can also act as a composite foil to the governmental efforts at holistic disaster management. Recognizing the importance of integrating the corporate sector and their nodal organizations in disaster prevention, mitigation and preparedness agenda, it is important conclude that corporate sector participation in disaster management is the panacea for sustainable disaster risk reduction and sustainable development. Corporate entities should therefore integrate disaster risk reduction in their programmes as a tool for protecting their investments, safeguarding the built environment and ensure the sustainability of communities.

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