

DRAFT STUDY ON **CORPORATE INVOLVEMENT IN DISASTER MANAGEMENT**

*'Sahanavavathu sahanau bhunaktu saha viryam kara va vahai
Tejasvinamaditamastu ma vid visha vahai om shanti shanti shantihi'*

Let us come together, let us enjoy together, let our strengths come together, let us move from darkness to light, let us avoid the poison of misunderstanding or hatred, that way lies progress. (*The Taitreya Upanishad*)

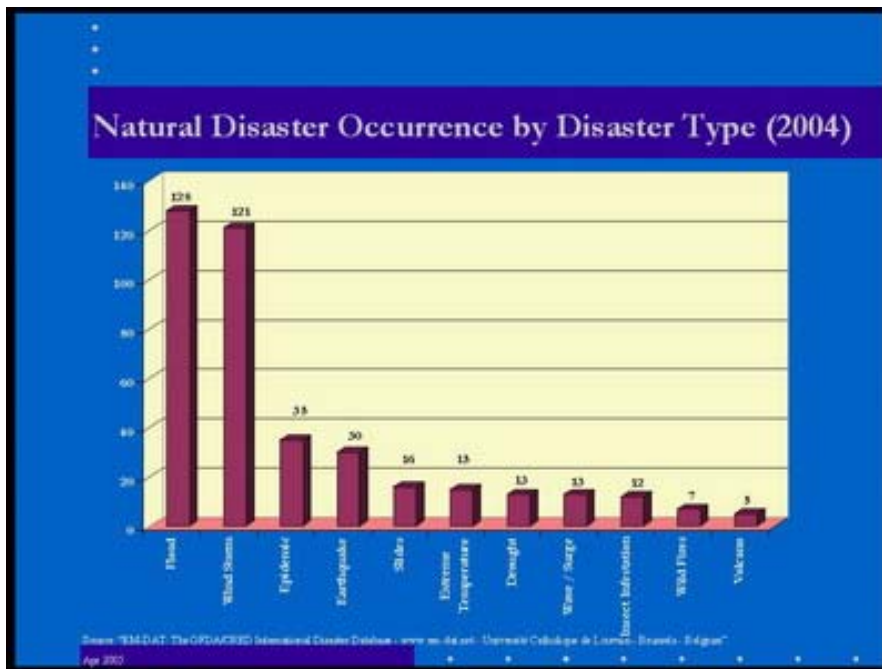
A disaster has been defined as an occurrence disrupting the normal conditions of existence and causing a level of suffering that exceeds the capacity of adjustment of the affected community. Disasters are unforeseen events that cause great damage, destruction and human suffering. Though often caused by nature, disasters can have human origins. It requires immediate, coordinated and effective response by multiple government, voluntary and private sector organizations to meet human needs and speed recovery.

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 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.

In the past decades the number of disasters and their impact on human and economic development worldwide has shown a steady increase. About 75% of the world's populations live in areas affected at least once between 1980 and 2000 by earthquake, tropical cyclones, flood or drought. More than 184 deaths per day were recorded in different parts of the world due to disasters.

“One billion people are living in the world's unplanned shantytowns, and 40 of the 50 fastest growing cities are located in earthquake zones. Another 10 million people live under constant threat of floods.”

*—International Federation of the Red Cross and Red Crescent,
World Disasters Report, 1999*



DISASTERS -2004

Source: www.em-dat.net

Impact of disasters

Disasters also lead to other losses in terms of their detrimental effect on the quality of life, livelihoods and economic development. The total number of people affected each year by natural disaster i.e. who either lost their homes, crops, animals, livelihood or health – almost doubled between 1990 and 1999. In this period an average of 188 million people per year were affected by disasters. It is projected that by the year 2065, the economic losses due to disasters are likely to account for a significant proportion of global gross domestic product (GDP).

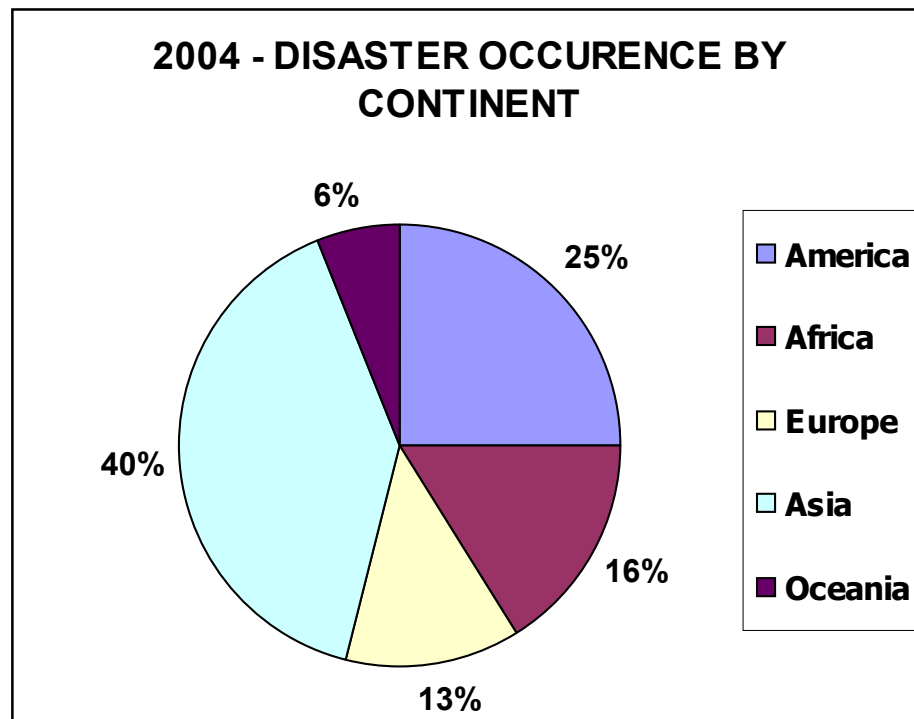
Munich Re estimates that global economic losses for 1992-2002 were 7.3 times greater than the 1960's. According to it real economic losses in 2002 averaged US\$ 75.5 billion in the 1960's, US\$ 138.4 billion in the 1970's, US\$ 213.9 billion in the 1980's and US\$ 659.9 billion in the 1990's. It counted 700 natural disasters in 2002 and estimated the economic losses at US\$ 55 billion.

Disaster losses are often classified as:

- ❖ Direct Costs – physical damage to productive capital and stocks
- ❖ Indirect costs – disruption in the flow of goods and services i.e. lower output from damaged assets and infrastructure
- ❖ Secondary effects – short and long term effects of the disaster on the overall economy and socio-economic conditions.

The number of people affected by disaster damage worldwide is one thousand times the number of people killed by disasters (Burton, Kates and White, 1996). For instance, losses could be propagated via capital markets, through capital

flight, depreciation of domestic currency, greater indebtedness etc. While industrialized nations may register higher economic losses due to disasters, very often there are systems in place for preparing for the event and avoiding loss of life, and the costs of damage are covered by insurance and other mechanisms. Between 1995-1999, the world's wealthiest countries sustained 57.3% of the measured economic losses to disasters, representing 2.5% of their combined GDP. During the same period, the world's poorest countries endured 24.4 % of the economic impact of disasters, representing 13.4% of their combined GDP.



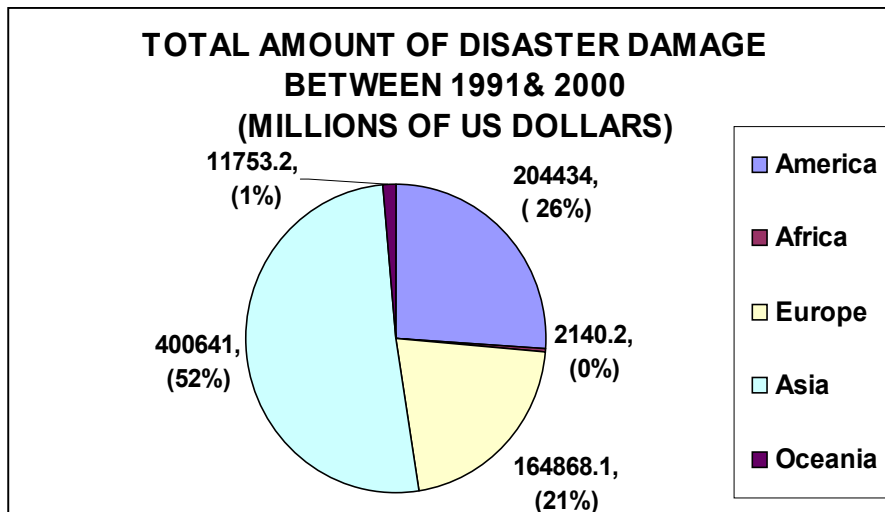
Source: www.em-dat.net

The 2001 earthquakes in El Salvador and Seattle in the United States resulted in losses of around US\$ 2 billion each. While this scale of loss was easily absorbed by the US economy, it represented 15% of El Salvador's GDP for the year.

Disasters cause major setbacks to the economic and social development of developing countries, very often inflicting massive casualties and diverting funding aimed at development goals to the delivery of relief. Urban areas are particularly vulnerable to disruptions from extreme events, especially in developing countries where the combination of structural poverty, decaying and substandard infrastructure, high population densities, centralization of economic assets, and commercial and industrial activities magnify the problem.

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.



In 1982, hurricane Isaac destroyed 22% of the housing stock in the Tongan archipelago. Reconstruction costs for restoring water, sanitation, energy, telecommunications, roads and railway infrastructure from flooding in Mozambique in 2000 cost US \$ 165.3 million.

Increasingly, disasters affect communities far beyond the areas of actual impact as regions are linked in new ways. For example, while the September 11 terrorist strikes had devastating impacts in the US, the greatest economic and human impacts could be felt in sub-Saharan Africa. The World Bank estimates that the resulting global economic slowdown could kill 20,000 - 40,000 children, half of them in Africa, as poverty worsens. Natural disasters also resonate beyond national borders. During the 1999 earthquake in Turkey, numerous textile factories collapsed, bringing to a standstill Turkey's large demand for African cotton.

Disasters in modern times have transcended borders of nations and class and have a devastating impact in terms of human and material losses. It is therefore imperative that the disaster reduction efforts too should be multilateral and comprehensive. As the recent tsunami has demonstrated, disasters can take diverse regions unawares and wreck havoc on a hapless populace. Global initiatives for disaster preparedness and reduction should therefore be given the highest priority by the international community.

In recent years there has been a paradigm shift from disaster relief and rehabilitation to a more comprehensive and evolved discipline of disaster management. **Disaster Management** is defined as, an applied science, which seeks, by the systematic observation and analysis of disasters, to improve

measures relating to prevention, mitigation, preparedness, emergency response and recovery.

Awareness of the need of better disaster management is growing. Modern disaster management goes beyond post-disaster assistance; it includes pre-disaster planning and preparedness activities, organizational planning, training, information management, public relations, and other related fields. Crisis management is important but is, in reality, only a part of the overall responsibility of the disaster manager. Disaster management has to be placed in the context of the development challenges that world faces as a whole. The various phases of disaster management are:

- Prevention
- Mitigation
- Preparedness
- Response and relief
- Rehabilitation

2004 ECONOMIC IMPACT: 10 MOST AFFECTED COUNTRIES

In Absolute Amount		As a Proportion of Previous-Year GDP	
In (Billion)			
Japan	46.3 Billion	Cayman Islands	270%
United States	26.2 Billion	Grenada	202%
Bangladesh	7 Billion	Maldives	38%
Indonesia	4.6 Billion	American Samoa	30%
China	4.3 Billion	Jamaica	6.0%
Cayman Islands	3.4 Billion	Seychelles	4.8%
India	1.5 Billion	Cuba	3.9%
Portugal	1.3 Billion	Bangladesh	2.9%
Srilanka	1.3 Billion	Madagascar	2.0%
Cuba	1.0 Billion	Srilanka	1.8%

Source: www.em-dat.net

ECONOMIC DAMAGE DUE TO NATURAL DISASTERS - 1996-1999

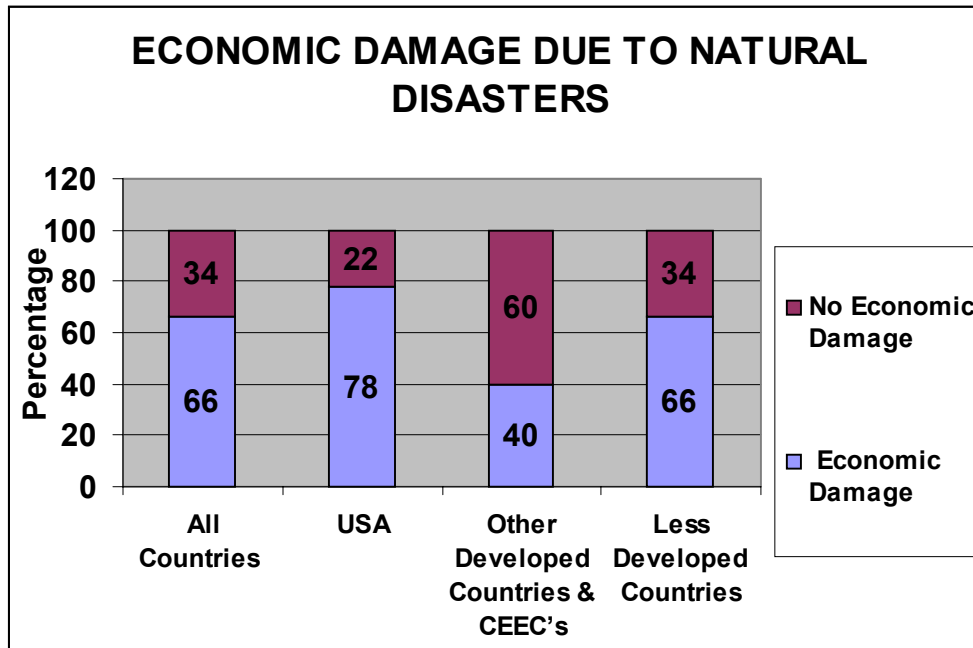
	% of Natural Disasters reporting Economic Damage
All Countries	34%
USA	22%
Other Developed Countries & CEEC's	60%
Less Developed Countries	34%

Source: Swiss Re & CRED

INSURED ECONOMIC DAMAGE DUE TO NATURAL DISASTERS -1996-1999

	% of Natural Disasters reporting Insured Economic Damage
All Countries	33%
USA	92%
Other Developed Countries & CEEC's	55%
Less Developed Countries	6 %

Source: Swiss Re & CRED



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.

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.

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.

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.

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.

In the aftermath of a catastrophe, the resources of the community are more likely to be utilized in protecting and rebuilding livelihoods rather 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.

According to the International Monetary Fund, global GDP growth is estimated to have increased to about 3.9 per cent in 2003 from 3.0 per cent in 2002. If the world economy is to sustain high rates of growth in the years to come, growth can and must come from bringing developing countries into the development process --- making them engines of growth for the world economy and thus

bringing the millions who live in these countries into the modern productive economy, bringing them in as consumers of the goods and services produced. Today, developing countries account for eighty per cent of the world's population, five billion potential consumers, but they only account for twenty per cent of global GDP.

The World Bank estimates that, by 2050, developing countries will represent nearer to ninety per cent of the world's population, i.e., eight billion potential consumers. To sustain current global growth rates, the GDP of developing countries that is just \$6 trillion today would increase nearly ten fold to \$56 trillion in the next 50 years, releasing massive productive and purchasing power.

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. 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.

Disaster management as a component of Corporate Social Responsibility

Though the concept of corporate social responsibility has only recently been formulated, there is a long history in both the East and West of a commitment to social philanthropy, in the belief that the creation of wealth is primarily geared for social good. This aspect of ethical business in modern times can be traced back to 19th-century philanthropists like Robert Owen and the various Quaker-owned businesses. The Quakers "ran successful businesses, made money because they offered honest products and treated their people honestly, gave honest value for money, put back more than they took and told no lies." (Anita Roddick, *KLM Herald* magazine, August 1999).

Corporate social responsibility today is qualitatively different from the traditional concept of corporate philanthropy. It acknowledges the debt that the corporation owes to the community within which it operates, as a stakeholder in corporate activity. It also defines the business corporation's partnership with social action groups in providing financial and other resources to support development plans, especially among disadvantaged communities.

The emerging perspective on corporate social responsibility focuses on responsibility towards stakeholders (shareholders, employees, management, consumers and community) rather than on maximization of profit for shareholders. The leading companies have discovered that working together with non-profit and government organizations to solve social problems can give them new insights and approaches to creating business opportunities as well.

The **BG group**, a gas company based in the U.K, operations in many developing countries attributes two benefits of CSR:

- “Our sustained commercial success is possible only if the communities we serve are also thriving”
- “ Contributing socially benefits our companies reputation”

Corporate Social Responsibility is an all-encompassing aspect of the corporate sector. It is a business strategy that works. A recent survey showed that 86 per cent of about 4,000 people aged 15 or older in Europe, expressed a preference for purchasing a product from a company 'engaged in activities to improve society' (Fleishman Hillard, 'Consumers Demand Companies with a Conscience', London).

The CSR 2002 Survey India found that a majority of the respondents did not regard social responsibility as the exclusive domain of government and 'passive philanthropy' alone no longer constitutes CSR.

Proactive participation by the corporate sector in disaster preparedness and mitigation has in recent years become an inalienable aspect of CSR. This was inevitable in the light of the tremendous socio-economic damages caused by disasters. There has been lately however a shift from sporadic participation in disaster relief to a more comprehensive and sustainable participation in all phases of disaster management.

Many countries are evolving national policies for disaster management with the private sector as one of the key stakeholders. **The National Disaster Management Framework drawn up by the Ministry of Home Affairs, Government of India** envisages “involvement of corporate sector in awareness generation and disaster preparedness and mitigation planning through sensitization, training and co-opting of the corporate sector and their nodal bodies in planning process and response mechanism”.

One of the most successful public-private partnerships in disaster mitigation is the **Federal Emergency Management Agency's (FEMA) 'Project Impact'** initiative, which continues to be a catalyst and model for public-private partnership efforts worldwide. To help communities to develop and implement measures to protect themselves from disasters, FEMA with the help of many emergency management professionals and prospective business partners has developed a model that communities can use to make their towns and cities less vulnerable. It is a four - phase process that involves building partnerships, assessing risk prioritizing need and finally, keeping the project impact community informed of the progress and the actions taken.

The **Project Impact** consists of four phases,

- Building partnerships
- Assessing risks
- Prioritizing needs
- And communicating to the disaster resistant community

The first step is then to form a Disaster Resistant Community Planning Committee. This committee would typically consist of local officials, business professionals, and others who are interested in protecting the community and maintaining its economic stability.

A guideline from FEMA suggests members from the following groups to be invited as part of the committee,

- Industry & Business
- Infrastructure: Transportation,
- Utilities & Housing
- Volunteer & Community-based
- Health Care
- Government
- Workforce
- Education

Another example is the **Awareness and Preparedness for Emergencies at the Local Level (APELL)** launched by UNEP IN 1988 in collaboration with the chemical industry. Its aim is to prevent technological accidents by creating community awareness and producing integrated emergency plans.

Rather than respond to disasters as they happen, the **Corporate Network for Disaster Response (CNDR)** in the Philippines is implementing pro-active programs for disaster prevention, mitigation and preparedness (PMP). CNDR is a network of more than 50 corporations, corporate foundations, and business associations that spans the whole of the Philippines. CNDR was initially launched in the wake of the Luzon earthquake in 1990 when the companies felt the need involved in relief for a more a more coordinated and effective disaster response. Gradually the need was felt to move from disaster response to a more

comprehensive approach to disaster preparedness and mitigation. CNDR has 3 aims:

- Facilitate mobilization and distribution of resources from corporates to disaster affected communities,
- To strengthen linkages with government and NGO's undertaking disaster response programmes,
- To advocate for disaster prevention, mitigation and preparedness among civil society, business and government.

In its Bayanihan programme CNDR sought to institutionalize disaster mitigation and preparedness among local government units. The four-year Bayanihan Program implemented by CNDR with support from USAID is a successful prototype on prevention-mitigation and preparedness where various sectors are involved. It was implemented in the provinces of Negros Occidental, Pampanga, Davao del Norte and Compostela Valley. One of its project sites Guagua, Pampanga was awarded the prestigious "Galing Pook" Award for excellence in disaster management. It demonstrated the benefits of prevention-mitigation and preparedness by showing how under the PMP program, the municipality saved 9.5 billion Pesos in potential damage.

The post September 11 situation in New York can be cited as among the best examples of the public and private sectors working in tandem. This was evident in the setting up of the Emergency Operation Center (EOC) immediately after the disaster. The manufacturers donated necessary electronic office equipment (including computers, printers, and fax machines) in setting up the EOC. The utility companies were approached to establish phone lines for the new EOC. Once the EOC was operational, volunteers from the private sector arrived to help in any way they could. Public officials and representatives from various corporations (including those from the WTC) met periodically to coordinate response priorities and operations.

To facilitate damage assessment and search and rescue, a GIS database was established and divided into various small quadrants on the map. Experts from MAPINFO arrived in New York to assist with GIS. Advance technology like LIDAR (light detection and ranging) was utilized to detect ongoing fires, as well as voids and potential shifts in the debris pile. E-TEAM software was utilized to provide situation updates on the assignment of resources. Many communication companies came forward and provided cell phones for emergency workers, government officials, disaster victims, and anyone else who needed to make a call. These companies also brought in charging units and established several portable cell towers to meet the demand during the ground operations. Some corporations donated the use of 750-ton cranes for the operation of lifting massive structures.

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.

Some Corporate Initiatives in Disaster Management

Cargill's Natural Disaster Relief Fund allows 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.

Ericsson Response is 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.

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 diarrhea 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.

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 Gamble developed 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 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.

Deloitte Touche Toumatsu provided pro bono advisory services to UNDP to ensure tsunami funds are used efficiently and transparently. Deloitte team will study Indonesia, Maldives, Sri Lanka and India. It will review and advise opportunities to strengthen financial systems, procedures and processes.

Wal-Mart's total 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 1,00,000 sq.ft new store in Texas for relief agencies.

The Indian BPO industry under the aegis of **NASSCOM** offered 1000 call centre seats to assist rescue and relief operations

Compact Power Systems provided 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.

High tech companies at **Silicon Valley** worked with Red Cross in the US to build voice and data communications at hundreds of evacuation shelters Katrina refugees to link them together. Equipments like laptop computers and wireless access systems helped relief agencies track evacuees and track lost relatives.

Mutual Aid Scheme was 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.

International and Business Organizations' Disaster Management Initiatives

Disaster management has in recent years acquired high priority in the agenda of all international and business organizations. In the past three decades several meetings, summits and agendas have focused on sustainable development. There is the growing recognition that that disaster management is an essential component of sustainable development. UN General Assembly has included disaster management in its annual deliberations on sustainable development. UN General Assembly declared 1990-1999 **International Decade for Natural Disaster** Reduction. Its basic theme was 'building a culture of prevention'. Along with its successor **ISDR** it created institutional frameworks and introduced disaster management as an integral component of public policy and governance. The **World Summit on Sustainable Development** held in Johannesburg, South Africa in 2002 recognized that natural disasters are a global challenge and that developing countries are more vulnerable. The Johannesburg Plan of Implementation included plans for disaster and vulnerability reduction and improved warning systems. It also stressed public-private partnerships for meeting environment and development challenges.

The **Hyogo Framework for Action (2005-2015)** calls for actions by all stakeholders in disaster reduction to achieve the goals and priorities adopted at the World Conference for Disaster Reduction. In this context, public-private-people partnerships must be promoted, it stressed to advance the disaster risk reduction agenda for sustained economic growth in all hazard-prone countries.

Coinciding with the 2001 Annual Meeting of the **World Economic Forum**, an earthquake devastated Gujarat, India. Forum members in the engineering, construction and logistics fields were ready to put their resources to work but found there was no established mechanism for getting this help to relief workers on the ground. Faced with this, Forum members recognized that as global corporate citizens, the private sector must do more than simply fund relief organizations. In their view, business should proactively participate in a multi-sector effort to prevent and mitigate the effects of disasters.

In response, Forum members established the **Disaster Resource Network (DRN)** – a point of contact and coordination for companies that want to provide support to disaster management efforts in developing countries. The vision of the Disaster Resource Network (DRN) is to make it easier for businesses to donate talent or in-kind goods and services to disaster relief and recovery operations in developing countries and to ensure that their help is delivered in a coordinated and effective manner.

The DRN today is a Swiss non-profit private foundation, coordinates the donations of goods and pro-bono services contributed by members of the World Economic Forum. The in-kind donation of time and administrative expertise from these corporate executives keeps overhead costs to a minimum. The DRN solicits additional financial and in-kind support from companies around the world that want to make a difference when disaster occurs.

An illustration of the working of the DRN is the supply of 500 Lifeline radios for those affected by the tsunami in Banda Aceh. The Freeplay Foundation donated these radios to Mercy Corps. Constructed to operate in the harshest of conditions and climates, Lifeline Radios are easy to use, receive excellent AM/FM/SW reception and play for many hours on wind-up energy or solar power. Mercy Corps aimed to distribute the radios to staff and survivors in remote locations providing them access to broadcast updates about public health concerns, reconstruction activities and aid programmes operating in the area.

Warehoused in Johannesburg, the Freeplay Foundation contacted the Disaster Resource Network (DRN) for help in securing free ocean transport for the radios. The DRN in turn contacted **China Ocean Shipping (Group) Company (COSCO)**, a diversified company headquartered in Beijing, China, that focuses primarily on global shipping and logistics services. In an exception to company policy restricting the transport of tsunami donations to shipments originating in China and destined for ports in East-Asia, **COSCO** agreed to help. The process required the cooperation and involvement of key executives and managers on three continents.

In the immediate aftermath of the tsunami the DRN airport emergency team managed the handling of all relief supplies at Colombo airport, Sri Lanka, and successfully prevented the airport from becoming a bottleneck to relief efforts. Nine DRN volunteers from DHL Worldwide, Aramex, DNATA and TNT directed the unloading of aircraft, sorting and temporary storage of supplies, and the onward transport of those supplies to responsible humanitarian agencies in Sri Lanka. Under the direction of the DRN team, 150 local volunteers moved over 4,000,000 pounds of supplies.

The **World Business Council for Sustainable Development (WBCSD)** is a coalition of 175 international companies united by a shared commitment to

sustainable development via the three pillars of economic growth, ecological balance and social progress. Its members are drawn from more than 35 countries and 20 major industrial sectors. It also has a global network of 50 national and regional business councils and partner organizations involving some 1,000-business leaders globally. The WBCSD's activities reflect the belief that the pursuit of sustainable development is good for business and business is good for sustainable development. Its mission is to provide business leadership as a catalyst for change toward sustainable development, and to promote the role of eco-efficiency, innovation and corporate social responsibility.

Corporates' participation in disaster management : a few pointers

Over the past fifty years, there has been a significant evolution in thinking about disasters among aid workers, economic development specialists, policymakers, community planners, academics and others involved in the disaster field. The debate has shifted from the narrow concept of providing quick disaster “relief” based on a charitable impulse to a broader concept of disaster “management” that encompasses community involvement in prevention and preparedness, mitigation, emergency relief, rehabilitation as well as long-term development that incorporates both prevention and preparedness.

Instead of viewing disasters as single tragic events, professionals in the field see them as part of a larger process or cycle, which requires a long-term perspective that addresses root causes as well as immediate needs. Integrating disaster prevention with long-term development is seen as the most effective way of saving lives and protecting livelihoods.

Some experts believe that disasters are neither natural nor inevitable but are the result of social, political and economic (*i.e.*, man-made) factors that cause certain populations—usually impoverished and politically marginalized minorities, especially the elderly, women and children—to live in circumstances that render them especially vulnerable to the impact of hazards like floods, earthquakes, typhoons, drought or conflict. Programs that aim to reduce people’s vulnerability to these hazards lie at the heart of good disaster management.

Disaster management is based on the concept of active community participation in all phases of the disaster cycle. Rather than seeing disaster-affected individuals as victims or passive recipients of outside assistance, good disaster management recognizes local people and their community-based organizations—village committees, agricultural cooperatives, tribal councils, women’s associations, youth groups, etc.—as valuable assets. When a disaster strikes, local people, working through their community structures and organizations, are the first to respond. They save lives. They know which members of the community are hardest hit, and they know what assistance is appropriate. What these local organizations may lack, however, are financial

resources, organizational capacity, advanced equipment, and training in disaster prevention, preparation and planning.

Disasters involve a variety of actors; governments at all levels, multilateral institutions such as the United Nations and World Bank, and private aid organizations can all play key roles. Collectively they provide the bulk of assistance and on-the-ground programs.

Synergy between the private sector, government and NGOs can be achieved through pre-disaster management planning and coordination exercises. Some of the good practices are:

- Common inventory (public-private-people) of disaster response resources so that one could easily find a machine or a specialist in the aftermath of a disaster,
- Alternate and cost-effective technologies for hazard-resistant housing and infrastructure,
- Research and development in hazard prevention and mitigation.

Some critical issues to be kept in mind:

- Not all disaster assistance is beneficial. Inappropriate items can overwhelm limited transportation, storage and distribution capacities, thereby delaying the delivery of aid that is desperately needed.
- Every disaster has unique characteristics. Take the time to learn about the specifics of a disaster before deciding how to respond. Don't make assumptions about what is needed in a particular disaster situation; every disaster is different.
- Coordination among can reduce duplication of effort, make efficient use of resources, and ensure that the highest priority needs are addressed first. Corporates can participate in various standing and ad hoc forums—both in person and through electronic means—where needs are discussed, information exchanged and assistance coordinated.
- The emergency phase of a disaster attracts most of the attention and resources. Don't wait for a disaster to occur. Support disaster prevention activities, early warning systems, preparedness and planning activities in a disaster-prone region *before* a disaster happens. Corporates can play a useful role before the crisis by supporting disaster prevention and preparedness activities, and afterward, by filling gaps between emergency relief and long-term development programs. Initiate and support initiatives aimed at disaster prevention or preparedness so that communities regularly hit by floods, earthquakes and other disasters can develop disaster plans, raise public awareness about disaster preparedness, and train local disaster response teams for the next emergency.

- Community-based organizations and NGOs with a local presence are the first on the scene when disasters occur. They know best what assistance is needed and they understand the complex political, social and cultural context of a disaster. The Foundation for the Support of Women's Work found that during the 1999 earthquake in western Turkey, 9,600 victims were rescued by local people and communities, which were able to respond immediately, while later only 400 people were rescued by professional rescue teams.
- Find about the specific requirements in a post disaster situation and have a clear picture of the socio-economic and cultural background of the region. Donated goods, such as pharmaceuticals, can be helpful, provided they respond to specific requests; are coordinated with local organizations for transportation, storage and distribution; and are clearly labeled in the appropriate local language(s). After mudslides hit El Salvador in 1998, GlaxoSmithKline worked with its partners AmeriCares, the Order of Malta and the Minister of Health in El Salvador to identify and deliver the specific antibiotics that were needed. Boxes of medicine airlifted following Hurricane George in the Dominican Republic in 1998 were left sitting in a warehouse because they were not labeled as to what they were and how they should be used. Local people who spoke only Spanish could not use medicines labeled in English. Donated services (e.g., health professionals, rescue teams, engineers, logistics, transport, and technical experts, etc.) can be helpful provided they do not duplicate services available locally and are closely coordinated with disaster response organizations on the ground. During the 1999 Kosovo crisis Microsoft helped set up a special computer database that assisted with family reunification.
- Fill important gaps between relief and long-term development, such as rebuilding damaged schools and health clinics or restarting agricultural production with seeds and tools.

Following the January 2001 Gujarat earthquake, Charities Aid Foundation India developed a 12-month plan to help establish a Kutch Community Foundation to carry out development projects for the region. Plans call for seven schools to be reconstructed and five schools to be repaired, a health center to be built and the livelihoods of 605 families to be restored, along with various other initiatives.

- Support and popularize traditional and indigenous disaster mitigation methods which are time tested and effective. The Aga Khan Foundation, through its Planning and Building Service in Pakistan, has supported developing appropriate technology related to earthquake-resistant buildings, solar energy use, thermal efficiency and village planning.

Studies are underway on hazard mapping and on renovating structurally unsafe housing in mountainous areas through community-based actions.