CORPORATE SOCIAL RESPONSIBILITY

AND DISASTER REDUCTION:

A GLOBAL OVERVIEW

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Contents

Acronyms and abbreviations

APELL	Awareness and Preparedness for Emergencies at the Local Level
BECT	British Earthquake Consortium for Turkey
BICEPP	Business and Industry Council for Emergency Planning and Preparedness
CBO	community-based organisation
CDMP	Caribbean Disaster Mitigation Project
CNDR	Corporate Network for Disaster Response
CREW	Cascadia Region Earthquake Workgroup
CSR	corporate social responsibility
CURBE	Cambridge University Centre for Research in the Built Environment
DDMA	Dominican Disaster Mitigation Association
DETR	Department for the Environment, Transport and the Regions
DFID	Department for International Development
DRBA	Disaster Recovery Business Alliance
FEMA	Federal Emergency Management Agency
GO	government organisation
GRSP	Global Road Safety Partnership
HGISL	Halifax General Insurance Services Ltd
IBHS	Institute for Business & Home Safety
IDNDR	International Decade for Natural Disaster Reduction
IFRC	International Federation of Red Cross and Red Crescent Societies
ILCR	Institute for Catastrophic Loss Reduction
ILO	International Labour Organisation
ISDR	International Strategy for Disaster Reduction
LGU	Local Government Unit
MCEER	Multidisciplinary Center for Earthquake Research
NFIP	National Flood Insurance Program
NGO	non-governmental organisation
NHRC	Natural Hazards Research Centre
OAS	Organisation of American States
PBSP	Philippine Business for Social Progress
PPUE	Public-Private Partnerships for the Urban Environment
RMS	Risk Management Services
RPI	Risk Prediction Initiative
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
USAID	United States Agency for International Development
USGS	United States Geological Survey

SECTION 1: Introduction

1.1 Contents
This paper has six main sections:

1. An introduction, which sets out the study's purpose and methodology, and defines the key terms and concepts employed.
2. A survey of relevant background issues, principally the opportunities and challenges to corporate social responsibility (CSR) activity in the international development and disaster reduction arenas.
3. A presentation and discussion of the evidence of CSR involvement in natural disaster reduction from around the world.
4. The main conclusions and recommendations arising from the research.
5. A list of documents cited in the main report.
6. An appendix containing six more detailed case studies of CSR and disaster reduction, supporting the presentation and discussion in Section 3.

1.2 Purpose of the study
This is the first output of a research project on corporate social responsibility (CSR) and disaster reduction, looking specifically at what are usually called 'natural disasters' – i.e. disasters triggered by natural hazards such as floods, cyclones and earthquakes. The project aims to survey the extent and nature of CSR in this area, focusing on the process of private-sector engagement and its results, and to assess the potential for further involvement, particularly in developing countries.

In addition to this global overview, the project will carry out six similar studies in countries in South Asia. All of the research reports will be published online,[1] together with a set of case studies and a concluding document setting out key issues and recommendations for action and research.

The work is being carried out by a team of researchers managed by the Benfield Greig Hazard Research Centre at University College London,[2] with funding from the Department for International Development (DFID).

It should be emphasised that this is an initial survey of a subject that has not been researched before and for which little evidence is available. The findings should not be seen as conclusive. The project is a foundation for further research and for practical initiatives.

1.3 Terms and definitions
It is important to be clear at the outset about what is meant by certain key terms, as they are understood in different ways by different people.

1.3.1 Private sector
The term 'private sector' is taken to mean businesses that produce goods and provide services for profit. This includes businesses of all sizes, from local enterprises up to transnational corporations. It also includes informal-sector enterprises as well as registered and regulated

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[1] In the disaster management section of the Benfield Greig Hazard Research Centre website (http://www.bghrc.com).
[2] The project manager is Dr John Twigg. The other members of the research team are: Madhavi Malalgoda Ariyabandu, Mihir Bhatt, Deep Narsingh Karki, Foqia Sadiq Khan, Nilufar Matin and Anshu Sharma.

business: in developing countries, the informal sector is often extensive and significant economically and as an employer.

1.3.2 Corporate social responsibility

CSR is a broad concept that is open to interpretations. The United Nations (UN) explains and defines it as follows:

> The social responsibility of the private sector goes beyond the sector's day-to-day operation of producing a certain range of products and services in the most efficient and economical manner. The social responsibility of the private sector (also referred to as corporate social responsibility) concerns the relationships of a company not just with its clients, suppliers and employees, but also with other groups, and with the needs, values and goals of the society in which it operates. All these groups can be regarded as stakeholders in the company. Stakeholders can be identified as those individuals or groups of individuals that have an interest, or take an interest, in the behaviour of the company both within and outside its normal mode of operation. They therefore establish what the social responsibility of the company entails or, at least, how they perceive it to be (UN 2000: 2).

CSR is best seen as a continuum. There is no neat dividing line between its different elements or between it and commercial work, and no clear start and finish. Nelson (2000: 7, 28) identifies three broad stages along this continuum:

1. Compliance – companies should at least comply with national regulations and multinational companies in particular should benchmark their local practices against internationally agreed laws, conventions and standards.
2. Risk minimisation – beyond basic compliance, companies should be aware of their real and potential socio-economic, political and environmental impact. Building on this awareness, they should develop and implement policies and procedures to minimise any damage that might result from their own operations or those of their business partners.
3. Value creation – beyond compliance and doing minimal harm, companies can create 'positive societal value' by engaging in, for example, innovative social investment, stakeholder consultation, policy dialogue and building civic institutions, alone and with other companies.

The private sector is already heavily involved *commercially* in disaster reduction. Engineers, consultants, software designers, insurers, transporters and suppliers of goods and services of many kinds are among those for whom risk and disasters are business opportunities. Such commercial activity has increased in recent years, especially in emergency management, for two main reasons:

1. the necessary replacement of the old command-and-control style with more integrated, collaborative approaches involving a range of organisations
2. the sheer scale of many international humanitarian crises, especially those resulting from conflict.

The role of the private sector in disaster management has now become a strongly contested issue (e.g. Horwich 1993; Jamieson 1996; Kent 1996; WorldAid 1996; Handmer 2000).

Commercial involvement is outside the scope of this study but two particular areas of business commercial involvement can overlap with CSR work. Many of the key informants we contacted referred to these areas, thinking that they might be relevant to the research.

The first is the role of insurance and other financial mechanisms in mitigation. An interesting and potentially fruitful debate is taking place on how to link insurance with mitigation through public-private partnerships (e.g. Kunreuther n.d.; 2000; 2001). In particular, the World Bank's Disaster Management Facility is trying to stimulate new initiatives through its ProVention Consortium and Market Incentives for Mitigation Investment (MIMI) project (World Bank 2000; 2001a; 2001b). Interest and efforts here are concentrating on introducing market incentives that would make insurance and other finance to reduce or transfer risks more widely available. The research project did not examine this essentially commercial approach in any detail but it has looked at some initiatives that link building safety with insurance premiums and at insurance companies' support for relevant non-commercial activities.

The second area is business contingency planning and continuity initiatives. These were also excluded from the study as they are directed towards improving the private sector's commercial performance. However, examples of business continuity initiatives linked to wider community mitigation programmes are discussed.

1.3.3 Disasters, disaster reduction and vulnerability

The study has tried to avoid the technical jargon of disaster research, using everyday language where possible to describe efforts to reduce the impact of natural hazards on human society. Inevitably, some technical terms have crept in. Those that appear frequently in this report, and their most common definitions, are as follows:

- *Hazard*: a potential threat to humans and their welfare. Hazards can be natural (e.g. earthquakes, droughts) or induced by human processes (e.g. industrial accidents).
- *Risk:* the likelihood of a specific hazard occurring and its consequences for people and property.
- *Vulnerability*: the extent to which a person, group or socio-economic structure is likely to be affected by a hazard (related to their capacity to anticipate it, cope with it, resist it and recover from its impact).
- *Disaster*: what occurs when the impact of a hazard on a group of people (causing death, injury, loss of property, economic losses, etc.) overwhelms that group's ability to cope.
- *Disaster mitigation*: any action taken to minimise the extent of a disaster or potential disaster. Mitigation can take place before, during or after a disaster. Mitigation measures are both physical or structural (such as flood defences or strengthening buildings) and non-structural (such as training in disaster management, regulating land use and public education). In this report, the less technically precise expression *disaster reduction* is often used instead of disaster mitigation.
- *Disaster preparedness*: specific measures taken before disasters strike, usually to forecast or warn against them, take precautions when they threaten and arrange for the appropriate response (e.g. organising evacuation and stockpiling food supplies). Preparedness falls within the broader field of mitigation.

The phrase 'natural disaster', which is widely used by specialists and generalists alike, often causes confusion and has been the subject of debate. Strictly speaking, there is no such thing as a natural *disaster,* but there are natural *hazards*, such as cyclones and earthquakes. The difference between a hazard and a disaster is an important one. A disaster takes place when a community is affected by a hazard (as we have seen, it is usually defined as an event that overwhelms that community's capacity to cope). In other words, the impact of the disaster is determined by the extent of a community's *vulnerability* to the hazard. This vulnerability is not natural. It is the human dimension of disasters, the result of the whole range of economic, social, cultural, institutional, political and even psychological factors that shape people's lives and create the environment that they live in. Vulnerability also has different dimensions and

influences. For example one should not look at the mere fact that people live in flimsy houses in hazardous locations, but why they live there – which could be the product of poverty (itself the result of local, national and even global economic forces), demographic processes such as population growth or migration to towns and cities, legal-political issues such as land rights, and other political features such as the weakness of government and civil society institutions in protecting citizens.

1.4 Methodology
The research method used for this report consisted of the following:

- o A desk study of printed and online publications. Eighteen bibliographical databases (covering disasters, sustainable development and CSR) were searched. Documents were collected from libraries, websites and key informants.
- o Contact/discussions with informants in the private and disaster management sectors, to gather evidence and obtain information about other sources, projects and key informants; this was mostly by email, letter and telephone. The project contacted 126 key informants worldwide (working in the private sector, development/disaster agencies and academic institutions and as individual consultants): 86 replies were received. Networks and email lists were also used: requests for information and assistance were posted to three electronic newsletters and discussion groups on disasters and CSR with a combined outreach of over 2,800 people, leading to approximately 20 responses.
- o Semi-structured interviews with key informants involved in CSR work or knowledgeable about it. Twelve telephone or face-to-face interviews were held.

1.4.1 Research questions
The research questions designed by the project focus on the process of CSR and the impact of CSR activities in reducing the risk from disasters. They are set out below in Table 1.

It should be emphasised that this project is a *preliminary investigation*, not a comprehensive evaluation of CSR in natural disasters, which would be premature given the poor state of knowledge about this subject. The set of research questions was therefore seen not as a checklist but as an indicative guide to features and issues that might emerge from the research.

Table 1. CSR and disaster reduction: research questions

Heading	Broad research questions	Specific research questions
Vision	Motivation for private sector involvement in general (related to its broader attitude towards social responsibility and its long-term vision in this area). Motivation for individual interventions and their implications for the nature and extent of the support provided.	➢ What was the vision behind business involvement in disaster reduction activities? What benefits/impact (internal and external) did it hope to achieve through such activities? ➢ Whose vision was this? Was it owned throughout the business or only by some sections (e.g. senior managers)? Was it clearly expressed and understood? ➢ How does this vision relate to the business's broader attitude towards social responsibility? ➢ Was this vision shared by non-business partners (e.g. NGOs, community groups/beneficiaries) in disaster reduction initiatives? If not, how did their vision differ from that of the business partners?
Decision-making	Motivation for individual interventions and their implications for the nature and extent of the support provided. Factors affecting the choice of partners and the development of partnerships.	➢ How was the problem identified by business? Who identified it? ➢ Who made the main decisions about involvement (where to get involved, what to do, how to do it, etc.)? ➢ What link (if any) was there between the initiative and the company's own business or expertise? ➢ How were links made with other partners and stakeholders? What (and who) were the key influences in partner selection and development of relationships? ➢ Did other stakeholders have a different opinion about the way problems and partnerships were developed? ➢ Among the other stakeholders, how widespread was 'ownership' of the partnership with business? How much confidence and trust was there?

Heading	Broad research questions	Specific research questions
Implementation	The nature and extent of the intervention in practice (to give a framework in which to view the process of business involvement).	➢ What type of intervention was this (ref. Table 2)? ➢ What was the scale of the intervention? Was it at national or local level? How many people benefited? ➢ What resources went into the initiative? Who provided these? ➢ How long was the intervention? Was it fixed-term or open-ended? ➢ Who were the *main* partners or stakeholders (business, national or local GO, NGO, CBO, other civil society organisations, beneficiaries)? ➢ What were the roles of the different partners? What human, material or financial resources did they bring? ➢ Who were the beneficiaries (e.g. tribals, salt workers, single mothers)? Did the initiative aim at the most vulnerable? ➢ What level of vulnerability did the work address: (i) unsafe conditions, (ii) dynamic pressures, (iii) root causes?[3] ➢ Was the initiative participatory or top-down? If participatory, how participatory was it (i.e. how much influence did beneficiaries have on planning and decision making)? ➢ What points in the disaster cycle did the initiative address (long-term mitigation, short-term preparedness, relief, reconstruction and rehabilitation)? ➢ How much emphasis was placed on structural or material support and how much on building human/social capital?
	Operational issues encountered and how these were viewed and dealt with.	➢ What were the main challenges met in implementing initiatives? ➢ Did different stakeholders have different opinions about this? ➢ How were differences overcome? ➢ How well did partnerships work (e.g. in terms of efficiency of implementation, relationship-building between partners)? ➢ Did the nature of the partnership change during the work (e.g. levels of mutual understanding and trust, leadership roles)? ➢ What aspects of the partnership were key factors in the success/failure of the initiative?

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[3] See Section 3.3.14 for a discussion of these terms.

Heading	Broad research questions	Specific research questions
Impact	The outcomes and effectiveness of the intervention, and how (or if) this can be demonstrated. Perceived value and impact of the intervention (by private sector and its partners). Lessons learned by those involved, and their likely implications for future involvement.	➢ What was the impact of the interventions on beneficiaries (vulnerable people, victims of disasters)? What evidence (qualitative and quantitative) is there? ➢ What impact did the work and the partnership have on the partners themselves? Did it bring benefits to business and other stakeholders (e.g. in terms of skill sharing, staff morale or publicity)? ➢ How effective do business and its partners believe the interventions were in fulfilling their objectives? ➢ What follow-up work is planned? ➢ What lessons have all stakeholders learned about the process of partnerships? What will be different about the approach they take in future?

1.4.2 Types of involvement

The project drew up a provisional typology of forms of CSR engagement in natural disaster reduction and their main characteristics. Like the set of research questions, this was designed to guide the investigation. It was not intended as a set of rigid categories.

There is no standard typology of the different kinds of private sector involvement in social responsibility, or its engagement with other actors (such as NGOs), which is the form taken by much CSR work. Relationships between private sector and other organisations are often categorised according to the degree of confrontation or collaboration. For example, Heap (2000: 15-56) sets out three broad types of relationship between the private sector and NGOs – adversarial, neutral and co-operative – each of which comprises a further variety of types that again can be categorised according to different criteria. Within the area of co-operation, which is of most interest to this research project, relationships can be categorised in different ways: according to their purpose, the scope and content of private sector activity, or the degree of participation in such activity (e.g. Murphy and Bendell 1999: 34; Heap 2000: 42; Nelson 2000: 52; Elkington and Fennell 2000: 154). However they are configured, these typologies attempt to cover the whole spectrum of corporate social responsibility issues, which are very diverse: they include social and environmental impact, business ethics, 'fair trade', labour standards and human rights.

The typology developed for this project did not have to address such a wide range of issues: it focused on business involvement in natural disaster reduction initiatives within philanthropic and CSR programmes. The project assumed that much of this would involve partnerships with organisations outside the business community such as the public sector, NGOs and community organisations.

The typology is set out below in Table 2. It sets out five main types of CSR involvement and their characteristics. This model is not rigid or static: a relationship/form of involvement can comprise more than one of these types, or change from one type to another during the course of a particular initiative.

Table 2. Types and characteristics of CSR involvement/relationship with other actors in disaster reduction

Type of involvement	Examples (general)	Characteristics
Philanthropic/ charitable	Donations and grants, in cash or in kind (goods, services, facilities) to other organisations and groups working in disaster reduction, or directly to beneficiaries.	➢ Altruistic (although business may derive other benefits, e.g. good publicity, this is secondary). ➢ Business controls the agenda: it decides what to do, whom to assist, and how to assist. ➢ Typically one-to-one relationships between (business) giver and (non-profit/community) receiver; other stakeholders not involved. ➢ May be formal (i.e. based on grant agreement) or informal. ➢ Typically short-term and one-off interventions, but may be long-term.
Contractual	Contracting other organisations or groups to carry out work for public benefit.	➢ Business controls the agenda and manages the resources. ➢ Altruistic. ➢ Based on formal, legal contract for work. ➢ Typically short-term or one-off initiatives. ➢ Typically one-to-one relationships; other stakeholders not involved.
	Sponsorship of other organisations or groups	➢ Business controls agenda and manages resources. ➢ Self-interested: business gains through publicity, provision of goods and services that meet its needs (any public benefits arising from the work are secondary). ➢ Based on formal, legal agreement. ➢ Typically one-to-one relationships.
Collaborative	Working partnerships with other organisations and groups for public benefit.	➢ Greater emphasis on dialogue, shared aims, mutual respect (the extent to which this happens in practice varies). ➢ More likely to involve a range of stakeholders. ➢ Ideas can originate from any of the stakeholders. ➢ Diversity of partnership arrangements (formal and informal). ➢ All stakeholders should benefit from partnership ('win-win' scenario) but may not benefit equally. ➢ Control of resources can give some partners greater control over the partnership. ➢ Better opportunities for longer-term interventions.
Adversarial	Business response to lobbying about human and environmental impact of business activities.	➢ Responsive: agenda driven by other organisations and groups. ➢ Public relations more important than public benefits.
Unilateral	Business undertakes its own non-commercial actions independently of other actors.	➢ More likely to be short-term, one-off initiatives driven by urgent need and compassion (e.g. emergency relief).

SECTION 2: CSR, development and disasters

2.1 Disasters and sustainable development

Disasters triggered by natural hazards are a major threat to sustainable development. According to the International Federation of Red Cross and Red Crescent Societies (IFRC), they killed on average more than 56,000 people each year between 1988 and 1997. Over the same period, they affected each year on average 171 million people directly (in terms of damage to homes, property, crops and livestock, and local infrastructure), while the number affected indirectly (for example by rising prices or job losses caused by adverse economic consequences) is incalculable. The average annual economic loss worldwide from natural disasters between 1988 and 1997 amounted to $62 billion of which $26 billion was in Europe and the USA, and $34 billion in Asia (IFRC 1999a: 149-52). All of these are conservative estimates.

Developing countries are hit hardest. Between 1988 and 1997, on average 88% of deaths from natural disasters each year were in developing countries. Over the same period, on average, 98% of those directly affected each year lived in developing countries. If the countries of the former Soviet Union are included, the figures go up to around 95% and 99% respectively (IFRC 1999a: 149-51).

Most of the economic losses are felt in wealthier countries, but the economic impact of disasters on developing countries is also severe, and the relative impact is often greater (Benson 1998). The impact of disasters is not felt evenly within countries, either. Studies have shown that in general it is the weaker groups in society that suffer worst from disasters: the poor (especially), the very young and the very old, women, the disabled, and those who are marginalised by race or caste (Blaikie *et al*. 1994).

The need for action to reduce natural disasters' impact has been acknowledged for some time. This acknowledgement lay behind the designation of the 1990s as the United Nations International Decade for Natural Disaster Reduction (IDNDR). Nevertheless, hazard risk and disaster reduction remain marginal issues in development planning, political commitment appears to be weak, and actions on the ground are as likely as not to be individual and one-off rather than collective and long-term (Twigg 2001; Benson *et al*. 2001).

As investor and employer, the private sector is an important actor in development. There is clearly a need for a fuller understanding of the role that it can play in natural disaster reduction.

2.2 The business case for CSR

Literature on CSR often refers to the 'triple bottom line' (profit, environmental quality and social justice), implying that companies' interests are best served by embracing all three bottom lines (e.g. CCIC 2000). Companies are happy to adopt this and associated rhetoric – 'Business thrives where society thrives' in the words of the Chairman of BP (Nelson 2000: 26).

Yet CSR is not the same as altruism. It can generate many benefits for the community but its ultimate purpose is to help the company (however indirectly) and, as one Canadian businessman points out, 'Corporations feel no sense of responsibility for solving the world's problems. It's just not their role' (CCIC 1996: 4). A survey of financial analysts and institutional investors in the UK in 1998 found that one in three believed that a company's contribution to society and the communities in which it operated had a positive impact on its financial performance (NCVO 2001). The main business advantages usually cited in favour of CSR are:

o It increases staff morale and motivation, and helps employees to acquire new skills and experience, all leading to a more committed and productive workforce.
o It enhances company/brand reputation.
o It strengthens relationships with customers and local and national authorities.

The BG Group (a gas company based in the UK with operations in many developing countries), which attaches great importance to contributing to communities in areas where it operates, sets out two of the main benefits to a company from CSR that exemplify this business case. First, 'Our sustained commercial success is only possible if the communities we serve are also thriving.' Second, 'Contributing socially benefits our company reputation.' (BG Group 2001).

In reality, business managers' commitment to corporate social responsibility varies considerably and is guided by different motives ranging from the traditional view of CSR as a means to secure financial gains (or protect the financial losses that might arise as the result of public criticism of corporate practice) to seeing CSR as an essential component of a company's own sustainable development or even as the key to future organisational success (Bendell 2000: 8-9).

Literature on CSR tends to emphasise the growth and development of this area, on the basis of a limited number of case studies and public statements. These give indications of the nature of progress in this area but not of its extent. An 'illusion of more profound change' stems from over-reliance on such limited evidence and from business' skill in publicising its work (Utting 2000: 14-15). Statistical evidence does not always paint such a rosy picture. In the case of corporate philanthropy in the UK, for example, a mere 0.2% of company profits are given to charities, and businesses provide less than 5% of the voluntary sector's gross income (NVCO 2001).[4] A study of 'mid-corporates' (companies with a turnover of £100-500 million) in the UK in 2001 showed that less than one in five included a social policy statement in their most recent annual report, and that the level of charitable donations as a proportion of pre-tax profits had fallen by almost 17% since the previous year (Mazars Neville Russell 2001). A survey in 1999 found that 71% of the UK public believed that industry and commerce did not pay enough attention to their social responsibilities (NCVO 2001).[5]

There is compelling evidence that globally the development of CSR has been piecemeal and uneven. Very few companies have adopted comprehensive CSR strategies. Miniscule proportions of corporate resources are put towards environmental and social responsibility. There is a substantial gap between rhetoric and practice. The dominant model of economic growth continues to encourage business practices that degrade the environment and disregard stakeholder concerns (Utting 2000: 14-23).

Moreover, researchers have warned that 'Amid the burgeoning rhetoric, it is easy to lose sight of the fact that corporate social responsibility is supposed to be a means, not an end in itself. Too little has been done to trace the impacts of these major changes in the corporate world on

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[4] This figure only covers cash donations. Companies provide other forms of support to charities (such as gifts in kind and employees volunteering their time) that are difficult to quantify. In the UK such support may amount to between 30 and 40% of the total value of business support to the community (NCVO 2001; Mulgan and Landry 1995: 97-104).
[5] Yet there are signs of a backlash against CSR by those who fear it will deflect business from profit generation (Wolf 2001).

13

the communities of "stakeholders" who are intended to gain' (Brown, Joekes and Humphrey 1998).[6]

The private sector is quicker to act where business interests and broader social concerns coincide. The response to HIV/AIDS is a notable example. No business is immune from HIV/AIDS. The epidemic has significant implications for individual businesses through its impact on their workforces (absenteeism, high staff turnover, reduced productivity) and on the environment in which business operates, especially in reducing market demands. Businesses have responded individually with education and prevention programmes among their workers, and more widely in the community, supporting people living with HIV/AIDS and organisations working with them (Global Business Council on HIV & AIDS 2001b; UNAIDS *et al.* 2000). There has also been a collective response in the form of national and international business coalitions, of which the Global Business Council on HIV & AIDS, founded in 1997, is a prominent example (see Section 3.2.2 below). A similar process may now be commencing in conflict prevention and resolution: conflict too has a major impact on companies, directly and through its effects on the societies in which they operate (Nelson 2000).

2.3 CSR and international development

During the past decade or so, the international aid community has become more interested in the role that the private sector plays in development. Calls have grown for partnerships between the public sector, private sector and civil society in initiatives that will promote more just and sustainable development. One of the main indicators of this heightened interest is the development of codes of corporate conduct by companies, trade unions, NGOs, governments and intergovernmental organisations that have become both more numerous and more extensive in terms of the issues that they cover (UN 2000: 3-8).

The main factor behind this trend is the growing power of business, especially transnational business, compared to that of the nation state and its institutions, and even compared to inter-governmental institutions such as the United Nations (UN). States throughout the world have progressively transferred their responsibilities to the private sector and civil society organisations during the past 20 years and especially since the end of the Cold War. This redistribution of power between the three sectors of government, business and civil society has made it necessary for each of them to think again about their roles and to renegotiate their relationships with the others (Heap 2000). Business has freed itself from many regulations, but at the same time, more is expected of it. It is no longer seen as somehow separate from the rest of society, nor is it seen as apolitical, and society's expectations of companies increasingly outstrip the traditional legal requirements imposed upon them (Bendell 2000b; Newell 2000).

Shifts in attitude can be seen within the corporate and NGO sectors as they seek to respond to these and related changes (Murphy and Bendell 1999; Heap 2000; Bendell ed. 2000; Utting 2000). Relations between companies and NGOs, especially environmental organisations, have tended to be strongly antagonistic. Where companies have responded to criticisms from NGOs, on such issues as environmental impact and working conditions, they have preferred to work through voluntary mechanisms such as codes of conduct rather than allowing involvement by external agents. However, business has been involved in the debate on sustainable development since the early 1990s and the idea of CSR has gained ground. This is at least partly – and arguably largely – due to increasingly effective pressure from civil society organisations, compelling business to recognise that it has responsibilities to society and not just to its shareholders. The power of such pressure, and the need to legitimise

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[6] A notable exception is the evaluation of NGO-business partnerships in community development in India (ActionAid 1999).

business operations to the public, has been increasingly evident to the private sector in recent years (Control Risks Group 1997; Rodgers 2000). More recently, it has been argued that some kinds of multinational corporation are in fact becoming increasingly vulnerable to challenges of this kind (Klein 2000).

There is now considerable enthusiasm among multilateral and bilateral aid agencies for partnerships between the public, private and non-profit sectors. Much of the effort to date has gone into encouraging involvement in commercial ventures rather than CSR – a fact that the standard rhetoric of 'partnership' can sometimes hide.

The UN Secretary-General, Kofi Annan, proposed the idea of a Global Compact in 1999. After discussions with representatives of business, labour and civil society, it was launched the following year. It contains nine principles based on existing international agreements and conventions: they cover human and labour rights, and environmental issues. It is a voluntary code that companies are encouraged to subscribe to and, having signed, to provide evidence of concrete steps they have taken and become public advocates for the Compact. The initial targets are to have 100 multinational and 1,000 other companies committed to 'internalizing' the nine principles by 2002, and to set up a 'learning bank' on the internet containing information on the steps companies have taken. At the time of writing a number of international business associations had subscribed and the UN claimed 'several hundred companies' had done so, together with international labour and civil society organisations (UN Global Compact 2001).

In its 1997 White Paper on International Development, DFID announced that it would 'seek a new partnership with the UK private sector based on a shared understanding of the role that the public and private sectors … can play in development'. It seeks to increase the developmental impact of commercial activity in developing countries by working with business on country-level assistance programmes, promoting responsible business behaviour and building support for development within the business community. In 1997 DFID established a Business Partnership Unit (now developed into a Private Sector Policy Department), in 1998 it helped to establish the Ethical Trading Initiative bringing companies, NGOs and trade unions together, and in 1999 it funded the establishment of a resource centre for the social dimensions of business practice. Some funds are available for private-sector proposals for work that meets DFID's development priorities (DFID 2001; Nelson 2000: 125). In its 2000 White Paper, DFID maintained that business could play 'an increased role in poverty reduction and sustainable development' by applying 'best practice' in CSR and committed itself to encouraging CSR, seeing the challenge as how to extend responsible business practice throughout the business community (DFID 2000a: 59-60).

The United States Agency for International Development (USAID) has set up the New Partnerships Initiative to develop and promote 'intersectoral' partnerships that involve two or more of the three sectors of society: government, business and civil society. It argues that such partnerships generate 'creative synergies', strengthen organisations in each sector, offer a mechanism to resolve specific development issues and 'can lay the foundation for broader, systemic change'. They also complement decentralisation efforts, 'building on the growing consensus within the donor community that development co-operation is most effective when it reinforces local initiatives' (Charles, McNulty and Pennell 1998: 1, 3).

Development and environment NGOs are still debating and working out their relationships with the private sector. Partnerships with business present particular challenges to NGOs whose traditional attitude towards it has been one of suspicion if not hostility. NGO engagement with business continues to cause heated debate within and between organisations. As this is still a new area of engagement, experiences are only now beginning to be

documented and shared. Nevertheless, it is increasingly accepted that new forms of engagement of business need at least to be explored (Heap 2000; Bendell ed. 2000). Although there is plenty of talk about 'partnerships' between the private and other sectors, there is no generally accepted definition of partnership or uniform approach to it. Perhaps the best working definition is that of The International Business Leaders Forum, which defines partnership as: 'A cross-sector alliance in which individuals, groups or organisations agree to: work together to fulfil an obligation or undertake a specific task; share the risks as well as the benefits; and review the relationship regularly, revising their agreement as necessary.' (Nelson 2000: 33). Opinions also differ as to how far partnership is an end in itself or a means to an end (USAID 2001). The effectiveness of partnerships is notoriously difficult to evaluate (UNAIDS *et al.* 2000: 31-41).

Nelson and Zadek have set out 10 key 'pathways' for successful partnerships, broken down into issues of context, purpose, participants, organisation and outcomes. These are summarised below (Box 1) and illustrate the complexity that is inherent in such initiatives.

Box 1: *'pathways' to successful partnerships between the private sector and other actors*

Context
1. Acknowledgement by all the participants as to what ***drivers and triggers*** have brought individuals and organisations to the table and an ability to understand and reappraise on an ongoing basis the ***shifting context*** and its influence on the partnerships

Purpose
2. Clarity and openness about individual expectations and agendas, with mutual agreement on a ***common purpose and agenda*** – i.e. synergy between desired benefits to participants and benefits to society.
3. Mutual agreement on the ***scope*** and complexity of the partnership's intended locations and levels of action, variety of functions, range of desired outcomes and time-scales.

Participants
4. Individuals or institutions capable of playing a ***leadership*** role, acting as inspirer, mediator and/or facilitator between the partnership participants and in many cases between the partnership and its ultimate beneficiaries.
5. Understanding the ***resources, skills and capacities*** that are needed to meet the partnership's objectives, and how to optimise both the quality and quantity of resources, skills and capacities that each partner brings to the initiative.

Organisation
6. Appropriate ***organisational and legal structure*** to meet the common objectives of the partnership.
7. ***Transparency, representation and accountability*** within the partnership and externally.
8. ***Communication*** strategies and systems which facilitate clarity of language, ensure regular dialogue and feedback, provide forums for problem-solving and conflict resolution, generate a shared vision and celebrate success.

Outcomes
9. Methodologies for ***measurement and evaluation*** of partnership processes and outcomes against common and individual agendas.
10. Flexibility and willingness to allow ***adaptation*** of the partnership's purpose, participants or process in response to evaluation or changes in the external context.

Source: Nelson J, Zadek S 2000, *Partnership Alchemy: New Social Partnerships in Europe* (The Copenhagen Centre) – cited and summarised in UNAIDS (Joint UN Programme on HIV/AIDS), Prince of Wales Business Leaders Forum, Global Business Council on HIV&AIDS 2000: 31.

2.4 CSR and disaster reduction

There have been calls for greater private sector involvement in disaster reduction for a number of years. For example, Berke and Wenger, in their study of recovery measures in the Caribbean island state of St Kitts and Nevis following Hurricane Hugo, recommended public sector disaster planning programmes to encourage such involvement on the grounds that: 'Private sector companies are well staffed and equipped to handle disaster response and recovery activities' (Berke and Wenger 1991: 40). The Pan-American Health Organisation (PAHO), also in 1991, urged the private sector to think not only of its own security but to 'cross over the fence' into the surrounding community to co-ordinate and prepare integrated disaster plans (PAHO 1991).

The United Nations International Decade for Natural Disaster Reduction (IDNDR: 1989-99) was at the forefront of these calls. Throughout the IDNDR, the international aid community maintained consistently that the primary responsibility for disaster reduction rests with national governments, but recognised the need for collaborative efforts between governments, UN agencies and other actors of all kinds. UN General Assembly resolution 44/236 in December 1989 which set out the framework for IDNDR, called on national governments to:

> Encourage their local administrations to take appropriate steps
> to mobilize the necessary support from the public and private sectors and to
> contribute to achieving the purposes of the Decade;

while

> Scientific and technological institutions, financial institutions, including banks and insurance companies, and industrial enterprises, foundations and other related non-governmental organizations are encouraged to support and participate fully in the programmes and activities of the Decade prepared and implemented by the international community, including Governments, international organizations and non-governmental organizations.

The UN also hoped the private sector would join bilateral and multilateral aid agencies in giving money to the IDNDR initiative (UN General Assembly 1989).

It became apparent by the middle of the IDNDR that it had accomplished relatively little towards its grand aims: 'the meagre results of an extraordinary opportunity' in the words of the official statement from the mid-term conference in Yokohama in May 1994. Attempts were therefore made to encourage other actors, including companies and NGOs, to become more involved. The *Strategy and Plan of Action for a Safer World* published by the conference appealed to commercial rather than altruistic interests when it called for 'Integration of the private sector in disaster reduction efforts through promotion of business opportunities', seemingly unconcerned by the fact that the private sector might not perceive its best business opportunities lay in the 'least developed countries' which IDNDR believed deserved 'special attention'. Voluntary contributions from the private sector were now 'strongly encouraged': the official IDNDR effort was beset throughout the Decade by a funding crisis (IDNDR 1994).

A session of the Yokohama conference was devoted to the subject: how the public sector, private sector and voluntary organisations can work together (WHO 1994). The published report of this session spoke of building 'a new paradigm for emergency management … based on formal partnerships between all parts of society' and argued explicitly for strong co-operation between public, private and voluntary sectors (WHO 1994: 11) without being able to explain what this might mean in practice. The IDNDR's concluding conference in Geneva in July 1999 similarly embraced the *rhetoric* of partnerships:

Partnerships involving public and private organizations can be particularly effective in linking stakeholders and implementing plans. The private sector may be able to promote mitigation by providing incentives, for example, by ensuring compliance to building codes that would reduce insurance premiums as a condition for coverage (IDNDR 1999).

The Framework for Action published in 2001 by the IDNDR's successor structure, the International Strategy for Disaster Reduction (ISDR), echoes this partnership theme:

Enhanced partnerships and networking are required in order to ensure cooperation, complementarity of action, synergy and solidarity between governments, private sector, civil society, academia and international agencies. (ISDR 2001)

None of these documents explains what 'partnership' means in this context although it is clear that private sector funding continues to be seen as a major component: the Framework for Action talks of 'Identifying innovative funding involving private and public sectors, so as to support continued commitment to risk management and disaster prevention work.' (ISDR 2001) At a time of stagnation in international aid budgets, this desire to obtain private sector funding is understandable. Similarly, by the mid-1990s the US government was encouraging greater public-private sector partnerships in domestic disaster mitigation to complement the limited funding available from the federal budget (Natural Hazards Center 1996a).

There has, therefore, been little attempt to explain what role the private sector might play in disaster reduction. We are left with little more than rhetoric – for instance the suggestion (made by a US government official) that at corporate and community level the sector can 'provide guidance, support and leverage to disaster reduction activities of local government and community organisations, particularly where there are areas of mutual self-interest' (Fleming 1994: 7). The disappointing session on partnerships at the 1994 Yokohama conference concluded, on the basis of very little empirical evidence, that the private sector's role might consist of providing technical knowledge, financial inputs and general support to sustainable development approaches, in particular by helping government to set standards for sustainable development and disaster management, and developing its own professional and technical capacity, the capacity of NGOs at national and community levels and that of communities themselves (Lyonette 1994: 75-6; WHO 1994: 80).

Disaster mitigation and preparedness have not featured in the extensive discussions about CSR and sustainable development. A recent paper by the International Business Leaders' Forum is an exception, making a business case for greater CSR involvement in mitigation (as well as relief), but these ideas have yet to be picked up by major businesses (CSR Forum 2000a; 2000b).

There is an obvious business case for disaster mitigation to minimise disaster risks to businesses themselves. There is also a strong case for business involvement in measures to reduce the vulnerability of the communities in which they work or to which they sell their goods and services. Disaster-proofing business premises is not enough to ensure continuity if infrastructure, utility services, employees and customers are affected by the disaster (CSR Forum 2001b). As we shall see below, this argument has helped to stimulate private sector involvement in community mitigation initiatives in the USA. With transnational corporations increasingly investing and operating in hazard-prone developing countries, disasters are potentially an even more significant problem, even if one allows for the high mobility of global capital.

SECTION 3: CSR initiatives in natural disaster reduction

3.1 Nature and limitations of the evidence

The biggest challenge faced by the project is the lack of evidence concerning CSR and natural disaster reduction. The literature search confirmed that there is little published or 'grey' literature on the research topic. Much of the material available is superficial or merely promotional, rendering analysis difficult.

The informants' replies echoed the findings of the literature search by showing that there is very little CSR activity in this area. Many of those who replied had nothing to report. Much of the information that was obtained from informants was anecdotal – sometimes substantial but usually insufficient to make meaningful use of it and draw wider conclusions.

Some correspondents did supply useful information on initiatives and other contacts but most attempts to follow up these leads by contacting the organisations involved generated little or no response. It is not clear why this was so, but there may be three reasons:

1. Business culture is less open than that of civil society organisations, making businesses reluctant to share information. This was illustrated by one company that did not want the amount of its financial sponsorship published.
2. Organisations of all types contacted are very busy and therefore do not have time to reply to requests for assistance.
3. Failure to respond may be a tacit admission that there is little of substance to report behind the rhetoric of achievement.

Fortunately, a handful of individuals and organisations were extremely supportive. The face-to-face and telephone interviews provided valuable information, especially for the case studies. It was also clear from the level and nature of responses overall that the research topic has aroused considerable interest.

The 38 main CSR initiatives identified by the research are given in Table 3. These are activities for which a useable amount of documentary or other evidence was available. The discussion that follows is based largely on these examples. Owing to the limitations in the evidence available, it was not possible to explore the process of CSR involvement in disaster reduction as completely as had been hoped. Instead, the study has concentrated on identifying key issues relevant to the original main research questions of vision, decision-making, implementation and impact.

In the discussion that follows:

o Section 3.2 considers some of the main forms of CSR engagement and issues arising, especially their strengths, weaknesses and potential for replication. This section presents further descriptive material where relevant.
o Section 3.3 presents cross-cutting issues arising from the evidence.

At first glance, Table 3 indicates a spread of projects from around the world. Ten of the 38 initiatives listed are global or contain global components, nine are in developing countries, 23 are entirely in developed countries or are predominantly developed-country initiatives with some wider outreach (usually global). However, these numbers are misleading since they do not indicate the amount of evidence gathered in each case, which varies considerably. Most of the information obtained concerns disaster reduction initiatives in the North, particularly North America, which tend to be the best-documented projects.   The great majority of examples cited by informants and in the literature were in the USA. In developing countries,

other than the Philippines and to a lesser extent the Caribbean, there was little to report,[7] and a number of informants felt that much more needed to be done to arouse private sector interest there. Section 3.3 contains a discussion of the implications of this predominantly Northern experience for vulnerability reduction in developing countries. Northern bias in the evidence is also seen in the current state of knowledge of CSR generally: the problems of obtaining better information from the South (particularly on CSR's impact on poor people) and of sharing it are generally acknowledged but initiatives to address them are only just beginning (IDS 2001).

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[7] For example, in Zimbabwe a workshop on NGOs and natural disaster mitigation and preparedness held in March 2001, which discussed ways of achieving more coherent disaster management planning involving all sectors, including the private sector, noted that the private sector had not hitherto been active in mitigation and preparedness work (Shumba 2001).

Table 3. Examples of CSR involvement in natural disaster reduction

Name (or type) of initiative	Location	Dates	Company(ies) involved	Type of business company engaged in	Category of business involvement (Table 2)	Description
Asian Urban Disaster Mitigation Program	Philippines	1997-	various (through business-sponsored NGO)	various	collaborative	Corporate NGO manages programme of local-level capacity building for disaster mitigation.
Awareness and Preparedness for Emergencies at Local Level (APELL)	global	1988-	chemical manufacturers' associations in USA and Europe	chemical manufacture	collaborative	Managed by UNEP; supports adoption of APELL process to identify risks of technological accidents and draw up emergency plans.
Benfield Greig Hazard Research Centre	UK	1997-	Benfield Greig Group	reinsurance	contractual	Sponsorship of university research centre.
Blue Sky: Strengthening Homes Project	USA	1992-	15 local companies	various	collaborative	Programme of voluntary incentives to improve residential structures' resistance to hazards.
Caribbean Disaster Mitigation Project	Caribbean	1993-9	various	various	collaborative	Creation of NGO in Dominican Republic with business representation on its board.
Cascadia Region Earthquake Workgroup	USA/Canada	1996-	various	various	collaborative	Membership organisation involving private, public and non-profit sectors to raise awareness and share information.

Name (or type) of initiative	Location	Dates	Company(ies) involved	Type of business company engaged in	Category of business involvement (Table 2)	Description
Corporate Network for Disaster Response (Case Study 3)	The Philippines	1990-	various	various	collaborative	Business involvement in and support for co-ordinated disaster response and local-level mitigation.
disaster preparedness	Honduras	1998	Dole	fruit production	unilateral	Purchase of emergency food supplies in local markets before arrival of Hurricane Mitch.
Disaster Recovery Business Alliance	USA	1995-	various, depending on locality	various, mostly utilities and other lifeline industries	collaborative	Local-level private-public sector initiatives to protect lifeline industries.
East African initiative on disaster management	E Africa	1999-	various	various	collaborative	2 IFRC-led conferences to raise awareness and stimulate partnerships.
Ericsson Response	global	2000-	Ericsson	telecommunications	collaborative	Mainly support to relief operations (provision of communications equipment and technicians) but now also some preparedness through establishment and training of response teams in company offices.
FireFree	USA	1997-	SAFECO	insurance	collaborative	Public education and outreach programme to reduce wildfire risk, with public-sector partners.
Florida Alliance for Safe Homes	USA	1998-	various	insurance	insurance	Public education programme to raise awareness of risks and steps that families can take to make themselves more secure.

Name (or type) of initiative	Location	Dates	Company(ies) involved	Type of business company engaged in	Category of business involvement (Table 2)	Description
Global Business Council on HIV & AIDS	Global	1997-	various, mostly multinationals	various	collaborative	International network to raise awareness of HIV/AIDS among companies and promote good corporate practice in addressing problems arising from it.
hotel safety initiative	Caribbean	1998-2000	Royal & SunAlliance	insurance	collaborative	Partnership between insurance company, the Red Cross and hotels to improve disaster preparedness and response through staff training in return for lower premiums.
insurance and property safety	Fiji		various	insurance	collaborative	Tripartite partnership linking government-certified technical improvements against cyclone risk to reduced premiums.
Institute for Business & Home Safety (Case Study 6)	USA	pre-1980	various	insurance	collaborative	Insurance industry creation and membership of non-profit organisation involved in public education, outreach and advocacy.
Institute for Catastrophic Loss Reduction	Canada	1998-	various	insurance	collaborative	Centre for research and awareness raising, with industry members.
Leadership Coalition for Global Business Protection	Global	late 1990s	IBM and other multinationals	various	collaborative	Short-lived attempt by business partners to raise awareness and stimulate collaborative action.
Lowe's Home Safety Council	USA	1993-	Lowe's Home Improvement Warehouse	home improvements/do-it-yourself	philanthropic/unilateral	Establishment of non-profit organisation to promote home safety through public information and grants.

Name (or type) of initiative	Location	Dates	Company(ies) involved	Type of business company engaged in	Category of business involvement (Table 2)	Description
Multidisciplinary Center for Earthquake Engineering Research	USA	1986-	various	various	collaborative	Private and public sector organisations become members of research institute's strategic partnerships network and help to define and support research and development work.
National Flood Insurance Program	USA	1968-	various	insurance	collaborative	Government-industry collaboration to offer reduced premiums to communities undertaking flood mitigation measures (arguably more commercial than CSR).
Natural Hazards Research Centre	Australia	1994-	Various	insurance	sponsorship	Sponsorship of research centre and scientific research of value to insurers and reinsurers.
Project Impact (Case Study 5)	USA	1997-	various, local and national	various	collaborative	Major government-led initiative to develop multi-stakeholder partnerships for mitigation at local level.
public information	USA/global		EQE	risk consultancy, engineering, software	unilateral	Company post-earthquake reconnaissance reports made freely available to public and guide to protecting homes against earthquakes published.
public information	USA		The Home Depot	Hardware	philanthropic/unilateral	Information on earthquakes, hurricanes and how to make homes safe against them published on company website.

Name (or type) of initiative	Location	Dates	Company(ies) involved	Type of business company engaged in	Category of business involvement (Table 2)	Description
public information	Germany/global	1994-	Munich Re	insurance	unilateral	Annual review of natural catastrophes and their impact made freely available to public.
public information	USA/global	1988-	Risk Management Services (RMS)	risk consultancy, modelling	unilateral	Damage assessment reports published online.
public information	Caribbean		United Insurance	insurance	unilateral	Production and distribution of information to homeowners on how to make property more secure against hazards.
Public Private Partnership 2000	USA	1997-99	various	various	collaborative	Business representatives join government and NGOs to discuss major policy issues in disaster reduction.
RedR (Case Study 2)	UK/global	1980-	various	engineering	collaborative	Companies provide funds to the NGO RedR; company staff become RedR volunteers and are sent on assignments with humanitarian agencies.
research funding (Case Study 1)	UK	1999-2002	Halifax General Insurance Services Ltd	insurance	contractual	Sponsorship of research programme on coastal settlements at risk in UK.
Risk Prevention Initiative	Bermuda/global	1994-	various	insurance	contractual	Sponsorship of scientific research of importance to insurers and reinsurers.
Showcase Community/State (Case Study 6)	USA	1997-	various	various	collaborative	Inter-sectoral partnerships for comprehensive disaster planning and mitigation.

Name (or type) of initiative	Location	Dates	Company(ies) involved	Type of business company engaged in	Category of business involvement (Table 2)	Description
technical support (Case Study 4)	Turkey	2000	Arup	consulting engineering	collaborative	Membership of consortium to assess risk and design reconstruction/development programmes after earthquake. Quasi-commercial involving paid and *pro bono* work.
technical support	Solomon Islands	1988-?	Pacific Architects	architects	collaborative	*Pro bono* technical support provided to local NGO training builders in low-cost housing.
TSUNAMI	UK/worldwide	1998-2001	various	insurance	contractual	Sponsorship of scientific research of importance to insurers and reinsurers.
UN IDNDR committees	global	1990-99	various	various	collaborative	Business people on international and national committees; some take part in personal capacity.

3.2 Forms of intervention

3.2.1 Business continuity/recovery as a basis for local-level mitigation

Recent research suggests that businesses themselves are not well prepared for natural disasters, even in the USA where awareness of hazard risk is thought to be relatively high and business continuity planning to be more widespread than in most other countries (Dahlhamer and Reshaur 1996; Webb, Tierney and Dahlhamer 1999). Nevertheless, the growth in business contingency planning and continuity activity in recent years, especially in the USA, indicates that businesses are beginning to recognise the importance of this issue.

Most business is concerned merely with protecting its own operations on its own sites (often characterised as 'within the four walls'). However, the USA also provides examples of collective efforts. These include the Business and Industry Council for Emergency Planning and Preparedness (BICEPP) in the Los Angeles area, which is a forum for information exchange within the private sector (BICEPP 2001). Several of this research project's correspondents drew attention to BICEPP as a model of private sector collaboration, but this collaboration is limited: it aims to benefit individual members of the sector and does not make links to the rest of society.

Business continuity expertise could usefully be applied more widely, as a form of CSR. The challenge is to find ways of encouraging this. It has already been noted that CSR is not altruism. This holds true in disaster reduction as much as any other area of public concern. As John Bogner, Director of Fire Safety and Emergency Preparedness at Sony Pictures Entertainment in the USA, emphasises, in contingency and business resumption, collaborative planning between business and public partners will only happen as long as it has a positive impact on the company's business (Natural Hazards Center 1996b). This is equally true of collaborative planning between business partners, and between businesses and NGOs.

In fact, this need not be an obstacle. Business interests actually provide an entry point to a broader approach incorporating CSR. There is a strong business case for thinking about continuity beyond the four walls. Businesses are affected by hazards striking the communities where they operate. For example, employees may be unable to get to work, communications and transport infrastructure may be damaged or destroyed, power and water supplies may be affected – all leading to loss of output. Disaster-affected suppliers may be unable to deliver materials and services. Customers who are hit by hazards may be less able or willing to purchase goods and services. It clearly makes sense for businesses to combine, with each other and with other actors, to protect local lifeline services, infrastructure and other community facilities.

The Disaster Recovery Business Alliance (DRBA) programme, launched in the USA in 1995, is an attempt to give business continuity planning a more outward view, and provides a model that might be adapted for use elsewhere. DRBA promotes collaboration between private and public sectors at local level to protect 'lifeline industries' within the community. Lifeline industries, which may be public or private sector, are those that provide essential services to the community. Public sector lifelines include emergency services, public utilities and hospitals. Private sector lifelines include utilities, hospitals, transportation and waste removal firms, financial institutions, fuel suppliers and communications companies. All are relevant to local business continuity in the event of hazards. This is explicitly not a comprehensive programme for making the whole community disaster-resistant, but clearly contributes to such programmes, and, as its promoters argue, damage to local business is damaging to communities (e.g. through loss of jobs).

Three factors are said to give DRBA strength as a model:

1. According to the programme's organisers, DRBA projects need to be initiated and managed by local businesses to ensure sustainability and business support (individual initiatives rely on funding from DRBA partners in that locality).
2. DRBA operations vary in structure, location and financial support. Each is dependent on the local environment in which established – in other words, each is customised.
3. However, there is a broad DRBA process for establishing initiatives, which is pragmatic and long-term. It involves promoting the concept to local businesses, pilot vulnerability assessments, development and implementation of a two-year work plan that may include a wide range of mitigation measures (e.g. risk and vulnerability assessments, incentive schemes, demonstration projects and awareness raising). Only then is it likely to be feasible to hire a local DRBA director and establish a self-sustaining programme. The process emphasises the importance of enlisting widespread stakeholder support at the outset, of working on achievable pilot initiatives before scaling up, and generally of taking a step-by-step approach to the work.

Literature on DRBA covers only its early stages and comes from the organisation itself but shows that between 1997 and 1999 it established five programmes in different states of the USA drawing support from a variety of key industries. At that stage all these programmes were still at the planning and preliminary workshop stage but interest appeared to be high: for example, the Southwestern Indiana DRBA originally involved only the city of Evansville but soon grew to encompass five surrounding counties, while more than 40 businesses attended a business needs assessment workshop in Rhode Island. There also seems to have been relatively little difficulty in obtaining funding from local businesses (Carrido 1999a; 1999b).

However, it should be noted that DRBA's progress has been greatly assisted by much bigger supporting initiatives: the US government's Project Impact (Case Study 5) and Institute for Building and Home Safety's Showcase Community and Showcase State programmes (Case Study 6), which involve application of DRBA principles. More recent anecdotal evidence suggests that DRBA has been unable to maintain its early momentum. Nevertheless, it or similar models of collective action based on business contingency planning are a potentially valuable means of protecting key lifelines that will benefit business and communities alike. Such initiatives are perhaps more likely to take place in developed countries with well established and extensive formal business sectors than in developing countries, although it should be noted that small local businesses are the main players in one of DRBA's US initiatives.   The model deserves to be tested in other countries and contexts.

3.2.2 Collective initiatives
There is evidence that, at national and local levels, collective initiatives by business associations or dedicated organisations established by many businesses can play a very important role in initiating and leading collaboration between the private sector and other actors. Individually, businesses cannot devote sufficient time, resources and energy to such work, but they appear to be willing to support other organisations to do so.

One of the most significant forms of national-level business initiatives is the creation of NGOs that have companies as members: the merits of this approach are discussed separately (Section 3.2.7).

International business-led initiatives have achieved mixed results. The only initiative directly addressing natural disaster reduction was the Leadership Coalition for Global Business Protection, initiated by IBM Business Recovery Services in the second half of the 1990s. The idea was to engage high-level representatives of companies and the public sector to raise awareness of the need for risk reduction amongst business, community and public sector

organisations. Collaboration was also sought with the UN IDNDR and IFRC in order to help expand the concept beyond strictly business terms. The coalition met a few times but the practical aspects of the programme were always under discussion and the only tangible output was a guide for chief executives on how to stimulate greater discussion of risk reduction in their company or industry. The initiative then ground to a halt, as staff changes within IBM led to changes in company priorities and other coalition partners lacked inclination or capacity to take it forward. Critics of the scheme felt that it was handicapped by a lack of clarity about its objectives, with public relations aims intruding on CSR objectives.[8]

On the other hand, the growth of the Global Business Council on HIV & AIDS demonstrates that collective private-sector initiatives are feasible. This was established in 1997 by the Joint United Nations Programme on HIV/AIDS (UNAIDS), although it functions independently as a business-led NGO. The Council promotes a business response to AIDS through advocacy (about the need for business to respond) and sharing information (on good practice in response). It currently has 21 corporate members – mostly multinational companies – and has plans to expand rapidly in the next few years. Members are involved in a range of activities to reduce the impact of AIDS including educating workforces and the public, and providing treatment and counselling. It also has 'partners' from other sectors: NGOs, the World Bank and UNAIDS. The Council has been effective in raising the profile of HIV/AIDS in business circles and in publicising and stimulating corporate response (Global Business Council on HIV & AIDS 2001a; UNAIDS *et al*. 2000; Hussey 2001).

Other international disaster reduction initiatives involving business have been driven by the international aid industry and especially the UN. The UN's interest in partnerships with the private sector is directed largely towards commercial collaboration. The Awareness and Preparedness for Emergencies at the Local Level (APELL) programme, launched in 1988, which is managed by the United Nations Environment Programme (UNEP) with support from the chemical industry, is an exception and also a rare example of a long-running international initiative. APELL's industry support comes from umbrella groups rather than individual companies: its main partners are chemical manufacturers' associations in the USA and Europe. It aims to prevent technological accidents by raising community awareness and producing integrated emergency plans; it encourages and supports adoption of the APELL process through which different stakeholder groups (government, industry, NGOs and community organisations) work together to identify risks and draw up emergency plans (APELL 2001). This project could not form a view on APELL's effectiveness, but it has at least continued in existence for some time.

The International Labour Organisation's (ILO) InFocus Programme on Crisis Response and Reconstruction is a new and still relatively small programme to promote the socio-economic integration – through employment initiatives – of groups affected by different types of crisis including conflicts, natural disasters, abrupt financial and economic downturns and social or political transitions. Its work to date has consisted of research and awareness-raising, developing linkages and building capacity (in ILO, with other actors in the UN system and outside), and technical missions to several affected countries to carry out needs assessments and design and implement pilot employment initiatives (ILO 2001a; 2001b). Although the programme's entry point is post-disaster, stimulation of employment clearly contributes to reducing vulnerability to future disasters by building more resilient livelihoods. There is also obvious potential for collaboration with the private sector in job creation which the programme is exploring, initially through discussions with workers' and employers' representatives on developing coherent approaches, and research on corporations' role in

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[8] This outline is based on personal communications from key informants who wished to remain anonymous.

crisis prevention, resolution and post-crisis reintegration and reconstruction (ILO 2000; 2001b: 4, 24). It remains to be seen how far CSR will feature in this.

The United Nations Development Programme's (UNDP) well-publicised Public-Private Partnerships for the Urban Environment (PPUE) scheme seeks to encourage a 'spectrum of possible relationships between public and private actors for the co-operative provision of infrastructure services'. Such services could reduce vulnerability to disasters. However, PPUE's approach is to encourage private investment rather than CSR (UNDP PPUE 2001).

The IDNDR did not galvanise private sector involvement in disaster reduction, despite exhortations (Section 2.4 above). It gave vocal support and apparently some advice to the Leadership Coalition for Global Business Protection but did not have the capacity to give more substantial assistance.

Between 1993 and 1999 the Organization of American States (OAS) implemented a Caribbean Disaster Mitigation Project (CDMP) with the objective of getting mitigation and preparedness adopted by public and private sectors. The project comprised a set of diverse pilot initiatives in 16 countries intended to develop replicable mitigation models. The CDMP's final report claimed that 'Public-private-NGO partnerships were critical to both the conduct of program activities and its potential for sustainable achievements', but this requires some explanation. It is true that the private sector – including architects, engineers, bankers, builders and insurers – was involved in many of these initiatives. Usually it was a beneficiary: investors and insurers gained access to improved risk maps and assessment produced by the project; small contractors received training in hazard-resistant building; utility and other lifeline companies took part in risk audits and received a manual for conducting such audits; the project provided a chapter on structural safety to the Caribbean Hotel Association's hurricane procedures manual and supported workshops on mitigation and preparedness; hazard and risk information was disseminated to insurers. Companies shared the costs of some of these initiatives, and it was clearly in their financial interests to do so (USAID/OFDA 1999; OAS 2000).

CSR seems to have been a minor part of the project other than in the Dominican Republic, where it featured in the creation in 1994 of a new NGO to support community-level disaster mitigation with a board of representatives from the NGO and business communities.[9] The NGO, the Dominican Disaster Mitigation Association (DDMA), is involved in stimulating co-ordination, producing information, community-level preparedness planning and mitigation projects, and training for technicians and professionals in the private and NGO sectors. TV and radio stations and newspaper editors have given in-kind support in the form of airtime and articles. However, it is noteworthy that funding for the DDMA has come from international donor agencies – the (USAID-funded) CDMP, European Community Humanitarian Office (ECHO) and the NGO Plan International – rather than the private sector (Herridge 2000).

The international aid community's currently high level of interest in inter-sectoral partnerships may lead to further global initiatives relating to 'natural' and 'man-made' disasters. The Global Road Safety Partnership (GRSP) is one such development. Established as one theme within the World Bank's Business Partners for Development programme that involves companies, civil society organisations and governments as partners, the GRSP is led by the IFRC. Over 70 governments, aid agencies, companies, associations and research institutions have signed up as partners. Ideas for demonstration projects are currently under consideration but there are no firm plans as yet (GRSP 2001).

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[9] One Caribbean insurance company also reduced premiums for structures meeting defined minimum standards (OAS 2000).

The evidence presented here suggests the importance of having a dedicated institutional 'home' for collaborative efforts that gives them focus and continuity. UN agencies with similar missions are well placed to provide such a home, provided that they are adequately resourced. In the case of APELL, industry support appears to be crucial, as UNEP is a relatively small and under-resourced UN institution (much like IDNDR and ISDR), while the impact of the ILO's new initiative will depend on its ability to continue to raise funds from bilateral donors.

3.2.3 *Committees and discussion groups*
Some correspondents drew attention to business participation in broader committees or discussion groups as a form of CSR that might be relatively invisible. The potential advantages to companies of this form of engagement are obvious: it involves little commitment (i.e. small amounts of time to attend meetings or give advice), can be quite high-profile and is an opportunity to make new contacts and influence others.

The most prominent example is the UN IDNDR, which encouraged private sector involvement in disaster reduction and offered opportunities for company representation on its national committees and focal points (there were said to be 141 of these by 1999) and international Scientific and Technical Committee (STC). IDNDR STC members were chosen in a personal capacity, not as representatives of industry, and the Committee was dominated by government or academic scientific and technical institutions. Only one of the STC's initial 25 members in 1990 was from the private sector; there were two private-sector members by 1998 (STOP Disasters 1991; IDNDR 1998). Its successor body, the ISDR's Inter-Agency Task Force for Disaster Reduction, seeks representation from different groups. One of the initial 22 agency members is from the private sector: Munich Re (ISDR 2000).

Information on IDNDR national-level groups' membership and activities overall is not available, though it seems that many groups existed only on paper very few were active. One of the better-documented national committees is that of the UK. Three of its 14 members at the end of the IDNDR (including the chairman) were from companies (Davis and Westgate 1999: 72) but the Committee's activities – largely conferences and seminars – tended to be dominated by academics and professional associations. An evaluation of the IDNDR effort in the UK found that 'the cause of disaster protection … has not attracted any significant private sector interest' although this should be put in the context of IDNDR's limited impact generally (Davis and Westgate 1999: 12) and its failure to engage other sectors such as NGOs (Twigg and Steiner, forthcoming).

Seminars and conferences sometimes provide an opportunity for different sectors to share views. They tend to be one-off and their influence cannot be assessed, although it is probable that key individuals benefit from new ideas and contacts. In the USA, the Public Private Partnership 2000 took a more organised approach. Between 1997 and 1999 it held a series of 14 national forums for representatives from businesses, NGOs, academic institutions and government on current public policy issues in disaster management and possible actions. It was set up by the government's Subcommittee on Natural Disaster Reduction and the Institute for Business & Home Safety (IBHS: Case Study 6), who sought through the events to seek new opportunities for inter-sectoral partnerships (Public Private Partnership 2000, 2000). It is not known if any such partnerships have yet resulted as a result of the forums.

It was not possible to assess the extent or nature of this form of CSR, partly because it is not well documented and partly because of the difficulty of establishing whether members of the corporate sector take part as representatives of their business or in a private capacity. However, it seems that this approach is of limited value to practical disaster reduction: unless directed towards specific actions, committees are liable to degenerate into talking shops.

3.2.4 Hardware stores

Hardware and do-it-yourself stores have a commercial interest in mitigation – through the sale of products to improve home safety – and engage in CSR initiatives to encourage mitigation efforts.

Their involvement takes two main forms.[10] The first is donation of materials or facilities, such as the Jamaican hardware chains that are said to have donated materials to encourage homeowners to fit hurricane straps to their roofs (Fleming 1994: 6-7). The second is provision of public information on risk reduction. A good example of this is The Home Depot, a US company with over 1,000 stores in North and South America, whose website gives information on hazards, including advice on what to do during earthquakes and hurricanes. The page on hurricanes is particularly informative, with guidance to householders on how to check if their property is safe and a checklist of supplies needed during and after a hurricane (Home Depot 2001).

The first form of support can be given by any hardware business, large or small. The second is better suited to larger enterprises that can afford the costs of printing information materials or have their own websites. Such public information work illustrates how CSR overlaps with business interests: it helps and encourages homeowners to make their homes safer, which involves buying products on sale in hardware stores.   But it is not necessarily a cynical sales ploy. The Home Depot's guidance on hurricanes and earthquakes is only one part of that company's wider programme of community support (Home Depot 2001).

3.2.5 Information materials

Production and distribution of public information on disasters, risk and mitigation measures (produced by a company for its own purposes originally, or specially prepared but drawing on the company's expertise) appears to be a common business approach. It is familiar and unambiguous, and the need is readily appreciated by businesses. It can give the company quite high visibility at relatively low cost and in some cases furthers corporate interests directly.

The research found several examples. Some form part of wider risk reduction activities and are discussed elsewhere in this report. Examples of what we might call 'free-standing' information initiatives are not numerous but are significant because major companies are involved, as well as on account of the information itself.

One of the most important documents on the global impact of 'natural' disasters is the reinsurance company Munich Re's annual review of natural catastrophes, now in its eighth year (Munich Re 2001). The publication is something of a showpiece for the company: its data (principally on disasters' economic impact, and covering long-term trends as well as the latest annual figures) and analysis are recognised as authoritative and are widely cited by researchers and policy makers.   The review serves another, arguably more important, function too, as a form of advocacy on behalf of the company. Its analysis and discussion sections highlight issues that are important to the insurance/reinsurance industry – especially climate change – and present calls to policy makers to take action to address them.

The US company EQE undertakes freestanding information dissemination of a more technical kind. The company specialises in risk management: its expertise includes engineering, consultancy and software. It carries out detailed post-earthquake reconnaissance and its reports, which are primarily for use internally, are also made available online. Other publications include a guide on preparing homes against earthquakes (EQE 2001). The

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[10] See also Section 3.2.7 (NGO creation) for another form of hardware store involvement.

reconnaissance reports are useful to those in the media and aid agencies trying to monitor the impact of earthquakes, but, like the Munich Re annual review, are also a showcase for the company's expertise. Risk Management Solutions, another US company working in the same area which is particularly known for risk modelling, also provides online damage assessments from major disasters (RMS 2001).

3.2.6 Insurers' contribution to CSR

The insurance industry has played a major role – arguably a bigger role than any other business sector – in CSR initiatives to reduce the impact of disasters. Fourteen of the 38 disaster reduction initiatives listed in Table 3 involved insurers or reinsurers as the main players, and the industry was also involved in many of the 13 multi-company initiatives listed in that table. This level of commitment is hardly surprising, for the rising cost of disasters worldwide has had a massive impact on the industry (e.g. Berz 1994; Munich Re 2001). Insurance is in itself a form of disaster preparedness. It has an 'appreciable influence' on the behaviour of the public and business regarding disaster mitigation and preparedness through insurance instruments such as the levels of premiums set. It also assists post-disaster recovery through claim payments (Berz 1994).

T.A. Pierce, Managing Director of the United Insurance Company Limited, which has its headquarters in Barbados and operates throughout much of the Caribbean, observes that insurers have little or no control over some of the key factors affecting insurance rates: reinsurance capacity and the severity and frequency of natural hazards. However, insurers can do something about the resilience of buildings indirectly, by lobbying government to ensure adequate building standards are met; and directly, by encouraging property owners to make their property more resilient (United Insurance n.d.). The industry has therefore been active in providing information for the public and policy makers (Berz 1994; see Section 3.2.5 above) and as sponsors of research (Section 3.2.8).

Some insurance companies publish and distribute information on risk reduction measures, principally to homeowners. For example, United Insurance has published a booklet with detailed guidance on how to make homes more hurricane-resistant, containing technical drawings and a checklist. Compliance with these measures (described as a 'minimum design upgrade') can be done without the help of professional engineers and can lead to discounts of up to 25% on the premiums offered by the company. A second booklet gives advice to engineers on how to make specific design upgrades (United Insurance n.d.).

The US insurance industry has played a significant role in sponsoring community and business mitigation and preparedness in the USA, principally by supporting the Institute for Business & Home Safety (IBHS), a non-profit membership organisation of insurance and reinsurance companies dedicated to reducing the impact of natural disasters through community outreach, public education and advocacy (Case Study 6).

Some of IBHS' members are also involved in separate risk reduction activities, and it seems that there are several of these in the USA. One member company, SAFECO, is a major player in a local initiative in Bend City and Deschutes County, Oregon: the FireFree Program, which was launched in 1997. FireFree aims to address the significant danger of wildfires in the area through a campaign to educate the public about wildfire safety and promote good practice in minimising risk (e.g. clearing debris, landscaping). As a leading insurer, SAFECO has a vested interest in reducing wildfire risk in an area that has suffered severe fires in the 1990s. The other institutional partners are local fire and forestry services. The programme began as a three-year pilot initiative. It was considered so successful that it was renewed in 2001 with plans to spread throughout Deschutes County and into other parts of the state that had expressed an interest. SAFECO funded the pilot initiative, and then committed a further $25,000 for work in 2001. Additional funds for the second phase have

come from the Federal Emergency Management Agency (FEMA) through the Project Impact scheme (FireFree 2001). Other IBHS members support the Florida Alliance for Safe Homes (FLASH), a non-profit organisation that promotes better understanding of hazards and risk and encourages families to buy and use safer buildings. Its work consists largely of educating the public about how to protect homes and families, and providing relevant technical information (FLASH 2001).

The US National Flood Insurance Program (NFIP), established in 1968, is a well-known example of collaboration between government and insurers to reduce risk. The aim is to improve floodplain management and protect property through mitigation-related incentives. The process is as follows. Communities apply for inclusion in the scheme. FEMA assesses the flood risk and gives technical assistance to the community in complying with NFIP standards for floodplain management. Depending on the degree of compliance, certified by FEMA, the community is eligible for varying levels of insurance coverage. Progressive improvements lead to raised levels of cover. Individual homeowners in these communities can then buy insurance from private companies that, through an agreement with the Federal Insurance Administration, sell and service Federal flood insurance policies (NFIP 2001).

NFIP has been criticised for failing to control hazardous floodplain development, for the limitations of its coverage (half the nation's floodplains are not mapped and therefore ineligible for NFIP support), and because participation rates are low as many property owners believe government will step in to support them anyway if a flood occurs (Godschalk *et al.* 1999: 35-6, 50-51 68-9, 177). Moreover, although over 50 insurance companies are involved, it is essentially a government programme that the private sector chooses to participate in for business reasons. If this is CSR, it is of a very diluted kind. Nevertheless, it is a sophisticated insurance package, developed over the years, that has considerable outreach, covering some 19,000 communities. The lessons learned from NFIP could be drawn upon to develop similar schemes in other countries, although it clearly needs considerable government commitment and resources to make it work.

Such initiatives are not confined to developed countries. In Fiji the insurance industry has worked with government and the UNDP to establish a system for certifying that buildings have adopted measures to make them more resistant to cyclones. Government officials issue guidelines to homeowners on how to strengthen housing and issue certificates that the appropriate technical measures have been taken, and property owners holding these certificates are offered lower premiums by insurers (Davis 2001).

In the Caribbean, Royal & SunAlliance entered into a partnership with the Caribbean Red Cross and hoteliers to improve hotel safety. Staff from participating hotels received Red Cross training in disaster preparedness and response, concentrating on basic prevention and evacuation procedures. The hotels donated money to the Red Cross in return for this, while Royal & SunAlliance agreed to reduce premiums for hotels that had received training. All three partners clearly gained from the arrangement. The project began as an initiative by a local hotel owner and was subsequently turned into an official Red Cross project but was abandoned in December 2000, apparently due to lack of funding.[11]

3.2.7 NGO creation
Some of the most significant instances of CSR in mitigation involve the creation of NGOs that have businesses as members. The two most important are the Corporate Network for Disaster Response (CNDR) in the Philippines (Case Study 3) and the Institute for Business &

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[11] This description is based on anecdotal and sometimes contradictory evidence from a number of sources.

Home Safety (IBHS) in the USA (Case Study 6), both of which were created by business.[12] Both, and particularly IBHS, are playing major roles in promoting and supporting disaster mitigation and are able to secure private-sector support and involvement in their initiatives.

As the cases of CNDR and IBHS show, business-created NGOs have several advantages over direct business involvement in projects:

o they can concentrate on the job in hand instead of being distracted by commercial pressures
o they are intended to be permanent – individual companies' CSR policies may change according to interest and resources, and individual businesses are likely to avoid long-term commitments; but NGOs are created to last and can take a strategic approach
o they are an opportunity for business to work collectively, which generates additional resources for risk reduction initiatives and provides a broad platform of support
o setting them up may be complicated, but once established they allow the private sector to operate at arm's length, supporting the NGO's social programmes as members or donors without needing to become directly involved in them
o they are likely to have credibility with business because they are believed to come from the business direction and show awareness of business interests and needs, but they are also likely to have credibility with public and civil society organisations because they are non-profit agencies

Other examples include the Cascadia Region Earthquake Workgroup (CREW), a not-for-profit organisation active in the Pacific Northwest of the USA and Canada since 1996. CREW seeks to reduce the impact of earthquakes in the region by raising awareness among decision makers in the private and public sectors and fostering links between scientists, business and government agencies. It organises meetings, provides speakers to other organisations, publishes safety guidance for businesses and homeowners and produces other educational material on earthquakes. Its particular focus is on protection of major lifeline systems that support major corporations, such as power and water supplies.

Membership is open to anyone with an interest in earthquake risk mitigation. CREW's members include Boeing, Microsoft and Intel from the private sector, several public utilities, researchers and consultants, and a number of government departments (federal, state and local levels): of its 99 members in June 2001, 37 were from the private sector, representing a wide range of business interests. It arose out of several regional earthquake hazard meetings funded by the Federal Emergency Management Agency (FEMA) and the US Geological Survey (USGS) between 1992 and 1995. Although the initial stimulus came from these two government agencies, CREW claims that its members are now assuming 'leadership roles' in co-ordinating awareness-raising, leaving FEMA and the USGS to play a supporting role. However, FEMA provided the organisation's start-up funding and continues to underwrite the costs of its meetings, and it and other government and research institutions continue to give technical support (CREW 2001).

Business continuity lies at the heart of CREW's work. Like DRBA, it looks to protect key industries, especially lifeline utilities, through collective action. However, it has assumed a different organisational form[13] and focuses on awareness instead of implementation. The involvement of so many major companies indicates the importance attached to earthquake risk by the private sector in this part of North America but their inputs are small: confined to payment of membership fees and, if they wish, participation in meetings and acting as

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[12] The Global Business Council on HIV & AIDS and the Dominican Disaster Mitigation Association (Section 3.2.2) represent similar approaches, although the initial impetus came from international development agencies.
[13] DRBA is technically a project within the Electric Power Research Institute (Carrido 1999: 240).

speakers. The membership is essentially passive, gaining benefits from the meetings and information that CREW provides.

Only one example was found of an *individual* company establishing a separate non-profit arm to undertake mitigation or preparedness work, and this was only indirectly related to natural hazards. Lowe's Home Improvement Warehouse, a major retailer of home improvement and do-it-yourself items in the USA, established an NGO, Lowe's Home Safety Council, in 1993 to encourage better safety at home. The Council provides safety tips and other information for adults and children on its website, supports a teaching programme in schools and makes grants to other NGOs for initiatives to prevent injuries. The initiative clearly improves the reputation of a well-known company but it should also be seen in the context of the firm's other philanthropic work: Lowe's Charitable and Educational Foundation was founded in 1957 and has given over $4 million in the past seven years to community projects (Lowe's Home Safety Council 2001).

3.2.8 *Sponsorship*
Insurance and reinsurance companies are the principal sponsors of disaster reduction, especially of research work. We identified several examples of this. Some involved individual companies; in other cases, sponsorship was through industry consortia.

The Risk Prediction Initiative (RPI) is an example of a consortium approach. It is a research and educational programme of the Bermuda Biological Station for Research (BBSR), a non-profit oceanographic research institution. It identifies, carries out and disseminates research that is relevant to the insurance industry. It is currently sponsored by eight reinsurance companies although companies involved have included primary insurers, reinsurers, brokers, risk modellers and other technical service providers. The RPI originated in conversations between the BBSR's director and the chief executive of a reinsurance company: Bermuda is the home of several insurance and reinsurance companies on account of its tax system (Malmquist and Murnane 1999). The Natural Hazards Research Centre (NHRC), established at Macquarie University in Australia in 1994, operates on similar principles, sponsored by four insurance and reinsurance firms. Most of its research work is geared towards the insurance industry's needs (NHRC 2000; 2001).

Like the RPI and NHRC, the three-year TSUNAMI Initiative in the UK involved a business consortium (of seven insurers and reinsurers) but also involved the British government's Department of Trade and Industry (DTI) and state-funded National Environment Research Council (NERC). Its aim was to promote improved dialogue between the UK's insurance industry and its scientific institutions by financing major research projects with the potential to deliver 'tangible business benefits' to the industry. Funding totalling £960,000 came from the insurance companies and the DTI; two staff members were seconded from industry to manage the initiative within the NERC. For the government, TSUNAMI is just one component of its much larger Foresight programme to stimulate improved dialogue between the scientific community and industry in a range of fields (BGHRC 1998a; TSUNAMI 2000; Foresight 2001).

Sponsorship by individual companies is more likely to be for individual projects (e.g. Case Study 1). An example of a more broad-based arrangement is the Benfield Greig Group's sponsorship of a hazard research centre at University College London (BGHRC 1998b; 2001). The centre undertakes research, consultancy and training in hazards and disaster management. Nearly 40 researchers and consultants from University College London and elsewhere are associated with it. The gains are mutual. University College London gains financially (the company provides the salary of the centre's director and contributes towards its operating costs) and by having an institutional 'home' for hazards and disaster research. The company gains because it has access to a pool of specialists from whom it commissions

research or other work from time to time (i.e. the centre augments its in-house research expertise) and from raised profile (the centre's members are expected to write articles for academic and other publications, and to engage with the media).

Sponsorship is an unequal partnership because the sponsor controls the funds and therefore the agenda. In the case of the RPI, potential topics for research are identified through workshops of insurers and scientists but the sponsors fund those most relevant and valuable to the industry – hence much of the work to date has focused on forecasting and modelling tropical cyclones (Malmquist and Murnane 1999). TSUNAMI's research projects were examined by industry and scientific committees to ensure that they had practical application as well as being at the leading edge of research, and each approved project was supported by an industry representative to ensure that it matched the needs and expectations of the sponsoring companies (TSUNAMI 2000).

Where such partnerships have been relatively more equal (e.g. apparently Halifax General Insurance Services Ltd's sponsorship of research by the Cambridge University Centre for Risk in the Built Environment: Case Study 1) these have been based on thorough preparation and discussion, relatively extensive common ground in terms of purpose and good interpersonal relationships among those involved.

Another issue is continuity. Sponsorship deals are often fixed-term, limited to particular activities. TSUNAMI was a three-year programme that appears now to have come to a standstill, though the members of its industry consortium continue to sponsor research independently. The NHRC has existed on three-year sponsorship agreements since 1994 but in 2000 its sponsors decided that they were no longer willing to underwrite the Centre after 2001 and it would have to find new financing (NHRC 2000). This presented a considerable challenge, and at the time of writing no announcement had been made about the Centre's future. The RPI, founded in 1994, is an exception to this problem, probably because it is supported by an industry consortium; but even its sponsors' list continually changes due to mergers, acquisitions and shifts in emphasis among insurers and reinsurers regarding catastrophe coverage (Malmquist and Murnane 1999).

Sponsored research can lack credibility where its findings are private or deemed not to be independent. Successful sponsorships have balanced sponsors' needs and those of the wider – usually academic – community. The RPI's sponsors have initial access to its research projects' results, but researchers are able to publish in scientific journals. This 'public nature' of the initiative is said to have been critical to its success (Malmquist and Murnane 1999; see also Case Study 1).

The Multidisciplinary Center for Earthquake Research (MCEER) at the University of Buffalo in the USA is a rare example of researchers securing sponsors on fairly equal terms. Its aim of reducing earthquake losses through research, development and application of advanced technologies is naturally attractive to the private and public sectors in a country that experiences major earthquakes. MCEER has its own partnership strategy, based around a Strategic Partnerships Network, which it manages. Members of the network come from industry and government, and from all points along what it calls the 'complete technology application chain'. They work together in subject-focused groups to develop new initiatives that meet the needs of partners and further MCEER's strategic objectives. Members, who pay to join the network, secure preferential access to research results, state-of-the-art knowledge, experimental facilities and equipment, information resources and publications, meetings and seminars, and professional courses (MCEER 2000; 2001). MCEER's collaboration is based on the membership principle by which members effectively buy in to the Center's work, and this gives it much greater autonomy than many other corporate funding arrangements. The Institute for Catastrophic Loss Reduction (ICLR) in Canada, which carries out research and

runs conferences and seminars, also appears to have a degree of autonomy through its broad-based membership structure (it has 38 insurance company members, plus their subsidiary companies) and co-financing from the Government of Ontario and University of Western Ontario (ICLR 2001).

3.2.9 Technical support

Another favoured business approach is to provide facilities, technical skills or volunteers, either free of charge (*pro bono*) or at subsidised rates.[14] There are many examples of this. In developed and countries they include companies providing volunteer labour to support mitigation and other disaster-related work, technical consultancy at below-market rates, free company data for hazard and risk assessment, and free TV or radio airtime.

The approach suits small enterprises as well as large, and is appropriate to many different contexts including developing countries. For example, in St Kitts and Nevis, a local store owner allowed the Red Cross to use one of his vacant buildings as a distribution centre for housing materials used in reconstruction after Hurricane Hugo in 1989 (Berke and Wenger 1991: 19). In the Solomon Islands, a local NGO called Hybrid Technology was created in the aftermath of Cyclone Namu (1986) to improve rural housing, principally by giving training in low-cost building techniques. It receives technical support on a *pro bono* basis from Pacific Architects, a firm of consultant architects based in the Solomon Islands. The arrangement is considered mutually beneficial: Hybrid Technology receives professional support in technical design and has access to commercial markets for its ideas through the firm; Pacific Architects benefits from the research carried out, is able to offer low-cost building systems developed through its work with the NGO to communities that need them, and receives a certain amount of prestige from the association (Boyle 1995). There must be many more examples of this kind of support but they appear to be undocumented and unpublicised.

3.3 Cross-cutting issues

3.3.1 Contexts and their significance

Private sector engagement in disaster reduction does not take place in isolation from the work of other actors or from current thinking about risk and mitigation. It is easy to lose sight of these contextual factors when focusing on individual initiatives, but the research demonstrates their importance as well as highlighting the need for planners of new initiatives to take a close look at the context in which they take place.

In the USA, the seemingly sudden growth of inter-sectoral partnerships in disaster reduction in the late 1990s was the result of significant longer-term developments going back to the early years of the decade. FEMA and insurance companies had been discussing the potential for collaboration since about 1993, both parties having realised at that time that they knew little about each other. Within the US federal government more generally, interest in public-private partnerships as a way of obtaining resources was gaining ground by the mid-1990s, while at the same time some people within the business sector were beginning to recognise the need for a more collaborative approach to disaster planning and recovery (Natural Hazards Center 1996a).

Some of the approaches that were later to be adopted by Project Impact and the IBHS Showcase programme (Case Studies 5 and 6) had been tested before – for instance, in the

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[14] The provision of technical information (above, Section 3.2.5) is one dimension of this. Company volunteering is also important. It is a component of Project Impact and the Showcase Community/State programmes (Case Studies 5 and 6), and is at the heart of one international disaster NGO's work (Case Study 2).

'Blue Sky: Strengthening Homes' project in North Carolina where the town of Southern Shores, in partnership with 15 private companies, introduced local-level initiatives to improve housing resistance to hazards, the companies contributing time, expertise and financial resources (Natural Hazards Center 1996b).

All of these developments indicate a change in thinking about disasters in the USA, with growing recognition of the importance of pre-disaster mitigation, which laid the foundations for later initiatives.[15] In a similar way, the rising profile of HIV/AIDS as an international development issue during the past two years, including a special session of the UN General Assembly in June 2001, may have stimulated greater corporate awareness and response, both individually and collectively (Hussey 2001).

A tradition of corporate philanthropy also encourages CSR in all contexts. This perhaps explains *in part* why the USA is so advanced in this field among developed countries, and the Philippines (Case Study 3) is so prominent among developing ones. Individual companies with a corporate ethos that supports CSR are particularly likely to become involved in new initiatives (e.g. Case Studies 4 and 5) – the challenge is to encourage new entrants.

3.3.2 Disasters as stimulus
Recent disaster events are an important part of the context in which new initiatives arise. Disasters are generally believed to stimulate new thinking about approaches to disaster management and risk reduction. This was not very apparent in this study, and then mostly regarding technological disasters – for which business is clearly responsible. The APELL initiative (Section 3.2.2) to reduce industrial – especially chemical – accidents arose in part from a series of major chemical disasters in the 1970s and 1980s including Seveso (Italy, 1976), Bhopal (India, 1984) and Sandoz (Switzerland, 1986). Heightened concern about such accidents stimulated industry collaboration with UNEP in the APELL programme that has continued to this day (APELL 2001). The chemical industry has also launched its own 'Responsible Care' initiative committing companies to improve health, safety and the environment (Utting 2000: 9).

It is generally believed that major disasters in the USA – especially Hurricane Andrew (1992) and the Northridge earthquake (1994) – stimulated insurers to think more creatively about risk reduction. Indirectly, this may have led to the development of IBHS (Case Study 6), which since the mid-1990s has moved away from an earlier emphasis on research and discussion to a more broad-based and hands-on approach. The Nairobi bomb blast in August 1998, which highlighted the vulnerability of urban areas and business to sudden-onset disasters of all kinds, prompted an East African regional initiative to link different sectors including business in disaster mitigation (Section 3.3.3 below). In general, though, business does not feel itself responsible for natural disasters, which it sees as an issue for government.

3.3.3 Enabling environments and the role of government
It is generally accepted that any intersectoral partnerships must be based on a clear division of responsibilities between the different sectors and that their roles have to be complementary and well co-ordinated (WHO 1994: 11). This is easier said than done, and may be particularly difficult where government is concerned. Our informants indicated that the private sector rarely features in national disaster plans, perhaps because, as Newton indicates in the Canadian context, this requires a shared 'formula for joint activity' that may be elusive (Newton 1999: 265).

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[15] Godschalk *et al*. 1999: 27-81 describe the evolution of mitigation policy in the USA and note the shift in emphasis towards mitigation, especially from the mid-1990s.

Interest in bridging the public-private gap has not got on to national policymakers' agendas, with the exception of the USA. Private sector involvement is a fundamental element of the Project Impact initiative (Case Study 5), which was initiated and is led by the Federal Emergency Management Agency (FEMA). The National Flood Insurance Program (Section 3.2.6) is also a government initiative involving the private sector. Government has been a key player in the Cascadia Regional Earthquake Workgroup (Section 3.2.7) and Public Private Partnership 2000 (Section 3.2.3) projects. It is hard to see national programmes being launched without government leadership, technical and financial support. In the USA there also seems to be a growth in more local initiatives of different kinds encouraging greater dialogue between business and the public sector and more joint preparedness: they include the Northeast Disaster Recovery Information Exchange (NEDRIX) and Michigan State University's Critical Incident Protocol (Stevens 2001; Michigan State University 2000).

Other examples from this research of government playing a key role in funding or supporting mitigation work involving the private sector come from the UK (the TSUNAMI initiative: Section 3.2.8; and support to reconstruction in Turkey: Case Study 4) and Fiji (building safety: Section 3.2.6). But this appears to be the exception, and the lack of movement more generally is due in part to the complexity of disasters, the complex linkages needed for co-ordinated action and the difficulty of generating momentum in a rapidly changing business environment (Newton 1999).

Government certainly has an important role to play in stimulating intersectoral mitigation initiatives. It appears that government commitment is vital to getting initiatives going and keeping them going. The example of Project Impact in the USA (Case Study 5) is a clear demonstration of what can be achieved by active government. However, in some developing countries and countries in transition, government's capacity may be limited. An evaluation of the OAS' Caribbean Disaster Mitigation Project (Section 3.2.2), which sought among other objectives to encourage greater public-private sector collaboration, recognised the weakness of government institutions in the region and therefore tried to encourage private sector 'drivers', including insurers (through incentive-based programmes), electric utilities and the hotel sector. In terms of sustainability, the results were mixed and the evaluators concluded that 'the private sector can be a valuable part of the solution to disaster mitigation issues, but will be more effective if it is supported by and operates within a framework established by the government that actively promotes mitigation programs' (USAID/OFDA 1999).

A further problem is that, as Carrido (1999a: 240) observes, public and private sectors have two different cultures and this can inhibit collaboration:

> … government is perceived by businesses as a public support operation that deals with public issues and that should stay out of private business matters. Most businesses do not wish to have government involved in their business operations and in particular their financial matters. On the other hand, government sees its role as providing services to the community and would like to reach out to help businesses make their communities more disaster resilient. Government officials often feel that they are best positioned to provide this service to businesses.

Agreement on respective roles is clearly an important precondition for collaboration. The Director of one major company's CSR programme said in a telephone conversation that her company felt disaster mitigation and preparedness was government's responsibility and that, moreover, this is not a subject that companies know much about. A disaster expert who attempted in the early 1990s to stimulate the corporate sector in Asia to greater involvement in disaster mitigation has observed that:

> Business and industry feel that they have paid taxes to the government and therefore, the impact of natural disasters on the community is the responsibility of the government. And they wash their hands of any other involvement … In my experience, [business] people believe the role of the private sector is to provide biscuits and blankets – post-disaster handouts (WHO 1994: 68).

Such views are probably widely shared: if so, this presents a major obstacle to increasing private sector involvement.

Where institutional or political support is weak, initiatives are likely to falter. This may be a particular problem in countries where governments lack capacity. For example, an attempt since 1999 to stimulate co-operation between business, government and non-profit organisations in East Africa to prepare against disasters of all kinds has made little progress to date, despite the backing of the IFRC in particular and other major NGOs. In February 1999 the IFRC organised the first East African conference on disaster management for businesses in Nairobi, which brought together 250 business people, disaster management professionals, government policy makers, health and insurance experts, architects and managers of construction firms from Kenya, Uganda and Tanzania. The two-day meeting sought to identify risks, provide guidelines and strategies for disaster management and develop opportunities for public-private partnerships.

The second conference, also held in Nairobi, in February 2001, demonstrated the difficulty of moving from discussion to action. Its two-day agenda ranged widely over disaster and vulnerability issues and participants included NGOs, the private sector and international aid agencies, but in spite of this, the conference was unable to begin work on preparing a plan of action, which was one of its aims, and relevant Government of Kenya officials did not attend (IFRC 1999b; IFRC Nairobi Regional Delegation 2001a-c). For the initiative to move beyond discussion to planning, it appears that stronger support from government policy makers is needed, as well as more substantial commitment from the IFRC and other disaster mitigation agencies. Conferences may not be an appropriate mechanism for this: they can stimulate interest and even give a mandate to policy and practical initiatives, but meaningful progress towards practical action has to take place outside the conference hall.

In countries where government-NGO relations are poor, or governments are intolerant of NGO criticism, business-led initiatives and business-sponsored NGOs may be seen as more neutral and hence have more freedom to operate. This was certainly the case in the Philippines under Marcos (Case Study 3).

Decentralisation of government creates opportunities for inter-sectoral partnerships at local level, which has been a factor in the spread of initiatives in the Philippines (Case Study 3) and USA (Case Studies 5, 6)

3.3.4 Funding
Information about funding for CSR and collaborative initiatives proved particularly hard to obtain, but the evidence that was available confirmed that the private sector is much more likely to fund work where it sees a benefit to itself: the more immediate the benefit, the more likely the chance of funding. This is seen, for example, in business sponsorship of research that benefits the sponsors (Section 3.2.8), companies financing parts of the Caribbean Disaster Mitigation Project that would help to make their businesses more disaster-resistant (Section 3.2.2), and business support for local Disaster Recovery Business Alliance (DRBA) projects in the USA (Section 3.2.1). It can also be seen in unilateral initiatives such as the publication of information on home safety by insurers and hardware stores (Sections 3.2.4, 3.2.5), where

the businesses concerned may improve their reputations as good corporate citizens by being identified with disaster reduction initiatives.

It is harder to obtain private-sector funding for more broad-based, collaborative and long-term initiatives. Here too, business prefers to support those elements of programmes that are most useful to its own interests. Moreover, business funding tends to be one-off. For instance, businesses provided start-up money for business protection in the Rhode Island Showcase State project but sufficient funds could not be found to hire a part-time business recovery worker, which would have required more permanent commitment: a national public service programme had to step in to provide an outreach worker for the programme (Case Study 6).

Government and aid agency funding therefore remains crucial. US Federal Government funds played an important part in launching Project Impact (Case Study 6) and the Cascadia Regional Earthquake Workgroup (Section 3.2.7) and continue to support some ongoing work. Government funding was also required to enable the FireFree programme in Oregon to expand, even though the seed funding came from a private company (Section 3.2.6). Government technical support to these and other initiatives in the USA can be substantial, and is free of charge. The Bayanihan disaster mitigation project in the Philippines (Case Study 3) received significant corporate contributions but the main donor was USAID. The Caribbean Disaster Mitigation Project (Section 3.2.2) was funded by international aid donors: significantly, the mitigation NGO created in the Dominican Republic with private-sector members did not receive private-sector funding.

This over-reliance on public-sector and international aid funding may be a significant restraint on the growth of inter-sectoral partnerships for disaster reduction, especially in developing countries whose governments lack the financial and technical resources to support initiatives. Natural disaster mitigation and preparedness currently has low priority among international aid donors (Twigg *et al.* 2000: 97-115), and many of the UN agencies involved in such work are relatively small and under-resourced. On the other hand, the private sector has been more willing to provide funds in the form of membership dues to NGOs, especially business-created NGOs,[16] and this model may have much to offer.

3.3.5 Impact
It was particularly difficult to assess the impact of the initiatives studied, for several reasons. Evidence of involvement generally was, as we have seen, very limited in quality and quantity, and there seems to be little interest in evaluation. Only four evaluations were found (one of which is confidential and cannot be cited). In addition, most of the initiatives are recent: more than half of those initiatives listed in Table 3 for which start dates are known have begun since 1995, and most of these date from the late 1990s.

There is some evidence of impact among better-documented initiatives – the Bayanihan project in the Philippines (Case Study 3); Project Impact (Case Study 5), the Showcase State programme (Case Study 6) and the FireFree programme (Section 3.2.6) in the USA – in terms of enlisting support, building capacity, planning and carrying out activities and expanding the programmes. The effectiveness of these measures in reducing vulnerability to disasters is less clear and can only be inferred at present.

Overall, the failure to demonstrate impact is a substantial obstacle to scaling up CSR mitigation initiatives. Better understanding of the achievements and merits of different approaches is essential to stimulate interest and give guidance. This requires more emphasis on monitoring and evaluation, as well as greater transparency.

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[16] IBHS and CNDR (Case Studies 5 and 6) are the prime examples of this; the Cascadia Regional Earthquake Workgroup (Section 3.2.7) is another.

3.3.6 In-kind support

In-kind support in the form of *pro bono* technical assistance, provision of information and materials, and volunteering, is attractive to companies, apparently because it is relatively easily for them to mobilise such support.   Companies may also resent being seen just as a source of funds and seek more active partnerships: there were indications of this in the research evidence. Case Study 2 shows that the impetus for engineering companies to provide volunteers comes from employees, especially younger ones, wishing to make a greater contribution to society. Some employers are starting to recognise that they may have to offer something more than standard pay and benefits packages to attract the best staff. Growth in volunteering may lead to greater levels of support within companies for CSR and in future there may well be greater employee pressure to volunteer.

There are several examples of in-kind support among the projects studied, including both one-off and more sustained involvement.[17] Little detailed information was available in most cases. There is probably much more activity of this kind taking place that has not been recorded. This form of involvement deserves greater recognition and encouragement, not least because it is an opportunity for small businesses to contribute: this may be particularly important in developing countries without extensive corporate sectors.

3.3.7 Institutional models of CSR and inter-sectoral collaboration

The examples discussed above reveal diverse institutional arrangements for CSR in disaster reduction. There is no ideal organisational model: institutional forms should be customised to fit local conditions. Nevertheless, some models could be considered for wider use.

Two business-led models have achieved some success and appear to have potential for replication:

1. The research shows the strength of business-sponsored NGOs focusing on disaster reduction in terms of resources, continuity, credibility across sectors, expertise and ability to give leadership. There are prominent examples of such NGOs in the USA and the Philippines which demonstrate the adaptability of the model to different locations (Section 3.2.7).
2. Business continuity planning can be developed into collaborative forms that bring businesses together and link them to other actors to protect communities in which the businesses are located (Section 3.2.1).

Experiences in the USA have also demonstrated the feasibility of extensive inter-sectoral projects involving business and CSR, at community and state levels; but these do depend on well-developed corporate, NGO and state sectors and their well-equipped institutions. Even in the USA, the role of government is crucial. These models may offer something to developing countries but would need to be applied very cautiously and flexibly.

The study also highlights the importance of having a dedicated institutional 'home' for individual initiatives, giving them a focus, leadership and continuity. This does not have to be within the business sector.

None of these models are without problems. This is a new area of development co-operation. Of course, there will be failures as experience is gained. Public, private and non-profit sectors need to learn much more about how to collaborate with each other.

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[17] See Sections 3.2.3, 3.2.4, 3.2.5, 3.2.9; Case Studies 2, 5, 6.

3.3.8 Leadership

The research demonstrates the decisive importance of expert and committed leadership in initiating, maintaining and developing CSR initiatives and inter-sectoral partnerships. Such leadership is not easily found. More significantly, it often comes from outside the private sector. Business prefers to join in, not to lead.

In most of the major collaborative initiatives studied, the catalyst and driving force was either a government agency (e.g. FEMA in Project Impact), an intergovernmental organisation (e.g. the OAS in the Caribbean Disaster Mitigation Project) or an NGO (e.g. IBHS in the Showcase State). These agencies sought to persuade business to take part, a process requiring extensive negotiations in some instances. Where the private sector did become involved, this was mostly in the form of a few selected activities, and it seems that business has rarely taken much interest in the strategic direction of initiatives.[18] Even where business creates NGOs such as IBHS and CNDR, it is in effect handing over the leadership role to them.

Where business takes the initiative, this usually takes the form of unilateral actions closely linked to the business' own activities (e.g. provision of materials or information) or interests (e.g. sponsorship of research). The research shows that business leadership and commitment are most likely to come from those business sectors most closely linked to issues of risk and safety: insurers, principally, but also engineers (see Case Studies 2 and 4), hardware stores, architects and telecommunications enterprises. Such firms have a large commercial stake in risk reduction and understand the problems associated with it. Business leadership appears to be very influential in encouraging other businesses to join projects (e.g. Case Study 6).

Often the champions and prime movers are well-placed individuals. The RPI originated in conversations between the BBSR's director and the chief executive of a reinsurance company (Malmquist and Murnane 1999), the BGHRC in discussions between another reinsurer and a hazards specialist who was to become its director. One can see this at a different level in experiences on the Caribbean island of St Kitts and Nevis after Hurricane Hugo in 1989: good, long-lasting personal relations between the Executive Director of the local Chamber of Commerce and the government's Deputy Disaster Coordinator greatly facilitated the acquisition of recovery aid; and similarly strong personal relations between a local store owner and Red Cross director helped secure use of the store owner's premises for storing reconstruction materials (Berke and Beatley 1991: 19, 22-23). Even in the USA's Project Impact initiative (Case Study 5), which has the enormous weight of federal government behind it, success in building momentum within individual communities is often attributed by project participants to the efforts of active local co-ordinators (Riad *et al.* 2000/1: 26). Similarly, experienced, committed and well-connected individuals from IBHS and its partners have played a decisive role in the development of the Showcase State initiative (Case Study 6).

Such attitudes are often shaped by personal experience, as in the case of David Bush, the Chief Executive Officer of a construction firm in Ohio. The Bush family, a local college group and the company developed links with a community in the Dominican Republic, funding and building a medical clinic. When Hurricane George struck in 1998, the clinic withstood the storm but many homes were wrecked. This led Bush to become part of an effort to provide good-quality construction materials and knowledge of safe building techniques to help rebuild. Shortly after the Hurricane, as president of a national association, Associated Builders and Constructors (ABC), Bush signed a partnering agreement with FEMA to support its Project Impact mitigation initiative (FEMA 1998; Case Study 5).

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[18] The Rhode Island Showcase State (Case Study 6) appears to be an exception.

Work on private sector-civil society collaboration in other contexts has identified the importance of personal contacts as 'the critical element that makes ... partnerships happen and produce results'. However, reliance on committed individuals is a weak foundation for long-lasting partnerships: they should be more institutionalised (Murphy and Coleman 2000).

3.3.9 Partnership-building: intercultural challenges
Some two thirds of the initiatives listed in Table 3 are categorised as 'collaborative', yet this category is broad and comprises a wide variety of forms of partnership. Given the very different motives and cultures in the private, public and non-profit sectors, the development of inter-sectoral partnerships requires better mutual understanding and shifts in attitude. Attitudinal obstacles to public-private sector collaboration in general are discussed above (Section 3.3.3). Initial evaluation of Project Impact showed that the US private sector was not used to working with local government on collaborative programmes and did not understand what was expected of it (Case Study 5).

Like the public sector, non-profit organisations need to gain credibility with companies. Credibility is stronger in the case of NGOs that have business origins or membership (Section 3.2.7). NGOs also tend to view companies first as a source of donations rather than as potential partners (e.g. WHO 1994: 68; Cater 2001). NGOs are often under great pressure to raise funds, especially since disaster mitigation and preparedness work is poorly served by conventional aid budgets (Twigg *et al*. 2000: 97-115) and so this is a natural tendency, but relationships that are built only on funding are narrow and unbalanced. Business can be frustrated by this approach (WHO 1994: 66) although companies sometimes prefer the familiarity and simplicity of material donations, grant-making and contracting to the novelty and complexity of partnership-building (Case Study 3; Heap 2000: 192-214). Funding needs should be placed within a wider strategic view of NGO-business relations that looks beyond short-term fundraising to longer-term and more varied forms of collaboration.

One of the clearest findings of research on inter-sectoral partnerships in general is that an open, relaxed relationship is an essential element in successful partnerships between the private and other sectors. Partners need to have open minds about the work and relationship. It is essential to have full discussion of each partner's needs and perspectives, recognising that different sectors have different priorities and that their working cultures are different. Face-to-face contacts are important here: partnerships are not bureaucratic encounters, but connections between people, and as already noted individuals can play an influential role in making and cementing relationships. Partnerships may require a long period of negotiation – for instance, 18 months in the case of Halifax General Insurance Services Ltd and the Cambridge University Centre for Risk in the Built Environment (Case Study 1).

3.3.10 Realism versus rhetoric
There is a need for more realism about what can be achieved through CSR and inter-sectoral partnerships involving business. Discussion is still over-influenced by enthusiasm and public relations rhetoric. If openness and pragmatism do not prevail, cynicism will grow and undermine future work.

At the level of individual initiatives, excessive ambition may have a similar undermining effect. Negotiations and plans need to put greater emphasis on what can reasonably be expected of the private sector: its capacities and limitations. Low-level disaster mitigation work (e.g. publication and distribution of public information material) has value as a starting point for more extensive work. CSR can take different forms at different stages in the risk reduction process, and involve different organisations.

3.3.11 Relief to mitigation

Companies are much more likely to support one-off relief initiatives than longer-term mitigation and preparedness (Section 3.4). Involvement in relief work might stimulate private sector recognition that there is a need to support pre-disaster preparedness and mitigation, although there is little evidence of this happening, with the significant exception of the Corporate Network for Disaster Response in the Philippines (Case Study 3). Ericsson Response is also shifting from a response-only approach towards (short-term) disaster preparedness. For example, after being involved in relief operations following the El Salvador earthquake in January 2001, it is developing preparedness plans for its teams in El Salvador, Guatemala and Costa Rica. A disaster profile will be created for each country including information on the probability of disasters, maps, telecom equipment lists and lists of equipment needed for different disaster scenarios. Volunteers will be appointed and trained by the Red Cross. This initiative looks likely to expand through the company's operations worldwide (Ericsson 2001b).

It might be possible to encourage more private sector enterprises that currently support relief efforts to take up disaster preparedness, if this were presented as a logical development of existing work. It is unlikely that private-sector interest would go any further than short-term preparedness for disaster response, at least initially, but this in turn would be a basis from which to argue for longer-term mitigation measures.

3.3.12 Replicability

Many of the initiatives identified by the research are recent and have yet to address the challenge of scaling up impact. In other cases, scaling up has been through what has been termed the 'additive' approach – i.e. expansion of an initiative to cover other geographical locations – rather than through trying to influence the policy and practice of other organisations (Edwards and Hulme 1992: 13-27). Examples of this are Project Impact (Case Study 5), the Showcase State (Case Study 6), the Disaster Recovery Business Alliance (Section 3.2.1), the FireFree Program (Section 3.2.6) and the Corporate Network for Disaster Response (Case Study 3). Some of these have expanded greatly but in each case replication is in a similar environment, within the same country. Outside the USA and the Philippines, there is no indication of much dialogue between the organisations involved. International lesson-sharing is almost non-existent, and all lesson-sharing is frustrated by lack of substantive evidence.

Most of the significant examples of CSR are from developed countries. It is far from clear how far these could be adapted to the needs of developing countries, in particular to the needs of the poorest and most vulnerable groups. The enabling environment (Section 3.3.3) may be lacking. Some models are unlikely to benefit the poor: for example, since insurers are unlikely to take the risk of offering cover to the poor and vulnerable, reducing insurance premiums as a reward for home safety improvements will only benefit wealthier householders. It is the non-profit micro-credit sector that is leading attempts to provide some kind of disaster insurance for poor people in the South (Matin and Taher 2001: 234; Nagarajan 1998).

However, where Northern initiatives have taken a strategic, process-driven approach to disaster reduction and inter-sectoral collaboration, and are pragmatic and flexible in pursuit of this goal, such initiatives may serve as a model for testing elsewhere. The IBHS Showcase State/Community programmes (Case Study 6) in particular appear to offer some potential as a replicable approach.

3.3.13 Sustainability

Achieving the sustainability of projects is a very significant challenge to CSR in natural disaster reduction and there are many obstacles to it.

Disaster reduction 'should be addressed as a continuous and integrated process' (Christoplos *et al*. 2000: 194). This requires long-term planning supported by appropriate institutional and funding structures. However, in the case of CSR initiatives, both funding régimes and business attitudes favour one-off interventions over strategic plans.

Levels of corporate financial support are also likely to be strongly affected by companies' business performance and profit levels. Companies whose profits fall may well choose to reduce their levels of corporate philanthropy. There is an example of this in Case Study 2, where a company felt that it was no longer able to give financial support to an NGO. In another case, a company's contribution to a disaster mitigation project was cut when the company ran into financial difficulties.[19]

3.3.14 Vulnerability: reduction or creation?

One of the project's key informants, after hearing a presentation from a company on its work in disaster response, felt that CSR in disaster reduction was 'a tall order. In most situations it will take a lot of effort (dialogue and mutual education) to reconcile the business interests of the private sector with the development needs of the vulnerable people' (Kishore 2001).

As we have seen (Section 1.3.3), the impact of a disaster is influenced by the extent of a community's vulnerability to a particular hazard, which is the result of economic, social, cultural, institutional and other factors. Some groups are more vulnerable than others. Disasters tend to hit poor people hardest. Class, caste, ethnicity, gender, age and disability are other important factors affecting vulnerability (Blaikie *et al*. 1994). It is not surprising, then, to find that developing countries suffer the greatest losses to disaster in human terms (Section 2.1) nor that DFID has identified natural disasters as one of the major threats to the international development target of halving the proportion of people living in extreme poverty by 2015 (DFID 2000b: 12, 26, 34, 40).

The potential of Northern CSR-based approaches to disaster reduction for replication in the South has already been called into question, there being several important restraining factors. The potential of such approaches for reducing vulnerability at its roots is also highly questionable. Vulnerability is the result of many forces. It can usefully be seen as a progression of influences, at different levels (Blaikie *et al*., 1994: 21-45):

- o *Root causes* or underlying causes are the most remote influences. They are economic, demographic and political processes within society (including global processes). They reflect the distribution of power in a society, and are connected to the functioning and power of the state. They include limited access to authority, resources and institutional structures, and the influence of political and economic systems and ideologies.
- o *Dynamic pressures* channel the root causes into particular forms of insecurity that have to be considered in relation to the types of hazard facing vulnerable people. These include reduced access to resources as a result of the way regional or global pressures work through to localities. Dynamic pressures are manifested in lack of local institutions, skills, markets, investment, press freedom, governance, rapid urbanisation and population growth, deforestation and environmental degradation.
- o *Unsafe conditions* are the specific forms in which a population's vulnerability is expressed in time and space in conjunction with a hazard. Examples include people having to live in dangerous locations, being unable to afford safe buildings, having to engage in low-paid work, fragile or dangerous livelihoods or having minimal food

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[19] This information is contained in an evaluation of the mitigation project that this research project was allowed to see but unfortunately not to cite by name or to give details of the project and company concerned.

entitlements; they also include a lack of local institutions and disaster preparedness planning.

The CSR initiatives identified by this research address vulnerability only at the level of unsafe conditions. They are not alone in focusing on this level: NGOs mostly address these aspects too (Twigg *et al*. 2000: 68-9). However there are good grounds for believing not only that CSR will not address the other levels but also that the private sector is itself a contributor to vulnerability, and that a few CSR initiatives will not counterbalance what one writer calls the 'logic of capitalist production' – the overriding quest for profitability (Utting 2000: 21).

Current trends in global economic development, particularly the globalisation of markets, can increase vulnerability in disaster-prone regions. In other words, some private sector commercial activities can increase the impact of disasters. For example, in several countries, commercial shrimp farming has led to the destruction of coastal mangrove swamps that provide a natural buffer against cyclones. Export-driven models of economic growth, much favoured by international financial institutions, have led to greater dependence of national economies in some developing countries on a few key primary commodities such as agricultural crops that may be very vulnerable to natural hazards. The vulnerability of the rapidly increasing number of urban poor, often housed in hazardous locations and in unsafe living conditions, is a consequence of urbanisation processes driven by economic forces (CSR Forum 2001b; Wisner 2001). The relative importance of the private sector's role in all this, compared to that of governments and other international development processes, can be debated, but that it is an important contributor to socio-economic vulnerability should not be in doubt.

The impact of Hurricane Mitch on Honduras provides a good recent example of how commercial pressures influence vulnerability to disaster and recovery from disaster. Between 1960 and 1999 the country lost 25% of its forest cover to commercial logging, peasant farming and the growth of towns; the last two of these were partly the result of peasant displacement by large-scale beef ranching and banana plantations. Peasant farmers and urban slum dwellers living on hillsides stripped of their trees were particularly vulnerable to Mitch, and monoculture-dependent Honduras lost at least 50% of its banana plantations and 25% of its coffee plantations to the hurricane. Thousands of Hondurans lost their jobs afterwards, many in the agricultural export sector. The two major banana-producing companies, Chiquita and Dole, laid off 25,000 workers for 12 months. Replanting at one plantation began only after several months of Chiquita pressure on the Honduran government and trades unions for concessions over workers rights (Christian Aid 1999).[20]

Even in developed countries, one can see examples of the private sector contributing to vulnerability or attempting to evade its role in reducing it. For instance, insurance companies' response to high levels of risk may well be to raise premiums substantially or even stop offering insurance cover – as happened in the USA after the record damages caused by Hurricane Andrew in 1992 and the Northridge earthquake in 1994 (Godschalk *et al*. 1999: 57, 124-5, 136-7).

Research carried out in the USA in the late 1990s uncovered many different views about who is responsible for safety, and little consensus – there was a strong sense that responsibility must be shared between a number of groups and actors including government agencies and regulators, the private sector, professionals and individuals. The researchers also found signs

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[20] It is interesting to note that Dole had been prominent in the emergency relief effort, sorting and distributing food that arrived by air. It had also bought up food locally before the hurricane struck to ensure that supplies would be available – a rare example of corporate involvement in disaster preparedness (Silverman 1999).

that some building and design professionals were attempting to define their roles as narrowly as possible in order to avoid taking responsibility. Many professions, as well as many citizens and politicians, tend to define what is ethically required by what is legally mandated, even though legal standards (such as building codes) are usually minimum standards. Some professionals who were interviewed believed that adherence to the law eclipsed consideration of broader ethical duties (Godschalk *et al.* 1999: 479-90).

The Dade County, Florida, Grand Jury report on Hurricane Andrew (1992) drew attention to the failure of the building-related professions to assume responsibility for construction standards, observing that 'Essentially, we have foolishly been a community dependent upon the building industry to police itself' (Godschalk *et al.* 1999: 119). In developing and more developed countries, property developers' and builders' failure to adhere to construction codes in building modern housing such as apartment blocks has been a significant contributor to deaths and injuries from earthquakes (e.g. Radix 2001).

Even when the private sector is engaged in disaster-related work, its aims may not necessarily meet the needs of those most at risk or affected by disasters, and the pressure to do business may undermine mitigation efforts by promoting inappropriate products or services. Ian Davis' influential study of shelter provision after disasters with its sharp critique of the inappropriateness of 'the clever ideas worked out in the comfortable drawing offices of London and New York' by architects and industrial designers trying to design universal shelters for disaster victims (Davis 1978: 33-66; quotation p.60) – a view supported by many field workers then and since – has not stifled the commercial interests that have continued to promote them (e.g. natural-hazards-disasters 1999; Davis 2001).

The head of the Italian Government's Department for National Technical Services, speaking at the IDNDR's Yokohama conference in 1994, admitted that:

> The political world in Italy has been overly responsive to the lobbies of private companies … As a result, the political decision to subcontract activities to the private sector or acquire technology was not accompanied by controls over the real usefulness and effectiveness of these services or products … For any country which has similar prevention needs, this Italian experience should provide people with food for thought (Presenti 1994: 26).

3.4 CSR and emergency relief

The focus of this research is on pre-disaster reduction (preparedness and mitigation) activities. This means that companies' support for emergency relief has not been investigated.[21] It has also been assumed that most CSR involvement in relief is responsive, one-off and largely based on philanthropy rather than partnerships, and therefore that closer study of it would not provide any new insights into the process of CSR or innovative models of partnership. Nevertheless, emergency relief cannot be overlooked entirely, since it is clearly a major area of CSR involvement in disasters, and there are some indications of more strategic engagement by companies in this area that may be relevant to efforts to promote disaster reduction initiatives.

Key findings in this area are as follows:

1. Companies are sometimes very willing to respond to disasters through donations of money to emergency appeals and in-kind support such as provision of relief goods, transport and communications facilities. Recent disasters provide many instances of this (USAID 1999; DMI 2000; DMI 2001; Christian Aid 1999).

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[21] For an overview of this, see CSR Forum 2000a.

2. Although companies can and do gain publicity from their support for relief efforts (e.g. Computer Associates International 1999; 2001), altruism is the primary motive and is often spontaneous. An illustration of this comes in a remark by the head of an electricity company operating in a poor district of the US state of South Carolina about its provision of relief after Hurricane Hugo in 1989: 'It just happened. I don't know how it happened – I can't sit here and say it was a job that was given to me. Right after Hugo we just started pulling people in and getting out there to assist them and see what the needs were' (Miller and Simile 1992: 8-9). [22]

3. Despite the above, the donation of inappropriate relief supplies – by the private sector and other actors – remains a serious problem (PAHO 2000).

4. Corporate involvement in emergency relief is mostly *ad hoc* but there are examples of more strategic support for such work (also known as institutionalised philanthropy). These take two main forms: strategic funding, and strategic technical support. Box 2 contains an example of each type (other examples are given in CSR Forum 2000a; Nelson 2000: 108-9).

5. Support organisations, such as the Business-Humanitarian Forum, may have an important role to play in encouraging greater CSR involvement in emergencies (Business-Humanitarian Forum 2001) although there are still considerable challenges when it comes to devising replicable initiatives and lasting partnerships.

6. There are no indications that companies perceive emergency relief support as an obligation although others such as NGOs may believe that they have such a responsibility (e.g. ActionAid (Orissa) 2000).

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[22] The director of one major company's CSR work stated privately that while it had made a significant contribution to a recent emergency response, it had chosen not to publicise this because it might appear at odds with the main emphasis of its global CSR programme: providing skills.

Box 2: strategic support for emergency response

Funding
The Cargill company, based in the USA but operational in 60 countries, established a natural disaster relief programme in partnership with the American Red Cross in November 1999 after several natural disasters occurred in communities where the company has a business presence. Cargill realised that without a formal programme in place, it did not have a strategy to respond when its local offices, employees and customers asked how they could help. The programme has three components: (i) a disaster relief fund to support American Red Cross response in disaster-affected areas where the company has a presence (up to $25,000 per disaster); (ii) commitment to match employees' contributions to the Red Cross' relief efforts (again up to $25,000); (iii) matched funding for long-term rebuilding (with no fixed limit, considered on a case-by-case basis). By May 2001 Cargill had contributed $90,000 through the programme in response to several emergencies around the world (Cargill 2001a; 2001b).

Technical support
Ericsson Response was launched in April 2000 by the Swedish telecommunications company Ericsson in partnership with the UN's Office for Co-ordination of Humanitarian Affairs (OCHA) and the International Federation of Red Cross and Red Crescent Societies (IFRC). It is a global initiative to improve and quicken disaster response. Ericsson assists individual emergency responses, mainly by providing communications equipment (e.g. mobile phones) and sending technicians to establish communications networks: recent examples of such involvement were in Venezuela (1999), El Salvador (2001) and India (2001). The company also aims to establish a network of disaster response teams in its 140 offices around the world that will work with relief agencies, and to take a lead in the global business community on the issue of disasters, building awareness and support for better response. Its website provides information, links to other resources and a forum for discussion (Ericsson 2001a; CSR Forum 2000a; 2000b).

3.5 Confrontation

This study has concentrated on collaboration between the private sector and other sectors in disaster reduction but it should be noted that there are also occasional instances of conflict, particularly by NGOs concerned about business activity's potential to increase risk.

At a local level, one can see this in the formation of a community organisation in the Philippines, Buklod Tao, which came into being to challenge corporate development plans along the Marikina River that were damaging the community's environment and threatening it with flooding and riverbank erosion (BRCS 2000).

On a larger scale, Hurricane Mitch in 1998 stimulated some recognition of private-sector influences on risk among civil society actors. UK-based groups for solidarity with Central America hit out at transnational companies as participants in the region's neo-liberal economic policies that had led to the environmental degradation that had magnified the disaster (Mowforth 1999; Nicaragua Solidarity Campaign/Coda International Training 1999). The British NGO Christian Aid's more sober report on the causes and aftermath of the hurricane in Honduras, published one year after the event, showed awareness of the consequences of corporate activity within the wider context of unsustainable development policies and commented critically on the responses of certain banana companies, though it concentrated its fire on the international aid and development community for failing to tackle the country's acute debt problem – international debt is currently a rallying point for many Northern NGOs' advocacy work (Christian Aid 1999).

SECTION 4: Conclusions and recommendations

This research project seeks to assess the potential for disaster reduction initiatives involving the private sector through corporate social responsibility (CSR) programmes. With this aim in mind, the conclusions and recommendations presented here focus on the main challenges to such initiatives and the opportunities for taking them further.

4.1 Challenges

- ➢ There has been much talk of partnerships between the private, public and non-profit sectors to reduce the impact of natural disasters, but there is little understanding of what this means in practice and still less of how to go about it.

- ➢ To date there has been very little private sector involvement in natural disaster reduction in the form of CSR initiatives. Most of the experience of CSR in disaster reduction (and the best-documented experience) comes from countries in the North, especially the USA, which have a supportive enabling environment that is unlikely to be present in many developing countries. Substantive empirical evidence is scarce: much of the available data is superficial, promotional or anecdotal.   It is particularly difficult to assess the impact of existing initiatives and there seems to be little interest in evaluation. Many organisations appear unwilling to share their experiences. Lesson sharing is limited – and at international level almost non-existent.

- ➢ Existing CSR initiatives address the immediate causes of vulnerability (unsafe conditions) but not its deeper socio-economic and political causes where CSR cannot counterbalance the effects of the private sector's prime goal of profitability. Current trends in globalisation, particularly the globalisation of markets, can increase vulnerability in disaster-prone regions. Businesses may also seek to avoid their professional responsibilities for public safety.

- ➢ The private sector's main concern is the bottom line of profitability. CSR is not altruism: its ultimate aim is to benefit the business concerned, however indirectly. In general, business does not feel itself responsible for natural disasters, seeing this as an issue for government.

- ➢ The research demonstrates the decisive importance of committed and expert leadership in initiating, maintaining and developing partnerships, but such leadership is not easily found and tends to come from outside the private sector: business prefers to join in, not to lead. Business favours involvement in individual activities and rarely takes much interest in the strategic direction of initiatives.

- ➢ Inter-sectoral initiatives are over-reliant on public sector and international aid funding. This is a particular constraint in developing countries whose governments lack resources; and natural disaster mitigation currently has low priority among international donors. Government has a key role to play in initiating and supporting partnerships involving the private sector. Where institutional or political support is weak, initiatives are likely to falter. However, the private sector rarely features in national disaster plans and interest in bridging the public-private gap has not got on to national policymakers' agendas (with the exception of the USA).

- ➢ Collaborative efforts benefit from having a dedicated institutional 'home' to give them focus and continuity. It has proved difficult to secure this at international level.

Business-led international initiatives have had mixed results. UN and other aid agencies have sometimes taken the lead but in many cases their capacity is limited.

➢ The different cultures of private, public and non-profit sectors can inhibit collaboration. Private-sector enterprises respond most readily to initiatives that other businesses lead or are active in. Public sector organisations and NGOs need to make a particular effort to be seen as credible. Many inter-sectoral partnerships involve business mainly as a funder. This is a narrow and often unequal basis for partnership that may hinder the development of more extensive collaboration.

➢ CSR initiatives are more likely to develop where there is already a tradition of corporate philanthropy within a company or a country: without this, it may be very difficult to stimulate new programmes. Business is likely to be more comfortable with traditional and relatively simple types of support, such as grant-making and publishing public information materials, and less willing to engage in more innovative or complex approaches.

➢ Sustainability is a major challenge to CSR work in this field. Funding régimes and business attitudes favour one-off interventions over strategic plans. It is hard to obtain private-sector funding for broad-based, collaborative and long-term initiatives. Business prefers one-off grants supporting those elements of programmes that are most useful to its own interests. Levels of corporate support are vulnerable to falls in profits.

4.2 Opportunities

➢ This research has aroused considerable interest, suggesting that the topic is believed to be important and timely.

➢ The term 'corporate social responsibility' covers a wide variety of approaches offering a range of options for engaging the private sector in disaster reduction. Business interests – for example, business contingency and continuity planning – can provide an entry point to broader, CSR-based, approaches to disaster mitigation.

➢ An open, relaxed relationship is an essential element in successful partnerships between the private and other sectors. Partnership-building can take a long time. Disaster reduction plans should be realistic, recognising what can reasonably be expected from business. There is no ideal organisational model for CSR in disaster reduction. However, collective initiatives by businesses and business-created non-profit organisations dedicated to disaster reduction have been particularly effective in terms of resources, continuity, credibility across sectors, expertise and ability to give leadership.

➢ Business commitment and leadership are most likely to come from those business sectors most closely linked to issues of risk and safety, especially insurers. These have a large commercial stake in risk reduction and understand the problems associated with it. Well-placed, committed individuals (in the private sector and other organisations) can play an influential role as champions of CSR and stimulators of new initiatives.

➢ Effective *processes* for inter-sectoral partnerships developed in the North should be considered for application in developing countries even though the contexts there may be very different. An effective process should be adaptable to local conditions. Any approach should be customised.

➢ Business is often willing to provide in-kind support – facilities, technical expertise and volunteer labour – rather than money. This can be used to good effect. A growing number of employees, especially younger ones, wish to make a greater contribution to society through volunteering, and companies are increasingly recognising that volunteering improves staff skills and motivation. Business involvement in disaster relief can sometimes stimulate awareness that there is a need to support pre-disaster preparedness and mitigation.

➢ Decentralisation of government creates opportunities for local-level initiatives involving the private sector.

➢ A mechanism is needed to overcome the isolation of agencies working in this area and share lessons between them, particularly across international boundaries and between developed and developing countries. Initially this could take the form of a simple, informal network of interested organisations and individuals communicating through the internet.

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APPENDIX: Case Studies

1. **Coastal settlements at risk: corporate funding of research for business and public benefit (UK)**

2. **Engineering in emergencies: financial and in-kind support for non-profit work (UK/global)**

3. **From relief to mitigation: a private-sector coalition against disasters (The Philippines)**

4. **Payment deferred: earthquake mitigation in Turkey (UK/Turkey)**

5. **Building disaster-resistant communities: inter-sectoral partnerships for disaster mitigation (USA)**

6. **Insurers and natural disaster reduction: the non-profit route (USA)**

Case Study 1

Coastal settlements at risk: corporate funding of research for business and public benefit

A three-year project at Cambridge University is researching the vulnerability of coastal settlements on the UK's East coast to floods. This area has been badly affected by floods from time to time and may become increasingly vulnerable as the result of future changes in sea level.

The partners in the project are the Cambridge University Centre for Risk in the Built Environment (CURBE), and Halifax General Insurance Services Ltd (HGISL). The project team, comprising two full-time PhD students and a part-time project manager, is fully funded by the company through a grant in excess of £100,000.

HGISL is part of the former Halifax Group plc (now merged with the Bank of Scotland), which is involved in financial services, banking, insurance, mortgages and estate agency work. The Halifax Group recorded a pre-tax profit of £1.75 billion in 2000.

CURBE was set up in 1997 to create a structure for interdisciplinary collaboration. It is engaged in research, information sharing and teaching. Its research interests are: monitoring and observation of the built environment and its hazards, theory and analysis of risks, and policy and application of risk mitigation strategies. As well as the work on East coast flooding, its programme comprises emergency planning for a future eruption of Mount Vesuvius and post-earthquake damage assessment in Umbria, Italy. It is funded by government departments, research councils and corporate sponsors.

The joint initiative with HGISL arose out of a workshop at CURBE attended by a representative of the company. This led to some 18 months of discussions about East coast flooding that culminated in the project's establishment in 1999.

The study aims to make a significant contribution to the understanding of risks to the built environment by assessing the vulnerability of residential buildings to hazards associated with a major North Sea storm surge and by estimating potential insured losses. It combines detailed analysis of the physical vulnerability of different types of building in areas at risk with environmental modelling of potential storm surges. It focuses on two urban case study sites vulnerable to flooding.

This is a technical project. The research concentrates on the physical and economic aspects of housing vulnerability that will inform insurance loss estimates. The data and analysis used are therefore essentially quantitative. The research does not seek to assess the social dimensions of vulnerability, which are not directly related to insurers' business and in any case have to be assessed using more qualitative methods.

The research findings will clearly benefit the company by providing information on risk and potential losses that can be used to improve its insurance strategy and hence its profitability. However, CURBE will use the research findings to develop risk management strategies for application to coastal and river flooding. In discussions with the project team the company has shown itself willing to consider allowing greater space in the project for some of these broader issues, recognising that such corporate social responsibility will help its business in the long term. This may also offer potential for future joint initiatives.

Under the terms of the agreement, HGISL can hold information back from the public domain for up to one year, but ultimately the research outputs will be widely available, in the form of Cambridge University PhD theses (which are publicly accessible) and publications in academic journals. All drafts of academic papers and other articles for publication go to the company first for approval, but this has not led to any difficulties and in practice the researchers have found the company's feedback helpful in improving the papers. All publications carry an acknowledgement of the company's support.

The project team has a good, open working relationship with HGISL. There are formal meetings every six months with the company's General Manager, and informal meetings every three months. At the formal meetings, the researchers present reports on the progress of their work and answer questions. The company provides data to the researchers on an ongoing basis; the researchers give their technical advice to the company likewise.

There are also opportunities for the project team to learn more from the company about the insurance business: for example, researchers met senior managers at the beginning of the project to find out how the company ran; and one of the researchers was able to go on site visits with a company senior manager after floods in November 2000.

Lessons:
- ➢ Both parties (company and research team) need to have open minds about the work and relationship.
- ➢ Face-to-face contacts are important; so are ongoing informal contacts.
- ➢ It is essential to have full discussion of each partner's needs and perspectives, recognising that companies and academic researchers have different priorities and that their working cultures are different.
- ➢ Successful partnerships cannot be created overnight: they may have to be developed over a long period of discussion and planning.

Sources:
- ➢ Interview with Ilan Kelman, Cambridge University Centre for Risk in the Built Environment (5/2001)
- ➢ Website of the Cambridge University Centre for Risk in the Built Environment http://www.arct.cam.ac.uk/research/CURBE/ (5/2001)
- ➢ Website of the Halifax Group plc http://www.halifaxgroupplc.com (8/2001)

Case Study 2

Engineering in emergencies: financial and in-kind support for non-profit work

The NGO RedR provides skilled volunteers to agencies involved in humanitarian relief and rehabilitation operations.

RedR originated in 1980 when Peter Guthrie, a 28-year-old engineer who had worked in the field with Oxfam, stood up at a conference and called for the establishment of a register of engineers who could be sent to assist disaster relief agencies. The idea attracted considerable interest and the organisation was set up soon afterwards, housed in office space given by Guthrie's employers, the engineering firm Scott Wilson.

The agency works by recruiting volunteer members with the skills and aptitude for tough overseas assignments. Details of successful applicants are then placed on a register. When there is a disaster, humanitarian agencies approach RedR for relief personnel with certain skills, who are identified through the register. After discussions with the individual identified, the humanitarian agency may offer them an assignment. Recent years have also seen much greater emphasis on training and RedR now runs regular courses on different aspects of humanitarian practice in order to prepare its own members and other aid workers for future disasters.

There are more than 1,300 members worldwide on RedR's UK register at present, another 300 on the registers of its new offices in other countries. Roughly three quarters of the members are from the private sector or self-employed. Most volunteers are engineers, but the register also includes many other specialists such as logistics experts, hydrologists and project managers. During the past 21 years RedR's members have undertaken more than 900 assignments with over 100 agencies in 70 countries.

Private sector partnership with the organisation takes two main forms. One is to provide funds, principally through the patrons scheme through which companies (and individuals) can donate money tax-efficiently. One of RedR's members, working in the corporate sector, was instrumental in setting the scheme up. RedR currently has 16 patrons, 14 of them companies and engineering associations, each making an annual donation. Most patrons stay with the charity for more than five years, and some have been there since the beginning. The rare cases of patrons withdrawing appear to have been the result of falling profits affecting the level of support for the company's community programmes across the board. Company patronage generally originates in individual contacts – which partly reflects the influence of enthusiastic RedR members/supporters within companies.

Patrons' financial support, which amounted to £64,000 in 2001, is no longer as critical to RedR as it was a few years ago when the NGO was much smaller, but it remains particularly valuable because it is not tied to specific projects. However, individual patrons may give additional support – for instance, Cable & Wireless has given substantial amounts in recent years for training courses and improvement of RedR's own communications infrastructure. RedR members may be involved in fundraising work for the charity within their companies.

The second kind of support that companies make is by allowing their staff to go on relief and rehabilitation assignments through RedR. Engineering companies feel that they gain in several ways from association with RedR. They like the association with a charity that has a characteristically engineering identity, but it goes further than this, with a growing recognition of the need for corporate social responsibility. Jo Da Silva, an associate of the engineering firm Arup and member of RedR, thinks that 'RedR's aims are becoming more

and more relevant to the way that engineers' roles are moving', and that 'Membership of RedR is rapidly becoming something that companies need to put into social accountability statements.'

In recent years it has also become apparent that many young engineers – consulting engineers in particular – see themselves as having wider social and environmental responsibilities. Companies associated with RedR and offering their staff opportunities to undertake overseas missions are therefore more likely to attract and retain the best graduates – a fact increasingly recognised within the industry, which currently faces major recruitment problems. In view of current concern about skills shortages some employers are becoming more willing to pay volunteers' salaries while they are away (RedR volunteers are usually paid by the front-line agencies they work for).

Moreover, companies believe that their staff benefit from the experience gained from working on missions undertaken through RedR. As one company managing director puts it, supporting RedR 'adds real value to our company … The stronger our employees' CVs, the stronger the company … our engineers gain incredible personal experience'.

Another benefit to the charity comes from having company representatives on its board of trustees. Members and others who go on RedR training courses can play an important role in generating interest about RedR among their colleagues in the companies where they work, and many new members are recruited in this way.

Lessons:
➢ Companies may welcome opportunities to contribute in kind to non-profit work, especially where such work is related to their own area of technical expertise.
➢ Company staff are likely to welcome volunteering opportunities, which can help their personal and career development. This is particularly true of younger professionals, who are more aware of their wider responsibilities to society.
➢ NGO use of volunteers from business helps to build up a constituency of support within companies that can benefit the NGO in other ways in the long term.
➢ Individual contacts tend to be the starting point for private sector partnerships with NGOs.
➢ Corporate financial support is vulnerable to declining business performance and profit levels.

Sources:
➢ Interview with Bobby Lambert, Director of RedR (7/2001).
➢ 'RedR: Twenty one years of humanitarian aid'. *New Civil Engineer* supplement, May 2001.
➢ RedR reports, newsletters and website (http://www.redr.org).

Case Study 3

From relief to mitigation: a private-sector coalition against disasters

Corporate giving has strong roots in Philippine society, but took great strides forward in the 1970s with the foundation of influential associations with strong business leadership. One of the most important was Philippine Business for Social Progress (PBSP), established in 1970 to address social problems by funding development initiatives using contributions from its member companies (who pledge a small percentage of their pretax profits) and other donors. PBSP has become the largest private grant-making organisation in the Philippines: in its first 25 years it gave US$50 million to 1,000 NGO partners for 3,440 projects.

In the 1980s, with the country facing economic and political crisis, companies came under mounting pressure to assist communities. This drew them beyond philanthropy and into direct involvement in community projects, and PBSP set up a unit to provide technical support to its members in this field. Many member companies also have their own foundations that operate very much like NGOs, working in community development and disaster relief.

Corporate Network for Disaster Response
The Corporate Network for Disaster Response (CNDR) developed out of PBSP. Its mission is to mobilise the corporate sector in the Philippines to respond to natural and man-made disasters. Its strategy has three elements: to facilitate the mobilisation and distribution of resources from the corporate sector to communities affected by disasters; to strengthen linkages with government and non-government organisations undertaking disaster response programmes; and to advocate for disaster prevention, mitigation and preparedness among civil society, business and government. CNDR currently has 26 members: companies and corporate foundations (and one other NGO).

CNDR was born in the aftermath of the Luzon earthquake in June 1990, when many companies realised that a more efficient and co-ordinated relief response was needed. The PBSP invited companies and NGOs involved in the relief to a forum on 'corporate response to crisis' in September 1990, and it was decided to form a structure that would co-ordinate the sector's response to disasters.

The basic idea was for a central command centre to determine needs after a disaster occurred, establish a system for relief work, inform corporate donors (who would send relief goods directly to local contact points or through the network), monitor the delivery of the goods and report back to the donors. Transportation firms would deliver the goods. NGOs in the affected areas would be the main agents in handing out relief to communities, but companies with branches near the disaster area would also mobilise their employees for distribution. Banks would open accounts into which the public could make donations.

At first, a loose network of companies was created, but this evolved rapidly in response to other events: Typhoon Ruping in November 1990, floods, and the eruption of Mount Pinatubo in 1991. In 1991, full-time operations staff were appointed; in 1992 CNDR established provincial command centres in order to decentralise the management of relief operations; in 1993 two regional networks were formed along similar lines to the national network.

Mitigation programme
Although the relief work was considered to have been effective, it was clear that a more strategic approach to disaster management was needed. In 1993 CNDR decided to focus on

mitigation and preparedness, and the following year launched the 'Bayanihan: Disaster Prevention, Mitigation and Preparedness Program', with funding from the United States Agency for International Development (USAID). The programme, originally for four years but subsequently extended, aims to institutionalise disaster mitigation and preparedness in Local Government Units' development planning. The strategy is to strengthen local disaster co-ordination mechanisms by creating multi-sectoral networks of government organisations, NGOs, private companies and academic institutions.

The Bayanihan programme works in three areas (Pampanga, Mindanao and Negros Occidental), where it is managed by three partners: an NGO, a corporate foundation and a local CNDR network (with 13 corporate members). It has carried out research (on disasters' economic impact, and vulnerabilities and capacities analysis), documented local mitigation and preparedness practices, produced a directory of disaster management organisations and practitioners in the Philippines, created local networks in the pilot areas, organised training of trainers from local partners in disaster management, and disseminated information.

An evaluation of Bayanihan in 2000 concluded that, despite local political and bureaucratic obstacles, the programme had been effective in institutionalising disaster prevention, mitigation and preparedness within a number of Local Government Units (LGUs). This could be seen in changes in LGU outlook and practice, the re-organisation of local disaster co-ordinating councils, allocation of resources for mitigation and preparedness and the issuing of supportive legislation. The LGUs were able to undertake prevention, mitigation and preparedness activities and to train others in disaster management. The disaster management capacity of local partner agencies had also improved.

Corporate sector financial contributions to the mitigation and preparedness activities were significant, amounting to over 4 million pesos.[23] However, the evaluation observed that if there had been greater staff capacity and the programme had been less stretched, more could have been done to increase private sector involvement in the initiative. While the corporate sector's traditional role of providing financial and material assistance for relief work was still much needed, it was time to explore other means of corporate engagement, such as provision of workplace training in preparedness and mitigation.

CNDR's current work programme has five elements, of which the Bayanihan programme is one. The others are emergency response, resettlement assistance, institutional capacity building, and networking. The emergency response programme is a continuation of CNDR's original role of channelling relief assistance to disaster-affected communities. This assistance comprises provision of relief goods (e.g. food, water, clothing and domestic supplies), construction of temporary shelter and sanitation facilities, and medical missions. Institutional capacity building efforts focus on local partners and LGUs and consist of networking and disseminating information, preparation and submission of funding proposals, and professional training for CNDR members and partners. The resettlement assistance programme has built over 1,000 houses in towns in Pampanga, as well as improving local infrastructure (roads, drainage, and water and electrical supplies).

PBSP is also involved separately in disaster mitigation work: the USAID-funded Asian Urban Disaster Mitigation Program (AUDMP) administered by the Asian Disaster Preparedness Centre (ADPC) in Bangkok. It is joint manager (with the League of Cities of the Philippines) of the Cities Disaster Mitigation Project, which began in 1997 and aims to reduce the vulnerability of two cities to natural hazards: Naga City (floods) and San Carlos (several hazards). Its approach is to improve the capacity of city officials to manage risk and apply mitigation skills and technologies, improve access to relevant techniques and

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[23] Equivalent to over US$78,400 at current exchange rates.

knowledge, and improve the policy environment for disaster mitigation. Hazard mapping, mitigation planning, land use planning, development of disaster management standards and training are the major components.

The political climate has influenced the development of PBSP and CNDR. Under Ferdinand Marcos' martial law régime (1972-86), there was considerable hostility between government and NGOs. Government was intolerant of critical groups, and many NGOs identified themselves with the opposition movement. However, the government was more tolerant of organisations such as PBSP because of their association with business, which led them to be seen as more politically neutral, while PBSP could share political risk through a coalition of companies. The collapse of the Marcos régime in 1986 paved the way for greater NGO involvement in social and economic development. Subsequent governments have encouraged NGO participation. The decentralisation of extensive responsibilities to LGU level, through legislation passed in 1991, provided for greater participation by NGOs in planning and monitoring local development programmes.

Lessons:
- ➢ Collective action through networks, associations or corporately sponsored NGOs can greatly increase impact and is more likely to be sustainable than individual company initiatives.
- ➢ The chances of success for individual initiatives, in disaster reduction and other fields, are greater where there is already a strong corporate culture of social responsibility and collaboration.
- ➢ Appropriate legislative frameworks can greatly encourage non-profit and private sector actors. Decentralisation of government creates opportunities for inter-sectoral partnerships at local levels where government institutions may need support.
- ➢ Corporate involvement in disaster response should be encouraged as it may lead to recognition of the need for mitigation and preparedness, and from this to involvement in such work.
- ➢ Companies should be encouraged to move beyond their traditional, philanthropic roles and focus on disaster response towards more active engagement in mitigation projects, but it may require considerable effort to make them do so.

Sources:
- ➢ Asian Urban Disaster Mitigation Program website, page for Philippines Cities Disaster Mitigation Project, http://www.adpc.ait.ac.th/audmp/phi-overview.html (8/2001).
- ➢ Corporate Network for Disaster Response n.d., 'Corporate Network for Disaster Response'. Leaflet.
- ➢ Corporate Network for Disaster Response n.d., 'Bayanihan: building multi-sectoral partnerships for sustainable disaster prevention, mitigation and preparedness'. Leaflet.
- ➢ Corporate Network for Disaster Response website, http://www.psdn.org.ph/cndr/ (9/2001).
- ➢ Feria-Miranda M 1994, 'Building Bayanihan. The partnership role of NGOs in a new disaster management paradigm'. *From disaster management to sustainable development: how the public sector, private sector and voluntary organisations can work together: Main Committee Session, World Conference on Natural Disaster Reduction, Yokohama, Japan, 24 May 1994* (Geneva: World Health Organisation): 42-49.
- ➢ Luna EM 2000, '"Bayanihan": building Multi-sectoral Partnership for Sustainable Disaster Prevention, Mitigation and Preparedness: an Impact Program Evaluation. Executive Summary'. http://www/psdn.org.ph/cndr/projecteval.htm (9/2001).

➢ Nelson J 2000, *The Business of Peace. The private sector as a partner in conflict prevention and resolution* (London: International Alert, Council on Economic Priorities and Prince of Wales Business Leaders Forum).
➢ Philippine Business for Social Progress website, http://www.pbsp.org.ph (9/2001).
➢ United States Agency for International Development (USAID) Philippines website, http://www.usaid-ph.gov/ (9/2001).
➢ Velasco MGT 1996, *Corporate Philanthropy in Asia: the Philippine Case* (New York: Center for the Study of Philanthropy, City University New York) http://www.philanthropy.org/philind.html (7/1999)

CNDR was invited to supply information about itself and its work for this case study, but did not do so.

Case Study 4

Payment deferred: earthquake mitigation in Turkey

The engineering company Arup was founded in 1946 and is now a worldwide business with 71 offices in 32 countries employing over 6,000 people.

Much of the company's charitable work is undertaken by the Ove Arup Foundation, created in 1989, which focuses on education relating to the built environment. The company also supports the disaster NGO RedR (see Case Study 2). It has allowed staff secondments to non-profit organisations. From time to time it carries out work that is *pro bono* (free of charge) or which includes corporate social responsibility concerns within commercial undertakings: this happens in response to opportunities rather than as part of a long-term plan, but is part of the company's ethos.

Following the earthquake in Turkey in August 1999, six British companies formed the British Earthquake Consortium for Turkey (BECT). Arup was one of the six, the others being major engineering contractors (Balfour Beatty, Bovis and Laing) and consultants (Hyder) and a utility company (Thames Water).   The initiative was co-ordinated by the British government's Department for the Environment, Transport and the Regions (DETR). The DETR provided half of the £1 million budget; the members of the consortium contributed the rest.

Following discussions between the British and Turkish governments about areas of need, BECT undertook its work in Yalova Province. The province had been badly damaged by the earthquake: 14,000 houses and more than 750 workplaces had been destroyed or badly damaged, and 2,500 people had been killed; infrastructure had also been damaged. The project had two objectives: first, to help the population affected by the earthquake; second, to create an environment that would encourage long-term reconstruction.

The first component of the project was a set of technical studies. One study was of the local geology, seismicity and geomorphology. The main output from this was a series of detailed hazard maps covering the areas where 80% of the province's population live and identifying areas where it would be more expensive to build safely because of seismic and landslide risk. This was accompanied by data on the costs of building to the required standards for each location. The project also studied the conditions of utilities and their infrastructure, which included investigating the quality and sustainability of water resources. An outline town and transport plan was drawn up on the basis of the technical studies.

The next stage was to prepare a reconstruction implementation plan. This combined the outputs of the technical studies and town and transport plan, and contained recommendations for short, medium and long-term development. It also identified and outlined capital investment projects to improve the province's infrastructure and facilities. The final list of projects (from an original list of nearly 120 ideas) consisted of a university, a tourism centre, a hospital, a water supply scheme, and facilities for removing waste water and solid wastes. The choice of projects reflected the province's long-term development needs, which pre-dated the earthquake, as well as the need for more hazard-resistant utilities. Detailed reports were presented to the DETR and the Ministry of Public Works and Settlement in Turkey.

Twenty Arup staff were involved in the project, which took six months to complete (February-August 2000). Much of the technical expertise came from Arup offices internationally, but staff from its Turkish office played an important role, contributing their

detailed knowledge of local building codes and practices, and giving more general advice on working in Turkey.

Arup feels that the project has made a contribution to long-term disaster reduction by helping Turkish planners to plan more safely in Yalova. Furthermore, some of the principles and approaches that were used can be extrapolated from the reports for use in other districts. During the work, extensive discussions were held with government officials concerning the development plan and the proposed infrastructure and facilities projects. BECT held discussions with other local stakeholders including 15 mayors from the province, who helped to define priorities and select the final shortlist of projects. The final reports were handed over to the Government of Turkey by a British Government minister, and attracted considerable press attention.

Arup's financial and technical inputs to the project were substantial. In purely accounting terms, the company did not make a profit on the contract, but Arup was clear from the outset that commercial gains would be secured only in the long term, by taking part in some of the proposed capital projects. It accepted that these initiatives might not take place, as they would depend on the availability of investment capital to the Turkish government – and in the event, funding has not been available. This pragmatic attitude helped defuse tensions that might have resulted from unmet expectations.

Drawing on its considerable international expertise, Arup also aims to produce a simple design guide for building in seismic areas, as it believes there is a major shortage of such skills in Turkey. The guide will be sold through commercial publishers in Turkey but at low cost. This activity is entirely *pro bono*.

One reason why Arup is able to undertake such work is the company's vision, which has always been much broader than delivering services and turning a profit. The company's founder, Ove Arup, called for work to be 'interesting and rewarding', for the organisation to be 'human and friendly' which would allow gifted individuals to 'unfold', and for it to 'act honourably in our dealings with our own and other people'. This approach implied 'a social conscience, a wish to do socially useful work and to join hands with others fighting for the same values'. These remain core values, and the company gives them prominence in presenting its public image. The company's ownership structure reinforces this ideology: it is a form of partnership in which the company is held in trust for the benefit of current and future staff.

Lessons:
  ➢ Some companies possess considerable technical expertise that could contribute substantially towards disaster reduction initiatives, especially if accompanied by good local knowledge of relevant technical, social and institutional aspects.
  ➢ Corporate social responsibility and commercial work can be linked. However, companies that become involved in *pro bono* or other corporate social responsibility work should be very clear about their aims and about the balance between social responsibility and their other business interests. Ambiguity here is likely to cause confusion, which in turn could cause problems internally and in relationships with other stakeholders. If the company already has a well thought out policy of social responsibility, it will be much easier to clarify such issues.
  ➢ A long-term view is essential for making community development programmes sustainable. However, the nature of company business may prevent firms from making long-term commitments to particular locations. This may be a particular problem for consultancy companies, which are more likely to work on short-term contracts.

➢ In an ever-more competitive commercial environment, companies may find it difficult to maintain strategic social responsibility programmes, preferring one-off and short-term initiatives.

➢ A favourable policy environment is essential. Both British and Turkish government agencies were keen for the work to go ahead. However, government priorities can shift rapidly, and today it is far from certain that there would be support for similar post-earthquake mitigation initiatives in other countries.

Sources:
➢ Interview with Tim Chapman, Associate Director, Arup (6/2001).
➢ Arup website http://www.arup.com/ (6/2001).

Case Study 5

Building disaster-resistant communities: inter-sectoral partnerships for disaster mitigation

The increasing number and severity of disasters in the USA, including some major disasters in the early 1990s, prompted a change in government policy in the mid-90s with greater emphasis placed on pre-disaster preparedness and mitigation. This entailed a corresponding shift in focus away from conventional command-and-control approaches to disaster management, led by government agencies, and towards local-level initiatives involving a range of stakeholders.

Project Impact
Project Impact is the principal expression of these changes. It is a nationwide initiative co-ordinated by the Federal Emergency Management Agency (FEMA), which is the lead government organisation on disaster issues. Its approach is based on three principles:

1. preventive actions must be decided at the local level
2. private sector participation is vital
3. long-term efforts and investments are essential

FEMA claims that through Project Impact it is 'changing the way America deals with disasters'.

Project Impact began in 1997 with the adoption of seven pilot 'disaster resistant communities' to demonstrate the economic benefits of taking measures to reduce loss. By 2001, nearly 250 communities (of different sizes: usually a town, city or county) and over 2,500 businesses had joined the scheme.

The Project Impact approach recognises that each community is unique in terms of environment, needs and capacity. The process, though, is broadly similar in all of them. Local stakeholders – government, business, community and other non-profit organisations – are brought together. A comprehensive risk assessment is carrried out by the community that allows it to identify the most needed mitigation initiatives. The community then draws up and implements a mitigation plan to address its needs. FEMA supports the communities by providing technical assistance and links to other government organisations (it also provided start-up funding to the pilot initiatives). Technical support consists mainly of guiding communities through the risk assessment, and helping them to obtain the public, private and political support and resources needed to carry out the mitigation plan.

Mitigation activities undertaken by Project Impact communities are diverse but typically include:

- producing hazard/risk/vulnerability maps and assessments that identify infrastructure, property and lifelines likely to be damaged
- land zoning and introducing land use regulations
- clearing water drainage systems
- establishing geographical information systems to support risk mapping and mitigation planning
- strengthening property (e.g. fitting storm shutters and hurricane straps to homes and schools), and providing technical training in retrofitting homes
- making interiors of buildings more secure (e.g. fixing heavy objects in homes in earthquake-prone locations)

o public education campaigns using local media
o incentives for home improvements (e.g. tax rebates for new homeowners who retrofit their properties to withstand hazards)

Business involvement

FEMA encourages businesses to protect themselves, their employees and the communities in which they operate. Business inputs to local Project Impact initiatives include:

o working with local government to identify community risks and hazards and outline plans for reducing risk
o developing business continuity plans, including retrofitting facilities to make them more hazard-resistant
o local media support for public education (e.g. a cable television company providing airtime for a series on emergency preparedness)
o home supply stores demonstrating construction techniques and giving discounts on products related to mitigation projects
o giving employees time off to take part in Project Impact initiatives
o donating expertise in mitigation planning (e.g. in conducting loss estimates)
o low-interest loans for retrofitting homes
o providing space for public education displays; paying for public education materials; funding or hosting websites
o providing facilities for activities
o establishing a mentoring programme between large and small businesses

At national level, FEMA has partnership agreements with 23 major companies and corporate associations involved in construction, engineering, insurance, communications, computer systems, continuity planning and the media. Examples of these companies' undertakings are:

o publicising Project Impact success stories; printing and distributing public education materials; running advertising campaigns
o providing loans to retrofit homes
o donating office space for a disaster recovery centre
o donating portable generators to Project Impact communities to restore power to storm shelters, schools and other key buildings
o providing free consultancies on contingency planning
o provision of grants for geographical information system software and training
o providing hazard data online
o sponsoring a roundtable meeting between FEMA and corporate leaders
o funding an initiative to encourage states and communities to adopt new international building codes, and developing guidelines on how to adopt the codes
o producing a resource guide for radio and television stations on how to cover disaster prevention and relief
o making a financial contribution to the Project Impact Community of the Year Award winners to further their efforts

The extent of business involvement, and its impact, has not been measured. The illustrative evidence that is available suggests that such involvement is diverse, may be widespread and is certainly substantial in a number of cases.

The main reasons for business commitment overall are unknown, but are likely to include the merits of the business case for mitigation (i.e. that protecting communities gives financial benefits to companies that operate there) and forceful government advocacy (Project Impact has a high profile), in addition to altruistic motives. Narrower commercial interests also appear to have played a part. Some companies whose business is disaster mitigation seem to

have done little more than associate their names with Project Impact, while the participation of some other businesses has been limited to making their own facilities and systems more resilient.

FEMA's guide book for potential corporate partners of Project Impact sets out a purely business case for private sector involvement. It emphasises the economic benefits to business of disaster reduction (business continuity and, for firms engaged in prevention, the likelihood of an increasing market for products and services with disaster activity predicted to increase), credibility (being recognised as a community leader and protector), greater visibility and opportunities for publicity through the project.

It can be difficult to draw a clear dividing line between involvement that is motivated by social responsibility concerns and that driven by business interests. The partnership with Associated Builders and Contractors (ABC) illustrates this ambiguity, which lies at the heart of much corporate social responsibility work in general. ABC is an association representing over 20,000 firms with one million employees. In its formal agreement with FEMA in November 1998, it agreed to promote Project Impact to its members (by sending brochures to its 83 chapters for distribution and producing articles in its newsletter), seek a champion for the programme in each chapter to help promote member participation in Project Impact communities, give FEMA representatives opportunities to present the programme to regional and chapter meetings, give national recognition to any of its members taking a visible lead role in promoting disaster resistance, highlight Project Impact success stories nationally, provide lists of quality contractors in each Project Impact community, and help FEMA build relationships with other construction industry associations. Some of these undertakings were likely to benefit ABC's members commercially, but others were more wide-ranging.

Evaluation
Evaluations of Project Impact's work with the seven pilot communities (by a team from the Disaster Research Center at the University of Delaware) have highlighted other relevant issues.

An evaluation of the first year reached the following conclusions about private sector involvement:

- o In all communities there was a definite understanding that the development of partnerships – with the private sector and other groups – was at the core of the Project Impact philosophy.
- o The ways in which local governments sought to incorporate the private sector varied considerably: some made use of existing business associations or government committees that included business to pull the sector into activities; others invited high-visibility firms to be on task forces or steering committees; and in a few cases local businesses took a major role in public outreach.
- o There was a lack of in-depth, consistent private sector involvement in almost all the communities, admittedly at an early phase in Project Impact's life.
- o The private sector was not used to being involved with local government in establishing or running government programmes.
- o The private sector and smaller companies in particular did not understand what was expected of it in efforts to reduce risk.
- o Where Project Impact's momentum faltered – as a result, for instance, of delays in federal funding – business interest dwindled; active local co-ordinators and committees were also necessary to keep interest high.
- o Often, the companies contributing to Project Impact were already supporting the community in other ways, which limited the involvement of other firms and led to questions about which community needs were more important.

o Developing and providing educational materials was an excellent role for the private sector because it was familiar and unambiguous, and local businesses could appreciate the need for public information. Businesses and non-profit organisations were active in producing, distributing and displaying educational materials.

A second evaluation, a year later, showed a continuing increase in adoption of mitigation activities among the seven pilot communities, with a widespread feeling that the Project Impact process was effective in promoting mitigation and involving the community. The evaluators had less to say about private sector involvement *per se* than their predecessors, and most of what they said referred to donations. They noted that:

o Asking a company to co-sponsor an event was a common way of recruiting business partners. This strategy helped to gain publicity for the business whilst increasing Project Impact's reputation through association with credible businesses.
o Some interviewees reported taking advantage of business concerns about Y2K preparedness to promote private sector involvement in wider mitigation.
o Some informants felt that it was a good idea not to ask too much of any one partner, so that partners did not feel taxed.
o One community always tried to ask for specific donations when discussing a project (e.g. to plan a children's school activity, the community would ask for cardboard from one company, art supplies from another and scissors from another). In this way participation was broadened and partners could see directly where their money was going.
o Another community did not want to ask a business to become involved in Project Impact until there was an actual need for that particular company.
o One community was reluctant to ask a large number of private partners to join the initiative, for fear that individual businesses would not feel sufficiently involved. However, other informants felt it was crucial to have a wide variety of partners with a range of resources.
o Partners of all kinds needed to feel involved in the Project Impact process. Regular communication was therefore essential, and it was common for communities to ask partners for their ideas about aims and future projects.

It was clear that communities were becoming more sophisticated in the identification of all kinds of partner and were developing varied strategies to keep them actively involved. Partnership activities were expanding. On the other hand, the evaluation gives a strong impression that business was not taking the lead in such partnerships but was largely responsive to requests for help from other sections of the community. This impression of private sector passivity is reinforced by other documents on Project Impact's early development.

Lessons:
➢ As a national initiative reaching into hundreds of communities, Project Impact offers considerable opportunities to businesses of every kind to play a role. Where the opportunity arises, businesses are often willing to take part.
➢ In innovative projects, many consequences cannot be foreseen. Rapid learning and adaptability are crucial.
➢ It is not easy to establish inter-sectoral partnerships, especially where the partners are unused to collaborating with each other. Considerable time and effort may be needed to build mutual understanding and confidence.
➢ Supportive government policies and institutions play a vital part in launching and sustaining major new initiatives of this kind. FEMA is a major agency with great experience and capacity, which has enabled it to support and promote the initiative

effectively (although Project Impact was handicapped by traditional local distrust of federal initiatives and FEMA staff's inexperience of participatory approaches).

➢ Government policies can change rapidly. The Clinton administration was enthusiastic about Project Impact but the Bush administration that came into office in 2001 is much less keen and at one point there were fears that Project Impact would lose its federal government funding. Local-level initiatives are also vulnerable to changes in political control, when personnel change and government reorganisations take place.

➢ Business is unlikely to join inter-sectoral initiatives of this kind on its own initiative: it will need encouragement to do so, perhaps especially at local level.

➢ Businesses that already have some professional or commercial interest in hazards and disasters are likely to be most interested in taking part in inter-sectoral partnerships of this kind and have much to offer in terms of technical resources and expertise. Their commitment may be longer-term than that of companies less involved in disaster work.

➢ Where companies do have commercial interests in mitigation, the boundaries between their social responsibility and commercially motivated involvement in inter-sectoral partnerships should be defined as clearly as possible.

➢ Independent evaluations are valuable in documenting and validating initiatives. Evaluation of the extent, nature and dynamics of business participation in Project Impact could provide important lessons for initiatives elsewhere.

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Case Study 6

Insurers and natural disaster reduction: the non-profit route

About IBHS
The Institute for Business & Home Safety (IBHS) is an initiative of the insurance industry dedicated to reducing the impact of natural disasters in the USA.

The organisation undertakes a wide range of activities geared to making natural disaster safety 'a core public value' by encouraging households and community and business leaders to take disaster resistance more seriously. It does this through community outreach, technical support, provision of information and advocacy.

One of IBHS' main current areas of work is promoting the creation, adoption and enforcement of sound building codes across the country. It is also carrying out technical research on alternative ways of making buildings safer through retrofitting. It has designed community land use evaluation forms for local planners to rate the land use practices in their own communities. In 1998 it launched a national campaign to protect children from disasters: member have companies provided volunteer labour to retrofit non-profit childcare centres around the country, and IBHS is developing partnerships with others to continue the work.

Information is also a major component of the programme. IBHS has published a number of practical guides and manuals for homeowners (e.g. on retrofitting houses to increase resilience to hurricanes, earthquakes, hailstorms and wildfire) and businesses (e.g. a disaster planning toolkit for small businesses). It has carried out studies and produced reports on construction standards, the cost of disasters and other issues. It maintains an information centre with over 2,500 books and periodicals. IBHS' paid loss database of payments made by insurers for natural catastrophes, which is the only one of its type, helps to determine the cost of disasters more accurately and makes the case for adopting better building codes.

In the policy arena, IBHS is active in discussions about building codes and co-sponsored Public Private Partnership 2000, a series of national forums for businesses, NGOs, government and academic institutions on current public policy issues and possible actions in disaster management.

IBHS is a non-profit, membership organisation. All insurers licensed or qualified to provide property or casualty insurance in the USA and all reinsurers licensed to reinsure those risks are eligible for full membership; others can become associate members. All members pay membership dues. Members serve on the organisation's council and eight technical committees, helping to identify and set priorities for work (staff from government agencies and universities and other specialists also serve on the committees). IBHS currently has 108 full member companies representing a significant proportion of the US insurance market.

The members clearly gain indirectly from IBHS' work to reduce the impact of disasters on the built environment, because this in turn reduces the claims made on insurers and reinsurers, but the organisation itself is non-profit and its work delivers benefits throughout society.

The Showcase Community/Showcase State programme
In 1997, IBHS launched the Showcase programme to promote integrated disaster planning at community level with two pilot projects. Private sector involvement is a key component of

the 14-point programme: the communities involved are required to develop a local Disaster Recovery Business Alliance (DRBA).[24]

A report on the first two years' work in one of these pilot projects, in the City of Evansville and Vanderburgh County, Indiana, demonstrates the diverse ways in which business contributed to the programme's early stages:

- o businesses took part in the initial workshop to guide the initiative
- o a DRBA was set up with 22 founding members (including some major companies)
- o DRBA members' influence encouraged neighbouring counties to adopt the showcase community model
- o the DRBA developed and tested a business recovery guide through a series of workshops for members
- o companies contributed data to a software program used for risk assessment and modelling potential losses
- o a gas and electric company produced a flood preparedness and mitigation brochure that it distributed to clients in 16 counties along with their bills
- o insurance agents agreed to include a sheet of tips on mitigation with premium notices sent to policyholders.
- o a local television station produced a series on mitigation and a video for training volunteers
- o local businesses provided volunteer labour for retrofitting seven child care centres; hardware stores contributed materials for this; and a heating contractor undertook to strap down water heaters and install flexible connectors for gas heaters at all child care centres

The Federal Emergency Management Agency's Project Impact initiative (Case Study 5), which has similar aims to the Showcase Community programme, was also launched in 1997. IBHS decided to avoid duplication by shifting its focus to state level through the Showcase State programme, which has three key objectives:

1. to prevent deaths and injuries caused by natural hazards
2. to protect public and private property from disaster impacts
3. to create a disaster-resilient economy

IBHS has established 14 criteria for participation in the Showcase State programme, to which the state must subscribe through a formal resolution by its governor. These constitute a framework of interconnected elements and set out a comprehensive programme for creating public-private partnerships and engaging communities, including risk assessment, adoption and enforcement of building codes, appropriate land use policies, response and recovery planning, and public education. They also include development of partnerships with business for co-ordinated mitigation, preparedness, response and recovery, starting with businesses that form the core for recovery (utilities, communications, food supplies, medical facilities) and the core of the economy in the state.

The Showcase State model is based on the concept of synergy – i.e. that by working together, partners can achieve much more than by independent, uncoordinated efforts. Inter-sectoral partnerships are therefore fundamental and, as in the Showcase Community, establishment of a business recovery alliance forms part of the programme.

At the end of 1998 Rhode Island became the first Showcase State. Rhode Island is vulnerable to hurricanes in particular, and also to winter blizzards. A report published at the end of its

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[24] The DRBA is described in the main report, Section 3.2.

first year reflected on its start-up period, which involved strategic planning, continuation of a statewide hazard and risk assessment, response and recovery planning, retrofitting child care centres, improving land use planning and building codes, and drawing up and implementing hazard mitigation plans.

The report sheds further light on the nature of private sector participation and factors affecting it. Indicators of business involvement by the end of the first year were:

- o substantial business representation on the Rhode Island Showcase State Steering Committee (17 out of 39 members) which met three times during the first year to develop a strategic plan
- o a local engineering company developed a model to calculate the value of property at risk to hurricanes in the state, and presented the findings (the assessment also included social and environmental vulnerability)
- o the government agencies responsible for business regulation and emergencies worked with IBHS to plan collaborative strategies for business recovery involving insurers
- o public utilities, chambers of commerce and IBHS worked with state emergency managers to examine business recovery needs after disaster; over 40 businesses attended a workshop to identify recovery needs
- o two large companies and a statewide insurance pool provided funding for an outreach programme to Rhode Island businesses that included publication of fact sheets and guidelines, and presentations to business groups
- o at the time of the report there was insufficient funding to hire a part-time business recovery co-ordinator (more than 97% of Rhode Island's businesses have 500 or fewer employees, the vast majority 50 or fewer)[25]
- o three IBHS member companies and one local company donated volunteer labour and supplies to retrofit child care centres

Current work includes supporting closer dialogue between business and public officials over mitigation strategies and emergency management.

A second Showcase State was launched in Oregon in December 2000. The state is vulnerable to floods, wild fires, landslides and earthquakes. The Oregon initiative involves a range of state and private sector partners, supported and co-ordinated by the Oregon Natural Hazards Workshop, a programme of the University of Oregon that helps communities evaluate the threats posed by natural hazards and take steps to reduce hazard risk. Private sector interest is led by the insurer SAFECO (a member of IBHS) and the Insurance Information Service of Oregon and Idaho (a trade association). This business leadership up front has helped to reach out to other businesses and to create credibility for the Oregon Showcase State Initiative. SAFECO is also providing seed money. At the time of writing the initiative was at a very early stage and still developing its strategic plan. Public education and outreach, and initiation of inter-sectoral partnerships, are likely to form major components of the strategy. A methodological template is now being produced by IBHS to guide others through the Showcase State process.

The Showcase State programme gains from other IBHS work, but also contributes to it . For example, IBHS' recently published toolkit to help small businesses plan for disasters, *Open for Business*, draws on experience from the work on Rhode Island and inputs from the businesses that were involved in that work.

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[25] By 2001 the project did have a Showcase State co-ordinator, recruited and funded through a national public service initiative.

IBHS had to do a lot of preparatory work to build up a broad constituency of support across the public, private and non-profit sectors. This included a good deal of dialogue with companies. IBHS is well placed to work with the private sector in the Showcase States: because it is a national organisation, supported by business, other businesses will listen to it; moreover, since many IBHS member companies offer commercial insurance, there is a natural relationship between IBHS, its members and local business communities.

Lessons:
> ➢ Programmes such as the Showcase State are complex initiatives, involving a variety of activities and partners. They need a catalyst (in this case, IBHS), and effective co-ordination in order to bring partners together and maintain momentum. There needs to be a designated facilitator (institutional or individual), ideally with experience in disaster management – getting the right individuals in place can be crucial to future success. This requires funding, and is one area that the private sector could usefully support.
> ➢ Continuing technical support is required to maintain momentum in broad-based initiatives like the Showcase Community and State programmes.
> ➢ In such broad-based initiatives, it is important if not essential to have a clear conceptual and methodological framework to guide all who are involved (like the 14 Showcase State criteria).
> ➢ Business people prefer to think in terms of individual, one-off projects, but some kinds of company, such as utilities and insurers, are arguably more likely than others to be active in mitigation programmes because they see it is important to their business; they may therefore have a more strategic vision, and hence longer-term commitment. The nearer a specific mitigation objective lies to particular business interests, the higher the chance of securing business funding.
> ➢ For non-profit organisations trying to work with the private sector, it is essential to have credibility with the sector: existing business links or backing can help establish such credibility, in addition to the non-profit organisations' technical expertise and achievements.
> ➢ It is important to adopt the right approach to negotiations with business, which involves finding out what business needs, and then exploring how to work together to meet these and wider needs. Often the public and private sectors do not understand each other's needs very well.
> ➢ The public and non-profit sectors need to recognise that business' major concern is the bottom line of profitability, but can make companies understand that protecting the community is good for business. Being seen as a good citizen may be valuable to businesses operating in markets where everyone has a similar product (e.g. the insurance industry).
> ➢ Through involvement in the Showcase State initiative, businesses such as insurers can be brought into contact with new clients, which is an incentive to them to join.
> ➢ The presence of complementary initiatives – the DRBA and Project Impact – has helped the Showcase Community/State programmes by providing technical or financial inputs in some of the areas covered by the programmes, but they are not essential: the programmes are sufficiently robust in terms of strategy and local support to develop on their own.

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