



© UNDP Bangladesh

Future of the Humanitarian System: Impacts of Internal Changes

John Borton
John Borton Consulting
Berkhamsted, UK
November 2009



The Humanitarian Horizons research was made possible through generous grants from Catholic Relief Services, the International Rescue Committee, Mercy Corps, Oxfam America, World Vision Australia, World Vision Canada, and World Vision International, with additional financial support from the Ford Foundation.

TABLE OF CONTENTS

| | |
|--|----|
| Table of Contents | 1 |
| Section 1. Introduction | 3 |
| Section 2. Recent trends and the principal features of the humanitarian system in 2009..4 | |
| Introduction | 4 |
| Problems of definition..... | 4 |
| Resourcing the system | 7 |
| Operational space | 12 |
| Modes of operation..... | 14 |
| Principal actors..... | 17 |
| Other actors..... | 19 |
| The ‘Beneficiaries’ | 20 |
| Governance and coordination..... | 21 |
| Accountability | 22 |
| The role of technology | 24 |
| A crisis of identity?..... | 24 |
| Section 3. Likely context for the humanitarian system in 15-20 years time | 26 |
| Teams seeking to anticipate the future | 26 |
| Key points from the US NIC and the UK DCDC reports | 28 |
| Section 4. Thinking about ‘drivers’ | 36 |
| What are ‘drivers’ and how can they be identified? | 36 |
| Existing work on drivers of change within the humanitarian system..... | 38 |
| Section 5. What the humanitarian system might look like in 2025..... | 42 |
| Introduction | 42 |
| An Overview of likely drivers of change shaping the humanitarian system of 2025 | 43 |
| Key Driver: Humanitarian crises and caseloads in 2025..... | 44 |
| Key Driver: Transition to a multi-polar world | 47 |
| Key Driver: Developments in technology..... | 51 |
| Key Driver: Focus on causes and greater use of ‘social protection’ approaches | 52 |
| Section 6. Looking Back from 2025 | 55 |
| Imagined reflection by the Minister for Disaster Risk Reduction, Dhaka, Bangladesh. 1 st June 2025 | 55 |
| Imagined reflection by the Minister for Social Protection, Addis Ababa, Ethiopia 1 st June 2025 | 57 |
| References | 60 |

| | |
|--|-----|
| Annex 1. The field of futures studies and foresight..... | 66 |
| Annex 2. Futures and foresight: terminology, concepts, methods and tools..... | 70 |
| Annex 3: Guidelines for strategic foresight..... | 79 |
| Annex 4: Executive Summary of Global Trends 2025: A Transformed World..... | 83 |
| Economic growth fueling rise of emerging players | 83 |
| New transnational agenda..... | 85 |
| Prospects for terrorism, conflict, and proliferation | 86 |
| A more complex international system | 87 |
| The United States: less dominant power | 88 |
| 2025 — What kind of future? | 88 |
| Annex 5: UK DCDC Strategic Trends 2007-2036: Key findings | 90 |
| Introduction | 90 |
| Key Theme 1 - Population and resources | 94 |
| Key Theme 2 - Identity and interest | 96 |
| Key Theme 3 - Governance and order..... | 98 |
| Key Theme 4 - Knowledge and innovation..... | 102 |
| Annex 6: Drivers of Change Identified in the HFP Workbook “Trends and drivers of change in humanitarian action in 2025” (HFP 2008)..... | 105 |

SECTION 1. INTRODUCTION

The objective of this study is to analyse the impacts of internal changes within the humanitarian system over the next two decades on the longer-term viability and shape of the humanitarian aid business at the global level.

Key contributions to futures studies and strategic foresight fields recommend the study and assessment of the recent history and current situation before attempting to anticipate the future.¹ Section 2 therefore summarises the principal features of the humanitarian system of 2009 and some of the significant recent trends. It is possible that certain trends may become drivers of change in the next few years.

Section 3 considers the likely wider context in which the humanitarian system will be operating in 15 to 20 years time. This is done by reviewing the relevant work of some well-resourced and high calibre futures teams such as the US National Intelligence Council.

Section 4 considers how drivers of change can be identified and reviews available material on future drivers in relation to the humanitarian system.

Section 5 reflects on the salient points from section 3 (the wider context in 2025) and section 4 (available material anticipating the future of the humanitarian system) and indicates what are considered to be the key drivers of change that are likely to shape the humanitarian system of 2025. This will provide a sense of what the humanitarian system may well look like and how it will operate in 2025.

Section 6 then seeks to convey a sense of how this might all look from the perspective of programmes being implemented in Ethiopia and Bangladesh in 2025.

In preparing to undertake this study, key contributions in the field of futures and foresight studies were reviewed, revealing how well developed and sophisticated this field has become. Annex 1, 'The field of futures studies and foresight,' and Annex 2, 'Terminology, concepts, methods and tools,' have been written as a means of providing readers with an accessible entry point to the futures and foresight fields. The more accessible these fields can be made to colleagues in the humanitarian system, the more likely it is that strategic foresight processes will be adopted and pursued in the sector and that agencies will make the adaptations required to cope with likely trends and events.

SECTION 2. RECENT TRENDS AND THE PRINCIPAL FEATURES OF THE HUMANITARIAN SYSTEM IN 2009

INTRODUCTION

Most approaches to Futures Studies and Strategic Foresight recommend a study and assessment of the recent history and current situation before attempting to anticipate the future. For instance, the *Guidelines for Strategic Foresight* (Hines and Bishop 2006) include the two steps of ‘map the system’ and ‘study history’ (see Annex 1). Sohail Inayatullah’s *Six Pillars* recommends a mapping of the past, present and future in order to achieve a “shared history” among the participants in a future studies/foresight process (Inayatullah 2008).

A point of reference for subsequent chapters seeking to identify the principal drivers of change and anticipate the humanitarian system of the future is provided here through a description of the most significant recent trends and principal features of the humanitarian system in 2009. Over the past decade or so, the literature on the structure and functioning of the humanitarian system has become extensive. Attempting to identify the most significant recent trends and principal features of the present humanitarian system is likely to be selective and somewhat subjective and therefore open to differences of opinion. What follows is therefore offered as a basis for discussion rather than an authoritative overview.

The most significant trends and principal features are organised under the following headings:

- Problems of definition
- System resourcing
- Operational space
- Modes of operation
- Principal actors
- Other actors
- The beneficiaries
- Governance and coordination
- Accountability
- The role of technology
- A crisis of identity?

PROBLEMS OF DEFINITION

CONTINUED UNCERTAINTY AS TO HOW THE ‘HUMANITARIAN SYSTEM’ SHOULD BE DEFINED

A striking feature of the humanitarian system in 2009 is the continuing lack of clarity as to what the ‘humanitarian system’ actually consists of and where its boundaries lie. Whilst there are many definitions of what constitutes a ‘humanitarian’ or ‘humanitarian action’ or ‘humanitarianism’, few writers define what they mean when using the term ‘humanitarian system’. Some qualify the term by prefacing it with ‘international’ to signal

a focus on the international elements of the humanitarian system as opposed to the national and local elements within the affected countries (e.g. Walker and Maxwell, 2009). Others dispute the use of the word 'system' altogether. For instance, in 2003 the director of MSF Holland stated "there is no such thing as the 'humanitarian system' – there are various actors with inter-dependent relations, but they are hardly all oriented towards the same goals." (Davies, 2003)

Borton (2009) uses the following working definition:

In broad terms, the humanitarian system comprises a multiplicity of international, national and locally-based organisations deploying financial, material and human resources to provide assistance and protection to those affected by conflict and natural disasters with the objective of saving lives, reducing suffering and aiding recovery.

(Borton 2009)

Walker and Maxwell (2009) describe the international humanitarian system in the following terms:

The international humanitarian system evolved. It was never designed, and like most products of evolution, it has its anomalies, redundancies, inefficiencies, and components evolved for one task being adapted to another. ... The international humanitarian system is a system that allows those caught up in a crisis to articulate what they need to alleviate their suffering while allowing others in the human family, who are better off, to provide the resources to meet those needs. It is a people-to-people structure. ... Humanitarian agencies sit between those who are suffering and those who have the resources to alleviate that suffering. ... These agencies broadly fall into four categories.

These categories are listed as:

- Subsets of an individual country's aid structures
- Multilateral organizations
- The Red Cross and Red Crescent Movement
- Structured group of private citizens: community-based organizations (CBOs), which tend to arise from within communities in crisis, or non-governmental organizations (NGOs) which are often external to, but wanting to assist the crisis-affected people.

(Walker and Maxwell 2009 p.2-3)

In their concluding chapter they write:

Its complexity of origins, multitude of players and ever-varying environment make humanitarianism a challenging system to describe and understand and an even more challenging system to predict.

(Walker and Maxwell 2009 p.136)

Why are there so few definitions available for the 'humanitarian system'? An important factor is likely to be differences of view as to what the term should include and what it should exclude. At the root of such differences are debates over the humanitarian principles of humanity, impartiality, neutrality and independence.

Simplified and somewhat caricatured accounts of these debates posit two camps: those regarding adherence to humanitarian principles as fundamental (the so-called ‘fundamentalists’) and those who want to work with disaster and conflict-affected populations in addressing the causes of poverty, vulnerability and conflicts. Such work requires a relaxation of interpretations of the principles of neutrality and impartiality, and an engagement, to a degree, with ‘politics’ (the so-called ‘new humanitarianism’). This debate plays out in a number of ways including:

- The extent to which ‘humanitarian’ activities can be managed as part of overall ‘development’ efforts
- The extent to which ‘humanitarian’ agencies should accept and rely on funding from governments
- The extent to which ‘humanitarian’ agencies should engage with state authorities in countries vulnerable to natural disasters in better managing disaster risks
- The extent to which ‘humanitarian’ agencies should work alongside and engage with military forces whether in UN-sanctioned peacekeeping missions or in operations not directly sanctioned by the UN.

INCREASED OVERLAP OF ‘HUMANITARIAN’ AND ‘DEVELOPMENT’ ACTIVITIES

It has long been the case that most of the agencies that are referred to as ‘humanitarian agencies’ and seen as comprising the ‘Humanitarian System’ also function as ‘development’ agencies. Within the UN system, only OCHA can claim to have a solely humanitarian focus and among international NGOs only a small number of agencies, such as MSF France, MSF Belgium or Merlin can claim to have a solely humanitarian focus. Consequently the drawing of lines *around* the system necessarily requires drawing lines *through* organisations.

In earlier years most agencies managed their dual focus by maintaining separate emergency or humanitarian teams or departments. However, in the country programmes of such agencies in those parts of the world that experience frequent natural disasters and/or periods of conflict and insecurity, it is increasingly difficult to distinguish between what constitutes humanitarian activities and expenditures and what constitutes development activities and expenditures.

One trend increasing the overlap between, and blurring of, ‘humanitarian’ and ‘development’ is the increasing focus on what Walker and Maxwell characterise as the ‘causes’ of disasters rather than the ‘effects’ of disasters. The Disaster Risk Reduction (DRR) agenda, as exemplified by the *Hyogo Framework for Action 2005-2015: Building the resilience of nations and communities to disasters* (ISDR 2005), is certainly gaining in profile and significance and has increased the involvement of both development and humanitarian agencies in pre-disaster investment in disaster risk management and reducing the vulnerability of ‘at-risk’ communities. Such investments can substantially reduce the humanitarian and economic impacts of disasters so that less intensive humanitarian responses are required and affected communities and countries are able to recover more rapidly. A study by Mechler (2005) demonstrated the dividends that disaster prevention can pay and he estimated that for every Euro invested in risk management, broadly two to four Euros are returned in terms of avoided or reduced disaster impacts on life, property, the economy and the environment (Mechler, 2005). A comprehensive series of cost-benefit analyses of flood and drought risk reduction measures in India, Nepal and

Pakistan undertaken by the *Risk to Resilience* collaborative programme recently concluded in the following terms:

The benefits of investing in disaster risk management substantially exceed the costs. This is the core finding that emerges from a series of detailed probabilistic analyses of avenues for flood and, to a lesser extent, drought risk reduction in India, Nepal and Pakistan. In most cases investigated, benefit/cost ratios are positive and in some instances may be well above those achieved through other common development investments. This finding holds true for an array of interventions that range across a spectrum from insurance to early warning and from distributed responses at the village level to large-scale infrastructure. Return rates are often higher when the impacts of climate change are considered, particularly for strategies that are resilient under uncertainty. Return rates appear particularly robust for the often lower-cost 'people-centered' interventions that reduce risks associated with high frequency but low magnitude events rather than large disasters. Such events are a source of chronic, in some cases annual, losses that can erode the wealth of affected populations.

(Moench and The Risk to Resilience Study Team 2008)

A review of the interface between poverty and rural disaster risk states:

It is impossible to divorce measures for improving rural wellbeing from measures designed to reduce rural disaster risk. Such measures must build up the asset base of (poor) people in rural areas to act as buffers against shocks and help reduce vulnerability to hazards. These include measures that not only strengthen existing asset bases but also those that enable people to create/access assets, such as essential inputs for farming, irrigation.

(Sabates-Wheeler et al. 2008)

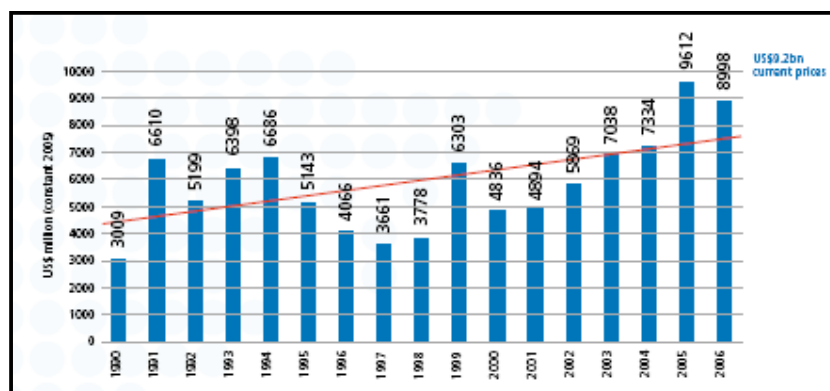
Another trend driving the overlap and blurring between 'humanitarian' and 'development' is the rise of social protection within development policy. Though sharing some key characteristics in common with DRR, social protection has different roots and is currently approached and managed separately from DRR programmes. Social protection is discussed further in Section 5.

RESOURCING THE SYSTEM

RAPID GROWTH AND EXPANSION OF THE HUMANITARIAN SYSTEM

By any measure, the humanitarian system has grown rapidly over the last decade. Total official humanitarian assistance² in 2006 was almost 2.5 times greater (in constant price terms) than it had been ten years previously in 1997 (Development Initiatives 2008). Taking a longer period, the 17 years from 1990 to 2006 indicate an annual average increase in total official humanitarian assistance of almost \$200 million (see Figure 1). Significantly, these data exclude public donations to NGOs and the Red Cross and Red Crescent Movement. It is unfortunate that comparable trend data on 'private' flows and the more inclusive category of 'global humanitarian assistance' are not available. Intuitively, it is likely that the more inclusive category has been increasing at a faster rate than the total official humanitarian assistance data.

Figure 1. Total official humanitarian expenditure, 1990-2006



Source: Development Initiatives 2008 from OECD DAC data

As well as experiencing rapid growth in expenditure levels, the humanitarian system has also seen a remarkable expansion in the range of activities undertaken as part of humanitarian operations. Whilst health services; water/sanitation and hygiene promotion; food security, nutrition and food aid; shelter, settlement and non-food items remain at the core of humanitarian responses, many humanitarian operations now include a wide range of other activities, including: protection, education, agriculture, psycho-social/mental health support, income generation, infrastructure rehabilitation/reconstruction, human rights, advocacy and support to the re-establishment of the rule of law, and so on.

Some of these new activities have stretched the earlier use of the term 'humanitarian'. For instance, whilst protection is now widely regarded as a requirement of 'humanitarian action', the boundary between what constitutes an appropriate protection activity for a humanitarian agency and the work of human rights organisations is unclear (Slim and Bonwick 2005). Similarly, advocacy is now widely regarded as a requirement of 'humanitarian action' but it sits uneasily with operational agencies whose ability to provide assistance and protection on the ground may be jeopardised by any perceived link with advocacy activities, a reality that was vividly demonstrated by the Sudanese government's expulsion of 13 international NGOs and the closure of three national NGOs in March 2009 (ODI/ALNAP 2009).

Global estimates of the number of field-based aid workers employed by UN humanitarian agencies, the ICRC and international NGOs indicate an increase from 136,204 to 241,654 (77 percent) over the period 1997 to 2005 (Stoddard, Harmer and Haver, 2006). Over this period, the estimated number of UN field-based aid workers increased by 54 percent, ICRC field-based workers by 74 percent and those with international NGOs by 91 percent.

TRENDS IN FINANCING ARRANGEMENTS

The humanitarian reform process launched in 2005 seeks to improve the effectiveness of humanitarian response through ensuring greater predictability, accountability and partnership. As part of the process new multilateral funding mechanisms have been developed – an expanded Central Emergency Response Fund (CERF) and the country-level pooled funding mechanisms (Common Humanitarian Funds - CHFs, and Emergency Response Funds - ERFs). Taken together, the CERF

and the pooled funding mechanisms in 2007 accounted for eight percent of reported contributions in humanitarian emergencies (Stoddard, 2008). Some donors are keen to expand the proportion of assistance channelled through these multilateral funding mechanisms as a means of reducing the requirements on their own management and administrative capacities at a time when many donors (though apparently not including USAID/OFDA) are experiencing staff reductions under government efficiency initiatives.

Another relatively recent development with regard to funding has been the increasing contribution and role of US foundations. One example was the Fritz Foundation which supported the development of logistics management tools and approaches to undertaking beneficiary perception surveys. Another has been the Bill and Melinda Gates Foundation which has provided funding to the Emergency Capacity Building (ECB) Project since 2005 to improve the speed, quality, and effectiveness of the disaster and emergency response work within the humanitarian community. The Foundation has also provided substantial grants in support of responses to particular emergencies (e.g. agencies working in Myanmar in 2008).

THE DOMINANT ROLE OF ‘WESTERN’ GOVERNMENTS AS HUMANITARIAN DONORS

The estimate of global humanitarian assistance flows in 2006 prepared by Development Initiatives is shown in the table below.

| Source of funding flow | Amount US\$m | Proportion of total |
|--|---------------------|----------------------------|
| 1. Bilateral humanitarian assistance from DAC donors | 6,751 | 46.9% |
| 2. Multilateral humanitarian assistance | 2,471 | 17.2% |
| 3. Humanitarian activities that are not ODA-eligible | 2,411 | 16.8% |
| 4. Voluntary contributions to NGOs ³ | 1,840 | 12.8% |
| 5. Voluntary contributions to Red Cross/Red Crescent and UN agencies | 470 | 3.3% |
| 6. Humanitarian assistance from non-DAC donors | 435 | 3.0% |
| Total | \$14,378m. | 100% |

Source: Development Initiatives 2008 Fig 1.7 p 10.

No less than 80.9 percent of the global humanitarian assistance in 2006 was provided by/originated from the 23 member governments of the OECD/DAC, i.e. the governments of European and North American countries together with Japan, Australia and New Zealand. According to these figures only 3 percent of global humanitarian assistance was provided by or originated from other governments. The current dependence of the humanitarian system on funding from ‘western’ governments is clearly evident. The extent to which a system that is so reliant on resources provided by a group of predominantly ‘western’ governments, inevitably having national perspectives and agendas, can genuinely be called ‘humanitarian’ and can be regarded as an expression of universal values is highly debatable. This situation becomes even more problematic in countries such as Afghanistan where many of the donor governments are also party to the conflict that is generating the humanitarian needs.

Humanitarian activities undertaken by NGOs and the Red Cross/Red Crescent and UN agencies (principally UNICEF, WFP and UNCHR) that were funded from voluntary sources (i.e. other than taxes in the DAC member states) accounted for 16.1 percent of global humanitarian assistance. Such voluntary sources are playing an increasingly significant role in the resourcing of the humanitarian system.

OCHA's Financial Tracking Service, a global, real-time database which records all reported international humanitarian aid, rates "private contributions by individuals and organisations" as the fifth largest type of donor in 2009 following the United States, the European Commission, the UK and Japan⁴. A particularly significant trend has been the increased contributions to humanitarian programmes and agencies from foundations such as the Bill and Melinda Gates Foundation and the Dubai Cares Foundation. In 2008 the Bill and Melinda Gates Foundation approved "Emergency Relief" Grants totalling \$37.9 million as part of the \$446 million provided through its Global Development Programme and in addition to the \$1.8 billion provided through its Global Health Programme.⁵ OCHA's Financial Tracking Service recorded contributions to humanitarian agencies totalling \$9.3 million during 2008 from the Dubai Cares Foundation. In addition contributions of \$5.3 million were recorded during 2008 from international companies and corporations such as IBM, Daimler, GlaxoSmithKlein Beecham and JP Morgan.⁶

LACK OF AWARENESS OF ALTERNATIVE RESOURCE FLOWS FOR HUMANITARIAN NEED

Development Initiatives' 'guesstimates' of global humanitarian assistance do not include either:

- The value of remittance flows from families and diaspora communities, or
- The value of local responses within the affected country.

The total value of recorded and unrecorded remittance flows to all developing countries each year is estimated to be over US\$ 250 billion, which is larger than foreign direct investment flows and more than twice as large as official aid received by developing countries (Mohapatra et al. 2006). With regard to the role of remittances during crises, studies by ODI have shown that in those disaster and crisis situations where the infrastructure necessary to transfer funds remains operational, remittance flows can be very substantial and play an important role in the survival and well-being of many of those affected (Savage and Harvey 2007).⁷

Little is known about the scale and significance of resource flows from within disaster-affected countries. During the response to Cyclone Nargis, for instance, a substantial part of the overall response was played by wealthy individuals and businesses within the country distributing goods and organising relief efforts in the cyclone-affected areas but little is known about the significance of their role (Turner et al. 2008).

LACK OF A CONSISTENT METHOD FOR ASSESSING HUMANITARIAN NEED

Remarkably, the humanitarian system has no single, consistent way of measuring needs across humanitarian crises or assessing whether or not these are being adequately or equitably met (Darcy and Hofmann 2003; Development Initiatives 2008). Efforts to develop methods for measuring needs in different sectors to inform resource allocation decisions are underway. The Integrated Food Security Phase Classification (IPC) system

represents a promising approach for standardizing needs assessments in relation to food security, and work by the Assessment and Classification of Emergencies project within OCHA is aimed at building on the IPC experience to develop a system of assessment and classification for the wider humanitarian community.

The UN's Consolidated Appeals Process (CAP) was not designed for the purpose of assessing whether or not total humanitarian needs are being met but, given the absence of better methods, is often used as a proxy for comparing the extent to which needs are met across different crises. Overall, of the total fund requirements of the 22 CAP and Flash Appeals launched in 2006, 66 percent of the requirements were met. Four of the 22 Appeals received less than 50 percent of funding needs (Development Initiatives 2008).

INEFFICIENCIES IN RESOURCE USE WITHIN THE HUMANITARIAN SYSTEM

An aspect of resourcing that is rarely raised in the literature are inefficiencies in the way the funding is provided, particularly where large numbers of funders, intermediaries and implementing agencies are involved. The issue was commented upon by both the Joint Evaluation of Emergency Assistance to Rwanda (JEEAR) in 1996 and the Tsunami Evaluation Coalition (TEC) in 2006.

The JEEAR noted:

It appears that over 200 [NGOs] were involved in the response to the Rwanda emergency, with approximately 100 present in Goma at the peak of the operations in response to the refugee influx and around 180 present in Rwanda during late 1994. ... Such large numbers of NGOs implies substantial duplication of effort and inefficient use of resources. The same volume of activities could have been carried out by a much smaller number of NGOs with larger programmes. Competition between NGOs for the use of locally-procured resources such as accommodation, office space and equipment contributed to inflated prices. The sight of NGOs with their own imported vehicles and office equipment in Kigali at a time when the new government had received very little material support from the international community appears to have had a significant detrimental impact upon the new government's perceptions of NGOs and the international community and its relationship with them.

(Borton et al. 1996 p.152)

Noting that 99 governments and two intergovernmental organisations contributed to the Tsunami response and that "at least 202 NGOs are recorded internationally as receiving private donations", the funding study of the TEC noted:

The generous funding and weak coordination probably both did more to reduce the efficiency than the effectiveness of the response. The fact that the response was sometimes competitive and poorly coordinated, and not as informed by needs as it should have been, did not necessarily stop it being effective. These characteristics did however lead to inefficiency and waste.

(Flint and Goyder 2006 p.37)

The Synthesis Report of the TEC stated:

There is general agreement that there were far too many NGOs present in Indonesia and Sri Lanka. The low entry barrier to the system permits the entry of inexperienced and incompetent actors. New NGOs emerge all the time.

There are almost no mergers in the sector and few consortia that implement as one entity. Once they have reached a certain size, agencies usually only go out of business due to poor financial management and rarely if ever due to poor field performance.

(Cosgrave and Telford 2006 p.107)

So far as is known, detailed research on the scale of the duplication costs and transaction costs of the humanitarian system has not been undertaken to date. The scale of the inefficiencies involved and the input to output ratios for the system as a whole are therefore not known.

OPERATIONAL SPACE

INCREASED INVOLVEMENT OF MILITARY ACTORS

Most countries have a long history of deploying their national military assets in a domestic context to assist fellow citizens in the humanitarian response to natural disasters. Two significant recent examples would be the critical role played by the Pakistan military in the response to the 2005 earthquake, and the major role of the China Peoples Liberation Army in the response to the 2008 Wenchuan earthquake.

Alongside responses by the national military, there is also a lengthy history of other countries deploying their militaries to assist in the response to disasters affecting other countries. No fewer than 19 countries contributed military contingents in support of the Pakistan Government and Army in the response to the 2005 earthquake (Cosgrave and Herson 2008). Within two days of the 2004 Indian Ocean Tsunami the US had mobilized a task force that deployed 16,000 US military personnel, two dozen ships, more than 100 aircraft of which 60 were helicopters, six maritime prepositioning ships and specialist P3 Orion aircraft for search and reconnaissance missions (Kent and Ratcliffe 2008). Such assets represent a substantial addition to the resources and assets deployed by the UN, Red Cross and Red Crescent and NGOs. It is unrealistic to think that such agencies will ever develop the type and scale of the logistics and other capacities that can be deployed by the US and, on a more modest scale, other significant military powers. Following the Indian Ocean Tsunami, *Forced Migration Review* noted that “the Tsunami has set a precedent and it is now very likely that military forces will be significantly involved in future humanitarian operations” (Couldrey and Morris 2005).

Where the capacities being offered address humanitarian response needs and there is no readily available civilian alternative, international military assets are broadly welcomed by humanitarian agencies. However, there have been many examples of military assets not addressing priority needs and duplicating cheaper civilian capacities that were available. Moreover, the changing arrangements of different militaries may mean that a portion of the (high) costs of military assets are charged to donor agencies (Wiharta 2008).

The use of international military assets to address humanitarian needs is much more contentious in the context of humanitarian needs resulting from conflicts - whether in the form of peacekeeping operations or ‘stabilization’ and counter insurgency operations. As noted by Wheeler and Harmer (2006),

The relationship between humanitarian and military actors has changed considerably in the past decade. Military functions have expanded beyond traditional war-fighting to encompass a range of tasks related to humanitarian

goals, including support for humanitarian and rehabilitation efforts and the protection of civilians.

(Wheeler and Harmer 2006 p.1)

For instance, not only was NATO's bombing campaign against Serbia in 1999 justified in 'humanitarian' terms (with some commentators actually calling it a 'humanitarian war'), but it "made a critical contribution at the outset of the refugee crisis" and then "transformed what was supposed to be a temporary and supporting role into a permanent and commandeering role throughout the war and long after its assistance ceased to be needed" (Barnett 2008). NATO's role followed a request by UNHCR to NATO for support in coping with the outpouring of Kosovar refugees prompted by the bombing and Serbian ethnic cleansing. Such a request of a combatant force was unprecedented. Two years later in 2001 when addressing a gathering of NGO leaders, former Secretary of State Colin Powell famously said,

...just as surely as our diplomats and military, American NGOs are out there [in Afghanistan] serving and sacrificing on the frontlines of freedom. NGOS are such a force multiplier for us, such an important part of our combat team.

(Powell cited in Barnett 2008 p. 136)

However, as argued by Ian Smillie, governments have always manipulated humanitarian sentiment and action, and, for their part, most humanitarian organisations have observed the humanitarian principles of neutrality, impartiality and independence "with great selectivity" ever since the very first Geneva Convention was signed in 1864 (Smillie 2009 forthcoming).

ENGAGEMENT WITH PEACEKEEPING AND STABILIZATION AGENDAS

Since the end of the Cold War, humanitarian agencies of the UN and international NGOs have massively increased their presence and activities within areas affected by insecurity and conflict. In a significant number of cases this work has been undertaken alongside UN peacekeeping interventions, the number, objectives and complexity of which increased significantly after the Cold War. The number of deployed UN peacekeepers rose from 15,300 in 1991 to 80,000 in 2006 (Hopgood 2008) and currently stands at 91,000. In many of these operations there has been pressure to increase the 'coherence' between the objectives of the peacekeeping mission and humanitarian agencies, and to improve 'coordination' of their activities. Though different models of coherence and integration are used in different operations, UN humanitarian agencies and their NGO implementing partners operate within 'integrated' programmes under the overall direction of a Special Representative of the Secretary General (Donini et al. 2008).

As well as UN-managed peacekeeping missions, there have been significant operations which were authorised by the UN Security Council but which were then delegated to regional organisations such as ECOWAS (in Liberia) or NATO (in Bosnia-Herzegovina) or the US-led coalition in Afghanistan to oust the Taliban in 2001. In addition, of course, there have been military operations by coalitions that were not formally authorised by the UN Security Council such as NATO's action in Kosovo in 1999 and the US-led coalition to oust Saddam Hussein in Iraq in 2003. In all of these operations, including those that were not formally authorised by the UNSC, humanitarian agencies have engaged to some degree with the military authorities in their efforts to respond effectively to the humanitarian needs created by the conflict and subsequent insecurity.

NON-STATE ARMED ACTORS

'Non-state armed actors' is a term used to describe what are commonly referred to as liberation movements, rebel groups, paramilitaries, insurgents, warlords, mercenaries and private military and security companies, and transnational terrorist organisations such as Al-Qaeda. The proliferation of non-state armed groups reflects the proliferation of internal conflicts around the world and the relative decline of conflicts between states. The proliferation of non-state armed groups and the deterioration in security conditions has had a pronounced effect on humanitarian access in many contexts. For instance, in December 2008, the proportion of the affected population in Darfur that was judged accessible to the UN was 68 percent (UN 2009). According to Glaser (2005) their proliferation may also:

... compromise the impartiality of aid and the status of civilians by co-opting them for logistical or political support, blurring the distinction between combatant and non-combatant. Civilians may be recruited as fighters, whether voluntarily or through coercion, and civilian environments may be used to provide tactical cover. Humanitarian assistance may be blocked if its delivery is deemed not in the armed group's interest. The provisions of International Humanitarian Law (IHL) may be breached and humanitarian access challenged, as a deliberate strategy of war.

(Glaser 2005 p.1)

INCREASED ATTACKS ON AID WORKERS

Partly as a result of the proliferation of non-state armed actors, attacks on aid workers have increased. Since the attacks on the US on 11 September 2001, the subsequent 'Global War on Terror' and US-led invasion of Iraq, and the US-led coalition intervention in Afghanistan, the staff of UN humanitarian agencies, international NGOs and even the ICRC have been regarded as instruments of western policy by groups and populations – not just in Afghanistan and Iraq – but more widely (Zwitter 2008, Donini 2009).

In 2008, the number of major incidents of violence affecting aid workers was 177 percent higher than the number in 1997. Even allowing for the increase in the number of aid workers (from 136,000 in 1997 to 290,000 in 2008) the number of major incidents per 100,000 aid workers was 66 percent higher in 2008 (Stoddard, Harmer and DiDomenico, 2009). Whilst 39 aid workers were killed as a result of such incidents in 1997, the figure had risen to 122 in 2008. This figure exceeds the number of fatalities among UN peacekeeping troops for 2008. The three most violent contexts for aid work are currently Sudan (Darfur), Afghanistan and Somalia. Analysis of the apparent motives indicate that "attacks on aid workers in the most insecure contexts were increasingly politically motivated, reflecting a broad targeting of the aid enterprise as a whole" (Stoddard, Harmer and DiDomenico 2009).

MODES OF OPERATION

Most humanitarian assistance takes the form of basic commodities and services to help affected populations survive, maintain their dignity, preserve their assets and rebuild their livelihoods. The basic forms of survival assistance comprise food, water, medicines and shelter materials and various other items provided to beneficiaries whether as individuals, households or communities.

The food needs of disaster-affected populations were long those most easily met by the humanitarian system, by virtue of North American and European agricultural policies that supported farmers through production subsidies that generated large surpluses. Over the last decades, however, production subsidies have been significantly reduced (though other forms of subsidies have increased in order to maintain high levels of support to western farmers) and the world price of grain has risen. The tonnage of total food aid has declined from about 14 million tonnes in 1999 to under 8 million tonnes in 2006 (Development Initiatives 2008).

Partly in response to the increased cost and reduced availability of food aid but also as a means of providing affected populations with a form of assistance that is cost-effective and flexible, the use of cash or vouchers as a means of providing assistance has been increasing. Within ECHO the number of projects using cash and vouchers increased from two projects in 2000 to over 45 projects in 2006 (Lor-Mehdiabadi and Adams 2008).

A review of cash-based responses in emergencies concluded:

The growing importance of cash-based responses in emergencies has potentially far-reaching consequences for the management and delivery of humanitarian relief. It is likely that cash-based programming will continue to grow, probably at the expense of in-kind mechanisms in some contexts. Cash is an alternative to all forms of in-kind assistance, and needs to be considered across all sectors of the humanitarian response. This will have important implications not just for food aid responses, but also for shelter, non-food items, agriculture and wider livelihood responses.

(Harvey 2007)

A recent study for Save the Children presents evidence that cash transfers can have a positive effect on reducing child mortality (Yablonski and O'Donnell 2009).

The evidence presented here suggests that well-designed cash transfer programmes can help tackle many of the determinants of child mortality, most immediately by increasing access to healthcare and reducing malnutrition. Across a number of countries, particularly in Latin America and Africa, cash transfers have helped poor people to access food and healthcare, and to enhance the status of women (itself one of the most significant determinants of child survival). Contrary to common assumptions, cash transfers also have important positive economic benefits, helping to create livelihood opportunities, increase labour productivity and earnings, stimulate local markets, and cushion families from the worst effects of crises.

(Yablonski and O'Donnell 2009, p vii)

Another trend in the way humanitarian assistance is being provided is in contexts which are (more or less) stable and secure but where the levels of poverty and vulnerability are so chronic that humanitarian assistance has been provided on a near continuous basis year after year. In such contexts, social protection offering a type of 'safety net' for extremely vulnerable populations is growing in use.

Social protection is defined by Sabates-Wheeler et al. (2008) as "all initiatives that transfer income or assets to the poor, protect the vulnerable against livelihood risks and enhance the social status and rights of the marginalised".⁸ The use of social protection programmes is more widespread in Latin America and South Asia than in Africa, but

Ethiopia's Productive Safety Nets Programme (PSNP) now represents the largest social protection programme in Sub-Saharan Africa outside South Africa (Gilligan et al, 2008). The origins and operation of the PSNP are described in Box 3. The overarching principle of the PSNP is to facilitate

...a gradual shift away from a system dominated by emergency humanitarian aid to productive safety net system resources via a multi-year framework.

(Government of Ethiopia 2004 cited in Wahenga Brief 2007)

Box 1. The origins and establishment of Ethiopia's Productive Safety Nets Programme

Excerpt from an IFPRI review of the PNSP (Gilligan et al. 2008 p3):

“Chronic food insecurity has been a defining feature of the poverty that has affected millions of Ethiopians for decades. The vast majority of these extraordinarily poor households live in rural areas that are heavily reliant on rainfed agriculture and thus, in years of poor rainfall, the threat of widespread starvation is high. Since the tragic 1983-84 famine, the policy response to this threat has been a series of ad hoc emergency appeals for food aid and other forms of emergency assistance. While these have succeeded in averting mass starvation, especially among the asset-less, they have not banished the threat of further famine and they did not prevent asset depletion by marginally poor households affected by adverse rainfall shocks. As a result, the number of individuals in need of emergency food assistance rose from approximately 2.1 million people in 1996 to 13.2 million in 2003, before falling back to 7.1 million in 2004 (World Bank 2004). Further, the ad hoc nature of these responses meant that the provision of emergency assistance—often in the form of food-for-work programs—was not integrated into ongoing economic development activities.

Starting in 2005, the Government of Ethiopia and a consortium of donors implemented a new form of safety net: the Productive Safety Nets Program (PSNP). It reaches more than 7 million people and operates with an annual budget of nearly 500 million USD. Currently, outside of South Africa, it is the largest social protection program operating in sub-Saharan Africa. The PSNP operates as a safety net, targeting transfers to poor households in two ways, through public works (PW) and direct support (DS). Public works, the larger of the two programs, pays selected beneficiaries 6 birr/day for their labour on labour-intensive projects designed to build community assets. Direct support, in the form of cash or food transfers, is provided to labour-scarce households including those whose primary income earners are elderly or disabled in order to maintain the safety net for the poorest households who cannot participate in public works. It is complemented by a series of food security activities, collectively referred to as the Other Food Security Program (OFSP). This includes access to credit, agricultural extension, technology transfer (such as advice on food crop production, cash cropping, livestock production, and soil and water conservation), and irrigation and water harvesting schemes.” (Subbarao and Smith 2003)

In 1984-85 the international response to the famine in Ethiopia represented the largest humanitarian operation ever undertaken to that point. The process by which the country has transferred former ad-hoc emergency programmes into an integral part of the Ethiopian Government's poverty reduction and mainstream development activity is

judged to be of significance to the future development of the humanitarian system and will be discussed further in Section 5.

PRINCIPAL ACTORS

DONORS

As noted in Section 2.3, the 23 member governments of the OECD/DAC provided 80.9 percent of the global humanitarian assistance in 2006. In 2006, the largest single donor was the US, accounting for 35 percent (just over US\$ 3 billion) of total official humanitarian assistance. The second largest was the EC which provided US\$1.1 billion. However when the EC contribution is combined with those by the EU member states the collective EC and EU total was US\$ 4.2 billion representing 50 percent of total humanitarian assistance (Development Initiatives 2008).

Two trends that should be highlighted in relation to donors of humanitarian assistance are the steady reduction in supervisory capacity in many western governments and the efforts to improve donor performance through the Good Humanitarian Donorship initiative.

Over the last few years many western governments have been reducing staff in their ministries of foreign affairs and development cooperation as part of efforts to improve the efficiency of public administration. This, in turn, has led to the development of new approaches to the management and administration of humanitarian aid funds as a means of reducing the high transaction costs in administering grants to the large numbers of NGOs involved in many operations. One response has been to encourage and support the development of the CERF and pooled funding mechanisms administered by the UN as part of the Humanitarian Reform process. Another approach has been to follow practices including:

- Pre-selecting NGO partners which may then apply for emergency response grants (e.g. ECHO's Framework Partnership Agreements),
- Providing block grants to pre-selected partners (eg. DFID's Participatory Partnership Agreements), or
- Holding competitive contracts to consortia or groups of collaborating agencies submitting proposals addressing themes set by the donor and the successful consortia/grouping undertaking the administration of aspects of the funding (e.g. DFID's Conflict, Humanitarian and Security Fund CHSF awards for 2009).

Through the Good Humanitarian Donorship (GHD) initiative launched in 2003, bilateral donors committed themselves to improving the predictability, timeliness and flexibility of their humanitarian funding. Starting in 2007, Development Assistance Research Associates (DARA) began monitoring the performance of bilateral donors in relation to the GHD Principles through its Humanitarian Response Index (HRI). The 2008 HRI found that:

... donors are not always perceived as providing aid in an impartial, neutral and independent manner nor where it is most needed. The findings show that too many donors are still biased and influenced by other actors when it comes to allocating resources and too many crises around the world continue to be a showcase for poor practice, despite all of the lessons from the past. In many places humanitarian assistance continues to be compromised by wealthy

countries' political, economic or security agendas, while elsewhere other crises are forgotten and neglected.

(DARA 2008 p.37)

UNITED NATIONS

The UN and its various specialised agencies play a central role in the humanitarian system. UNHCR, WFP and UNICEF are the principal specialised agencies undertaking humanitarian roles in terms of their budgets and operations on the ground. However, other agencies such as FAO, UNDP and WHO play important roles in different contexts. OCHA is the UN body responsible for coordinating the response activities of UN agencies and also other organisations.

A critical issue for the UN humanitarian agencies has been their relationship with the Security Council which, while formally equal to other principal organs of the UN, bears "primary responsibility for the maintenance of international peace and security" (Article 24 cited in Malone 2007). Freed from the limitations of the Cold War era when the US, USSR and China deployed their veto powers as Permanent Members, the Security Council has developed a more robust approach including the imposition of sanctions and the deployment of peacekeeping missions, some of which have become embroiled in the conflicts. Such actions can undermine the perception of UN humanitarian agencies as neutral actors in a situation.

RED CROSS AND RED CRESCENT MOVEMENT

Made up of the ICRC, the national societies, and the International Federation of Red Cross and Red Crescent Societies (IFRC), the Red Cross and Red Crescent Movement represents the world's oldest and largest humanitarian organisation. The ICRC's budget in 2006 was just below \$900 million (Walker and Maxwell 2009). It operates in conflict-affected areas and is fundamentally committed to acting independently and neutrally. National Societies exist in over 180 countries that have signed the Geneva Conventions. Whilst mandated by states, national societies seek to operate independently of them. By virtue of a strong membership and volunteer ethos, national societies claim to have a total of 93 million members and volunteers around the world.

NON-GOVERNMENTAL ORGANIZATIONS

Walker and Maxwell (2009) write:

...globally it is estimated that in the mid-2000's around \$4 billion a year was flowing through the major NGOs from government and private sources, for humanitarian assistance. This is likely to be an underestimate, for it does not capture the smaller or local NGOS. In short, NGOs have become the channel of choice, at least for donor governments and the funding public in the West.

(p. 118)

The same authors attempted to estimate the overall size of the top five INGO coalitions (see Table 2).

| Table 2. Annual reported NGO expenditure | |
|---|--------------|
| INGO Coalitions | US\$ million |
| World Vision International | 2,103 |

| | |
|--|-----|
| CARE International | 884 |
| International Save the Children Alliance | 863 |
| Oxfam (combined expenditure of 13 affiliated agencies) | 858 |
| Médecines Sans Frontières | 750 |

Source: Walker and Maxwell (2009) Table 6.1 p.121)

NGOs are far from homogeneous, varying in size, aims, capacities, and areas and modes of operation. Walker and Maxwell distinguish between four principal groups:

- **'Principle-centred'** such as the ICRC and MSF from the Dunantist tradition and closely adhering to the humanitarian principles of humanity, neutrality, impartiality, universality and independence;
- **'Pragmatist'** a large group tending to be led by the availability of funding and not afraid to align with the political agendas of their funders;
- **'Solidarist'** a group that seeks to identify with, and work in solidarity with, the affected population to address the causes of their suffering (poverty, human rights abuses etc.) and achieve social transformation;
- **'Faith-based'** agencies such as World Vision, Islamic Relief and members of the Caritas Federation and ACT International Alliance.

A key distinction is also that between international NGOs and national NGOs. In recent years the role and profile of national NGOs has grown significantly in many low-income countries. In some countries, such as Bangladesh, organisations such as the Grameen Bank and BRAC have become sophisticated operations able to attract donor funds directly rather than having to have it channelled via an international NGO.

There is not space here to do justice to all the trends that humanitarian NGOs have been experiencing over the last few years. However, among the principal trends have been:

- Operating in areas of insecurity or even ongoing conflict. This has necessitated a substantial investment in the infrastructure and procedures necessary to protect staff from harm. Despite these investments, the numbers of staff being killed and injured is increasing (Stoddard, Harmer and DiDomenico 2009).
- Pressures to establish a recognisable and effective 'brand' in an increasingly competitive funding environment.
- Pressures to internationalise and establish operating and fund-raising presences in more countries.
- Pressures to demonstrate accountability in the use of funds and their impact.

OTHER ACTORS

MILITARY ACTORS

As noted in Section 2, military assets are deployed primarily in three situations:

- In response to natural disasters either in a domestic context or in another country,
- In peacekeeping or peace-support operations directly authorised by the UN Security Council, and
- In operations not directly authorised by the UN Security Council.

Also noted in Section 2 was the proliferation of non-state armed actors.

PRIVATE SECTOR/CORPORATE ACTORS

In earlier years, private sector businesses engaged with humanitarian agencies or donor organisations either as ‘for-profit’ contractors or responding in a philanthropic way to address needs in a particular context. More recently, however, private sector businesses have begun to work with humanitarian agencies or donor organisations in non-profit arrangements or ‘partnerships’ (Johnson 2008).

Kent (2008) claims:

A major force behind corporate-humanitarian collaboration is global economic liberalization, which has facilitated corporate sector access to countries around the world and simultaneously increased global scrutiny of corporate behaviour. As a result, both the humanitarian and corporate communities find themselves reliant on one another in order to fulfil their mandates as thoroughly as possible.

(Kent 2008 p.12)

Brugman and Pralhad (2007) see ‘a new social compact’ being formed between the corporate sector and social service organisations and activists.

The role of the corporate sector in humanitarian operations increased dramatically following the 2005 Indian Ocean Tsunami when total corporate sector contributions totalled \$800 million (Business Civic Leadership Center quoted in Kent 2008). Following the Kashmir Earthquake in 2005 US corporations established a South Asia Earthquake Relief Fund which was administered by the Committee Encouraging Corporate Philanthropy. CECP reported roughly \$113 million in corporate sector donations.

Corporate engagement with the humanitarian system often takes the form of either financial assistance or in-kind assistance, of which the latter may involve sharing core competencies between the corporate actor and the humanitarian agency. Most financial assistance appears to be channelled through NGOs. In terms of in-kind assistance and core competencies, a notable example is the partnership between TNT and WFP covering management and structure of the organisation as well as supply-chain management. Corporate sector actors are looking to establish partnerships over a longer period and on a systematic basis, and to move away from earlier informal types of engagement which were often formed hurriedly around a particular response operation (Kent 2008). This trend looks set to continue.

THE ‘BENEFICIARIES’

Overall statistics on the numbers of people receiving assistance through the international humanitarian system are not readily available. The term beneficiary is variously defined and can include a family that is provided with a house to an individual who visits a clinic for a consultation with a health professional. However, statistics are available for the numbers of internally displaced people (IDPs) and refugees (people

displaced across international borders). For the former, the Internal Displacement Monitoring Centre estimated the total number of conflict-related IDPs at the end of 2007 at 26 million, of which an estimated 11.3 million in 13 countries were without any significant humanitarian assistance from their governments. Columbia, Iraq and Sudan together accounted for nearly 50 percent of the world's IDPs (IDMC 2008). At the end of 2007, UNHCR's statistical yearbook indicated a total of 11.4 million refugees of which 82 percent were hosted by developing countries (UNHCR 2008a). Estimates of the numbers of people who remain in their homes (i.e. have not been physically displaced) and receive assistance from humanitarian agencies are not readily available.

Naturally, there is enormous variation in the types of beneficiary, their contexts and their needs. Aggregate analyses of the actual and intended beneficiaries of the humanitarian system, however, are not readily available.

An unattractive characteristic of the humanitarian system over the last 20 years has been its neglect – some might argue willful disregard – of the importance of seeking and responding to the views of its intended beneficiaries (which in many other systems, industries or sectors would be referred to as ‘customers’ or ‘clients’). The case for doing so was powerfully made in Harrell Bond's study *Imposing Aid: Emergency Assistance to Refugees* (Bond 1986). But too often humanitarian agencies have approached their task as though it were a package of known deliverables that have to be provided as quickly as possible and hence there is little need to consult with the affected population. It is only in the last few years that impetus has been gathering for a change in approach. An important initiative was the establishment of the Humanitarian Accountability Partnership (see 2.10 below).

GOVERNANCE AND COORDINATION

The closest that the humanitarian system comes to having a governance body is the Inter-Agency Standing Committee (IASC). The IASC has played a central role in the latest round of UN humanitarian reform (see below), and is comprised of representatives of:

- Seven UN humanitarian agencies (UNICEF, WFP, UNP, WHO, FAO, UNHCR and UNFPA),
- the ICRC and IFRC,
- the World Bank,
- IOM,
- The Secretary General's Representative on the Human Rights of Internally Displaced Persons, and
- NGO members nominated by each of the NGO umbrella organisations (InterAction, ICVA and SCHR).

Leadership for the UN system and to a lesser extent for other actors within the humanitarian system is provided by the Emergency Relief Coordinator who is a UN Under-Secretary General. It is debatable whether the IASC sees its role in terms of providing leadership for the humanitarian system.

An extensive review of the UN's humanitarian structures and operations was undertaken culminating in the 2005 Humanitarian Response Review and led to initiatives intended to improve the predictability, response capacity, coordination and

accountability of the humanitarian system. One area of initiatives was in relation to funding. Another was the cluster approach, introduced by the Inter-Agency Standing Committee, and intended to strengthen partnerships in key sectors of humanitarian response, in part by formalising the lead role of particular agencies/organisations in each of these sectors. Cluster leads were appointed for 11 clusters: Agriculture; Camp Coordination/Management; Early Recovery; Education; Emergency Shelter; Emergency Telecommunications; Health; Logistics; Nutrition; Protection; Water, Sanitation and Hygiene. Four cross-cutting issues were subsequently identified: Age; Environment; Gender; HIV.

By October 2008, there were 26 countries with Humanitarian Coordinators (HC) and the cluster approach had been formally adopted in 19 of these countries⁹. The remaining seven HC countries¹⁰ were all expected to formally adopt the cluster approach by the end of 2008. In addition to these countries, IASC-agreed procedures for designating sector/cluster leads in major new emergencies have been followed in ten countries since 2006 (Bangladesh, Dominican Republic, Ecuador, Indonesia, Lebanon, Madagascar, Mozambique, Pakistan, Philippines and Tajikistan). In total, the cluster approach has been used in 29 countries since 2006, a figure expected to increase to 36 countries by the end of 2008. By 2009, it should be possible to say that application of the cluster approach is standard practice in all countries with Humanitarian Coordinators and in all major new emergencies (OCHA Humanitarian Response Support Unit 16 Oct. 08, Background Note on Cluster Implementation Status).

ACCOUNTABILITY¹¹

Significant efforts have been made since the early-1990s within the humanitarian system to improve accountability. These efforts have involved the extension of programme evaluation practices from development assistance to humanitarian assistance. In the process, the practices were modified and have since evolved in many different ways, helped in part by the ALNAP (Active Learning Network for Accountability and Performance in Humanitarian Action). For the last few years evaluations have been in effect *de rigueur* for most programmes. This is a major shift since the late 1980s when this researcher was involved in the early application of evaluation to ‘emergency aid’ and was often met with the following from field personnel: “We did our best under difficult circumstances. Who are you to come and judge us now?”

In parallel to the increased use of evaluation, the 1990s also saw the first in a long line of initiatives that are generally referred to as either (or both) ‘accountability’ and ‘quality’ initiatives.

Significant among the earlier initiatives was the Code of Conduct for the International Red Cross and Red Crescent Movement and NGOs in Disaster Relief which was published in 1994 by the Steering Committee for Humanitarian Response (SCHR).

The Sphere Project, launched in 1997 by the SCHR, was another significant early initiative. It brought together the United States, European and global NGO umbrella organisations (InterAction, VOICE and ICVA respectively) to develop a set of universal minimum standards in core areas of humanitarian assistance (water/sanitation and hygiene promotion; food security, nutrition and food aid; shelter, settlement and non-food items; health services). The process involved a highly collaborative process, with wide (but not complete) buy-in across humanitarian NGOs. The first edition of the

Sphere Handbook published in 2000 has been translated into over 20 languages and is widely used.

Both these initiatives enjoyed high levels of initial 'buy-in', though this did not necessarily result in high levels of compliance. They have since been followed by a large number of Codes of Conduct, Statements of Principles, and elaboration of standards at different levels of the humanitarian system and in relation to different areas of activity. Whilst some have achieved quite high levels of participation and 'buy-in' and complemented the earlier initiatives, others have not. The latter have had the effect of confusing the picture as to which Codes and Standards are being applied in which contexts by which agencies and by which type of activity. The proliferation of agencies, their (perceived) need to protect their independence of action, the lack of leadership within the humanitarian system, and limited efforts to actually monitor the degree to which agencies are complying with the provisions of the initiatives, have all contributed to this confusing situation.

Such factors, together with issues such as the interplay between national and international legal jurisdiction have also served to deter the development of compliance mechanisms in relation to the principle Codes and Standards. Whilst many elements of a normative framework for the humanitarian system have been constructed, it would be wrong to say that a normative framework actually exists, simply because it is so unclear as to who is seeing themselves being accountable in relation to what.

Hugo Slim wrote in 2006:

A particularly bizarre aspect of agency performance is the way in which core parts of the humanitarian NGO and UN establishment set out elaborate value and standards which they seem to cherish on paper but forget in practice. Tony Vaux's bemusement at the widespread lack of operational and evaluative reference to the Code of Conduct is understandable. Why make codes if you do not use them daily in your work? The Humanitarian Response Review also noted the high talk up but low take-up of the SHERE standards. These standards have secured a few high profile champions in certain agencies but are not yet emerging as routine industry standards. But they may do so in future.

(Slim 2006)

A key development in relation to the involvement of beneficiaries and affected communities in the humanitarian system has been the Humanitarian Accountability Partnership (HAP) which grew out of an earlier exploration of the Ombudsman concept in relation to humanitarian action. HAP has developed a quality assurance tool for humanitarian agencies to assess both their accountability to their intended beneficiaries and their quality management systems at the same time. The Humanitarian Accountability and Quality Management Standard published in 2007 is made up of a set of accountability principles and benchmarks. The accompanying certification and accreditation system is seen as a means of realising HAP's vision of an accountable humanitarian system, through the accreditation of HAP-affiliated NGO networks and associations which have the authority to certify their own members as being compliant with the HAP accountability principles.

Alongside HAP, the work of the Fritz Institute has demonstrated the feasibility and value of independently conducted questionnaire surveys of large samples of beneficiaries and the Collaborative for Development Action's Listening Project has demonstrated the value of open-ended conversations with beneficiaries.

A recent assessment of developments in relation to accountability within the humanitarian system during 2008 concluded:

On the basis of the materials reviewed above, the overall impression gained is of a widening and deepening of accountability within the humanitarian system during 2008. The sense is of accountability to intended beneficiaries and local communities becoming increasingly, if tentatively and somewhat patchily, integrated within the operational approach of a growing number of agencies.

(Borton 2009b)

THE ROLE OF TECHNOLOGY

The impact of technological developments on the operation of the humanitarian system has been profound over the last decade or so. Airlift capacity, both fixed wing and helicopter, and its relative cost has dropped significantly in real terms since the 1980s. The use of VHF and short wave radios has increased dramatically – a development driven largely by security concerns but also by a reduction in costs measured in real terms. The development of GIS has, in conjunction with computers, enabled the generation of maps showing the location of camps, routes and services. And of course there has been the extraordinary impact of developments in computers and the establishment and phenomenal growth of the internet and the World Wide Web which has vastly improved not just communications between the field and more central offices but given humanitarian personnel and researchers access to unprecedented amounts and types of information.

Of course, broadband connectivity is not immediately available for all actors in many operations, but the speed with which such services are being provided is improving. One of the clusters established as part of the Humanitarian Reform process launched in 2005 is the Emergency Telecommunications Cluster (ETC) which is committed to providing clearly defined services to ensure timely, predictable, and effective inter-agency telecommunications to support humanitarian operations in emergencies. Besides such central initiatives, there are many local initiatives. For instance, Project BOSCO (Battery Operated System for Community Outreach) is a collaborative effort between Catholic parishes in Indiana, USA and Gulu in northern Uganda. The project provides internet services and a wiki platform to the residents of Goo Pe IDP camp, enabling residents to contact relatives, share and reflect on their experiences and access information to improve their situation (Marino 2009).

Mobile phone technology has also had a profound impact not only on the operation of the humanitarian system but also on the way that affected populations are able to communicate with each other and nationally and internationally. The number of mobile subscribers globally is estimated to have reached four billion in 2008 (ITU 2008), with mobile penetration reaching 61 percent. Around 58 percent of subscribers are in developing countries, and subscriber growth in Africa – more than 50 percent per year – is the highest in the world. (Singh 2009). In 2007, cell phone money transfer services were launched in Kenya (Mwakugu 2007) and between Malaysia and the Philippines in the same year (Associated Press 2007), potentially enabling relatives and friends to transfer funds to family and community members affected by disasters.

A CRISIS OF IDENTITY?

Two recent and significant contributions to the literature point to there being a crisis, of some sort, within the humanitarian system of 2009.

Michael Barnett and Thomas Weiss (2008) writing in the introductory chapter of their impressive volume *Humanitarianism in Question: Politics, Power, Ethics*:

Although it is a tad melodramatic to claim that humanitarianism is in the midst of a full-blown identity crisis, humanitarian agencies do exhibit an anxiety associated with a deep ontological insecurity.

(Barnett and Weiss 2008 p.5)

Other contributions in their volume explore the different sources and dimensions of this ‘deep ontological insecurity.’

Also published in 2008 was the Final Report of a 12-country study sponsored by the Feinstein International Center and led by Antonio Donini. The Humanitarian Agenda 2015 process involved interviews and group discussions with beneficiaries and communities and with aid staff and observers of the humanitarian system – in all around 2,000 people. The summary of the Core Messages is reproduced in Box 2.

Box 2. Extract from the Core Messages summary of *Humanitarian Agenda 2015* (Donini et al 2008 p.3-4)

“The findings highlight a crisis of humanitarianism in the post 9/11 world. International action aimed at assisting and protecting the most vulnerable is, for the most part, inextricably linked to a northern security and political agenda. Nevertheless, principled humanitarian action, though battered at times, constitutes an essential safety net for people *in extremis* deserving of nurture and protection. Such action occupies a crucial but increasingly precarious position at the intersection of (a) international political/security agendas and (b) the coping strategies of people affected by crisis and conflict. It is instrumentalized and torn between principle and pragmatism as perhaps never before, particularly in high-profile crises.

Though the traditional values of humanitarianism still resonate among affected communities in all of the settings studied, the humanitarian enterprise is itself divided on the extent to which core principles should be respected, particularly in the more asymmetrical and intractable crises they have to confront. This disquiet affects the quality and coherence of the assistance and protection provided.

To confirm that humanitarians need to be wary of politics even as they ply their trade in highly politicized settings is nothing new. Throughout the Cold War, the pressure to incorporate aid agencies into political designs—a pressure to which some agencies acquiesced—was always present. Such good—or misguided—intentions were present even in earlier days.¹

What is new in the post-Cold War and post-9/11 eras is that the stakes are much higher because the extent of need has proliferated, the awareness of need has become more instantaneous and more global, and humanitarian action has become a multi-billion dollar enterprise. When it occupied the margins of conflict—as, for example, in refugee camps outside conflict areas—humanitarian action was an activity of generally minor consequence to belligerents. Aid agencies were accepted or tolerated as beneficial, or at least non-threatening. Now humanitarian action is very often at the center of conflicts and of international concern. It influences, as well as reflects, public opinion and the views of governments at the national and global levels.

Moreover, politicization, militarization, and privatization nowadays represent more of a challenge for those parts of a diverse enterprise striving for a modicum of fidelity to principle. Many mainstream agencies have been drawn implicitly or explicitly into the service of political agendas. Only a minority have exhibited the policy determination and financial wherewithal to resist. It thus remains debatable whether the assortment of agencies and individuals that comprise the humanitarian enterprise can—or should—maintain the fiction that they are all part of the same movement, functioning as parts of a common apparatus.

Our data also confirm that the humanitarian enterprise has become much more institutionalized. Standards have gained currency, programs have become more contextualized, and professionalism has improved. Yet despite the rhetoric of downward accountability to beneficiaries, mainstream humanitarians continue to talk principally to the like-minded, shunning different or dissenting voices. Much that is local and non-western in humanitarian action goes unrecognized: the coping mechanisms of communities, the parallel life-saving universe that includes *zakat*, migration and remittances. These constitute the unrecorded assistance flows of groups and countries that are not part of the northern driven humanitarian system.

The wider meaning. Our findings confirm the good news that humanitarian action, which we define to include protection as well as assistance efforts, remains an essential—and sometimes dominant—element in the international response to crisis and conflict. Increasingly, it is a factor in the undertakings and calculations of political and military players. However, the bad news is that humanitarianism's high-profile status entails a constant risk of misunderstanding, false expectation, and delusions of grandeur. There is a persistent and worrying perception gap between outsiders and insiders—that is, between aid agencies and the communities they aim to help.

Despite examples of creative problem-solving, humanitarians have not acquitted themselves well in protecting the integrity of humanitarian interests and operations from recurrent infiltrations of political and military actors. ***Absent the cultivation of greater resourcefulness and resilience, therefore, we fear for the future of the humanitarian enterprise*** (Donini et al. 2008 p3-4 Emphasis added)

¹ *“Reputable NGOs did not hesitate to take sides at the time of the Bolshevik revolution. During World War II some were embedded (and in uniform) within Allied fighting units.*

SECTION 3. LIKELY CONTEXT FOR THE HUMANITARIAN SYSTEM IN 15-20 YEARS TIME

TEAMS SEEKING TO ANTICIPATE THE FUTURE

There are many groups and individuals attempting to anticipate what the world will look like in the future. It has to be said though that the quality of attempts to anticipate the future is highly variable with much of it falling into what leading figures such as Richard Slaughter and Sohail Inayatullah would refer to as "Pop Futures" - attempts to anticipate the future in popular and populist terms.

Attempts to anticipate the future are most useful when they:

- Cover all the STEEP elements (social, technological, economic, environmental and political),
- Are of high quality and rigour, and
- Are the result of processes which consider and utilize a wide range of perspectives.

In preparing this study, reports produced by the following five well-resourced and high calibre futures teams were reviewed:

- US National Intelligence Council's *Global Trends 2025 Project* published in 2008 (USNIC 2008)
- Royal Dutch Shell Group's *Global Scenarios to 2025* published in 2005 (Shell 2005)
- UK Development, Concepts and Doctrines Centre's (DCDC) *Strategic Trends 2007-2036* published in 2007 (UK DCDC 2007)
- UN Millennium Project's 2008 State of the Future report (Glenn, Gordon and Florescu, 2008), and
- Global Scenario Group's *Great Transition* report published in 2002 (Raskin et al. 2002)¹².

On reflection, only two of the reports (US NIC and UK DCDC) were felt to be useful for the purpose of anticipating the context in which the humanitarian system will be operating in 15-20 years time and it is these two reports that form the basis for the remainder of this section. Though the two reports proved the most useful for the current purpose, it is unfortunate that the two reports come out of the military/intelligence communities of two allies with such similar worldviews. It would have been preferable to have used a larger sample of reports from a wider range of backgrounds and perspectives. The methods used in preparing the US NIC and the UK DCDC reports are summarised in Box 3.

**Box 3. Methods used in preparing the US NIC and the UK DCDC reports
NIC Global Trends 2025**

The size of the NIC team and the total number of people consulted and inputting into the 2025 process is not clear from the report. The previous iteration (NIC Global Trends 2020 published in 2004) had reached out well beyond the US intelligence community and involved six seminars on five continents and received input from over 1000 specialists in a wide range of fields. The 2020 report was translated into several languages, debated in government offices and discussed in university courses.

Global Trends 2025 built on these networks and included even greater participation by non-US government specialists, workshops and roundtables on particular issues and comments on earlier drafts via the Internet and discussion sessions across the US and several other countries including China. Four scenarios were developed which convey a vivid sense of how the world is likely to have changed by 2025. In contrast to the Shell Global Scenarios approach which uses three alternative scenarios to explore the possible future of 2025, the NIC scenarios illustrate possible situations within the anticipated future of 2025. The four scenarios are:

- ‘A World Without the West’ – a scenario in which the new powers supplant the West as the leaders on the world stage,
- ‘October Surprise’ – a scenario illustrating the impact of inattention to global climate change; unexpected major impacts narrow the world’s range of options,
- ‘BRICs’ Bust-Up’ – a scenario in which disputes over vital resources emerge as a source of conflict between two major powers India and China,
- ‘Politics is Not Always Local’ – a scenario in which non-state networks emerge to set the international agenda on the environment, eclipsing governments.

Summaries of the four scenarios are presented in Box 4.

UK DCDC Global Strategic Trends 2007-2036

Prepared by a team co-located with the principal UK defence college at Shrivenham. Inputs acknowledged from approximately 30 non-military specialists and academics. The process followed considered trends and interactions in relation to five dimensions: Resource; Social; Political; Science and Technology; and Military to establish a range of Probable Outcomes and, “by varying the strength of its assessment to highlight sets of Alternative Outcomes that, while less probable, are nonetheless highly plausible. ... Having established trend-based outcomes of varying probability, Strategic Trends articulates a number of specific Risks associated with each dimension.” (DCDC 2007p.xi). The analysis uses three “pervasive Ring Road issues: climate change; globalisation; and global inequality” (pxiii). To provide a coherent framework and systematic understanding of possible human responses Strategic Trends synthesizes its trend-based outcomes within four key themes: population and resources; identify and interest; governance and order; and knowledge and innovation.

An interesting feature of the Global Strategic Trends report is the careful use of words to indicate the confidence level with which a trend is regarded.

| Description | Probability | Confidence level |
|---------------------|-------------|------------------|
| Will | >95% | Near certainty |
| Likely/Probably | >60% | High |
| May/Possibly | >10% | Low-Medium |
| Unlikely/Improbable | <10% | Low |

Where these words are used in the text of the report they are highlighted to indicate the intended confidence level.

KEY POINTS FROM THE US NIC AND THE UK DCDC REPORTS

A striking feature of the US NIC and the UK DCDC reports is their agreement on the economic power and significance in 2025 of China, India and other states such as Russia and Brazil (the so-called BRIC states) and also countries like Indonesia. Although the US is regarded as likely to remain the single most powerful actor, its relative economic and military strength and thus its leverage will be significantly reduced from

the present situation. Europe's economic power is anticipated to decline in part due to high taxes and the need to divert more resources into managing the effects of an aging population. ***From the current uni-polar system, the global system will become a multi-polar system.*** The ability of existing global institutions (often referred to as 'post WWII institutions') to adapt to these changes is uncertain, in part because it will depend on the quality of leadership in key states and of the institutions themselves. Both the US NIC and the UK DCDC are somewhat sceptical of the ability of the institutions to adapt effectively.

Gaps and strains in the increasingly complex patchwork of arrangements for international governance will be open to exploitation and abuse.

(UKDCDC p.14)

Current trends suggest that global governance in 2025 will be a patchwork of overlapping, often ad hoc and fragmented efforts, with shifting coalitions of member nations, international organizations, social movements, NGOs, philanthropic foundations, and companies.

(USNIC p.81)

The two reports existence of more 'ungoverned spaces' is seen as a likely result of a combination of the transition to a multi-polar world, increasing economic disparities and the continued rise of illicit trade and criminal activity.

The treatment of climate change by the two reports differs somewhat.

The US NIC report does not mention sea level rise or extreme weather events, choosing instead to highlight water scarcity and loss of agricultural production.

Climate change is expected to exacerbate resource scarcities. Although the impact of climate change will vary by region, a number of regions will begin to suffer harmful effects, particularly water scarcity and loss of agricultural production. Regional differences in agricultural production are likely to become more pronounced over time with declines disproportionately concentrated in developing countries, particularly those in Sub-Saharan Africa.

(US NIC 2008 p. viii)

However, it does refer to the estimate by the Stearn Report of 200 million people permanently displaced as 'climate migrants' by the middle of the century, though it notes that

...although this is considered high by many experts, broad agreement exists about the risks of large scale migration and the need for better preparation.

(US NIC 2008 p.53)

Possibly because it takes a slightly longer time horizon (upto 2036) the UK DCDC report identifies a greater range of impacts:

Major consequences are ***likely*** to include melting icecaps, thermal expansion of the oceans, and changes to ocean currents and flows, with seawater becoming more acidic as CO2 transfers from the atmosphere. On land, some regions ***will*** experience desertification, others ***will*** experience permanent inundation, and tundra and permafrost are ***likely*** to melt and release methane, ***possibly*** in large amounts. Global climate change ***will*** reduce land for habitation and ***will*** result

in changing patterns of agriculture and fertility, while tropical diseases, like malaria, are also *likely* to move north and into temperate zones. There *will* be an increased risk of extreme weather events, threatening densely populated littoral, urban and farming regions with eccentric growing seasons, flooding and storm damage.

(UK DCDC 2007 p. 2)

The two reports agree that Sub-Saharan Africa will lag behind developments in other developing regions and will remain poor and highly vulnerable to economic and environmental shocks and prone to political instability and conflict. Countries experiencing 'youth bulges' and poor economic performance which are thereby unable to provide employment for young adults, are seen as being a likely source of instability. Three quarters of such countries are in Sub-Saharan Africa with the remainder in the Middle East, Asia and the Pacific.

The two reports anticipate changes in the cause and nature of future conflicts. For instance, wars over resources (particularly energy and water resources) are viewed as being more likely in 2025. The growth of the BRIC countries and others such as Indonesia is anticipated as increasing the likelihood of regional conflicts as such countries assert their new identities and perceived positions on the world stage and as the US transitions to a less dominant role. Areas of particular tension are identified as being: the South China Sea (particularly Mainland China and Taiwan); Pakistan/India; the Middle East (Israel, Palestine and neighbouring states and also Iran), and Central Asia. Though the risk of nuclear weapons exchanges remains low in 2025, it is likely to be greater than at present. Tensions between India and an unstable Pakistan are a particular concern. If Iran does acquire nuclear weapons capability (as is currently predicted), it is likely to produce a nuclear arms race in the Middle East of 2025.

Box 4. Summaries of the US NIC 2025 Scenarios

'A World Without the West'.

In this scenario, the US and NATO have some ten years before withdrawn from engagement in Afghanistan without having pacified the Taliban. In order to deal with unstable areas (such as Afghanistan) within their neighbourhood, China, India, and the Central Asian Republics have formed the Shanghai Cooperation Organization (SCO) which mounted its own 'peacekeeping' intervention in Afghanistan. Growing antagonism between the US/Europe and China fuels Chinese nationalism. The development of technologies allowing for the clean use of fossil fuels enables China to use Russian energy resources and Russia is drawn into the Shanghai Cooperation Organization. The scenario is presented in the form of a letter from the (Russian) Head of the SCO to the Secretary General of NATO in 2025 ahead of their inaugural 'strategic dialogue' meeting, reflecting on the events of the last 17 years.

'October Surprise'.

In this scenario, the failure to respond effectively to climate change results in a hurricane hitting New York in October 2020 coinciding with the annual UN General Assembly meeting. Flooding of Manhattan forces the evacuation of thousands and the closure and relocation (to New Jersey) of the NY Stock Exchange. The reception for the UNGA is held aboard a US aircraft carrier. The collapse of dams in China causes the death of 100,000 and a political crisis which threatens the future of the Chinese Communist Party. Implicit in the scenario is the need for better US leadership and stronger multilateral institutions if the world is to avoid even more devastating crises. The scenario is written in the form of a reflective diary entry in 2020 by the US

President.

‘BRICs’ Bust-Up’.

In this scenario, growing great power rivalries and increasing energy insecurity lead to a military confrontation between India and China. The US is perceived by Beijing as favouring India to China’s detriment. Great power war is averted, but the protagonists must rely on a third party—in this case Brazil—to help reconstitute the international fabric.

‘Politics Is Not Always Local’.

In this scenario, a seismic shift in government versus non-state actor authorities has occurred on environmental and some other issues, due in part to a series of unprecedented natural disasters, including the New York hurricane. For the first time, a coalition of non-state actors is seen by many electorates, including the now substantial middle-classes in India, China and Russia, as better representing “planetary” interests and, at least on environmental issues, governments must heed their advice or face serious political costs. One result was the allocation of 20 seats at the UN General Assembly to NGOs with the same voting rights as nation-states. The 20 seats are competed for on an annual basis. The picture with regard to other issues, such as national security, is less clear cut with national, ethnic, class and other differences resurfacing.

International terrorism is seen as a continuing factor in 2025 with descendants of some of the current groups/networks being joined by “newly emergent collections of the angry and disenfranchised that become self-radicalized” (USNIC). The likelihood that such groups may be able to employ biological agents is seen as significantly increased from the present situation. By 2025, it is seen as unlikely that such groups will be able to access and employ nuclear devices though some form of ‘dirty bomb’ is a greater risk.

Anticipating the likely technologies that will be in use by 2025 seems to have presented considerable challenges to each of the reports, in large part because the widespread adoption of a particular technology will be dependent upon price/demand considerations and social attitudes. A critical issue concerns the technologies relating to energy use and the comparative contribution of fossil fuels or renewable sources. The Shell Global Scenarios 2025 has the most sophisticated analysis of these issues but points to significantly different outcomes between the ‘Low Trust Globalisation,’ ‘Open Doors’ and ‘Flags’ scenarios.

With its longer time horizon (2036), DCDC sees the principal areas of potential scientific and technological breakthroughs occurring within the fields of nanotechnology, ICT and biotechnology. The NIC with its 2025 time horizon divides key technology ‘breakthroughs’ (i.e. development and initial deployment but not necessarily fuller deployment) between the categories of ‘probable’, ‘possible’ and ‘plausible’ (see Box 5).

Box 5. Technology ‘Breakthroughs’ anticipated by 2025

(as anticipated by the US National Intelligence Council Global Trends 2025)

Probable

Ubiquitous computing: enables all households (even in remote, energy poor areas) to access ICT/Internet encouraging greater cultural assimilation. In addition it would enable the widespread tagging and networking of mundane objects (food packages,

paper documents etc.) enabling their tracking through room sensors and radio frequency identification.

Clean water technology: enables the faster and more energy efficient treatment of untreated water, waste water, and brackish water.

Energy storage technology: enables provision of energy on demand in vehicles and homes. It would enable increased use of energy from renewable sources and would reduce reliance on fossil fuels.

Possible

Biogerontechnology' (the science related to the study of the identification and treatment of diseases and disabilities associated with old age): adoption would place additional costs on economies with ageing populations.

Clean coal technology: enables use of coal reserves without CO2 entering the atmosphere. Adoption would reduce demand for oil and gas resources.

Human strength augmentation technologies (mechanical and electronic systems supplementing human physical capabilities) enables greater productivity by single humans so useful for elderly/infirm and soldiers.

Biofuels technology: next generation technology will enable use of grasses and algae to produce low CO2 energy.

Plausible

Service robotics (robots and unmanned vehicles for non-manufacturing applications) would disrupt low skilled labour markets.

Human cognitive augmentation technologies (drugs, implants and wearable devices to enhance cognitive abilities) Of potential use in military, economic and educational spheres and also in supporting to those suffering age-related cognitive disorders.

Of the two reports, only the DCDC specifically anticipates likely humanitarian crises and responses:

Humanitarian crises, both natural and human in origin, will affect the sentiments and sensibilities of globalized media audiences. Growing pressure for intervention will be exerted by these audiences and a hyperactive, obtrusive media, operating in both physical and virtual dimensions, especially when audiences are linked to those affected by identity or interest, or where they feel threatened by potentially wider or collateral impacts. Humanitarian fatigue may grow in proportion to the number of crises that emerge and the ability of governments and individuals to pay.

(UKDCDC p.18)

The NIC report anticipates the future for NGOs in 2025 in the following terms:

Non-governmental organizations (NGOs)—concentrating on specific issues—increasingly will be a part of the landscape, but NGO networks are likely to be limited in their ability to effect change in the absence of concerted efforts by multilateral institutions or governments. Efforts at greater inclusiveness—to reflect the emergence of the newer powers—may make it harder for international organizations to tackle transnational challenges. Respect for the

dissenting views of member nations will continue to shape the agenda of organizations and limit the kinds of solutions that can be attempted.

(NIC p.xi)

In summary, the following factors may be highlighted from the two reports as being of particular relevance to the humanitarian system in 2025:

- The global system will become multi-polar and the US a less dominant power;
- There will be more ‘ungoverned spaces’;
- Climate change will in some areas result in water scarcity/desertification; agricultural production losses; extreme weather events; and substantial numbers of ‘climate migrants’;
- More wars will take place over resources and regional wars are likely as the world adjusts to the rise of the BRICs;
- Sub-Saharan Africa will lag behind other regions and will remain poor and highly vulnerable to economic and environmental shocks and prone to political instability and conflict;
- International terrorism will continue and the risk will increase of terrorist use of biological agents and possibly nuclear devices;
- New technologies will probably include ‘ubiquitous computing,’ clean water technology and energy storage technology.

These factors will be returned to in Section 5.

Summary information on the three reports that were not used is provided in Box 6.

Box 6. Summary Information on the reports by Shell, the UN Millennium Project and the Global Scenario Group

Shell Global Scenarios 2025

Though having a particular interest in global energy production and consumption, the Global Scenarios 2025 uses scenarios to explore possible futures in depth. Influenced by the 9/11 attack and the Enron scandal and the resultant insecurity, ‘Global War on Terror’ and mistrust in financial institutions, the 2025 Global Scenarios identifies three scenarios intended to capture plausible, coherent ways in which essential trade-offs will be made in the more complex world of 2025. The three scenarios are:

- ‘Low Trust Globalisation’ characterised as a legalistic ‘prove it to me’ world;
- ‘Open Doors’ characterised as a pragmatic know me’ world; and
- ‘Flags’ as a dogmatic ‘follow me’ world.

Though more creative and more demanding of the reader than the NIC and DCDC reports, the lack of a broadly agreed vision of the anticipated future of 2025 renders it of less immediate use to the reader.

UN Millennium Project's 2008 State of the Future

The 2008 State of the Future report represents the twelfth State of the Future report. The 2008 report was prepared by the SOF team in New York with participation and contributions by 230 specialists. As well as the print version of SOF 2008, the CD-ROM version contains 6,300 pages of material including results of research in previous years. Specific subjects researched in SOF 2008 were global energy intelligence/information systems and environmental insecurity.

As in previous SOF reports, the 2008 SOF looked at the following 15 Global Challenges “to provide a framework to assess the global and local prospects for humanity”:

- Sustainable development and climate change
- Clean water
- Population and resources
- Democratization
- Long-term perspectives
- Global convergence of IT
- Rich-poor gap
- Health issues
- Capacity to decide
- Peace and conflict
- Status of women
- Transnational organised crime
- Energy
- Science and technology
- Global ethics.

In addition, the 2008 SOF provides the results of the latest State of the Future Index (SOFI). SOFI is a measure of the ten year outlook for the future based on the previous 20 years of historical data. It is constructed with key variables and forecasts that, in aggregate, depict whether the future is going to be better or worse. In what might be seen as a rather banal product of such global level projections, the results of the 2008 global SOFI were “that the future over the next ten years is still getting better, although not as rapidly as it did over the past 20 years”.

Although the State of the Future series represents a significant resource, it is not of direct use in anticipating the future of 2025.

Global Scenario Group Great Transition

The Global Scenario Group was formed in 1995 by the Stockholm Environment Institute to examine the requirements for a transition to sustainability. Great Transition identifies six scenarios and a very seventh ‘muddling through’ which are summarized in a

table of archetypal worldviews.

Achetypal Worldviews

| Worldview | Antecedents | Philosophy | Motto |
|--------------------------------|--|---|--|
| <i>Conventional Worlds</i> | | | |
| Market | Smith | Market optimism; hidden and enlightened hand | Don't worry be happy |
| Policy Reform | Keynes; Brundtland | Policy stewardship | Growth, environment, equity through better technology and management |
| <i>Barbarization</i> | | | |
| Breakdown | Malthus | Existential gloom; population /resource catastrophe | The end is coming |
| Fortress World | Hobbes | Social chaos; nasty nature of man | Order through strong leaders |
| <i>Great Transitions</i> | | | |
| Eco- communalism | Morris and social utopians; Gandhi | Pastoral romance; human goodness; evil of industrialism | Small is beautiful |
| New Sustainability Paradigm | Mill | Sustainability as progressive global social evolution | Human solidarity, new values, the art of living |
| <i>Muddling Througb</i> | Your brother- in-law (probably) | No grand philosophies | Que será, será |

Much of the comparative analysis in Great Transitions focuses on the 'Market,' 'Policy Reform' and 'New Sustainability Paradigm,' with the ultimate objective being to demonstrate that the 'New Sustainability Paradigm' is a realistic and achievable vision. Whilst this objective is in line with the origins of the Global Scenario Group, and Great Transitions provides some interesting, if rather caricatured alternative scenarios, it does not provide a useful basis for anticipating the world in 2025.

SECTION 4. THINKING ABOUT 'DRIVERS'

WHAT ARE 'DRIVERS' AND HOW CAN THEY BE IDENTIFIED?

In his Advanced Futures Glossary, Richard Slaughter describes 'drivers' or 'driving forces' in the following terms:

There are many trends or events shaping the future, but some are more important and evident than others. Driving forces (or 'drivers') are often major shapers of the future. Examples include demographic changes, climate changes or technological innovations.

(Slaughter 2005)

The UK Government's Horizon Scanning Centre¹³ describes drivers in the following way:

Drivers are meta-factors: a collection of underlying issues or trends that share a common theme. Drivers can inform an overall outcome, such as a scenario. The technique of driver analysis determines which of the drivers are most critical for consideration for a given topic.

[\(http://hsctoolkit.tribalctad.co.uk/content/view/28/56/\)](http://hsctoolkit.tribalctad.co.uk/content/view/28/56/)

Typically the identification of drivers is undertaken by groups of people. Peter Schwartz author of *The Art of the Long View* writes,

Driving forces often seem obvious to one person and hidden to another. That is why I almost always compose scenarios in teams.

(Schwartz 1998 p.103)

Drawing on his extensive experience in the analysis of drivers Andrew Curry, Director of The Futures Company in the UK, offers useful insights into the identification and use of drivers (see Box 7).

Box 7. Andrew Curry speaking on Drivers Analysis

"I think there are three issues [in approaching Drivers Analysis]. The first is the importance of setting a question for the project which defines the system in a way which is broad enough to be interesting and challenging but narrow enough to actually exclude some questions which don't really help you think about the world.

The second is the importance of understanding cultural and attitudinal changes – changes in values and beliefs - as well as structural shifts. I think this is often the biggest challenge for people [thinking about] futures from within organisations. It is easier to think about structural change but actually shifts in values and attitudes are the quickest changes which go on in the environment.

The third important task is about understanding the relationships between the drivers; between those you **may** be able to influence and those which again set the context for your work pretty much regardless of what you do. And part of this is also understanding those drivers of change which effectively enforce continuity – the things which act as stabilisers (the sort of 'negative' drivers of change) are just as important as

those which encourage change.

The benefits of a drivers process should be a clear map of the environment in which the business is operating, structured in such a way that you can understand it, discuss it or argue about it and you can act upon it. Essentially that is about reducing complexity. In our experience, there may well be 20-25 drivers which are relevant to a particular futures question by the time you have done the analysis. And that is too much to keep in your head at one time. What the drivers analysis should allow you to do is to reduce that to a set of clusters or themes, around 3-5 typically, each of which should tell their own story about the future. For example, one of the themes we have seen in some of our recent work is around the limits to economic growth where you see issues around affluence and economic change being challenged by environmental issues such as resource cost or biodiversity.

I think there are four main issues that people have in doing drivers work – all sorts of problems which merge.

The first is when are you sure that a driver is a driver? We would generally say that by the time you get to 75-80 percent confidence level, that is enough. You don't need to validate it to 95 percent.

The second area is around weak signals. They are usually qualitative rather than quantitative (or certainly the evidence is) and that means that they tend to get disregarded, especially in more analytical cultures. It is important to bring those back into view as they are often signs of disruptive change.

The third is the importance of thinking about cultural change and changes in values and attitudes. There is some good work here in the area of Integral Futures which has been championed by Richard Slaughter and popularised by Andy Hines. There are some quite good tools for checking this.

And lastly, people tend to focus too much on the drivers they believe they can influence. When you are doing drivers analysis you should be trying to assess the whole landscape, even if there are some really ugly drivers which you are not going to be able to influence and which could be quite damaging to your business or your organisation.”

Andrew Curry is a Director of The Futures Company a consultancy company created by the merger of Henley Centre HeadlightVision and Yankelovich in 2008.

Source: UK Government Foresight Horizon Scanning site
<http://hsc toolkit.tribalctad.co.uk/content/view/31/59/>

Audio files transcribed by John Borton on 25 February 2009.

The humanitarian system is affected by trends and events (drivers) in the world in which it operates, and by trends and events (drivers) within the organisations and networks that comprise the humanitarian system. Where trends and events in the world create humanitarian needs or increase the vulnerability of certain population groups, the humanitarian system generally attempts to respond by seeking to address the humanitarian needs and reduce the levels of vulnerability. The humanitarian system is therefore, to a degree, responsive to events and trends in the world in which it operates. To attempt to identify and differentiate between drivers that are ‘external’ to the

humanitarian system and drivers that are somehow ‘internal’ to the humanitarian system is somewhat problematic.

The Humanitarian Horizons project has sought to differentiate between the major drivers of demographic trends, climate change and globalisation which are the subject of separate studies, whilst the likely trends and developments within the humanitarian system have been characterised as ‘internal drivers.’ Such a differentiation is potentially confusing and somewhat misleading, for ultimately all trends and events that drive change *within* the humanitarian system have their roots *outside* the system. The major ‘external’ drivers of demographic trends, climate change and globalisation soon morph into ‘internal’ drivers as the humanitarian system seeks to respond to the additional humanitarian needs generated by the impact of, and complex interplay between, these major external drivers.

Readers are requested to bear this point in mind when the internal/external terminology appears in the following discussion.

EXISTING WORK ON DRIVERS OF CHANGE WITHIN THE HUMANITARIAN SYSTEM

To date, most of the work that has been undertaken on anticipating the future in relation to the humanitarian system is represented by two particular bodies of work.

- The earlier *Ambiguity and Change* project led by Tufts with a report published in 2004 (Feinstein International Famine Center 2004). The report “Ambiguity and Change: Humanitarian NGOs Prepare for the Future” involved contributions by no fewer than eleven researchers. After reviewing current trends the report made some projections for the skills and attributes that would be needed by humanitarian practitioners and humanitarian organisations in the year 2015.
- The substantial body of work assembled over the last five years by the Humanitarian Futures Programme at Kings College founded and led by Randolph Kent. (see Boxes 8 and 9)

Box 8. The Work of the Humanitarian Futures Programme

The programme has three main components designed to help organisations with humanitarian responsibilities prepare for the future.

Component 1: Participant Development

This component involves the programme working with humanitarian organisations to assess their futures capacities and ways to strengthen them. A key tool developed for this purpose is the Organisational Self Assessment Test which is a questionnaire to be completed by agency personnel covering:

- How the organization thinks about the future;
- How the organization anticipates future threats
- How adaptive the organization is to threats and opportunities
- How the organization encourages and supports innovation

- How the organisation encourages collaboration with external actors

Component 2: The Futures Group

The Futures Group is a forum established at the London level and in countries in which HFP works, eg. Central African Republic, Ecuador, the Philippines and Tajikistan, to bring the knowledge of leading social and natural scientists together to explore factors that might create humanitarian crises in the longer-term as well as ways to mitigate their impacts. The Futures Group also seeks ways to enhance the exchange of knowledge between humanitarian policy-makers and scientists, and developing ways to ensure a more effective dialogue.

Component 3: Innovations

This component is designed to support humanitarian organisations in being more innovative and adopting innovative practices. It does this by identifying innovative approaches from a broad range of disciplines and assesses their relationship to humanitarian needs and then tests the capacity of humanitarian organisations to adopt such practices through its work with partners.

Box 9. Selected publications by the Humanitarian Futures Programme

Randolph Kent (2004) *Humanitarian Futures: Practical policy perspectives* Humanitarian Practice Network Paper No. 46 April. London: Overseas Development Institute.

Royal Society for the Arts (2006) *Planning from the future: strengthening capacity to face future vulnerabilities* part edited transcript of RSA meeting held on 14 November 2006, John Adam Street. Speakers: Professor Bill McGuire, Olu Arowobusoye and Dr Randolph Kent Chair Sir Mike Aaronson. London: RSA.

Randolph Kent (2007) *Seven Dimensions of Humanitarian Futures* Transcript of presentation and discussion at the RedR UK event “Shocks: disasters and relief in a changing world” Cavendish Square 5th December 2007 London: RedR UK.

Randolph Kent and John Ratcliffe (2008) *Responding to Catastrophes: US Innovation in a Vulnerable World* A report of the CSIS Post-Conflict Reconstruction Project New York Center for Strategic and International Studies.

HFP (2007) *Dimensions of Crisis Impacts: Humanitarian Needs by 2015* A report prepared by HFP for the Department for International Development London: HFP.

HFP (2008a) *Integrated Action Plan for Tajikistan A Phase One Analysis* United Nations Country Team, Tajikistan.

HFP (2008b) *Trends and drivers of change in humanitarian action in 2025: HFP Trends and Drivers Workbook* London: HFP.

HFP (2008c) *The LASC Working Group in the context of the HFP’s Integrated Action Plan* Final Report 31st March London: HFP.

Randolph Kent (2008) *Collaboration: speculating about the future. A think piece for the HFP Stakeholders Forum.*

Stacey White (2008) *Turning ideas into action: innovation within the humanitarian sector. A think piece for the HFP Stakeholders Forum* mimeo London: HFP.

HFP's 'Participant Development' work has revealed what in 2007 was reported thusly:

... insufficient effort is being made by 'humanitarian organizations' to prepare for the types of threats that are reflected in mainstream scientific and social scientific research.

(HFP 2007)

HFPs most recent data from the Organisational Self Assessment Tool and its use with UN Country Teams in four countries and a donor government is currently being analysed, but it is understood to demonstrate a wide disparity between the level of importance people gave to future threats, and the degree to which they were incorporated into organisational planning and operations (Rosie Oglesby HFP personal communication 29 May 09).

Reviewing the *Ambiguity and Change* study and the available HFP publications and documents, it would seem that much of the work on the analysis of drivers to date has tended to focus on the major driving forces of climate change, urbanization, migration and disease, all of which will have a direct and significant impact on the work of the humanitarian system but which are nevertheless *external* to the system.

An HFP study that *does* identify 'drivers of change' *within* the humanitarian system is the Trends and Drivers Workbook produced last year (HFP 2008b). It includes a STEEP analysis which identified social, technological, economic, environmental and political drivers (hence STEEP) and also a set of 13 drivers of change *within* the humanitarian sector. The Workbook does not indicate the analysis underlying the selection of these particular potential drivers. These 13 drivers are shown in Box 10. The full list of all drivers is presented in Annex 4.

Box 10. Potential drivers of change within the humanitarian system as identified in the HFP workbook (HFP 2008b)

- Number of people affected by disasters continues to rise
- New types of disaster and vulnerability
- New specialism within agencies as result of new threats
- More funding for humanitarian crises from a greater diversity of donors and channels
- Professionalism
- Demand for accountability
- Powerful political forces setting agenda
- New organisations working in the humanitarian sector
- Lessening influence of UN
- Shrinking of humanitarian space
- Rise of national capacities
- New technologies

- New international humanitarian law (driven by use of robots in war and other patterns of new warfare)

In a presentation to a RedR UK event “Shocks: disasters and relief in a changing world” Randolph Kent presented the following *Seven Dimensions of Humanitarian Futures* (Kent 2007):

- Changing nature of humanitarian crises, specifically the impact of global climate change and the further blurring of distinctions between ‘natural’ and ‘man-made’ disasters and between ‘developed’ and ‘developing’ economies and societies.
- Changing dynamics of humanitarian crisis, specifically issues of synchronous failure (simultaneous collapse of systems) multi-hazard events in which different types of disaster agents interact with each other at the same time, and cascading crisis agents in which one type of agent triggers another.
- Changing nature of the affected, specifically the complex needs and context of affected populations which are increasingly urbanized.
- Changing types of humanitarian actors, specifically corporate and military actors.
- Changing instruments in the humanitarian tool kit, specifically scientific innovation and social science involvement.
- Changing types of humanitarian workers, specifically a reduction in the relative number and significance of international personnel.
- New standards of accountability, specifically to intended beneficiaries and affected communities.

As can be seen from HFP’s Trends and Drivers Workbook and Kent’s Seven Dimensions, HFP’s work has begun to identify drivers which are *internal* to the humanitarian system.

Finally, in the closing chapter of the book *Shaping the Humanitarian World*, Walker and Maxwell (2009) highlight five “critical issues and major challenges that humanitarianism has to face”:

- The future of humanitarian principles in today’s politicized world.
- The dilemma of determining whether to address causes of humanitarian emergencies or only their symptoms.
- Challenges highlighted by the rapid growth and professionalization of humanitarian action.
- The difficulties in institutional learning and accountability in humanitarian agencies.
- Dealing with the new drivers of future humanitarian crises.

Walker and Maxwell highlight the following five interconnected processes as affecting the course of disasters and humanitarian action:

- Increasing interconnectedness of global trade.
- Qualitative changes in our ability to communicate, share, and generate knowledge globally as a result of the Internet and broadband connectivity.
- Tacit assumption among rich and economically powerful nations that a mix of representative government, free market economies and reformed state structures represent the norm for the future.
- Growing assertion of alternative ethnic and religious-based values and forms of governance.
- Changing nature of organized violence.

In the following discussion on what the humanitarian system is likely to look like in 15-20 years time, Kent's 'Seven Dimensions' and Walker and Maxwell's five 'critical issues and challenges' and 'five interconnected processes' will be drawn on, together with the most relevant points from the US NIC and UK DCDC reports reviewed in Section 3.

**SECTION 5. WHAT THE HUMANITARIAN SYSTEM MIGHT LOOK LIKE IN
2025**

I would ask readers to remember that, to paraphrase von Moltke, parts of our projected landscape are unlikely to survive first contact with the future, mainly and inconveniently because of the tendency of human beings to interfere with the scenery and to act and react in unforeseen, non-linear ways. Nor do similar causes lead to similar outcomes; things are just too complex, with a great many variables, decisions and actions that interact with human behaviour in an almost organic manner. Indeed, discontinuities, insecurities and volatilities seem to be proliferating all the time and future changes seem to be accelerating towards us at a faster rate than we might have expected.

Rear Admiral Chris Parry, Foreword to the UK DCDC Global Strategic Trends Programme 2007-2036

INTRODUCTION

A strategic foresight process for the Humanitarian System should really involve representatives of all the principal stakeholder groups that comprise the System, including representatives of intended beneficiaries and local communities, in order to create a shared assessment of 'where we are now' and then work through a process to identify and prioritize anticipated trends and developments and then develop likely scenarios for some specified period in the future. How such a process might be organised and framed is a subject for discussion by those involved in the Humanitarian Horizons project and the IWG. Possible options might include a process organised around, or at least involving, the Global Humanitarian Platform, the Inter-Agency Standing Committee, ALNAP and other groups representing beneficiaries and affected communities.

What follows is the product of *one* researcher having reviewed a wide range of materials. Whilst it might serve as a background paper to a strategic foresight process, it should not be viewed as replacing any part of a substantive strategic foresight process.

AN OVERVIEW OF LIKELY DRIVERS OF CHANGE SHAPING THE HUMANITARIAN SYSTEM OF 2025

Before focussing on specific drivers and developments that are judged as having a strong possibility, it would be useful to recap the various trends and developments anticipated by the US NIC and UK DCDC studies as being of particular relevance to the humanitarian system in Section 2 and by Kent (2008) and the critical issues identified by Walker and Maxwell (2009) in Section 4. This list can be found in Box 11.

Box 11. Drivers and challenges identified by authoritative researchers

Selected points from the US NIC and UK DCDC studies

- The global system will become multi-polar and the US a less dominant power,
- There will be more ‘ungoverned spaces,’
- Climate change will, in some areas, result in water scarcity/desertification; agricultural production losses; extreme weather events and substantial numbers of ‘climate migrants,’
- More wars will take place over resources, and regional wars are likely as world adjusts to the rise of the BRICs,
- Sub-Saharan Africa will lag behind other regions and will remain poor and highly vulnerable to economic and environmental shocks and prone to political instability and conflict,
- International terrorism will continue and the risk will increase of terrorist use of biological agents and possibly nuclear devices,
- New technologies will probably include ‘ubiquitous computing’, clean water technology and energy storage technology.

Kent’s *Seven Dimensions* (2007)

- Changing nature of humanitarian crises, specifically the impact of global climate change and the further blurring of distinctions between ‘natural’ and ‘man-made’ disasters and between ‘developed’ and ‘developing’ economies and societies,
- Changing dynamics of humanitarian crisis, specifically issues of synchronous failure (simultaneous collapse of systems) multi-hazard events in which different types of disaster agent interact on each other at the same time and cascading crisis agents in which one type of agent triggers another,
- Changing nature of the affected, specifically the complex needs and context of affected populations which are increasingly urbanised,
- Changing types of humanitarian actors, specifically corporate and military actors,
- Changing instruments in the humanitarian tool kit, specifically scientific innovation and social science involvement,
- Changing types of humanitarian workers, specifically a reduction in the

relative number and significance of international personnel,

- New standards of accountability, specifically to intended beneficiaries and affected communities.

Walker and Maxwell's *Five Critical Issues and Challenges* (2009)

- The future of humanitarian principles in today's politicized world,
- The dilemma of determining whether to address causes of humanitarian emergencies or only their symptoms,
- Challenges highlighted by the rapid growth and professionalization of humanitarian action,
- The difficulties in institutional learning and accountability in humanitarian agencies,
- Dealing with the new drivers of future humanitarian crises.

Rather than review each of these drivers in turn, they have been amalgamated and modified to reflect this researcher's own sense of likely developments.

Probably the most powerful 'driver' will be the nature and impact of future humanitarian crises and so this will be considered first.

KEY DRIVER: HUMANITARIAN CRISES AND CASELOADS IN 2025

There is widespread acceptance that the numbers of people affected by future disasters will be substantially greater than at present. What is less apparent are the numbers of people likely to be affected by disasters by 2025 and in need of humanitarian assistance.

Oxfam International's recent *The Right to Survive: the Humanitarian Challenge for the Twenty-first Century* (Oxfam International, 2009) estimated that by 2015,

... there may be more than a 50 percent increase in the numbers of people affected by climate-related disasters in an average year compared with the decade 1998-2007, bringing the yearly average to more than 375 million people. This projected increase could overwhelm the world's current capacity to respond.

(Oxfam International 2009 p.25)

The data set used in making this forecast (for a point just 6 years away!), was information on the 'numbers affected' from the CRED EM-DAT database for the period 1980-2007. The data was first 'smoothed' (using double exponential smoothing) and then a linear regression line was established for the period 1980-2007 and its extension on the same linear trend through to 2015 (Ganeshan and Diamond 2009). As admitted by the authors, such a method is crude and assumes that historical trends will continue. Still, were the trend line to be continued through as far as 2025, the numbers affected would be almost 450 million.

Box 12. Upward trends in 'numbers affected' by natural disasters are the reverse of trends in the 'numbers killed' by natural disasters

In focusing on numbers affected by natural disasters, it is important to bear in mind that whilst the 'numbers affected' have been increasing, the numbers actually killed by natural disasters appears to have declined steeply since the first half of the 20th century. Earlier analysis by this researcher using the Boulder Disaster Centers listing of the *Hundred Deadliest Disasters during the Twentieth Century* (also based on data from CRED's EM-DAT, see <http://www.disastercenter.com/disaster/TOP100K.html>) revealed that only eight of the twentieth century's 100 deadliest disasters occurred in the last 20 years of the century and of these eight three entries were the result of the 1984-5 African Food Crisis). The 100 deadliest disasters caused a total of 61.6 million deaths during the century, but of these, 53 million (87 percent of the total) died during the first half of the century and 8.1 million (13 percent) during the second half. The 780,000 deaths that were due to these deadliest disasters during the last 20 years of the century accounted for only 1.27 percent of the total deaths during the century. Factors believed to have contributed to the reduction were "general improvements in living standards/levels of development (producing reduced vulnerability and increased coping ability) probably assisted in many cases by better disaster prevention and preparedness measures and more effective disaster response" (Email from John Borton to Peter Walker February 2008).

However, it should be noted that data on mortality attributable to conflicts (such data is not available on a global basis) may show quite different trends to those for natural disasters. For instance, Stockton (2004) notes the CRED database (as used by the 2002 Red Cross World Disasters Report) indicated that mortality figures for 'all disasters' in the Democratic Republic of Congo as being just 1,427 deaths at a time when excess mortality surveys undertaken by the International Rescue Committee were indicating excess mortality of approximately 900,000 per year attributable to the ongoing conflict, massive population displacements and disruption caused to the provision of health services in DRC (Stockton 2004).

However, there is good reason to believe that as the impacts of global climate change become more apparent, so the trend line for numbers affected will actually become steeper than the linear trend forecast by Oxfam. For instance, the 2007 HFP study for DFID focused on global climate change and its implications for humanitarian assistance needs by 2015 identified

...five drivers ... that will intensify the impacts of humanitarian crisis agents or factors that will directly threaten human life and livelihoods essential for survival. Each of these drivers will be influenced by global climate change, and analysis of each is consistent with findings undertaken by a range of international and inter-governmental organisations as well as leading research institutes.

(HFP 2007 p. 13)

The five drivers resulting from global climate change that were identified were:

- **Demographic shifts** that will increasingly place people in physical and economic situations where their vulnerability is exposed,
- **Environmental degradation** that will create new crisis agents and intensify so called 'natural' crisis agents,
- **Water dimensions** (i.e. water-related issues) that will require ways to be found to address water scarcity and avoid violent competition over

water and to have adequate infrastructures to meet burgeoning sanitation and potable water needs,

- **Exacerbation of persistent health threats** such as chronic and infectious diseases that will be exacerbated by global climate change and the impact of other drivers, and
- **Exacerbation of intra and inter-state stability** as a result of global climate change increasing the scramble for scarce resources, e.g. water and arable land, become more intense, and as populations seek survival and livelihoods in already overstressed areas.

The study had this to say about the changing nature and type of disasters:

The interaction between global climate change and the drivers that have been identified in this study will result in changes in the dynamics and dimensions of humanitarian crises. Humanitarian crises will increasingly reflect more ‘synchronous’ or, simultaneous collapse of systems. They will increasingly be the result of ‘multi-hazard impacts’ or interactive disaster agents affecting vulnerable populations. More and more humanitarian crises will ‘cascade’ from one crisis agent to another; and there will be a growing number of humanitarian crises that will have global impacts, eg. interactive across regions and continents.

(HFP 2007 p.ii)

The study focused on the possible consequences of global climate change and a select number of drivers, shocks and crisis agents in four regions of interest to DFID (South Asia, East Africa, Central Asia and Southern Africa), so did not generate global estimates of numbers affected. However, some dramatic increases were revealed in the potential impacts of major drivers for these regions. For instance 26.1 million people were estimated to be affected by at least one or more disaster agents in 2015 in the region as compared with annual average over the period 2000-2005 of 11 million (HFP 2007).

The recent 2009 Global Assessment Report on Disaster Risk Reduction (UN ISDR, 2009) identified three “underlying drivers of the disaster risk-poverty nexus” namely:

- Vulnerable rural livelihoods,
- Poor urban governance, and
- Declining ecosystems.

Climate change was identified as a ‘global driver of risk’ having a ‘magnifying effect’ on the disaster risk-poverty nexus.

Some of the anticipated impacts of climate change as identified by the 2009 Global Assessment Report are indicated below.

Table 2. Projected impacts of climate change in Africa, Asia and Latin America
 Reproduced from Table 4.4 in the 2009 Global Assessment Report on Disaster Risk Reduction (UNISDR 2009)

| | |
|---------------|---|
| Africa | By 2020, between 75 and 250 million people are projected to be exposed to increased water stress due to climate change. Yields from rain-fed agriculture could be reduced by up to 50 percent in some |
|---------------|---|

| | |
|----------------------|---|
| | countries. Agricultural production, including access to food, in many African countries is projected to be severely compromised. This would further adversely affect food security and exacerbate malnutrition. |
| Asia | By the 2050s, freshwater availability in Central, South, East and South-East Asia, particularly in large river basins, is projected to decrease. Coastal areas, especially heavily populated mega-delta regions in South, East and South-East Asia, will be at greatest risk due to increased flooding from the sea and, in some mega-deltas, flooding from the rivers. |
| Latin America | By 2050, increases in temperature and associated decreases in soil water are projected to lead to gradual replacement of tropical forest by savannah in eastern Amazonia. Semi-arid vegetation will tend to be replaced by arid-land vegetation. Productivity of some important crops is projected to decrease and livestock productivity to decline, with adverse consequences for food security. In temperate zones, soybean yields are projected to increase. Changes in precipitation patterns and the disappearance of glaciers are projected to significantly affect water availability for human consumption, agriculture and energy generation. |

How such changes in the patterns of disasters and the substantial increases in the anticipated caseload are likely to be handled will be discussed later.

KEY DRIVER: TRANSITION TO A MULTI-POLAR WORLD

By 2025, China is expected to be the second largest economy in the world and a leading military power. Growth projections for Brazil, Russia, India and China (the so-called BRICs) indicate that by 2040-50 their share of global GDP will match that of the G7 (USA, UK, Japan, France, Germany, Italy and Canada). Though not nearly as significant as the BRIC's, the political and economic power of other countries such as Indonesia, Iran and Turkey are expected to increase (NIC 2008). Comparatively, Europe's political and economic power is expected to decrease.

... continued failure to convince sceptical publics of the benefits of deeper economic integration and to grasp the nettle of a shrinking and ageing population by enacting painful reforms could leave the EU a hobbled giant distracted by internal bickering and competing national agendas, and less able to translate its economic clout into global influence.

(NIC 2008 p.32)

Of course, it is possible that China's economic growth will be interrupted by factors such as social pressures due to growing income disparities and inadequate social safety nets, poor business regulation and an inability to import the raw materials and energy vital to sustain its high rates of growth. Also of significance will be the relationship between India and China and how they manage the inevitable competition between themselves. A conflict over Taiwan into which the US might be drawn remains a possibility.

Nevertheless, it seems almost inevitable that the 'uni-polar world' that has existed since the breakup of the USSR and the end of the 'bi-polar' Cold War era in 1989 - the very period that has witnessed the rapid growth of the humanitarian system - will by 2025, have transitioned to a 'multi-polar world'. A step in this transition took place in June 2009 when the first 'full format' BRIC summit was held in Yekaterinburg, Russia.

The agenda included: the strengthening of ties, and the development of common positions on issues such as reform and regulation of the financial sector and institutions such as the IMF (Xinhua/China Daily 2009).

What are the likely implications of a multi-polar world for the humanitarian system? The answer to this question would seem to have three main dimensions:

- The potential for conflicts and additional humanitarian needs during the transition period,
- Increased legitimacy and fairness of the global institutions such as the UN Security Council, and
- The nature of the engagement between the BRIC governments and societies with the humanitarian system and its component organisations and agencies, particularly in relation to:
 - funding levels and the routing of flows,
 - attitudes towards military deployments and intervention, and
 - attitudes towards NGOs.

ADDITIONAL HUMANITARIAN NEEDS?

As the economies of China, India, Russia and Brazil expand and as they seek to protect and assert their interests, so it will affect their relations with neighbouring states and those more distant states in which they have interests. With its high demand for energy and raw materials, China has already entered into a deeper involvement in countries in different continents but in particular in Africa. Its deep involvement in the exploitation of Sudan's oil resources, and its direct and indirect support for the Government of Sudan is viewed by many observers as a factor exacerbating and prolonging the conflict in Darfur, though many noted a change in its position in the months leading up to the Beijing Olympics (Evans and Steinberg 2007).

The extent to which tensions may develop in their relations with neighbouring and more distant states and how effectively such tensions are managed will depend on many factors, including their participation in, and respect for, regional and world institutions.

INCREASED LEGITIMACY AND FAIRNESS OF THE GLOBAL INSTITUTIONS SUCH AS THE UN SECURITY COUNCIL

Whilst China and Russia have been permanent members of the UN Security Council since its creation, India and Brazil can only serve on the UNSC in a temporary capacity as elected members. A proposal to reform the UNSC in 2005 which would have accommodated the permanent membership of states such as India, Brazil, Japan and Germany was unsuccessful (Mallone 2007). Whilst there is no guarantee that such states will become permanent members, it seems inevitable that they will within the next few years. If the UNSC is not able to achieve a more inclusive and representative membership its role and effectiveness is bound to diminish.

Arguably, an expanded membership of the permanent members together with a relative reduction in the USA's economic and military power will increase the legitimacy of, and respect for, the decisions by the UN Security Council. This could help avoid unilateral action by the US and some of its allies as happened in Kosovo in 1999 and

Iraq in 2003 and increase the respect for and support accorded to UN peacekeeping operations.

NATURE OF THE ENGAGEMENT BETWEEN THE BRIC GOVERNMENTS AND SOCIETIES WITH THE HUMANITARIAN SYSTEM

Funding levels and the routing of flows:

As the BRIC economies grow, so the amounts they provide in overseas development assistance (ODA) will also grow. Information on the levels of additional ODA resources that might be available in 2025 and the likely split between development and humanitarian purposes is not readily available. Nevertheless, it is likely to be significant and to represent a substantial addition to the levels provided by the 23 OECD-DAC members of 2009. This will reduce the dominant role currently played by 'western' donor governments in the resourcing of the humanitarian system and thereby serve to increase the legitimacy of the humanitarian system. Possibly the period following the 9/11 attacks in 2001, the 'Global War on Terror' and the western involvements in Iraq and Afghanistan will come to be regarded as a nadir in the global legitimacy of the humanitarian system.

How the BRIC countries will channel their increased humanitarian aid is uncertain. Before the 2004 Indian Ocean Tsunami, China had provided its humanitarian aid principally as bilateral grants or as bilateral in-kind assistance in selected cases. However it began channelling humanitarian aid through the UN in 2004 and its support to the UN looks set to continue as China seeks to portray itself as a responsible member of the UNSC and actor on the world stage.

The sooner the humanitarian system and its component organisations and agencies are able to involve the BRICs in the various institutions and processes of the humanitarian system, the more likely it is that the BRICs will adopt and seek to follow the norms that have been established over the last two decades. For instance, membership of the OECD-DAC and the Good Humanitarian Donorship group would be highly desirable if the BRICs are to be discouraged from providing aid that is tied to procurement in their own countries and to incorporate the GHD principles into their approach to the provision of humanitarian assistance. The OECD's process of engaging with the BRIC countries has been underway for over a decade. Currently five countries (Russia, Estonia, Slovenia, Israel and Chile) are in accession talks and five countries (Brazil, China, India, Indonesia, South Africa) are participating in an Enhanced Engagement process. A China-DAC Study Group was formed in January 2009 with the objective of preparing "joint studies as a basis for promoting experience sharing, mutual learning and policy dialogue on issues related to development and poverty reduction" (DAC 2009).

Drawing on a joint UN-China review of its response to the 2004 Indian Ocean Tsunami, Binder and Conrad (2009) identify the lack of developed cooperation mechanisms between UN agencies and the respective Chinese bureaucratic entities as a significant barrier to more effective integration of China into the humanitarian system. However these are issues that can be readily resolved. In 2006, China made an initial \$1 million contribution to the CERF. Another sign of increasing engagement with the components of the humanitarian system was the opening of ICRC's office in Beijing in 2005 after several years of contacts and negotiation.

Attitudes towards military deployments and intervention

The Indian Navy was deployed promptly to support relief operations in neighbouring countries following the 2004 Indian Ocean Tsunami and the 2008 Cyclone in Myanmar. India also has a long history of troop contributions to UN peacekeeping operations including operations in the former Yugoslavia and for the last few years in the DRC. As India's economy grows, so such contributions are likely to continue and increase.

Whilst the China International Rescue Medical Team (a specialist unit attached to the People's Armed Police General Hospital) has been deployed in response to the 2004 Tsunami and earthquakes in Iran, Pakistan and Algeria (Thompson 2008), China has been much more cautious in its approach of the use of the People's Liberation Army. Thompson (2008) identifies four potential explanations for this cautious approach:

- The People's Liberation Army is reluctant to undertake such roles as they would detract from its primary war fighting roles which are focussed on Taiwan scenarios or would divert scarce resources.
- Domestic disasters periodically create substantial needs for PLA assets.
- Concern that overseas deployments in support of humanitarian operations might expose weaknesses in the PLA's effectiveness in undertaking 'out of area' operations.
- Concern at how overseas deployments of the PLA would be received internationally.

Nevertheless, Thompson sees a clear recognition by the government of the international benefits of such a role and as China's armed forces modernise so its response to overseas natural disasters is likely to increase.

Traditionally, China has been one of the strongest supporters of the 'Westphalian order' and the principle of nation-state sovereignty. The threat of China deploying its veto powers on the UN Security Council significantly affected the role of the Security Council in seeking to manage the crises in Kosovo in 1999 and in Darfur since 2005. However, though remaining a strong defender of nation-state sovereignty, over the last 3-4 years China has been relaxing its position in relation to UN Peacekeeping Operations, and China currently has 2,200 blue helmets in non-combat roles in operations including Haiti and Darfur.

Attitudes towards NGOs

As the middle classes develop in the BRIC countries, what will their attitudes be to poverty and disasters in other parts of the world as opposed to poverty and disasters in their own countries? If they do choose to donate to NGOs responding to disasters and conflicts in, for example, Africa will they be comfortable in supporting international NGOs? Or will they prefer to see "their" national NGOs develop humanitarian response capacities so that by 2025 Indian, Russian and Chinese NGOs will have a significant operational presence in Africa as well as Asia? Though difficult to anticipate at this stage, the likelihood seems to be that by 2025 the Indian and Chinese middle classes will support both national NGOs and international NGOs with which they are familiar in their response to poverty and disasters in other countries and continents.

In the case of China, attitudes to national and international NGOs have evolved significantly over the last two decades. The number of national NGOs has grown rapidly

in recent years, from 266,000 in 2003 to 386,000 in 2007 according to the Ministry of Civil Affairs (Peoples Daily 4 December 08). Some international NGOs have been operating programmes in mainland China for the last 20 years and gradually developing a higher profile. Some, such as World Vision and Oxfam International were able to raise substantial funds for relief and reconstruction programmes from internal as well as external sources following the 2008 Wenchuan earthquake. Public awareness of disasters elsewhere in the world and campaigning by international and national NGOs is, over time, likely to lead to increased public donations from the Chinese public.

In conclusion, the rise of the BRICs and the relative reduction in US dominance is likely to bring with it positive effects for the humanitarian system. By 2025, the likelihood is that India and Brazil will join Russia and China as permanent members of the UN Security Council and significant actors in the humanitarian system. This is likely to confer greater legitimacy to the humanitarian system when its actions are set or supported by the Security Council. Such legitimacy would be further enhanced if the BRIC became significant funders of the humanitarian system alongside the current OECD members.

KEY DRIVER: DEVELOPMENTS IN TECHNOLOGY

By 2025, the US NIC anticipates ‘probable’ developments in technology as including ubiquitous computing, clean water technology and energy storage technology.

An aspect of the ubiquitous computing anticipated by 2025 by the US NIC is that chips will be so cheap that they will be implanted into many everyday items to enable their tracking by GIS and logistics systems. By 2025, therefore, it is likely that in-kind humanitarian assistance items will be implanted with their ‘tracking chips’ at either the manufacture or packing stage, thereby enabling computerised management of their transport and final distribution to beneficiaries. While larger NGOs will be able to more quickly take advantage of such systems, it is likely that large logistics companies such as TNT and DHL will adopt such systems first and be able to offer logistics and distribution services at a lower cost than many NGOs. While NGOs with well developed links to communities will have a comparative advantage in the effective targeting of assistance, due to their contact with and knowledge of the affected communities and the differential needs within them, there is a distinct prospect that NGOs will either be displaced by commercial logistics operators or be obliged to enter into partnership with them in order to win contracts issued by donors or UN agencies to undertake the final distributions. The trend of increasing involvement of private sector companies and corporations in the humanitarian system discussed in Section 4 looks set to not only increase but possibly accelerate over the next 15-20 years.

Cell phone money transfers to disaster affected communities where connectivity and banking services are not disrupted by the disaster have probably already occurred, though have not so far been documented. By 2025, it is likely that most of the areas currently underserved by broadband connectivity will have been provided with connectivity and that steps will have been taken in disaster ‘hotspot areas’ to ensure the continuity of service at times of extreme weather and possibly also seismic events.

The ability to transfer money to individual cell phones of relatives and community members affected by the disaster will undoubtedly be heavily used by family and community members in other unaffected parts of the country or by the diaspora communities. In some operations, such privately remitted resources could be so significant as to challenge humanitarian needs assessment approaches and protocols.

More significantly, the technology could replace the need for direct distributions of assistance by humanitarian agencies. It is possible, for instance, to think of government agencies transferring \$100 (or more) flat rate amounts to all households in the disaster affected areas. While a presence on the ground by the government agency or national NGOs to oversee the process and verify the status and ownership of individual phone accounts would still be required, such an approach could represent a much more cost-effective means of providing relief and recovery resources to affected populations. While it might not completely remove the need for NGOs, such technologies surely challenge the role of NGOs as channels between resource providers (donors, governments and UN agencies) and the affected population.

Clean water technologies will enable the production of potable water from brackish and even polluted sources and reduce the need for the trucking of water and the drilling of new boreholes. Energy storage technologies will enable the use of electrical goods at times of limited solar energy and disrupted power supplies. While such technologies will be of considerable benefit to humanitarian agencies, it is likely that the impact of the ubiquitous computing technology and that of cell-phone money transfer services, will have much more profound impacts upon the humanitarian system.

KEY DRIVER: FOCUS ON CAUSES AND GREATER USE OF 'SOCIAL PROTECTION' APPROACHES

It was noted previously that the development of the Disaster Risk Reduction (DRR) agenda, particularly after 2000, was contributing to the difficulty of actually defining and 'drawing lines' around the 'humanitarian system'. As discussed in section 3, efforts have been made in countries such as Ethiopia to move beyond the continuous provision of food aid to a significant proportion of the rural population through the establishment of social protection or safety net programmes.

As climate change exacerbates vulnerabilities and disaster agents occur with greater frequency, it is reasonable to expect that,

- Considerable efforts will be directed to DRR and that DRR will become a major preoccupation of national governments, donor organisations, the UN system, international and national NGOs and corporate actors. In some countries private sector contractors and national military assets may well be deployed to assist in infrastructure projects such as raising sea defences, improving flood protection and constructing cyclone shelters;
- There will be significantly increased pressure to incorporate disaster response programmes following (the more frequent) natural disasters into overall national safety net and social protection programmes and frameworks.

Pressure to incorporate disaster response programmes into overall national social protection frameworks is likely to come from several sources:

- Populations in areas affected by (more frequent and severe) disasters will want to have greater predictability and effectiveness in the assistance they receive and also clearer lines of accountability to their own local and state authorities, rather than a variable grouping of NGOs and UN agencies.

- National governments will want to have greater control over response programmes with a large political profile and for which they will be held ultimately responsible.
- Donor organisations will want to increase the efficiency of the funds they provide in response to (the more frequent and severe) natural disasters and to be responsive to the concerns of national governments and affected populations.

The combination of an increased focus on DRR and the incorporation of disaster response into national social protection frameworks are therefore likely to form a powerful driver of change within the current humanitarian system. The potential for the humanitarian system to evolve in this way was suggested by Hugo Slim in 2006 in his chapter “Global Welfare: A realistic expectation for the international humanitarian system?” in the *ALNAP Review of Humanitarian Action*.

Precisely how this driver plays out in different countries will no doubt vary, but overall, it will lead to greater national ownership of the DRR agenda and the ‘poverty-disaster nexus.’ How will this affect the UN and international NGOs? UN agencies will initially play an important role in supporting this shift, but gradually it is likely to lead to UNDP being the UN agency of most relevance. Stronger national ownership and the increasing integration of disaster response into national DRR and social protection frameworks will gradually reduce the role for OCHA and international NGO disaster relief capacities. Most likely many international NGOs will be drawn into a closer relationship with national governments and state authorities in support of, or to play contracted roles in, national DRR and social protection programmes. For the ‘principle centred’ international NGOs (i.e. those with a strong ‘humanitarian’ identity), closer involvement with host governments and state authorities will be seen as compromising their independence and neutrality. These NGOs will be faced with a choice between relaxing their principles and becoming more ‘pragmatist,’ or distancing themselves from the trend towards increased national ownership in order to protect that independence and neutrality. For the ‘pragmatist’ NGOs drawn into the national DRR and social protection frameworks, whilst they may be able to ‘switch’ into relief mode and assist in the response to natural disasters, it will become increasingly difficult for them to ‘switch’ back into humanitarian mode in the event of political instability, insecurity and conflict.

In short, NGOs will be faced with an increasingly stark choice between being ‘principle-centred humanitarian agencies’ or being ‘pragmatic poverty/vulnerability reduction agencies.’ Options in terms of roles and funding opportunities will be greater in the poverty/vulnerability reduction field. Over time, the number of agencies in the first category is likely to decline, perhaps leading to a situation where only the ICRC and a few other ‘principle-centred humanitarian agencies’ will remain as a residual ‘true humanitarian’ core group. This smaller group will most likely become the principal means for the international community to provide humanitarian assistance in areas of ongoing conflict and in the ‘ungoverned spaces’ anticipated by the US NIC. To protect and demonstrate their independence and neutrality, such agencies will probably seek to distance themselves from particular donor governments and any UN, or regional, peacekeeping operations.

If this analysis is correct it means that what might accurately be called the ‘humanitarian system’ will be dramatically smaller than at present as most of the resources and energies currently considered to be ‘humanitarian’ will become re-categorised as ‘poverty and vulnerability reduction.’ As such, much of what is

'humanitarian' will become a component of the development agenda or – to put it into clear contrast with the 'humanitarian system' – part of the 'development system.'

For the 'pragmatist' international NGOs drawn into national DRR and social protection programmes, the long-term prospects may not be promising. Two trends may be anticipated here. One is that the basis on which such work will be approached by national governments and donors is likely to be in the form of multi-year competitive contracts. In awarding such contracts, governments, often but perhaps not always supported by donors, will tend to favour those organisations and consortia which have a national identity and capacity as well as demonstrated competence. For international NGOs to compete successfully for such contracts, they will most likely be obliged to form partnerships with national NGOs and national companies. It is realistic to expect that many international NGOs wanting to work on such issues will establish themselves as national NGOs and thereby pursue the 'federal' or the 'national affiliation' model already being pursued by organisations such as World Vision, Oxfam, CARE and Action Aid.

SECTION 6. LOOKING BACK FROM 2025

To convey a sense of how the humanitarian system may well be functioning in two specific countries – Bangladesh and Ethiopia – two imagined reflections have been constructed below. Though the product of this researcher’s own imagination, the two imagined reflections are based on the key drivers identified in Section 5. By this method, it is hoped to enable readers to, as it were, relocate themselves from the present of 2009 to two specific contexts located in 2025.

IMAGINED REFLECTION BY THE MINISTER FOR DISASTER RISK REDUCTION, DHAKA, BANGLADESH. 1ST JUNE 2025

“Looking back over the last 15-20 years, the most striking thing is how far we have come and how much we have managed to change in the way we do things. I remember back in 2009 when I was still working for the Grameen Bank feeling that our future was bleak what with those frightening forecasts of sea level rise and more frequent cyclones of greater intensity. It was frightening and I think we all felt, well, rather powerless. I also remember visiting areas devastated by Cyclone Sidr at the end of 2007 and feeling frustrated by the dreadful inefficiencies of having all those NGOs competing for areas in which to operate, with some of them ending up spread over so many districts that they couldn’t really do a proper job in any one area. Yes, I know ‘only 4,000’ people were killed as a result of Cyclone Sidr, which was a fantastic improvement over earlier cyclones, but really we were letting our people down by not controlling it better and allowing the UN to do a lot of the coordinating.

The big cyclone of 2012 really shook us up. Not only was it stronger than Sidr but it penetrated much further inland before weakening. I remember when I received the call from the President asking me to lead the Cyclone Response Task Force, coming in to my ‘new’ office here in Dhaka to find that part of the roof of the Ministry had been blown off and my office was a total mess.

One of the first calls I took that day was from the Chinese Ambassador offering a brigade from the People’s Liberation Army to help in relief and recovery work. They were fantastic, that PLA brigade. They didn’t have all the helicopters that the US Navy was able to provide, but to have 3,000 troops here in Bangladesh within four days of the cyclone was very impressive. It also marked the start of our very effective relationship with the Government and people of China. The quality of the Cyclone Shelters built all through the coastal areas in the 2013 to 2018 period were much larger and stronger than the earlier designs constructed by the Bangladeshi Red Crescent and NGOs in the 1990s. The Chinese were also helpful in improving our warning and alert system so that many more people moved to the shelters. Perhaps we were heavy-handed in those days and the Chinese were more used to giving ‘orders’ and being ‘ordered’ to do things, but it did work. People in the coastal areas have taken the new alert system on board and do exactly as they are instructed.

The 2012 Cyclone had a galvanising effect on the donor community too. The files on the flood defence plans that had been developed by the UN and World Bank back in the early 1990s but never really implemented were opened up and we revisited that whole issue once again. But this time it was different. Most of the schemes were actually implemented! Dhaka and many other areas are now much better protected against flooding than they were in 2009 even though sea level is now a third of a metre higher than it was back then. Why were we able to achieve so much compared to the early

1990s when the World Bank, the donor community and our Government effectively lost their nerve in the face of such huge construction schemes? Admittedly a lot of the funding and expertise came from China which was not on the table in the early 1990s. But another factor must have been that DRR was at the top of donors' agendas by 2013. Back in the early 1990s, none of the donors really saw DRR as being 'their' responsibility. Whatever the reasons, the flood defence works carried out between 2013 and 2020 represented a huge achievement by everyone. It also had quite a positive effect on the economy and provided employment and income for well over a million people throughout the seven years of construction.

Of course we did have to relocate a lot of people from the coastal areas. It was just too risky for them to remain and be at the mercy of the cyclones which were, as predicted, hitting us more frequently and with greater intensity. The fact that Myanmar had 'opened up' by 2012 was wonderful. President Aung San Suu Kyi's offer of large areas of land inside Myanmar for Bangladeshis relocated from the coastal zone was a big help. I am sure China had an influence on all that, but we shall probably never know all the details. Other countries were a big help too. I well remember the arrangement that we worked out with the EU in 2015 so that they would relax immigration controls on Bangladeshis to help address the labour shortages and public funding difficulties stemming from their 'ageing population crisis,' and we managed to negotiate arrangements for all Bangladeshis remitting income to Bangladesh. The CMT (cell phone money transfer) system of remitting income really caught on during the period after the 2012 cyclone, and huge sums of money are now coming back to Bangladesh from the diaspora community. It was difficult for us to resist taxing these transfers but the general improvement in the economy and improvements to our domestic tax collection methods means that we are able to capture part of the larger flows of money in the economy through our Value Added Tax.

As well as all the work on cyclone protection and flood defences, there has been a huge change in the way we manage our relief. After my experiences after Cyclone Sidr, I am personally proud of how much we have changed the way we do things. I guess my experience with the Grameen Bank was a big help but in many ways it was the People Against Poorly Performing International NGOs (PAPPINGO) movement that formed in the aftermath of the 2012 cyclone that gave a lot of impetus to what happened. It was unfortunate that things got out of hand in some places but it was the media coverage of those huge crowds stoning the agency offices in Khulna that really made the donors and public in the west wake up to the fact that what they used to call the 'international humanitarian system' was hugely inefficient and did not serve our people well. Of course we as a government were under a lot of pressure then too. PAPPINGO was even planning a march on Dhaka to protest the government allowing this state of affairs to develop. For a few days, the situation could have turned nasty.

The *Cyclone Response Efficiency Study* by PriceWaterhouseCoopers, commissioned by the donors after the 2012 cyclone, really lifted the lid on the extent of the inefficiencies. Several agencies had their operating licences withdrawn by the government when the report was released in 2013. Some people still say I had a hand in all that resulting from my bad experiences with some international NGOs when I was in the Grameen Bank. Yes I admit it, I did 'have a hand' in it! But don't forget that we live in a democracy and we had to be seen to be acting against some of the worst INGOs in response to what was uncovered by the report. Such inefficiencies! Agencies running 20 small programmes across the whole affected area rather than concentrating on one area! Agencies with out-of-date contingency plans that their staff weren't trained in! Simple houses not built for over a year after the cyclone! It just couldn't be allowed to continue. The other day I saw

that one of the agencies we got rid of then now concentrates solely on advocacy work and has given up on programming altogether. Well good luck to them I say. I am just glad they are no longer working here.

The system we have now is so much better. Basically the whole response show is managed by the WFP/TNT/CARE/Grameen Bank partnership on behalf of my ministry. The system of cash distributions through MMT has been working well for several years now and the system stands up to even the most intense cyclones. Of course, we still need a choice of relief kits and shelter kits available at the community level for people to choose from and those deliveries are all managed by the WFP/TNT/CARE/Grameen Bank partnership. The BRAC/PAPPINGO partnership is responsible for monitoring it all and reports directly to my ministry – so we are able to keep the WFP/TNT/CARE/Grameen Bank partnership on their toes. Bringing the response side of things into the DRR Ministry in 2015 was quite a fight but it has certainly paid off. The relief side is now well integrated into all the risk reduction work. It doesn't undermine the DRR work, it provides a lot more certainty and predictability to the affected populations and it is so much more efficient having it all centrally managed. We reckon that our system is able to provide comparable levels of assistance to households at 50 percent of the true unit cost price that it was all costing the international community back in 2009. We, in the government, feel good about being so much more in control of the arrangements, and the donors are happier knowing that their money achieves so much more. And most important of all, the people have much more confidence in their government's ability to manage things and are pleased that they are supported so much more effectively than before.”

**IMAGINED REFLECTION BY THE MINISTER FOR SOCIAL PROTECTION,
ADDIS ABABA, ETHIOPIA 1ST JUNE 2025**

“This year we are celebrating the twentieth anniversary of the Productive Safety Nets Programme (PSNP) that we established back in 2005. As I said in the speech I gave to the World Social Protection Conference that we hosted here in Addis last month, the PSNP was the foundation stone of our national social protection system. It is a system that many other countries in Africa have now copied. I remember hosting visiting delegations from many African countries during 2009 and 2010 as they sought to move away from that whole business of emergency food aid operating year after year. The best way of managing the chronic food insecurity that so many of our countries face is to approach it with a medium-term perspective that is owned by and integrated within the national planning and service delivery framework. Those annual appeals for food aid by WFP and all those NGOs showing pictures of hungry Ethiopians in order to raise funds – it was just demeaning! And then it turned out that half of the funds some of the NGOs were raising were in effect being spent on themselves rather than on assistance for Ethiopians.

Anyhow, the PSNP enabled us to cope quite well with the droughts of 2012-2014 and again that long drought from 2020-2023. The global acute malnutrition rate did rise during those droughts but it does not appear to have had a discernible impact on mortality rates. That is an achievement we can be proud of!

The fact that the PSNP has been cash-based is so much appreciated by the people. Those that are able to work are provided employment on programmes that reduce their vulnerability to drought and are then paid in cash. Those unable to work receive a cash payment based on their basic needs. The donors like it too because all they have to do is

transfer the multi-year funding and they are assured that the funds are well used by the excellent monitoring systems that we have managed to put in place. Of course, the PSNP has developed a lot since 2005. It is larger, more sophisticated and provides a more flexible service to our clients. Yes 'clients!' Just my using that word shows how far we have come. All those years that we used to use the words 'victims' and then 'beneficiaries!' It makes me laugh looking back.

Of course, one of the big innovations was the introduction of the CMT (cellphone money transfer) facility in 2013 so that the cash payments could be credited directly to the mobile phones of the clients. Yes, we did have some teething trouble at the beginning. But after a year or so, it was working well and local traders and shopkeepers responded well to the new system. Studies have consistently shown how much the cash-based payments have stimulated local economies.

The introduction of CMT removed one of the management roles that had previously been handled by some of the big NGOs, though we still needed them to help in the supervision of the employment programmes. It was around that time that we introduced the system of awarding PSNP monitoring contracts for three year periods. There was a lot of competition between INGOs for those contracts. The CARE/World Vision partnership won the first two monitoring contracts, but for the last two contracting periods it has been the Ethiopian Orthodox Church/Deloitte partnership that has won it. Many people were pleased that an Ethiopian church-based agency had won it. The Orthodox Church is intimately linked to most local communities and most people feel that they have much closer ties to the Orthodox Church than they do to CARE or World Vision.

CARE's involvement in those first two contracts inevitably brought them into a close working relationship with the Ministry of Social Protection and for a period I was friendly with their country representative. This led to the perception that they were actually part of the government, which got them into a lot of trouble at the time of the last border war with Eritrea in 2013.

That was a difficult time for all of us as the war with Eritrea started at the worst point of the drought. Of course, that was no coincidence - it all started with an argument between herders over access to one of the few remaining water points in the border area. Anyhow, CARE's involvement in the PSNP monitoring contracts resulted in the Eritrean government accusing them of being our agents and that their 'claim to be a humanitarian agency was a lie.' Within a week they had been expelled from the country. The Eritrean government then announced that the only agencies that they could trust to provide humanitarian assistance on the Eritrean side of the border were ICRC and MSF. Thank goodness the Eritreans gave in to pressure from the Chinese and agreed to a ceasefire. It would have been awful for both our countries if the fighting had gone on much longer.

I understand that very few agencies now call themselves 'humanitarian' these days. Well, it makes sense because most of them are so dependent on government contracts that it is difficult to see them as meeting the principles of being 'independent' and 'neutral.'

Anyhow, the PSNP really demonstrated its value during the conflict as those displaced by the fighting in the border area were incorporated fairly easily into the PSNP work programmes and payment schedules. The ability of cash-based social protection systems to meet basic needs during conflicts as well as in more stable times is something

that other countries and the UN have noted. I hear from my cousin in our embassy in New York that the General Assembly is shortly to debate a proposal to rename the old Office for the Coordination of Humanitarian Affairs (OCHA) as the Office for the Coordination of Social Protection (OCSP). The proposal includes giving responsibility for the coordination of the few truly 'humanitarian' agencies left to ICRC. That makes a lot of sense to me as true humanitarians need to keep the UN at arms length, though I have to admit that the Security Council has become more representative of the global community since the reforms of 2012. Anyhow, I hope the General Assembly approves the proposal."

REFERENCES

- Associated Press (2007) "Cell phone money transfer service unveiled: Foreign workers in Malaysia can remit money to their families back home" 31/5/07 Kuala Lumpur Malaysia. <http://www.msnbc.msn.com/id/18955865/>
- Barnett, Michael and Thomas Weiss eds. (2008) *Humanitarianism in Question: Politics, Power, Ethics* Ithaca: Cornell University Press.
- Barnett, Michael (2008) "Is Multilateralism Bad for Humanitarianism"? in Bourantonis, Dimitris, Kostas Ifantis and Panayotis Tsakonas (eds) *Multilateralism and Security Institutions in an Era of Globalization* London: Routledge.
- BBC News (2007) "Money Transfer Service Wows Kenya" by Noel Mwakugu 3/4/07. <http://news.bbc.co.uk/1/hi/world/africa/6510165.stm>
- Bell, Wendell (2005) "An Overview of Futures Studies" Volume 1, *Knowledge Base of Futures Studies* Edited by Richard Slaughter Indooroopilly, Queensland: Foresight International.
- Binder, Andrea and Björn Conrad (2009) "China's Potential Role in Humanitarian Assistance" Paper presented at the World Conference of Humanitarian Studies, Groningen, The Netherlands 4-7 February 2009 Berlin: Global Public Policy Institute.
- Borton, John, et al. (1996) "Humanitarian Aid and Effects" Study 3 of the Joint Evaluation of Emergency Assistance to Rwanda. Copenhagen: Royal Danish Ministry of Foreign Affairs.
- Borton, John (2009 forthcoming) "Trends and Challenges in Measuring Effectiveness in the Humanitarian System" to be published in Meharg, Sara ed. (2009) *Measuring What Matters in Peace Operations and Crisis Management* Montreal: McGill Queens University Press (scheduled for publication in April 2009).
- Borton, John (2009b) "An Overview of Humanitarian Accountability in 2008" Chapter 1 in The 2008 Humanitarian Accountability Report Geneva: Humanitarian Accountability Partnership International.
- Clarke, Paul and Ben Ramalingam (2008) "Organisational Change in the Humanitarian Sector" ALNAP 7th Review of Humanitarian Action London: ALNAP/Overseas Development Institute.
- Conway, Maree (2007) "Starting an Organisational Futures Program" Melbourne Victoria: Thinking Futures. <http://www.thinkingfutures.net/>
- Cosgrave, John and Maurice Herson (2008) "Perceptions of Crisis and Response: A Synthesis of Evaluations of the Response to the 2005 Pakistan Earthquake" ALNAP Seventh Review of Humanitarian Action London: ODI.
- Couldrey, Marrion and T Morris (2005) "UN Assesses Tsunami Response" *Forced Migration Review*, Special Edition, Tsunami: Learning from the Humanitarian Response pp 6-9 Oxford: FMR.
- Crisp, Jeff (2007) "Humanitarian Action and Coordination" Chapter 26 in Weiss, Thomas and Sam Daws *The Oxford Handbook on the United Nations* Oxford: OUP.

- DAC – Development Assistance Committee of the OECD (2009) Report on Recent Meetings Paper for DAC Meeting, 28 January 2009
DCD/DAC/RD(2009)1/RD1 Paris: OECD/DAC.
- Darcy, James, Charles-Antoine Hofman (2003) “According to Need? Needs Assessment and Decision-making in the Humanitarian Sector” HPG Report 15 September Humanitarian Policy Group London: ODI.
- Davies, Austen (2003) “Accountability and Humanitarian Actors: Speculations and Questions” Humanitarian Exchange Issue 24 July 2003 London: ODI.
- Development Initiatives (2008) *Global Humanitarian Assistance 2007/2008* Wells, Somerset: Development Initiatives.
- De Waal, Alex. (1997) “Famine Crimes: Politics and the Disaster Relief Industry in Africa” Oxford: James Currey.
- Donini, Antonio, et al. (2008) “The State of the Humanitarian Enterprise Humanitarian Agenda 2015” Final Report, Tufts University.
- Donini, Antonio(2009) “Afghanistan: Humanitarianism Under Threat” March 2009, Boston: Feinstein International Centre, Tufts University.
- Evans, Gareth and Donald Steinberg (2007) “Darfur: Signs of Transition” in Guardian Unlimited 11th June Guardian Unlimited.
<http://www.crisisgroup.org/home/index.cfm?id=4891&l=1>
- Feinstein International Famine Center (2004) “Ambiguity and Change: Humanitarian NGOs Prepare for the Future” A report prepared for World Vision, CARE, Save US, Mercy Corps, Oxfam USA, Oxfam GB and Catholic Relief Services. Feinstein International Famine Center, Tufts University, Boston.
- Flint, Michael and Hugh Goyder (2006) “Funding the Tsunami Response” Tsunami Evaluation Coalition.
- Ganeshan, Shamanthy and Wayne Diamond (2009) “Forecasting the numbers of people affected annually by natural disasters up to 2015” (mimeo) April Oxford: Oxfam GB.
- Glaser, Max (2005) “Humanitarian Engagement with Non-state Armed Actors: The Parameters of Negotiated Access” HPN Network Paper 51 June London: ODI.
- Glenn, Jerome and Theodore Gordon (eds.) Futures Research Methodology version 2.0. Millennium Project/UN University, New York.
- Harrell-Bond, Barbara (1986) *Imposing Aid: Emergency Assistance to Refugees* Oxford: OUP.
- Hines, Andy and Peter Bishop (eds.) *Thinking about the Future: Guidelines for Strategic Foresight* Washington DC: Social Technologies. www.socialtechnologies.com
- HFP – Humanitarian Futures Programme (2007) “Dimensions of Crisis Impacts: Humanitarian Needs by 2015” A report prepared by HFP for the Department for International Development London: HFP.
- HFP - Humanitarian Futures Programme (2008a) “Integrated Action Plan for Tajikistan A Phase One Analysis” United Nations Country Team, Tajikistan.
- HFP - Humanitarian Futures Programme (2008b) “Trends and drivers of change in humanitarian action in 2025: HFP Trends and Drivers Workbook” London: HFP.

- HFP - Humanitarian Futures Programme (2008c) "The IASC Working Group in the context of the HFP's Integrated Action Plan" Final Report 31st March London: HFP.
- Inayatullah, Sohail (nd.) "Causal Layered Analysis: Post-Structuralism as Method." <http://www.metafuture.org/Articles/CausalLayeredAnalysis.htm>
- Inayatullah, Sohail (2008) "Six Pillars: Futures Thinking for Transforming" *Foresight 10.1* pp. 4-21 Emerald Publishing.
- ISDR – International Strategy for Disaster Reduction (2005) "Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters" World Conference on Disaster Reduction 18-22 January 2005, Kobe, Hyogo, Japan Geneva: ISDR. www.unisdr.org
- ITU – International Telecommunications Union (2008) "Worldwide Mobile Cellular Subscribers to Reach 4 Billion Mark Late 2008" Press Release September Geneva: ITU.
- Johnson, Kelly (2008) Concept Paper: Business Engagement in the Humanitarian Sector (draft) April Berlin: GPPI.
- Kent, Randolph (1987) "Anatomy of Disaster Relief: The International Network in Action" London: Pinter Publishers.
- Kent, Randolph (2004) "Humanitarian Futures: Practical Policy Perspectives" Humanitarian Practice Network Paper No. 46 April. London: ODI.
- Kent, Randolph (2007) "Seven Dimensions of Humanitarian Futures" Transcript of presentation and discussion at the RedR UK event "Shocks: disasters and relief in a changing world" Cavendish Square 5th December 2007 London: RedR UK.
- Kent, Randolph and John Ratcliffe (2008) "Responding to Catastrophes: US Innovation in a Vulnerable World" A report of the CSIS Post-Conflict Reconstruction Project New York Center for Strategic and International Studies.
- Kent, Randolph (2008) "Collaboration: Speculating about the Future. A think piece for the HFP Stakeholders Forum."
- Lor-Mehdiabadi, Waheed., and Lesley Adams (2008) "Evaluation and Review of the Use of Cash and Vouchers in Humanitarian Crises" (Part 1 Evaluation Report; Part 2 Review Report) PROLOG Consult Brussels: ECHO.
- Mallone, Dvid (2007) "Security Council" Chapter 6 in Weiss, Thomas and Sam Daws *The Oxford Handbook on the United Nations* Oxford: OUP.
- Marino, Jon (2009) "From the Field: IDP Camp or Internet Café?" March 22, 2009. http://humanitarianrelief.change.org/blog/view/from_the_field_idp_camp_or_internet_cafe
- Meadows D. H., Meadows D. L., Randers J, and Behrens III WW (1972) *The Limits to Growth: a report for the Club of Rome's Project on the Predicament of Mankind* New York: Universe Books.
- Mechler, R. (2005). "Cost-Benefit Analysis of Natural Disaster Risk Management in Developing and Emerging Countries". Manual. Working paper, GTZ, Eschborn.
- Millennium Project (2008) "State of the Future 2008" New York: Millennium Project.
- Moench, M. and The Risk to Resilience Study Team, (2008) "Understanding the Costs and Benefits of Disaster Risk Reduction under Changing Climatic Conditions,

- From Risk to Resilience” Working Paper No. 9, eds. Moench, M., Caspari, E. & A. Pokhrel, ISET, ISET-Nepal and ProVention, Kathmandu, Nepal.
- Mohapatra S. et al. (2006) Migration and Development Brief 2 “Remittance Trends 2006” Washington DC: World Bank.
- ODI/ALNAP (2009) Where to Now? Agency Expulsions in Sudan: Consequences and Next Steps March 2009. London: ODI/ALNAP.
http://www.alnap.org/publications/pdfs/ALNAP_HPG_Sudan_Paper.pdf
- Ramalingam, Ben and Harry Jones (2009 forthcoming) “Strategic Futures Planning: A Guide for Public Sector Organisations.”
- Raskin, Paul et al. (2002) “Great Transition: The Promise and Lure of the Times Ahead” Global Scenario Group/Stockholm Environment Institute Boston; Tellus Institute.
- Ronalds, Paul (2009 forthcoming) ”The Change Dilemma: Creating INGOs Fit for the Twenty-First Century” mimeo WVI-Australia.
- RSA - Royal Society for the Arts (2006) “Planning from the Future: Strengthening Capacity to Face Future Vulnerabilities” part edited transcript of RSA meeting held on 14 November 2006, John Adam Street. Speakers: Professor Bill McGuire, Olu Arowobusoye and Dr Randolph Kent Chair Sir Mike Aaronson. London: RSA.
- Sabates-Wheeler, R., Devereux, S., Mitchell, T., Tanner, T., Davies, M and Leavy, J. (2008) “Rural Disaster Risk – Poverty Interface” Report prepared for the Global Assessment report on Disaster Risk Reduction Brighton: Institute of Development Studies.
- Schuemer-Cross, Tanja and Ben Heaven Taylor (2009) *The Right to Survive: The humanitarian challenge for the twenty-first century* Oxford: Oxfam International.
- Schwartz, Peter (1998) *The Art of the Long View* Chichester: John Wiley.
- Shell Corporation (2005) “Global Scenarios to 2025” London: Shell Corporation.
www.shell.com/scenarios
- Singh, Rohit (2009) “Mobile Phones for Development and Profit: A Win-Win Scenario” ODI Opinion 128 April London: Overseas Development Institute.
- Slaughter, Richard (2003) “Integral Futures – A new model for futures enquiry and practice” Indooroopilly, Queensland: Foresight International.
<http://www.foresightinternational.com.au>
- Slaughter, Richard (2005) “Advanced Futures Glossary” Indooroopilly, Queensland: Foresight International. <http://www.foresightinternational.com.au>
- Slaughter, Richard (ed.) (2005) *Knowledge Base of Futures Studies* CD-ROM Indooroopilly, Queensland: Foresight International.
- Slim, Hugo and Andrew Bonwick (2005) *Protection: An ALNAP guide for humanitarian agencies* London: Overseas Development Institute.
- Slim, Hugo (2006) “Global Welfare: A Realistic Expectation for the International Humanitarian System?” Chapter 1 in *ALNAP Review of Humanitarian Action: Evaluation Utilisation* London: Overseas Development Institute.
- Smillie, Ian (2009 forthcoming) “The Emperor’s Old Clothes: The Self-created Siege of Humanitarian Action” Draft paper presented to a Feinstein Center meeting, Salem, June 2009.

- Stockton, Nicholas (2004) "The Changing Nature of Humanitarian Crises" in *The Humanitarian Decade: Challenges for Humanitarian Assistance in the last decade and into the future* Volume 2 Geneva Assembly Resolution 46/182 The development of practice, principles and the humanitarian framework Geneva: OCHA.
- Stoddard, Abby. Adele Harmer and Katherine Haver (2006) "Providing Aid in Insecure Environments: Trends in Policy and Operations" HPG Report 23 September London: ODI.
- Stoddard, Abby. Adele Harmer and Victoria DiDomenico (2009) "Providing Aid in Insecure Environments: 2009 Update" HPG Policy Brief 34 April London: ODI.
- Subbarao, K., and J. Smith. 2003. "Safety Nets versus Relief Nets: Toward a Medium Term Safety Net Strategy for Ethiopia." World Bank, Washington, D.C.
- Taleb, Nassim Nicholas (2007) *The Black Swan: The Impact of the Highly Improbable* London: Penguin Books.
- Telford, John and John Cosgrave (2006) "Joint Evaluation of the International Response to the Indian Ocean Tsunami" London: Tsunami Evaluation Coalition.
- Turner, Graham (2008) "A Comparison of the Limits to Growth with Thirty Years of Reality" *CSIRO Working Paper* Clayton South, Victoria: Commonwealth Scientific and Industrial Research Organisation. <http://www.csiro.au/>
- Turner, Robert; Jock Baker; Zaw Myo Oo; Naing Soe Aye (2008), "Inter-Agency Real Time Evaluation of the Response to Cyclone Nargis" Inter-Agency Standing Committee Geneva: OCHA.
- UK DCDC (2007) "Global Strategic Trends Programme 2007-2036."
- UK Government Office for Science "Exploring the Future: Tools for Strategic Futures Thinking" Foresight Horizon Scanning Centre.
- UN (2009) "Darfur Humanitarian Profile 34" January 2009 Office of UN Deputy Special Representative of the UN Secretary-General for Sudan, UN Resident and Humanitarian Co-ordinator, Khartoum.
- US NIC - National Intelligence Council (2004) "Mapping the Global Future" Results of the 2020 Project Washington DC: National Intelligence Council.
- US NIC - National Intelligence Council (2008) "Global Trends 2025: A Transformed World" Washington DC: National Intelligence Council.
- van der Heijden, Kees, et al. (2002) "The Sixth Sense: Accelerating Organizational Learning with Scenarios" Chichester: John Wiley.
- Voros, J. (2003) "A Generic Foresight Process Framework" *Foresight*, 3 (1): 10-21.
- Walker, Peter and Daniel Maxwell (2009) *Shaping the Humanitarian World* Abingdon: Routledge.
- White, Stacey (2008) "Turning Ideas into Action: Innovation within the Humanitarian Sector. A think piece for the HFP Stakeholders Forum" mimeo London: HFP.
- Wilber, Ken. (2000) *A Theory of Everything* Boston: Shambhala Publications.
- Wiharta, Sharon., Hassan Ahmad, Jean-Yves Haine, Josefina Löfgren and Tim Randall (2008) "The Effectiveness of Foreign Military Assets in Natural Disaster Response" Stockholm International Peace Research Institute Stockholm: SIPRI.

- World Bank. 2004. "Project Appraisal Document for a Productive Safety Net Project"
Report No. 29767-ET. Washington, D.C.: World Bank.
- Yablonski, Jennifer with Michael O'Donnell (2009) "Lasting Benefits: The Role of Cash
Transfers in Tackling Child Mortality" London: Save the Children UK.
- Xinhua/China Daily (2009) "BRIC Summit to Discuss Ties, Cooperation" updated
30/5/09. [http://www.chinadaily.com.cn/world/2009-
05/30/content_7954133.htm](http://www.chinadaily.com.cn/world/2009-05/30/content_7954133.htm)
- Zwitter, Andrej (2008) "Humanitarian Action on the Battlefields of the Global War on
Terror Journal of Humanitarian Action" October. <http://jha.ac/2008/10/25>

ANNEX 1. THE FIELD OF FUTURES STUDIES AND FORESIGHT

All human societies attempt to anticipate what the future might bring. Traditional societies used, and some continue to use, a variety of divination methods, such as examining the entrails of animals or watching cheese coagulate (Bell 2005). Over time, however, the way the future has been viewed and anticipated has evolved considerably. Today, what is broadly called the 'futures field' or 'futures studies', of which 'foresight' and 'foresight studies' is one sub-field, represents a complex, globally-distributed meta-discipline with sophisticated concepts, methods and tools. Whilst the future cannot be predicted with 100 percent accuracy, it can now be much better understood. The mystification and high levels of uncertainty with which the future used to, and in many areas continues to be regarded, are no longer necessary.

Annex Box 1. Some indicators of the extent and development of the Futures Field

The flagship journal of the Futures Field in the English language *Futures: the Journal of Policy, Planning and Futures Studies*, is now in its 41st year of publication (published by Elsevier). *Foresight: The Journal of Future Studies, Strategic Thinking and Policy* is in its ninth year of publication (published by Emerald). *Futures Research Quarterly* was published from 1985 to 2008 when it merged with *Future Survey* to become the *World Future Review: A Journal of Strategic Foresight* (published by the World Futures Society).

The World Futures Society was founded in the USA in 1966. The World Futures Studies Federation was founded in 1967 and is now a global network linking 300 individuals and 20 institutions promoting futures education and research in over 60 countries.

Post-graduate degree courses in Futures Studies and Foresight are provided in at least a dozen universities around the world¹⁴ Tamkang University, Taiwan began providing undergraduate courses in Futures Studies in the mid-90s. In addition of course, many other disciplines now include substantial futures/foresight components. The Queensland Department of Education now includes a futures component in its secondary school syllabus and a growing body of educationalists around the world believes that Futures and Foresight should be taught in schools as a discipline alongside subjects such as History.

The number of purpose-built organisations focussing on the evolving 'future landscape' including government funded, university-related or privately funded organisations is estimated to be several hundred (Slaughter 2005). Initially referred to as 'lookout institutes' they are now generically referred to as Institutions of Foresight (IoFs).

Governments in most high and middle income countries have some form of futures/foresight capacity many of which share information and occasionally collaborate. In the UK for instance a Horizon Scanning Centre operates within the Foresight Directorate in the Government Office of Science.

<http://www.foresight.gov.uk/index.asp>

The European Union maintains a European Foresight Knowledge Sharing Platform which includes EFMN, the European Foresight Monitoring Network, which monitors and disseminates information on foresight activities in Europe and around the world. By April 2006, the EFMN had identified and mapped more than 1000 foresight initiatives in

countries including the EU member states, Japan, China and Korea, the US, Canada and Brazil. (<http://www.efmn.info/>)

The literature on the development of the modern futures field identifies several principal paths and influences. The following account draws heavily from Professor Wendell Bell's "Overview of Futures Studies" in the *Knowledge Base of Futures Studies*.

An important path was the development within western literature of the concept of Utopia - an idealised world or place as visualised by a writer. First introduced by Thomas More in *Utopia* published in 1516, Utopias were, until the eighteenth century, located in the present but in some far off location in the world. With the exploration of the earth and the development of industrial society, by the end of the eighteenth century writers, such as the French mathematician and philosopher Marquis de Condorcet, began to locate their Utopias at some point in the future. As well as giving birth to the whole field of science fiction, placing Utopia (or its opposite – Dystopia) in the future enabled authors to write creatively about possible futures for their own societies. For instance, H.G. Wells' *Time Machine* published in 1895 enabled him convey his (mild) socialist vision and angst about industrial society and leave readers with a sense that they could help forge a better world for their children and grandchildren. The creative imagination unleashed by science fiction writing has provided a huge range of alternative visions of the future and inevitably close links developed between 'futurists' and science fiction writers. As the futures field has developed into a discipline, such links may have contributed to a lingering perception that studying the future is to operate in the realm of imagination and fantasy, rather than to work in a discipline with rigorous methods and tools.

Another important path was the development of economic and other forms of planning.

The Russian Revolution may be seen as an attempt to achieve a long-term vision of a self-sufficient industrial economy founded on communist rather than capitalist principles. The State Planning Commission 'Gosplan' was formed in 1921 and the first Five-Year Plan, which took four years to prepare, commenced in 1928. The state planning system was at the core of the creation of a centralised, command economy and as well as preparing the Five-Year Plans, the system developed the capacity to prepare long-range plans with horizons of ten years or more. The National Socialist regimes in Italy and Germany during the 1930s and 1940s made significant use of economic planning, initially to control hyper-inflation and then to mobilise their population and economies for war. The end of the Second World War saw the extension of Soviet central planning methods to all the countries of Eastern Europe.

In the democracies of Western Europe and North America the First World War, the Great Depression and then the Second World War, forced the development of planning methods and the much wider use of planning. The end of the Second World War saw the huge reconstruction and restructuring needs in Western Europe being addressed through the Marshall Plan. In many countries, key industries and services (coal, steel, railways, health services) that had previously been under private ownership and management were nationalised and/or brought under the management control of the state. Nationalisation brought the requirement for medium and long-range planning processes into the function of government. France in particular invested in long-term planning and it is probably no coincidence that during the 1950s and 1960s France served as "an incubator of the modern futures movement" (Bell 2005). In 1957, Gaston

Berger established the Centre d'études prospectives. In 1960 Bertrand de Jouvenal founded the Association Internationale de Futuribles and shortly after began publication of the journal *Futuribles*.

The attainment of independence by former colonies of the European powers in the three decades following the Second World War saw the extension of national planning models to more than one hundred newly independent countries in Asia, Africa, the Pacific and the Caribbean and the encouragement and support for such models in the new aid and development cooperation sector. Independence also brought debates in those societies about the types of future that were desired – futures that would demonstrate the break with the colonial past and project a self-confident, capable national identity. According to Bell, “the future had become a realm for which self-conscious designs were made and deliberate historical actions were taken. Images of the future increasingly came to cause present action” (Bell 2005).

Another important influence was that of operations research groups and what later came to be called ‘think tanks.’ At the end of the Second World War, the US Army Air Corps established a research and development group as a private sector corporation, the RAND Corporation, as a means of keeping together teams of high calibre researchers and analysts who could be commissioned to provide recommendations on new and future technologies and long range plans and predictions. The RAND Corporation worked solely on military projects from 1945 until 1970 when it also began to undertake work on non-military topics. The RAND Corporation was in effect a “school for futurists” which instigated, or was at the forefront of developing, several futures and foresight techniques, including scenario-writing, computer simulations, technological forecasting, the Delphi technique and systems analysis. Key figures within the RAND Corporation such as Olaf Helmer, Hermann Kahn and Theodore Gordon went on to set up other futures organisations including the Institute of the Future, the Hudson Institute, The Futures Group and, in Theodore Gordon’s case, also played a key role in the UN Millennium Project.

The focus of the RAND Corporation on military and industrial goals motivated some futurists to form organisations with an explicit commitment to peace and human development needs. Johan Galtung of the International Peace Research Institute in Norway organised the First International Future Research Conference held in Oslo in 1972 and this led to the founding of the World Futures Studies Federation in Paris in 1973.

In 1968, Aurelio Peccei an Italian industrialist set up the “Club of Rome” with the objective of alerting the world to the “global problematique” – a cluster of interrelated global problems including hunger, environmental degradation, violence, overpopulation and alienation. In 1972, the Club published *The Limits to Growth*, a commissioned study prepared by a team of researchers at the Massachusetts Institute of Technology (Meadows et al. 1972). The salient message was that continued growth in the global economy would lead to planetary limits being exceeded at some point in the 21st Century, most likely resulting in the collapse of the population and economic system¹⁵. However, such collapse could be avoided with a combination of early changes in behaviour, policy and technology. The report provoked worldwide debate and critiques of the methodology and the conclusions. However, subsequent studies using 30 years of data since publication of the original report have broadly supported the central message and demonstrate that events have not differed significantly from the ‘business as usual’ case (e.g. Turner 2008).

In 1972, Royal Dutch Shell adopted scenario planning as a means of anticipating its future business environment. Initial work under the leadership of Pierre Wack pointed to concerted actions by the governments of oil producing countries as a critical factor in the supply and price of oil. The risks posed by the OPEC cartel had not been fully recognised within the company by the time of the 1973 Israeli-Arab conflict when OPEC members withheld oil production in protest at US resupply operations to Israel and the price of oil rose five-fold. However the initial preparatory work enabled Shell to take strategic action ahead of the competition and Shell's position in the profitability league table for oil companies rose from seventh to the second place (van der Heijden, 2002). Shell went on to develop, and become a leading corporate proponent of, scenario planning. A key feature of the approach is the development of 2-3 alternative scenarios and exploring the thinking and behaviours of different groups of actors within the different scenarios (Shell International 2005).

Since the 1970s, fuelled in part by the impact of the Limits to Growth report and the success of Shells Global Scenarios, but also by the work of the World Futures Studies Federation and other futures institutions, the futures field has developed rapidly. Futures thinking and foresight have been incorporated into the way that many organisations (whether private sector, public sector and not for profit sector) carry out their work. A 2007 survey by SOPIFF (State of Plan in the Futures Field) confirmed the diffusion of futures ideas, thinking and methods in a huge range of different context around the world.¹⁶

In reviewing the development of concepts and understanding of future studies, Richard Slaughter (Slaughter 2005) distinguishes between the three broad stages of 'empirical', 'critical' and 'integral'.

The first stage identified by Slaughter was the 'empirical' or 'outward looking' approach that dealt mainly with understanding change in the external world, or what he terms the 'empirical surface'.

The second stage involved the development of 'critical' approaches looking beneath the 'empirical surface' to explore 'inner' processes of interpretation and social construction by individuals and societies and how this influences thinking about the future. Exploration of what are termed 'social interiors' such as language and worldviews, have been central to the critical approach.

The third stage is integral futures (Slaughter 2003). Integral futures studies incorporates the cognitive capacity of individual practitioners into the analysis and thereby covers all four quadrants of Wilber's four quadrant model (Wilber 2000) (see Annex 2).

ANNEX 2. FUTURES AND FORESIGHT: TERMINOLOGY, CONCEPTS, METHODS AND TOOLS

Two essential terms that are often used interchangeably in much of the literature are 'future' and 'foresight'

Slaughter (2005) describes 'future' in the following terms:

A dimension of human existence which extends 'forward' beyond the present and functions as a principle of present action. Makes it possible for humans to have plans, purposes, goals, intentions and meanings. It follows that without the futures dimension, and these active capacities, the present becomes 'thin' and incapable of supporting human activity of any kind. Hence, the future is not the blank space, or unknowable realm that it is popularly thought to be. It has tangible content and can be explored, colonised, imaged and created. It cannot be predicted and there are no future facts. The future is perhaps best seen as the realm of interpretative knowledge.

He describes 'foresight' as follows:

A universal human capacity which allows people to think ahead and consider, model, create, respond to, future eventualities. Founded in the rich and inclusive environment of the human brain/mind system which, crudely put, has sufficiently complex neural 'wiring' to support an extended mode of perception whose main functions are protective and facilitating. Modelled most clearly in everyday acts such as: driving, crossing a busy road and planning a holiday. A springboard for a wide range of futures methodologies, organisational developments and social innovations.

A useful distinction may be drawn between 'social foresight' and 'strategic foresight'. Slaughter identifies five stages in the development of social foresight, from Level 1 (where foresight is often sub-conscious and occurs with little consideration as to the processes being used to make decisions about the future) to Level 5 where foresight capacity has developed to the stage where long-term thinking to underpin strategic development is the norm.

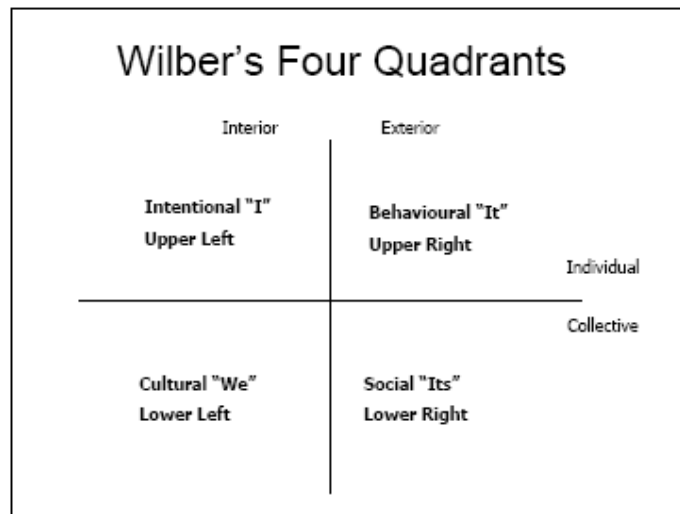
Stages in the Development of Social Foresight, reproduced from Conway (2007):

| Levels | | Indicators |
|---------|--|---|
| Level 5 | Social capacity for futures as an emergent property | Long term thinking becomes a social norm |
| Level 4 | Futures processes, projects and structures embodied in a variety of applications | Futures routinely applied in most organisations |
| Level 3 | Futures tools and methodologies increase analytical power | Widespread use of standard futures tools and methods |
| Level 2 | Futures concepts and ideas enable a futures discourse to develop | Futures concepts and ideas become influential via discourse |
| Level 1 | Raw capacities and perceptions of the human brain-mind system | Unreflective use of forward thinking in daily life of individuals |

© Richard Slaughter

Strategic foresight is defined by Slaughter as 'the creation and maintenance of high quality forward views and their application to organizationally/socially useful ends'. It is a useful term because it ties together the notions of 'strategy' (long recognized as an organizational necessity) and 'foresight'. Adding 'foresight' to 'strategy' has the effect of refreshing strategy by bringing the new resources, methods and conceptual sophistication of futures studies to a mainstream organizational activity.

In recent years, the integral theory and four quadrant framework of Ken Wilber (Wilber, 2000) has proved a valuable, though rather esoteric, contribution to future studies by providing "a comprehensive way of viewing reality that integrates both internal and external perspectives on both an individual and collective level" (Conway 2007). The four quadrant framework provides a model for developing a more holistic approach to strategy development that includes consideration of individuals' thoughts, values, beliefs and motivations as a valid and necessary element. The framework consists of a two-by-two matrix - interior and exterior and individual and collective - which creates four quadrants to explore: interior/individual, exterior/individual, interior/collective and exterior/collective as shown below.



Viewing the future from an All Quadrant, All Level (AQAL) perspective, and ensuring that the futures methods employed seek to do so, is believed to significantly deepen the understanding of the future.

Other useful concepts and terms (at least those that struck the author) used in Futures Studies and Strategic Foresight include:

- **Futures Triangle:** a tool developed by Sohail Inayatullah to explore the impact of the pull (competing images of the future), the push (trends pushing the future) and the weight (what is difficult or problematic to change) of the future.
- **Discounting or disowning the future:** the view that the future is unimportant and can be dismissed. In some cases this may involve applying a discount rate so that further ahead means less valuable and less worthy of attention. Characterised by Slaughter (2005) as “temporal chauvinism ... An ingrained habit – and defect – within Western culture.”
- **Uncertainty:** An uncertainty is a trend or event that might happen. If it does happen, and it will make a major difference, it's known as a critical uncertainty. A wildcard usually isn't considered a critical uncertainty, because it's too unlikely (see below).
- **Wildcards:** unexpected events that may affect the future in unpredictable ways. The 11 September 2001, tragedy brought wild card analysis back into prominence in futures studies (e.g. Nassim Nicholas Taleb's 2007 book *The Black Swan: The Impact of the Highly Improbable*). As Slaughter 2005 writes “even if the probability of any one wild card happening is very low, so many different wild cards are possible that the combined chance of one of them happening - somewhere in the world, over some time extended period - is quite high.”

Two comprehensive collections of methods and tools used in futures studies are:

- *Futures Research Methodology* (V2.0) edited by Jerome Glenn and Theodore Gordon of the The Millennium Project of the World Federation of UN Associations and the UN University (www.millennium-project.org)
- *Exploring the future: Tools for strategic thinking* produced by the Horizon Scanning Centre of the UK Government Office of Science Foresight Programme (<http://hsctoolkit.tribalctad.co.uk/content/view/136/2/>)

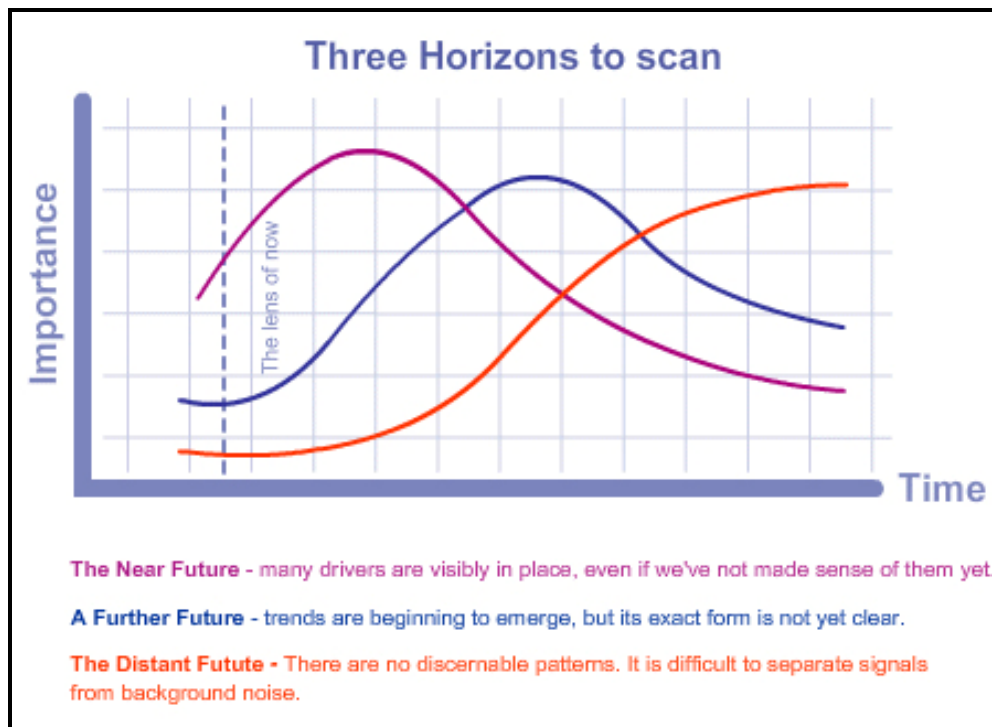
The table below lists the different methods included in the two publications and is organised to indicate where the methods are similar (or share a similar title) and where they differ (or are differently titled).

| “Futures research methodology” | “Exploring the future” |
|--|---|
| Environmental scanning | Horizon scanning |
| The Delphi Method | Delphi |
| Simulation and Games | Gaming |
| Causal Layered Analysis | Causal Layered Analysis |
| Trend Impact Analysis | Trend analysis |
| Scenarios | Scenarios |
| | Scenario Analysis Tools: The Fifth Scenario |
| | Plausability matrix |
| | Reverse engineering |
| | Backcasting |
| | Windtunnelling |
| Relevance Trees and Morphological Analysis | Issues trees |
| Decision Modelling | Modelling and simulation |
| Statistical Modelling | |
| Agent Modelling | |
| Science and Technology Roadmapping | Roadmaps |
| The Systems Perspectives | Systems maps |
| Text Mining for Technology Foresight | State of science reviews |
| | Review of abstracts |
| The Futures Wheel | |
| Cross Impact Analysis | |
| Structural Analysis | |
| Participatory Methods | |
| Normative Forecasting | |
| Field Anomaly Relaxation (FAR) | |
| The Multiple Perspective Concept | |
| State of the Future Index (SOFI) Method | |
| | Narrative |
| | Dialogue |
| | Driver analysis |
| | Seven questions |
| | ‘Folksonomies’ |
| | STEPP |
| | Visioning |

Selected key methods are briefly described below:

ENVIRONMENTAL SCANNING OR HORIZON SCANNING

Environmental or horizon scanning is a structured evidence-gathering process often employed at the start of a futures programme or a strategic foresight process. It requires participants to consider broad sources typically outside the scope of their expertise in order to 'look ahead', beyond usual timescales and 'look across', beyond usual sources. Typically participants consider different time horizons (e.g. 'near' future, 'further' future and 'distant' future) and this encourages them to consider the strength of signals of different drivers. For some drivers, viewed from 'the lens of now' signals may be weak but awareness of the existence of 'weak signals' will be useful for participants. The search for significant 'signals' of change and their interpretation within a particular context is called precursor analysis and is often applied in the USA to so-called 'bellwether' states, indicating various shifts or trends. Often a STEEP (Societal, Technological, Economic, Environmental and Political) structure is used to provide a checklist of broad areas to address and help make the scanning more exhaustive.



(Source: *Exploring the Future Toolkit* <http://hsc toolkit.tribalctad.co.uk/content/view/43/69/>)

THE DELPHI METHOD

The method was developed by Kahn, Lindstone and Turoff of the RAND Corporation as a means of pooling expert opinion on a specific topic. The process applies a set of predefined questions on such issues as when events are likely to happen and their underlying influences. Often, it involves more than one iteration of questioning in order to deepen the analysis. Delphi is particularly useful in situations where the participants are physically distributed as anonymity of response is an essential

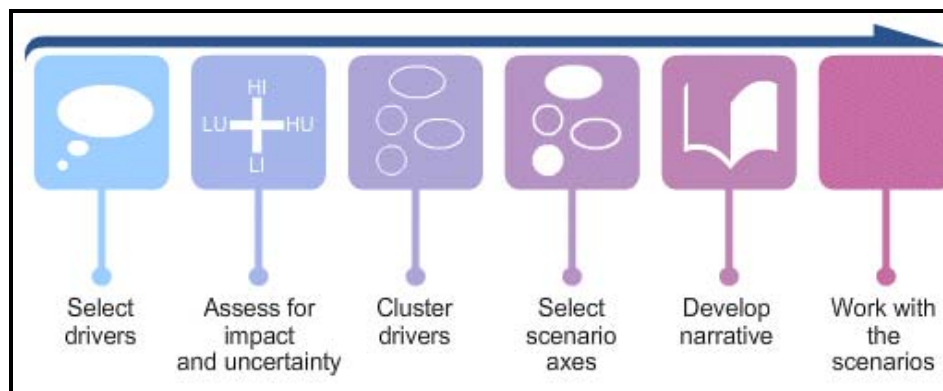
requirement of a Delphi process. This helps to ensure that independent opinions are gathered and that 'groupthink' is avoided. (Sources: Slaughter 2005 and Exploring the Future <http://hsctoolkit.tribalctad.co.uk/content/view/17/27/>)

SCENARIOS

Scenarios are a way to structure, think about, and plan for, future uncertainties. Slaughter describes them as “one of the most productive and durable of all futures tools with a wide range of applications.” Scenarios require the articulation of more than one possible future (typically three or four) so as to enable the consideration of present policies and decision-making processes in light of potential future developments. Once the three to four scenarios have been identified a number of scenario analysis tools such as backcasting, plausibility matrix, reverse engineering, the fifth scenario and windtunnelling may be used to deepen understanding to test the robustness of individual policies, or of the scenarios themselves.

Scenarios should be developed by a group or team. In the case of Shell Oil the Global Scenarios series is the product of a high calibre team commissioning additional input from experts and being prepared working over a period of many months. In contrast *Exploring the Future* suggests that scenarios can be developed by a group of participants coming together for two or three workshops and working through the following process:

- Set the focus, scale and desired outcomes of the exercise.
- Invite participants.
- Conduct primary research to engage key stakeholders and secondary research (can occur throughout) to fill any gaps identified.
- Construct the scenarios by selecting the drivers and clustering them; assess for impact and uncertainty (using a 2x2 matrix); develop a narrative for each scenario
- Test the scenarios.



However, Slaughter (2005) suggests that “to ‘do scenarios well’ takes careful preparation and a very high level of expertise. The best scenarios are carefully created to be internally coherent and useful.” (Sources: Exploring the Future <http://hsctoolkit.tribalctad.co.uk/content/view/83/101/> and Slaughter 2005)

GAMING

Gaming involves getting participants to use information to make decisions about the future, in a controlled, risk-free environment. Gaming can be used to develop alternative perspectives of the future, or to test the strengths and weaknesses of other futures work, such as scenarios, or to extend an existing scenario. Role-play and war games are two regularly used types of gaming.

CAUSAL LAYERED ANALYSIS

A method developed by Sohail Inayatullah to encourage moving beyond the conventional framing of issues to explore deeper layers or levels. Usually four levels are identified.

- The Litany: The first level is the 'litany' – current trends and problems that are of presented in the news media, often exaggerated and/or used for political purposes, sometimes referred to as 'pop futures.'
- Social Causes: The second level is concerned with social causes, including economic, cultural, political and historical factors. It is usually articulated by policy institutes and published as editorial pieces in newspapers or in not-quite academic journals. This level excels at technical explanations as well as academic analysis. The data is often questioned, but the language of questioning does not contest the paradigm in which the issue is framed.
- Critical: The third deeper level is concerned with structure and the discourse/worldview that supports and legitimates it. The task is to find deeper social, linguistic, cultural structures that are not dependent on the actors. Discerning deeper assumptions behind the issue is crucial here as are efforts to revision the problem. The foundations for how the litany has been presented and the variables used to understand the litany are questioned at this level.
- Myth/Metaphor: The fourth layer of analysis is at the level of metaphor or myth. These are the deep stories, the collective archetypes, the unconscious, of often emotive, dimensions of the problem or the paradox

Normal academic analysis tends to stay in the second layer with occasional forays into the third but seldom privileging the fourth layer. CLA however, does not privilege a particular level. (Sources: Inayatullah and Slaughter 2005 <http://www.metafuture.org/Articles/CausalLayeredAnalysis.htm>)

CROSS IMPACT MATRIX

Slaughter (2005) describes Cross Impact Matrix in the following terms:

A standard futures tool used to assess the collective impacts of a field of trends and events. A list of perhaps ten items is entered vertically and horizontally at the top and left side of a matrix. Each trend or event is then 'impacted' on the others in the corresponding column or row, using a simple scoring system to assess the strength of the interactions. (Usually +, 0 and -, or +10, 0 and -10.) Items are not impacted on themselves, so a diagonal line of spaces remains unfilled. The field of interactions is assessed by summing the rows. The resulting

figures indicate which items are driving forces ('drivers') and which are inhibiting forces ('inhibitors'). In this way the main forces in this environment are identified. The matrix can then be used, e.g., in constructing one or more scenarios.

DRIVING FORCES OR 'DRIVERS'

There are many trends or events shaping the future, but some are more important and evident than others and these are termed driving forces or in more recent usage 'drivers'. Examples of major drivers include demographic changes, climate changes, technological innovation or globalisation. *Exploring the Future* describes drivers in the following way:

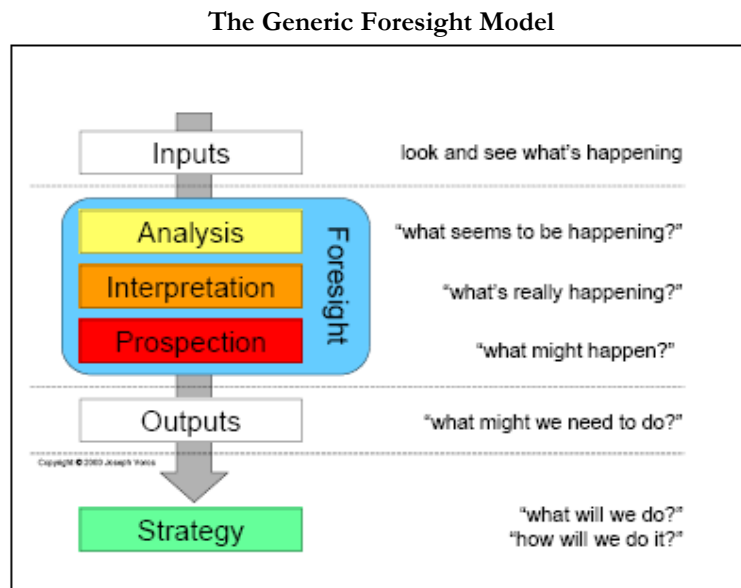
Drivers are meta-factors: a collection of underlying issues or trends that share a common theme. Drivers can inform an overall outcome, such as a scenario. The technique of driver analysis determines which of the drivers are most critical for consideration for a given topic.

<http://hsc toolkit.tribalctad.co.uk/content/view/28/56/>

Typically, the identification of drivers is undertaken by groups of people. Peter Schwartz author of *The Art of the Long View* writes, "Driving forces often seem obvious to one person and hidden to another. That is why I almost always compose scenarios in teams" (Schwartz 1998 p.103).

STRATEGIC FORESIGHT PROCESSES

A number of processes to develop strategy with foresight are available. In 2003 Joseph Voros developed a Generic Foresight Model (Voros 2003) with five stages: Inputs; Analysis; Interpretation; Prospection; and Outputs.



© Joseph Voros 2000

"Thinking About The Future: Guidelines for Strategic Foresight" (Hines and Bishop 2006) synthesises a wide range of applied thinking on strategic foresight and represents the collective wisdom of over 30 leading futures and foresight specialists¹⁷. The

guidelines are structured under the headings representing the principal stages in a strategic foresight process:

- Framing
- Scanning
- Forecasting
- Visioning
- Planning
- Acting

The contents pages of these Guidelines are quite self-explanatory and provide a sense of the process and issues that typically arise during a strategic foresight process. The contents pages are reproduced in Annex 1.

SOME REFLECTIONS ON FUTURES STUDIES AND THIS REPORT

Whilst a selection of the principle approaches and methods has been described it should be made clear that they have not been *formally* utilised in what follows in this report. A point that is made repeatedly in the futures studies literature and guidance on undertaking strategic foresight processes, is that they should be undertaken by groups of people and *not* by individual researchers (such as the author) working on their own.

ANNEX 3: GUIDELINES FOR STRATEGIC FORESIGHT

What follows is a reproduction of the contents page of *Thinking about the Future: Guidelines for Strategic Foresight*, edited by Andy Hines and Peter Bishop and published by Social Technologies, Washington DC (www.socialtechnologies.com). The headings convey the content of a strategic foresight process by organizations or representative groupings of organizations within the humanitarian system.

Framing

- **Adjust attitudes**
 - Have positive expectations about the future
 - Know your biases
 - Recognise that self-delusion and wishful thinking are barriers to strategic foresight
 - Use whole-brain processes
 - Embrace complexity in addition to linear thinking
 - Recognise that different changes occur at different rates with different impacts at different times
- **Know the audience**
 - Learn as much as possible about the organisation
 - Find out what the organisation is trying to get done and what's keeping its people awake at night
 - Don't try to make clients into foresight professionals
- **Understand the rationale and purpose**
 - Explore the future to influence the present
 - Seek to improve the mental model of decision-makers
 - Balance exploration and exploitation
 - Evaluate whether the problem as presented is really the problem to be solved
- **Set objectives**
 - Define objectives in terms that can be measured
 - Focus on outcomes, not outputs
 - Work in multiple time horizons
 - Weave 'outside and then' with 'inside and now'
- **Select your team**
 - Recognise that strategic foresight is a team sport
 - Make strategic foresight as immersive and interactive as possible
 - Include people who do not agree
- **Create a strategic work environment**
 - Create an environment conducive to open and uninhibited thinking
 - Encourage experiments and prototypes

Scanning

- **Map the system**
 - Adopt a global perspective
 - Map the system under consideration
 - Take an integral view of the issue
 - Conduct a stakeholder analysis
- **Study history**
 - Start by looking backwards
 - Don't reinvent the wheel

- Be wary of past successes that lead to thinking in a rut
- **Scan the environment**
 - Scan the environment for awareness of how the context is changing
 - Integrate the external and internal
 - Explore unfamiliar and ‘uninteresting’ areas
 - Don’t try to win with research – not all the data exists
- **Involve colleagues and outsiders**
 - Consult ‘remarkable people’
 - Consult unusual sources, people and places – including outliers, complainers, and troublemakers
 - Design workshop so leaning can be integrated into a group setting

Forecasting

- **Identify drivers and uncertainties**
 - Uncover the underlying drivers
 - Use a layered approach to get below the surface and see the different types and levels of change
 - Assess fundamental shifts that could impact business-as-usual
 - Look for colliding change trajectories
 - Look for turning points
 - Improve decision-making by reducing uncertainty
- **Choose forecasting tool(s)**
 - Use the right approach and tool(s)
 - Use at least one formal method
 - Adapt existing methods and models to the situation
 - Combine the different techniques to envision broader range of possible futures
- **Diverge –generate ideas**
 - Provoke new lines of thinking with creative approaches and tools
 - Go beyond brainstorming
 - Adapt the tried-and-true approaches of creative people to new contexts
 - Assume that what is known for certain ... is false
 - Explore ideas that cause discomfort
 - Combine rigour and creativity
 - Incorporate analytical and emotional elements for compelling strategic conversations
 - Experience the future first hand – make use of different sensory experiences
 - When blocked, put it aside and sleep
 - Avoid early convergence of ideas
- **Converge – prioritise ideas**
 - Identify and prioritize areas of common ground
 - Balance “realism” with a critical approach
 - Approach trends with scepticism
- **Form alternatives**
 - Recognised that the baseline forecast is almost always wrong
 - Explore and craft alternative futures
 - Develop possible, plausible surprises
 - Describe how the future will be different from the present
 - Work backwards to distinguish how an extreme scenario could unfold
 - Game the future – explore how the rules might change
 - Check the resulting alternatives for quality and consistency

- Support alternatives futures with empirical data

Visioning

- **Identify implications**
 - Use alternatives not as the answer, but to help frame the important questions
 - Get to the second and third-order implications
 - Think of the longer-term and unintended consequences
- **Challenge assumptions**
 - Uncover and clarify assumptions
 - Challenge conventional wisdom
 - Assume nothing: question everything
 - Identify and tear down taboos ghosting the organisation
 - Validate assumptions by cross-checking them
- **Think visionary**
 - Develop a strategic vision
 - Put the strategic vision in a time continuum
 - Set strategic goals as stretch goals
 - You get what you think – leverage the positive
 - Remember Dator's Law: any useful statement about the future should appear to be ridiculous
 - As the 'what if' questions
 - Sense and enable the emerging future

Planning

- **Think strategically**
 - Enable emergence
 - Make the socio-cultural context central
 - Crafting strategy is about stimulating strategic conversation
 - Know what to change and what not to change
 - Spot areas of strategic choice by identifying critical branching points
- **Develop strategic options**
 - Base strategic recommendations on the organisation's distinctive attributes
 - Evaluate proposed strategy along multiple dimensions
 - Include the 'no-go,' the 'most plausible' and the 'preferred' when recommending options
 - Have contingency plans for surprises

Acting

- **Communicate results**
 - Design results for communicability
 - Tailor the messages to the thinking styles of the audience
 - Immerse stakeholders and decision-makers in the alternatives to increase buy-in
 - Be provocative
 - Modularise outcomes – keep the good and deal with the bad
 - Build awareness of change through experience, insight and reframing
- **Create an action agenda**
 - Create a sense of urgency
 - Reinforce what the organisation is already doing and build from there
 - Aim the activity at helping to make better decisions

- Make decisions without all the desired data
- Create milestones along the path to the preferred future, and celebrate small successes along the way
- Recommend investing in a least one unlikely idea
- **Create an intelligence system**
 - Create an intelligence system aligned by strategic foresight and linked to the planning process
 - Establish an early warning system to detect weak signals
 - Look for forces of turbulence in the system
 - Look for indicators that suggest a crisis may be pending
 - Choose indicators that are easy to understand and easy to collect
- **Institutionalise strategic thinking**
 - Choose, design and make explicit a conceptual framework
 - Develop future cadence
 - Repeat strategic activities on a regular basis
 - Develop training programmes to institutionalise strategic foresight
 - Reinforce that learning is the best approach for organisations in complex and unpredictable environments
 - Shift attitudes towards receptiveness to change

ANNEX 4: EXECUTIVE SUMMARY OF GLOBAL TRENDS 2025: A TRANSFORMED WORLD

National Intelligence Council November 2008, Washington DC.

The **international system** — as constructed following the Second World War — will be almost unrecognizable by 2025 owing to the rise of emerging powers, a globalizing economy, an historic transfer of relative wealth and economic power from West to East, and the growing influence of nonstate actors. By 2025, the international system will be a **global multipolar one** with gaps in national power¹⁸ continuing to narrow between developed and developing countries. Concurrent with the shift in power among nation-states, the relative power of various non-state actors — including businesses, tribes, religious organizations, and criminal networks — is increasing. The players are changing, but so too are the scope and breadth of transnational issues important for continued global prosperity. Aging populations in the developed world; growing energy, food, and water constraints; and worries about climate change will limit and diminish what will still be a historically unprecedented age of prosperity.

Historically, emerging multipolar systems have been more unstable than bipolar or unipolar ones. Despite the recent financial volatility — which could end up accelerating many ongoing trends — we do not believe that we are headed toward a complete breakdown of the international system, as occurred in 1914-1918 when an earlier phase of globalization came to a halt. However, the next 20 years of transition to a new system are fraught with risks. Strategic rivalries are most likely to revolve around trade, investments, and technological innovation and acquisition, but we cannot rule out a 19th century-like scenario of arms races, territorial expansion, and military rivalries.

This is a story with **no clear outcome**, as illustrated by a series of vignettes we use to map out divergent futures. Although the United States is likely to remain the single most powerful actor, the United States' relative strength — even in the military realm — will decline and US leverage will become more constrained. At the same time, the extent to which other actors — both state and non-state — will be willing or able to shoulder increased burdens is unclear. Policymakers and publics will have to cope with a growing demand for multilateral cooperation when the international system will be stressed by the incomplete transition from the old to a still-forming new order.

ECONOMIC GROWTH FUELING RISE OF EMERGING PLAYERS

In terms of size, speed, and directional flow, the transfer of **global wealth and economic power** now under way — roughly from West to East — is without precedent in modern history. This shift derives from two sources. First, increases in oil and commodity prices have generated windfall profits for the Gulf States and Russia. Second, lower costs combined with government policies have shifted the locus of manufacturing and some service industries to Asia.

Growth projections for Brazil, Russia, India, and China (the BRICs) indicate they will collectively match the original G-7's share of global GDP by 2040-2050. **China** is poised to have more impact on the world over the next 20 years than any other country. If current trends persist, by 2025 China will have the world's second largest economy and will be a leading military power. It also could be the largest importer of natural resources and the biggest polluter. **India** probably will continue to enjoy relatively rapid economic growth and will strive for a multipolar world in which New Delhi is one of the

poles. China and India must decide the extent to which they are willing and capable of playing increasing global roles and how each will relate to the other. **Russia** has the potential to be richer, more powerful, and more self-assured in 2025 if it invests in human capital, expands and diversifies its economy, and integrates with global markets. On the other hand, Russia could experience a significant decline if it fails to take these steps and oil and gas prices remain in the \$50-70 per barrel range. No other countries are projected to rise to the level of China, India, or Russia, and none is likely to match their individual global clout. We expect, however, to see the political and economic power of other countries — such as Indonesia, Iran, and Turkey — increase.

For the most part, China, India, and Russia are not following the Western liberal model for self-development but instead are using a different model, ‘**state capitalism**.’ State capitalism is a loose term used to describe a system of economic management that gives a prominent role to the state. Other rising powers — South Korea, Taiwan, and Singapore — also used state capitalism to develop their economies. However, the impact of Russia, and particularly China, following this path is potentially much greater owing to their size and approach to ‘democratization.’ We remain optimistic about the *long-term* prospects for **greater democratization**, even though advances are likely to be slow and globalization is subjecting many recently democratized countries to increasing social and economic pressures with the potential to undermine liberal institutions.

Many other countries will fall further behind economically. **Sub-Saharan Africa** will remain the region most vulnerable to economic disruption, population stresses, civil conflict, and political instability. Despite increased global demand for commodities for which Sub-Saharan Africa will be a major supplier, local populations are unlikely to experience significant economic gain. Windfall profits arising from sustained increases in commodity prices might further entrench corrupt or otherwise ill-equipped governments in several regions, diminishing the prospects for democratic and market-based reforms. Although many of **Latin America’s** major countries will have become middle income powers by 2025, others, particularly those such as Venezuela and Bolivia that have embraced populist policies for a protracted period, will lag behind — and some, such as Haiti, will have become even poorer and less governable. Overall, Latin America will continue to lag behind Asia and other fast-growing areas in terms of economic competitiveness.

Asia, Africa, and Latin America will account for virtually all **population growth** over the next 20 years; less than 3 percent of the growth will occur in the West. Europe and Japan will continue to far outdistance the emerging powers of China and India in per capita wealth, but they will struggle to maintain robust growth rates because the size of their working-age populations will decrease. The US will be a partial exception to the aging of populations in the developed world because it will experience higher birth rates and more immigration. The number of migrants seeking to move from disadvantaged to relatively privileged countries is likely to increase.

The number of countries with youthful age structures in the current ‘arc of instability’ is projected to decline by as much as 40 percent. Three of every four youth-bulge countries that remain will be located in Sub-Saharan Africa; nearly all of the remainder will be located in the core of the Middle East, scattered through southern and central Asia, and in the Pacific Islands.

NEW TRANSNATIONAL AGENDA

Resource issues will gain prominence on the international agenda. Unprecedented global economic growth — positive in so many other regards — will continue to put pressure on a number of **highly strategic resources**, including energy, food, and water, and demand is projected to outstrip easily available supplies over the next decade or so. For example, non-OPEC liquid hydrocarbon production — crude oil, natural gas liquids, and unconventionals such as tar sands — will not grow commensurate with demand. Oil and gas production of many traditional energy producers already is declining. Elsewhere — in China, India, and Mexico — production has flattened. Countries capable of significantly expanding production will dwindle; oil and gas production will be concentrated in unstable areas. As a result of this and other factors, the world will be in the midst of a fundamental energy transition away from oil toward natural gas, coal and other alternatives.

The World Bank estimates that **demand for food** will rise by 50 percent by 2030, as a result of growing world population, rising affluence, and the shift to Western dietary preferences by a larger middle class. Lack of access to stable supplies of water is reaching critical proportions, particularly for agricultural purposes, and the problem will worsen because of rapid urbanization worldwide and the roughly 1.2 billion persons to be added over the next 20 years. Today, experts consider 21 countries, with a combined population of about 600 million, to be either cropland or freshwater scarce. Owing to continuing population growth, 36 countries, with about 1.4 billion people, are projected to fall into this category by 2025.

Climate change is expected to exacerbate resource scarcities. Although the impact of climate change will vary by region, a number of regions will begin to suffer harmful effects, particularly water scarcity and loss of agricultural production. Regional differences in agricultural production are likely to become more pronounced over time with declines disproportionately concentrated in developing countries, particularly those in Sub-Saharan Africa. Agricultural losses are expected to mount with substantial impacts forecast by most economists by late this century. For many developing countries, decreased agricultural output will be devastating because agriculture accounts for a large share of their economies and many of their citizens live close to subsistence levels.

New technologies could again provide solutions, such as viable alternatives to fossil fuels or means to overcome food and water constraints. However, all current technologies are inadequate for replacing the traditional energy architecture on the scale needed, and new energy technologies probably will not be commercially viable and widespread by 2025. The pace of technological innovation will be key. Even with a favorable policy and funding environment for biofuels, clean coal, or hydrogen, the transition to new fuels will be slow. Major technologies historically have had an ‘adoption lag.’ In the energy sector, a recent study found that it takes an average of 25 years for a new production technology to become widely adopted.

Despite what are seen as long odds now, we cannot rule out the possibility of an **energy transition** by 2025 that would avoid the costs of an energy infrastructure overhaul. The greatest possibility for a relatively quick and inexpensive transition during the period comes from better renewable generation sources (photovoltaic and wind) and improvements in battery technology. With many of these technologies, the infrastructure cost hurdle for individual projects would be lower, enabling many small economic actors to develop their own energy transformation projects that directly serve their interests —

e.g., stationary fuel cells powering homes and offices, recharging plug-in hybrid autos, and selling energy back to the grid. Also, energy conversion schemes — such as plans to generate hydrogen for automotive fuel cells from electricity in the homeowner’s garage — could avoid the need to develop complex hydrogen transportation infrastructure.

PROSPECTS FOR TERRORISM, CONFLICT, AND PROLIFERATION

Terrorism, proliferation, and conflict will remain key concerns even as resource issues move up on the international agenda. Terrorism is unlikely to disappear by 2025, but its appeal could diminish if economic growth continues and youth unemployment is mitigated in the Middle East. Economic opportunities for youth and greater political pluralism probably would dissuade some from joining terrorists’ ranks, but others — motivated by a variety of factors, such as a desire for revenge or to become ‘martyrs’ — will continue to turn to violence to pursue their objectives.

In the absence of employment opportunities and legal means for political expression, conditions will be ripe for disaffection, growing radicalism, and possible recruitment of youths into **terrorist groups**. Terrorist groups in 2025 will likely be a combination of descendants of long-established groups — that inherit organizational structures, command and control processes, and training procedures necessary to conduct sophisticated attacks — and newly emergent collections of the angry and disenfranchised that become self-radicalized. For those terrorist groups that are active in 2025, the diffusion of technologies and scientific knowledge will place some of the world’s most dangerous capabilities within their reach. One of our greatest concerns continues to be that terrorist or other malevolent groups might acquire and employ biological agents, or less likely, a nuclear device, to create mass casualties.

Although **Iran’s** acquisition of nuclear weapons is not inevitable, other countries’ worries about a nuclear-armed Iran could lead states in the region to develop new security arrangements with external powers, acquire additional weapons, and consider pursuing their own nuclear ambitions. It is not clear that the type of stable deterrent relationship that existed between the great powers for most of the Cold War would emerge naturally in the Middle East with a nuclear-weapons capable Iran. Episodes of low-intensity conflict taking place under a nuclear umbrella could lead to an unintended escalation and broader conflict if clear red lines between those states involved are not well established.

We believe **ideological conflicts** akin to the Cold War are unlikely to take root in a world in which most states will be preoccupied with the pragmatic challenges of globalization and shifting global power alignments. The force of ideology is likely to be strongest in the Muslim world — particularly the Arab core. In those countries that are likely to struggle with youth bulges and weak economic underpinnings — such as Pakistan, Afghanistan, Nigeria, and Yemen — the radical Salafi trend of Islam is likely to gain traction.

Types of **conflict** we have not seen for awhile — such as over resources — could reemerge. Perceptions of energy scarcity will drive countries to take actions to assure their future access to energy supplies. In the worst case, this could result in interstate conflicts if government leaders deem assured access to energy resources, for example, to be essential for maintaining domestic stability and the survival of their regimes. However, even actions short of war will have important geopolitical consequences. Maritime security concerns are providing a rationale for naval buildups and modernization efforts, such as China’s and India’s development of blue-water naval

capabilities. The buildup of regional naval capabilities could lead to increased tensions, rivalries, and counterbalancing moves but it also will create opportunities for multinational cooperation in protecting critical sea lanes. With water becoming scarcer in Asia and the Middle East, cooperation to manage changing water resources is likely to become more difficult within and between states.

The risk of **nuclear weapon use** over the next 20 years, although remaining very low, is likely to be greater than it is today as a result of several converging trends. The spread of nuclear technologies and expertise is generating concerns about the potential emergence of new nuclear weapon states and the acquisition of nuclear materials by terrorist groups. Ongoing low-intensity clashes between India and Pakistan continue to raise the specter that such events could escalate to a broader conflict between those nuclear powers. The possibility of a future disruptive regime change or collapse occurring in a weak state with nuclear weapons also continues to raise questions regarding the ability of such a state to control and secure its nuclear arsenals.

If nuclear weapons are used in the next 15-20 years, the international system will be shocked as it experiences immediate humanitarian, economic, and political-military repercussions. A future use of nuclear weapons probably would bring about significant geopolitical changes as some states would seek to establish or reinforce security alliances with existing nuclear powers and others would push for global nuclear disarmament.

A MORE COMPLEX INTERNATIONAL SYSTEM

The trend toward greater diffusion of authority and power that has been occurring for a couple decades is likely to accelerate because of the emergence of new global players, the worsening institutional deficit, potential expansion of regional blocs, and enhanced strength of nonstate actors and networks. The **multiplicity of actors** on the international scene could add strength — in terms of filling gaps left by aging post-World War II institutions — or further fragment the international system and incapacitate international cooperation. The diversity in type of actor raises the likelihood of fragmentation occurring over the next two decades, particularly given the wide array of transnational challenges facing the international community.

The rising BRIC powers are unlikely to challenge the international system as did Germany and Japan in the 19th and 20th centuries, but because of their growing geopolitical and economic clout, they will have a high degree of freedom to customize their political and economic policies rather than fully adopting Western norms. They also are likely to want to preserve their policy freedom to maneuver, allowing others to carry the primary burden for dealing with such issues as terrorism, climate change, proliferation, and energy security.

Existing multilateral institutions — which are large and cumbersome and were designed for a different geopolitical order — will have difficulty adapting quickly to undertake new missions, accommodate changing memberships, and augment their resources. **Nongovernmental organizations** (NGOs) — concentrating on specific issues — increasingly will be a part of the landscape, but NGO networks are likely to be limited in their ability to effect change in the absence of concerted efforts by multilateral institutions or governments. Efforts at greater inclusiveness — to reflect the emergence of the newer powers — may make it harder for international organizations to tackle transnational challenges. Respect for the dissenting views of member nations will continue to shape the agenda of organizations and limit the kinds of solutions that can be attempted.

Greater **Asian regionalism** — possible by 2025 — would have global implications, sparking or reinforcing a trend toward three trade and financial clusters that could become quasi-blocs: North America, Europe, and East Asia. Establishment of such quasi-blocs would have implications for the ability to achieve future global World Trade Organization (WTO) agreements. Regional clusters could compete in setting trans-regional product standards for information technology, biotechnology, nanotechnology, intellectual property rights, and other aspects of the ‘new economy.’ On the other hand, an absence of regional cooperation in Asia could help spur competition among China, India, and Japan over resources such as energy.

Intrinsic to the growing complexity of the overlapping roles of states, institutions, and nonstate actors is the **proliferation of political identities**, which is leading to establishment of new networks and rediscovered communities. No one political identity is likely to be dominant in most societies by 2025. Religion-based networks may be quintessential issue networks and overall may play a more powerful role on many transnational issues such as the environment and inequalities than secular groupings.

THE UNITED STATES: LESS DOMINANT POWER

By 2025, the US will find itself as one of a number of important actors on the world stage, albeit still the most powerful one. Even in the military realm, where the US will continue to possess considerable advantages in 2025, advances by others in science and technology, expanded adoption of irregular warfare tactics by both state and nonstate actors, proliferation of long-range precision weapons, and growing use of cyber warfare attacks increasingly will constrict US freedom of action. A more constrained US role has implications for others and the likelihood of new agenda issues being tackled effectively. Despite the recent rise in anti-Americanism, the US probably will continue to be seen as a much-needed regional balancer in the Middle East and Asia. The US will continue to be expected to play a significant role in using its military power to counter global terrorism. On newer security issues like climate change, US leadership will be widely perceived as critical to leveraging competing and divisive views to find solutions. At the same time, the multiplicity of influential actors and distrust of vast power means less room for the US to call the shots without the support of strong partnerships. Developments in the rest of the world, including internal developments in a number of key states — particularly China and Russia — are also likely to be crucial determinants of US policy.

2025 — WHAT KIND OF FUTURE?

The above trends suggest major **discontinuities**, shocks, and surprises, which we highlight throughout the text. Examples include nuclear weapons use or a pandemic. In some cases, the surprise element is only a matter of **timing**: an energy transition, for example is inevitable; the only questions are when and how abruptly or smoothly such a transition occurs. An energy transition from one type of fuel (fossil fuels) to another (alternative) is an event that historically has only happened once a century at most with momentous consequences. The transition from wood to coal helped trigger industrialization. In this case, a transition — particularly an abrupt one — out of fossil fuels would have major repercussions for energy producers in the Middle East and Eurasia, potentially causing permanent decline of some states as global and regional powers.

Other discontinuities are less predictable. They are likely to result from an interaction of several trends and depend on the quality of leadership. We put uncertainties such as whether China or Russia becomes a democracy in this category.

China's growing middle class increases the chances but does not make such a development inevitable. Political pluralism seems less likely in Russia in the absence of economic diversification. Pressure from below may force the issue, or a leader might begin or enhance the democratization process to sustain the economy or spur economic growth. A sustained plunge in the price of oil and gas would alter the outlook and increase prospects for greater political and economic liberalization in Russia. If either country were to democratize, it would represent another wave of democratization with wide significance for many other developing states.

Also **uncertain** are the outcomes of demographic challenges facing Europe, Japan, and even Russia. In none of these cases does demography have to spell destiny with less regional and global power an inevitable outcome. Technology, the role of immigration, public health improvements, and laws encouraging greater female participation in the economy are some of the measures that could change the trajectory of current trends pointing toward less economic growth, increased social tensions, and possible decline.

Whether global institutions adapt and revive — another key uncertainty — also is a function of leadership. Current trends suggest a dispersion of power and authority will create a global governance deficit. Reversing those trend lines would require strong leadership in the international community by a number of powers, including the emerging ones.

Some uncertainties would have greater consequences — should they occur — than would others. In this work, we emphasize the overall potential for greater conflict — some forms of which could threaten globalization. We put WMD terrorism and a Middle East nuclear arms race in this category. The key uncertainties and possible impacts are discussed in the text and summarized in the textbox on page vii. In the four fictionalized scenarios, we have highlighted new challenges that could emerge as a result of the ongoing global transformation. They present new situations, dilemmas, or predicaments that represent departures from recent developments. As a set, they do not cover all possible futures. ***None of these is inevitable or even necessarily likely***; but, as with many other uncertainties, the scenarios are potential game-changers.

- In ***A World Without the West***, the new powers supplant the West as the leaders on the world stage.
- ***October Surprise*** illustrates the impact of inattention to global climate change; unexpected major impacts narrow the world's range of options.
- In ***BRICs' Bust-Up***, disputes over vital resources emerge as a source of conflict between major powers — in this case two emerging heavyweights — India and China.
- In ***Politics is Not Always Local***, nonstate networks emerge to set the international agenda on the environment, eclipsing governments.

ANNEX 5: UK DCDC STRATEGIC TRENDS 2007-2036: KEY FINDINGS

The benefit of strategic futures work is not that it predicts the future, which is unpredictable, or enables organizations to control it. It is about rehearsing possibilities, so one is better able to respond if they happen.¹⁹

INTRODUCTION

A defining feature during the next 30 years will be the constant tension between greater interdependence and intensifying competition. This feature will stimulate competing strategies based around the extent to which individuals and communities wish to exploit change, or resist it.

During the next 30 years, every aspect of human life **will** change at an unprecedented rate, throwing up new features, challenges and opportunities. Three areas of change, or **Ring Road** issues, **will** touch the lives of everyone on the planet and **will** underpin these processes: climate change, globalization and global inequality (see panels below). Progressive climate change **will** shape the physical environment within which a rapidly expanding world population will live, influencing variable access to habitable land, food and water. The volume of the world economy **will** grow more quickly than at any time in human history and, in socio-economic terms, **will** become more tightly integrated, creating globalized interdependencies and enabling multiple supra-national linkages in all areas of human endeavour.

While life for most people is **likely** to improve materially, a significant number **will** continue to experience hardship, and unevenness and fluctuations within a globalized market-based economy **will** still mean that life **will** be uncertain for most. In all but the most affluent societies, rapid, large shifts in global markets, which are increasingly sensitive to uneven supply and changing demand, **will** result in potentially dramatic changes in personal fortune and confidence. Globalized communications **will** feed aspirations, heighten expectations and **will** serve to expose differences in advantage and opportunity, stimulating grievance and raising the significance of global inequality as a social and political issue.

Climate Change

There is compelling evidence to indicate that climate change is occurring and that the atmosphere **will** continue to warm at an unprecedented rate throughout the 21st Century. A scientific consensus holds that a large part of this warming is attributable to human activities, primarily through the concentration of CO₂ and other greenhouse gases. Change **will** be intensified and accelerated by the diminution of natural carbon-capture processes (such as forests and marine life) and the reduction of the polar ice-caps. Uncertainty remains as to the precise rate and character of expected changes over the next century. Climate science is complex, with linear cause and effect relationships not yet readily apparent; therefore, the consequences of climate change **will** vary in their impact in time, incidence and geographical extent. It **may** be a very unstable and unpredictable process, involving both progressive evolution and sudden instabilities. Major consequences are **likely** to include melting icecaps, thermal expansion of the oceans, and changes to ocean currents and flows, with seawater becoming more acidic as CO₂ transfers from the atmosphere. On land, some regions **will** experience desertification, others **will** experience permanent inundation, and tundra and permafrost are **likely** to melt and release methane, **possibly** in large amounts. Global climate change **will** reduce land for habitation and **will** result in changing patterns of

agriculture and fertility, while tropical diseases, like malaria, are also *likely* to move North and into temperate zones. There *will* be an increased risk of extreme weather events, threatening densely populated littoral, urban and farming regions with eccentric growing seasons, flooding and storm damage. Climate change *will* remain highly politicized: although the relationship between causes and effects is *likely* to be increasingly understood as more evidence and computing power becomes available, responses *will* be contested and affected by self-interest.

Globalization

During the next 30 years, the volume of transactions, conducted irrespective of the physical distance between those engaged, *will* continue to expand, shaping and improving everyday life for millions of people. A key feature of globalization *will* be the continuing internationalization of markets for goods, services and labour, which *will* integrate geographically dispersed sets of customers and suppliers. This *will* be an engine for accelerating economic growth, but *will* also be a source of risk, as local markets become increasingly exposed to destabilizing fluctuations in the wider global economy. These outcomes *will* be facilitated by the rapid development of global telecommunications resulting in a pervasive information environment in which much of the global population will be 'online all the time'. Also, there *will* continue to be winners and losers in a global economy led by market forces, especially so in the field of labour, which *will* be subject to particularly ruthless laws of supply and demand. Life *will*, as a result, be competitive, dynamic and fluid. Socially, looser forms of political, cultural and economic association *will* multiply, whose existence *will* be largely virtual and disassociated, linking members who are physically dispersed, but who share common interests and seek competitive advantage by association. Politically, globalization *will* raise levels of interdependence between states that are increasingly integrated within the globalized economy.

Global Inequality

While material conditions for most people are *likely* to improve over the next 30 years, the gap between rich and poor will *probably* increase and absolute poverty *will* remain a global challenge. Despite their rapid growth, significant per capita disparities *will* exist in countries such as China and India and smaller, but traditionally more affluent Western economies. In some regions - notably areas of Sub-Saharan Africa - a fall in poverty *may* be reversed. Differentials in material well-being *will* be more explicit through globalization and increased access to more readily and cheaply available telecommunications. Disparities in wealth and advantage *will* therefore become more obvious, with their associated grievances and resentments, even among the growing numbers of people who are *likely* to be materially more prosperous than their parents and grandparents. Absolute poverty and comparative disadvantage *will* fuel perceptions of injustice among those whose expectations are not met, increasing tension and instability, both within and between societies and resulting in expressions of violence such as disorder, criminality, terrorism and insurgency. They *may* also lead to the resurgence of not only anti-capitalist ideologies, *possibly* linked to religious, anarchist or nihilist movements, but also to populism and the revival of Marxism.

Owing to this increased interdependence and intensifying competition, most states *will* be bound together by their economic linkages, but *will* nonetheless be preoccupied by the need to sustain national economic vitality and political advantage. Individual well-

being **will** depend increasingly on access to, and exploitation of, opportunity within the globalized economy, but most people **will** nonetheless regard the operation of globalized processes as, in many ways, threatening. This is **likely** to result in local arrangements to mitigate the harsher effects of globalization and the rigorous operation of the market on some countries or communities, in the interests of socio-economic stability or competitive advantage.

This tension **will** heighten preoccupation with risk at every level, from the personal to the international. Contrasting approaches and pragmatic solutions for dealing with risk **will** emerge, the nature of which **will** depend on the extent to which individuals and communities wish to promote and exploit change, or resist and even reverse it. These strategies **may** be cooperative, obstructive, competitive, or even distinctly predatory – or a combination of them all over time. The major factors that **will** influence which approach is adopted and the ways in which strategies are **likely** to be shaped are discussed in ***4 Key Themes of: Population and Resources, Interest and Identity, Governance and Order, and Knowledge and Innovation.***

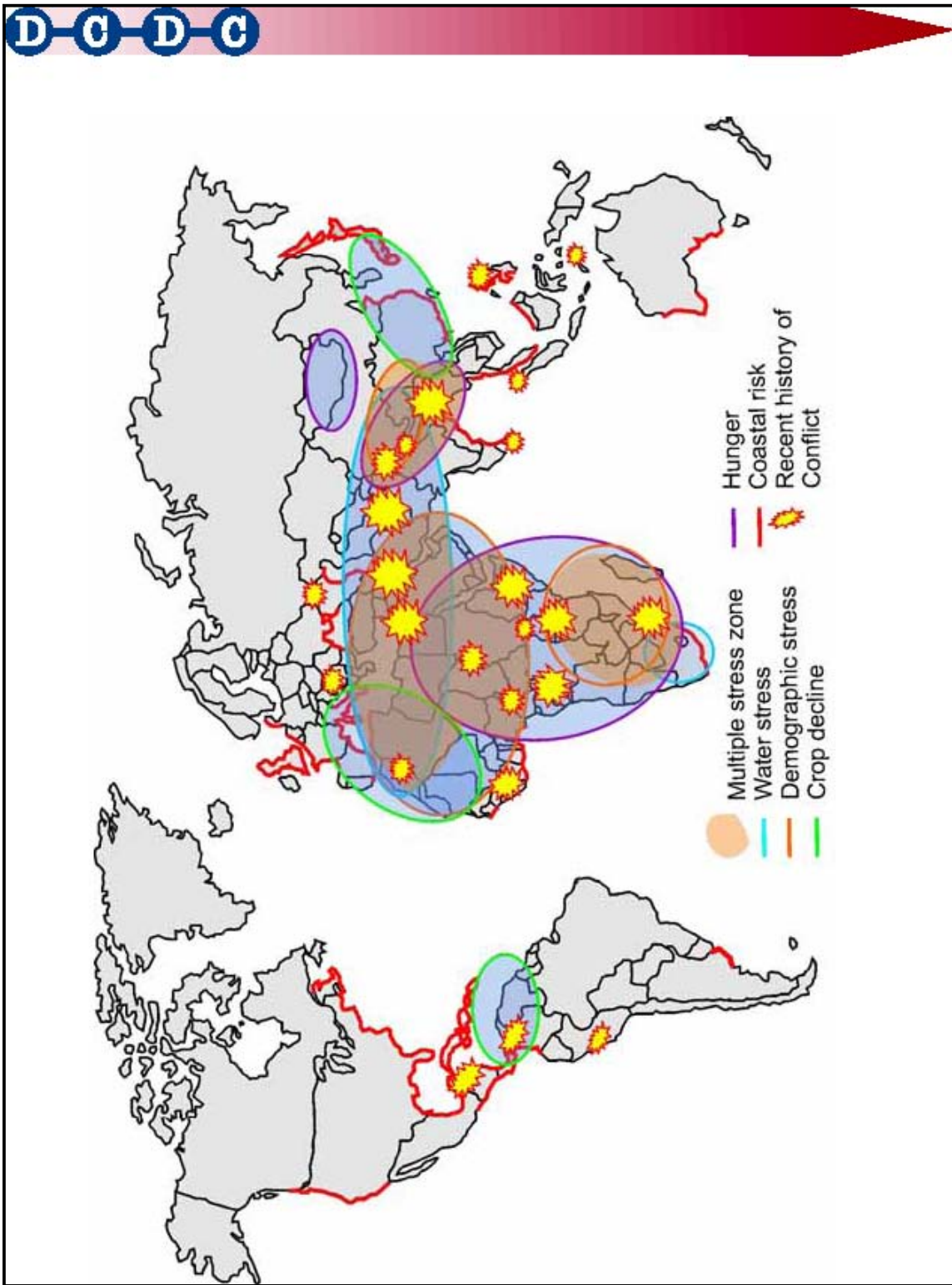


Figure 2 – Multiple Stress Zones: Instability is *likely* to be greatest in areas of Multiple Environmental Stress

KEY THEME 1 - POPULATION AND RESOURCES

Sustained population growth, aggressive economic competition and increased consumption, together with rapid modernization and urbanization, **will** result in intensive exploitation and pressure on resources of all kinds. These tendencies **will** be aggravated by the consequences of climate change, environmental changes and an increased human footprint. Consequently, the availability and flow of energy, food and water **will** be critical issues, with the potential for fluctuations and imbalances in both production and distribution, at global, regional and local levels. Resource challenges **will** intensify in those areas already badly affected, typically in low and lower-middle income regions where population expansion has the greatest impact relative to local resources and economic growth.

The expansion of global media and Information Communications Technology (ICT) **will** heighten the sense of grievance and marginalization between 'haves and have-nots', nationally and internationally. This is **likely** to lead to populism, human crises and confrontations, typified by inter-communal and inter-ethnic conflicts at local level, but, when related to access to strategic resources necessary to sustain developed or developing economies, **may** increase the incidence and risk of international confrontation. Communicable disease **will** continue to be a feature of human life; while familiar diseases **will** be eradicated or mitigated through prophylaxis or cure, others **will** emerge, of varying intensity and impact, alongside the constant risk of low incidence, but potentially high impact, pandemics.

Population and Resources - Potential Implications

Competition for resources of all kinds **will** intensify. Developed and developing economies **will** seek political and economic partnerships with states to guarantee supply. Moral compromises **may** be made in relation to some regimes.

There **will** be an increased risk of humanitarian catastrophe in the most vulnerable regions, caused by a mixture of climate change, resource pressures, uneven distribution of wealth, the effect of disease and the failure of authorities to cope with population growth and urbanization.

Migration and urbanization, within countries and across regions, **will** increase pressure on infrastructure and governance and **may** destabilize existing communities.

Authorities **will** be challenged by changing demographics, in particular the impact of an increasing youth population in some developing regions and countries - poor employment prospects and unfulfilled expectations **may** lead to vulnerability to populist and other extreme messages.

Sustained economic growth in developing countries is **likely** to compel societies to re-evaluate the role of women, who **will** play an increasing role in generating wealth.

DRIVERS OF CHANGE

- **Economic Growth.** The global economy is **likely** to continue to grow at 2-3 percent ²⁰ per annum out to at least 2020, accompanied by general improvements in material well-being, with more dramatic growth in the Asia-Pacific Region. However, growth **will** be uneven, fluctuating over time and between regions, with Sub-Saharan Africa **likely** to lag behind other regions because of

environmental, political and demographic challenges, linked to endemic corruption.

- **Population Growth.** The global population is *likely* to grow from 6.5bn to 8.5bn by 2035. ²¹The greatest growth *will* take place in regions *likely* to face continuing material and economic risks. For example, the population of Sub-Saharan Africa is *likely* to grow by 81 percent to over 1.3bn by 2035, 15 percent of which is *likely* to be undernourished.²² With more widespread availability of birth-control measures and improved life expectancy, economic status and aspiration *may* increasingly govern birth rates. However, cultural *mores* in some countries *will* persist, maintaining high levels of reproduction.
- **Resource Competition.** Economic growth and increased consumption *will* result in greater demand and competition for essential resources. Demand for energy is *likely* to grow by more than half again by 2035 and fossil fuels *will* have to meet more than 80 percent of this increase.²³ Major reserves are in politically unstable regions and primary consumer nations are *likely* to be increasingly reluctant to trust security of supply to market forces and the integrity of the international system.
- **Diseases.** Several communicable diseases *will* continue to have a significant impact on population and development and, without effective control measures, *may* spread from developing regions to more settled and affluent areas. Some diseases *will* re-emerge in strength, like tuberculosis, malaria and cholera, as environmental changes occur and the pattern of human activity becomes more diverse and complex. HIV/AIDS *will* remain prevalent in Sub-Saharan Africa, Asia and Eastern Europe and, although a cure and/or vaccination is *likely* before 2035, its impact *will* be long-lasting. The social, economic and human costs of contagious and communicable diseases *will* remain high and are *likely* to slow economic growth drastically in the worst affected regions for at least the first half of the period.
- **Changing Demographics.** The balance between economically inactive and active members of society *will* alter significantly and there *will* be sharp age differentials between the ageing First World and the youthful Third World. Overall, the global population is ageing and cyclical unemployment *will* become more widespread, especially among the growing urban poor, who are *likely* to make up 25 percent²⁴ of the global population. Marked age imbalances, between regions and countries, together with gender imbalances, *will* accentuate and exacerbate existing tensions, both regionally and internationally. These trends *will* be partially off-set by increased immigration to the First World, but will be accompanied by demographic pressure and containment issues.
- **Environmental Impacts.** By the end of the period, nearly two-thirds of the world's population *will* live in areas of water stress,²⁵ while environmental degradation, the intensification of agriculture,

and pace of urbanization *may* reduce the fertility of, and access to, arable land. There *will* be a constant heavy pressure on fish stocks, which are *likely* to require careful husbanding if major species are not to become depleted or extinct. Food and water insecurity *will* drive mass migration from some worst affected areas and the effects *may* be felt in more affluent regions through distribution problems, specialized agriculture and aggressive food-pricing.

- **Mass Displacement.** Conflict and crises *will* continue to trigger the displacement of large numbers of people, mainly into proximate regions, which *may* find themselves at risk of instability or exogenous shock. .
- **Urbanization and Human Settlement.** By 2035, 60 percent of the world's population *will* live in urban areas. ²⁶There *will* be a substantial growth in shanty towns and unplanned, random urban settlement, increasing the resource cost and environmental impact. In some cases, rapid, uncontrolled development *will* challenge the ability of growing cities' infrastructure and governance to control and support the additional settlement and some cities *may* not cope. Similarly, populations *will* increasingly inhabit areas which defy nature and *will* be at significant environmental risk. This is particularly true in areas susceptible to volcanic and seismic activity and in low-lying coastal regions where extreme weather events and inundation are *likely* to occur with increasing frequency. This *will* result in an increase in humanitarian crises and a significant rise in mass migration.

KEY THEME 2 - IDENTITY AND INTEREST

Globalized communications *will* provide groups and individuals with greater visibility of the advantages and disadvantages of others and also the additional means by which they can exploit opportunities and pursue their own advantage and interests. Physical separation *will* decline in significance in the pursuit of interests, but personal and collective physical security *will* remain crucial to any substantial, successful enterprise, except in those areas of opportunity where the long-term gains can reasonably be balanced with the immediate, moderate risk. The extent to which individual identities are fixed *will* vary, becoming more complex as people move between contexts and associations in pursuit of opportunity and fulfilment. People *will* continue to draw on their personal and cultural origins, but *will* acquire features from adoptive cultural, commercial or physical surroundings to construct their personal narratives and identities. Collective identities *will* develop to accommodate greater diversity of origin and culture where this brings advantage to the community as a whole, while becoming more exclusive where it does not. Nationhood and ethnicity, especially in ethnically homogenous and ideologically nationalistic states and communities, *will* continue to exert a powerful emotional influence. Migration and more fluid movement of people across borders *will* result in the growth of diaspora and expatriate communities, creating clearly defined enclaves with extensive, persistent links to countries of origin.

Identity and Interest - Potential Implications

While citizenship and physical security *will* remain important, individual loyalty to the state and state institutions *will* become increasingly conditional, based on personal

identity and interest.

Nationhood and ethnicity in certain countries *will* continue to influence human behaviour and international relations.

Diaspora communities and their networks *will* be dynamic and unpredictable features of the political, demographic and economic aspects of globalization.

Physical and cultural origin *will* continue to be significant to identity, but *will* be employed increasingly selectively, based on their utility in context and in relation to personal interest.

Communities *will* increasingly form around the pursuit of common interests, and *may* dissolve rapidly when they are no longer relevant.

DRIVERS OF CHANGE

- **Access to Information.** The pervasiveness of ICT *will* enable more people to access and exploit increasingly interconnected and sophisticated information systems. For example, it is estimated that 20 percent of the African population *will* subscribe to internet-enabled mobile phones by 2010.²⁷ The Internet and associated technologies, together with digitized portable communications, *will* increasingly become the means by which a rapidly expanding array of audio, visual and written information and entertainment products is distributed.
- **Communitarianism.** Population growth, especially its concentration in larger urban settlements (for example, those with more than 500k inhabitants), and more informal, adaptive ways of working *will* challenge and strain the capacity of governments to provide adequate, responsive infrastructure, utility provision and social services, as well as institutional and personal security. This *may* lead to a decline in civic support systems and increased reliance on local communities, extended family networks and personal patronage.
- **Migration.** Migration *will* increase in response to environmental pressures, deprivation and the perception of economic opportunities offered in towns and cities, as well as in wealthier regions and countries. Some 175m people, 3 percent of the world's population, currently live outside their country of origin. That number is *likely* to grow to 230m by 2050.²⁸
- **Dynamic Diaspora.** ICT developments and advanced mass-transit systems *will* facilitate and increase connectivity between ethnic/national diasporae and their communities of origin. This *will* tend to reduce incentives for integration and assimilation and allow self-contained 'virtual' communities to exist across continents in ways not always in step with the interest and aspirations of their host countries. Remittances from members of diasporae *will*

remain an important source of capital transfer and redistribution, especially for developing countries. Less benignly, diaspora *will* remain a medium for the international transmission of social risk, including: inter-communal violence, terrorism and transnational crime, especially trafficking and illicit trade.

- **Growing Cultural Complexity.** Increasing numbers of people *will* become accustomed to dealing with cultural complexity and mobility. The movement of people in pursuit of economic opportunity and a secure environment *will* create more cosmopolitan population centres, while English is *likely* to consolidate its position as the internationally dominant language for data and global services, supplementary transnational languages, such as Mandarin, Spanish and Arabic, *may* proliferate as engagement in globalized communication increases. Sophisticated translation devices are *likely* to become widely available during the period under review.
- **Changing Values.** Secularism and materialism are *likely* to grow in significance in an increasingly competitive, inter-connected world, reflecting trends that are already well established in the more developed regions. Meanwhile, cultural mixing, the pace of change and a rapid confluence of modern ideas and traditional values are *likely* to increase the trend towards moral relativism and increasingly pragmatic values. These developments *will* trigger responses from complex, traditionally defined communities, as well as among significant minorities, which *will* seek the sanctuary provided by more rigid belief systems, including religious orthodoxy and doctrinaire political ideologies, such as populism and Marxism.
- **Material Expectations.** The Western, capitalist model *will* continue as the economic paradigm and dominant cultural model for the aspirations of most of the world's population, with individuals seeking to match the lifestyle of their Western counterparts. Expectations, fuelled by increasingly globalized communications, media access and the promise of progress, *will* be further heightened by overall economic growth, which *will* be extremely rapid in some regions, and by continuing high standards of living in the more affluent ones. Visible marginalization, differential levels of poverty and affluence and a sense of grievance *will* increase in significance and become major political issues, based around transnational moral justice agendas, including violent activism of varying intensity and impact.

KEY THEME 3 - GOVERNANCE AND ORDER

States and Communities *will* be progressively challenged by the range and complexity of the national and transnational risks that are beginning to dominate the 21st century – and some *will* not cope. Owing to world-wide communications, the pervasive scrutiny of the media and the inter-connected nature of international engagement, challenges to stability, security and political order *will* increasingly have

local, regional and global consequences. Therefore, there *will* be a growing understanding of the limits to which solely locally-derived solutions are able to contain, and deal with, these challenges. Governments *will* increasingly seek international and cooperative solutions to safeguard national interests. Typically, those which share common interests *will* increasingly collaborate to contain the symptoms of crises, while developing new institutional mechanisms to mitigate, control or deal with their causes. However, some regimes *may* take whatever action they believe necessary to prevail or survive, maintain control or perpetuate a way of life, especially in the face of catastrophic or abrupt change. Also, the transition from a unipolar to multipolar world *will* be uneven, with varying and volatile degrees of competition and collaboration. Consequently, tensions *will* continue between the desire to establish collective solutions and the limitations on the independent operation of national sovereignty required for them to work.

Governance and Order - Potential Implications

- Transnational pressures, competition and globalization *will* challenge the robustness and resilience of governance and social mechanisms at every level.
- New collaborative institutions, philosophies and mechanisms *will* be required to cope with complex, inter-connected global and regional problems.
- The exercise of national sovereignty *will* increasingly be expressed in support of collective international action, but regimes and politics *will* continue to act to protect their citizens and sustain their vital interests and stability.
- Responsibility for international arrangements *will* lie with the national parties to them; the emergence of a new supra-national sovereign power is *unlikely*.
- Gaps and strains in the increasingly complex patchwork of arrangements for international governance *will* be open to exploitation and abuse.

DRIVERS OF CHANGE

- **Globalized Economy.** Globalization *will* remain a significant feature of long-term economic change, with higher proportional growth in foreign direct investment levels and international trade than in global output. This *will* increase interdependency, while exposing local markets to externally-derived risk. This tendency *will*, when it threatens social or regime stability, lead to unilateral tariff and protectionist action and preferential bilateral arrangements based on mutual self-interest or political advantage. Owing to varying degrees of regulation and corruption in the globalized economy, trafficking, institutionalized criminality and illicit trade *will* remain major features of the landscape.
- **US Transition.** As the world's pre-eminent economic and military power, the US is the primary architect and main guarantor of an international rules-based system, as well as a force of last resort. The status, culture and intentions of the US *will* have a decisive effect on the evolution or survival of that system, as it

adjusts in reaction to an uneven, possibly unbalanced transition from a unipolar to a progressively multipolar world. In doing so, the US *will* have to respond to, among other things, the rising economic challenge of Asia, more competitive commodity and energy access, and price and supply fluctuations, as well as dealing with internal demographic, debt and social pressures. Anti-Americanism *will* continue to be used as a convenient vehicle for the expression of grievance and resentment arising from a wide range of issues, well beyond the point at which other rising powers emerge.

- **Chinese Economic Development.** China *will* be one of the most significant factors in the future of the globalized economy as its position as the 'workshop of the world' *will* have decisive influence on global economic demand and labour markets. At the same time, its ever increasing foreign exchange reserves reflect growing Western indebtedness. China's future political direction *will* be crucial therefore, not only for its own economic expansion, prosperity and stability, but for that of the whole world. However, that political direction *will* be conducted against a range of significant challenges; environmental, social, political, financial and demographic. Failure to address these successfully *may* result in economic failure, political instability, societal disorder and unrest, with both regional and global repercussions. Chinese success in sustaining hitherto rapid economic growth allied with social and environmental reform, *may* result in a challenge to the U.S status as the global hegemony in the second half of the twenty first century.
- **International Crime and Illicit Trade.** International organized crime *will* grow in volume, reach and profitability, while exploiting new ventures and markets in areas of accelerating economic growth and opportunity, particularly in Asia and in developing transnational markets. The annual global market for illicit drugs in 2005 was estimated at \$322bn ²⁹and was higher in retail price than the GDP of 88 percent of the countries in the world (163 out of 184 for which the World Bank held data).³⁰ Many states *will* continue to rely on narcotics and other forms of illicit trading to maintain liquidity in their economies; aggressive exploitation of the weaknesses exposed by globalization to promote illicit trade and encourage corruption *will* present a major challenge to governance, to fiduciary arrangements and international financial regulation. However, the trade in narcotics *may* decline in response to a combination of over-supply, legalization and increasing intolerance of the social impact and cost in the developed world.
- **Transnational Terrorism.** Transnational and locally based terrorism, particularly Islamist, *will* continue to derive its energy and justification from political motivations, disadvantage and grievance, extending beyond poorer and more volatile regions to include the marginalized in middle-income and more affluent societies. The casualties and amount of damage inflicted *will* remain low, compared to other forms of coercion and conflict, but

the effect *will* be magnified by reach (both physical and psychological), the scale of disruption to infrastructures and the sensationalist value inherent in the 'Theatre of Violence' and the 'Propaganda of the Deed'. Based on technological availability and historic examples, chemical, biological and radiological elements *will* be viable and credible possibilities for terrorist attack throughout the period, together with a lower possibility of nuclear use.

- **Ungoverned Spaces.** Some geographical areas, including failed states, provinces or cities, and other population groupings, *will* not be subject to effective governance and the rule of law. Some weak states, while continuing to claim rights of sovereignty, *will* subsist through illicit trade and institutionalized criminal activity, while others *will* be ineffective in curbing instability and containing the consequences of transnational pressures. The risks associated with these ungoverned and poorly governed spaces, including endemic criminal activity, the basing of terrorists, irregular activity and conflict, are *likely* to increase and add to the complexity, and, by extension, to the burdens of maintaining the integrity of the international system.
- **Gender Equality.** The significance of the divide between societies that are progressing towards, or *will* have achieved, greater gender equality and those that are not *will* continue to grow. This issue is *likely* to remain a defining cultural and social theme during the 21st Century, influencing the conduct of international political, economic and cultural relationships, but its progress *will* be uneven and *will* be conditioned by cultural assumptions, demographic trends and economic circumstances.
- **Chemical, Biological, Radiological and Nuclear Weapon Proliferation.** Access to technology that enables the production and distribution of Chemical, Biological, Radiological and Nuclear (CBRN) weapons is *likely* to increase. A critical indicator of risk is contained in the examples of North Korea and Iran - both in obtaining or seeking nuclear weapons and in exploiting their putative possession for political and economic advantage. In future, much proliferation and threat *will* be manifest in the ungoverned space between legality and *realpolitik*, together with the distinct possibility of the acquisition of CBRN material by non-state and rogue elements.
- **Technological Development.** Innovation, research and development *will* originate from more international and diffuse sources and *will* proliferate widely, making regulation and control of novel technologies more challenging. The exploitation of these *may* have catastrophic results, especially those associated with nanotechnology, biotechnology and weapon systems. These *may* be unintended, for example 'runaway' nanotechnology or biotechnology, or intended, such as the development and use of directed energy or electromagnetic-pulse weapons.

- **Humanitarian Crises.** Humanitarian crises, both natural and human in origin, **will** affect the sentiments and sensibilities of globalized media audiences. Growing pressure for intervention **will** be exerted by these audiences and a hyperactive, obtrusive media, operating in both physical and virtual dimensions, especially when audiences are linked to those affected by identity or interest, or where they feel threatened by potentially wider or collateral impacts. Humanitarian fatigue **may** grow in proportion to the number of crises that emerge and the ability of governments and individuals to pay.

KEY THEME 4 - KNOWLEDGE AND INNOVATION

Technological development **will** continue to be predominantly commercially-led, driving innovators and entrepreneurs to identify and produce as many applications of new technologies as possible, although certain sensitive, niche, high cost/high impact programmes **will** continue to be conducted by military or governmental agency. There **will** also be extensive proliferation of access to technological and specialist information by a wider range of audiences and users, and even maintaining secrecy about sensitive technologies and systems **will** be extremely difficult. Innovation is **likely** to continue at an unprecedented rate and there is **likely** to be a multiplicity of sources of innovation and production. Making predictions about how novel and emerging technologies would be exploited and applied **will** be difficult and imprecise. The rate of change, tempo and unpredictability of innovation and development **will** challenge decision-makers who **will** have to anticipate and respond to direct and indirect outcomes. Notwithstanding this, trends indicate that the most rapid technological advances are **likely** in: ICT, energy, biotechnology, cognitive science, sensors and networks and smart materials. Nanotechnology is **likely** to be an important enabler for other developments, for example in electronics, sensors and commodity manufacture.

Whilst technology **will** benefit many people, its application and integration **will** continue to be unequal, reinforcing differences in understanding, advantage and opportunity between the haves and have-nots.

Knowledge and Innovation - Potential Implications

- The volume of information **will** challenge decision-support processes which are based on 'ordered' knowledge management and rigid hierarchical organizations.
- Technology-watch processes and intelligence agencies **will** be challenged by the speed and diversity of innovations, which are **likely** to 'pop-up' with increased frequency.
- The rate of technological innovation **will** reduce the time available for its 'cultural' assimilation and control, increasing the likelihood of unintended outcomes.
- It is **possible** that significant developments in quantum computing could lead to the compromise of some digital cryptology, with resulting implications for commercial and military use.
- More effort will be required in technical intelligence to provide early

DRIVERS OF CHANGE

- **Commercial Imperative.** Global economic growth, resource pressure and increasing socio-economic dependency ratios *will* fuel demands and create opportunities for innovation and investment. Development is increasingly *likely* to be directed towards commercial imperatives (business enterprises accounted for 68 percent of OECD Research and Development (R&D) expenditure in 2003).³¹ This aspect *will* drive innovators to identify as many applications and markets for their discoveries as possible, with interdisciplinary³² R&D *likely* to lead to the most revolutionary outcomes. This aspect *will* make the implications and impacts of breakthroughs difficult to predict.
- **New Innovation Centres.** Increasing volumes of R&D *will* take place outside traditional lead regions, with rapid proliferation and expansion of information and research facilities into rising powers and developing regions. This is *likely* to lead to a decline and even reversal in the technological dominance of the West with China and India poised to become technology leaders³³ in some areas. Non-OECD countries increased their global share of R&D from 17% to 20 percent between 2001 and 2003 alone.³⁴ China is now the third largest investor in R&D, over 60 percent of which is conducted by business enterprises, and other countries such as Brazil, South Korea, Taiwan and Israel are developing world class capabilities in interdisciplinary areas. Intellectual property and commercial exclusivity are *likely* to be under constant pressure from inadvertent disclosure, penetration and espionage.
- **Labour Mobility.** Highly capable and skilled individuals, including those employed in R&D, but particularly those with commercially profitable or politically useful skills in niche or scarce areas, *will* attract substantial rewards for their services and *will* be increasingly mobile within the global knowledge-economy market. Over half of the nearly 16m highly skilled expatriate workers in the four main destinations (US, Europe, Canada and Australia) have originated from outside the OECD area.³⁵ This largely one-way traffic *will* become more complex through the period and *will* be driven by the growth of research and entrepreneurial opportunities in emerging nations, easier migration and *likely* changes in traditional career models in business and academia *possibly* resulting in 'Brain circulation' rather than a 'Brain drain'. As emerging powers continue to rise and opportunities and safeguards become more predictable, a reverse flow to countries of origin is likely to accelerate.
- **Growth of Knowledge Sharing.** Transnational knowledge sharing and innovation *will* continue to expand, as indicated by increasing international collaboration in industrial R&D (30 percent in the UK alone), the increased number of non-native research

students (in the US approximately 32 percent are from Asia)³⁶ and the growth of internationally owned patents (two thirds of the Russian Federation's European Patent Organization (EPO) patents are owned or co-owned by foreign residents).³⁷

- **Information and Communications Technology (ICT) Growth and Pervasiveness.** Another powerful driver for the rate and range of innovation *will* be the continuing increase in the pervasiveness and processing power of ICT. Wearable and implanted wireless ICT is *likely* to be accessible to all that can afford it in the second half of the period, and users *will* be linked through sensors and networks that are enabled by computers that are significantly more capable than at present, *possibly* by 100bn times if quantum computing reaches its potential.³⁸
- **Demand for New Energy Sources.** The potential limits of hydrocarbon resources and the need to reduce carbon emissions *will* stimulate intensive research to find alternative forms of energy. These *will* include, but not be limited to, manufactured or renewable fuel sources such as biofuels and hydrogen, and possibly nuclear fusion later in the period.
- **Exploitation of Extreme Environments.** The search for alternative energy sources *will* become more urgent at a time when technology *will* permit cheaper more commercially viable space and intro-atmospheric applications. As a result, there is *likely* to be an increase in space exploration and the exploration of other extreme environments, such as polar regions, the deep ocean and deep underground, *will* also increase. As the NASA programme through the 1960s and 70s demonstrated, the exploration of more remote and hostile environments is *likely* to stimulate and deliver extensive technological innovation.
- **Advances in Simulation.** Advances in social science, behavioural science and mathematical modelling *will* combine, leading to more informed decision making. Advanced processing and computational power *will* permit a new level of pattern recognition (Combinatronics) enabling the decoding of previously unrecognised or undecipherable systems and allowing the modelling of a range of biological to social, political and economic processes. As a result, simulation and representatives *will* have a significant and widespread impact on the future and *will* become an increasingly powerful tool to aid policy and decision makers.³⁹ It will also blur the line between illusion and reality.

**ANNEX 6: DRIVERS OF CHANGE IDENTIFIED IN THE HFP WORKBOOK
“TRENDS AND DRIVERS OF CHANGE IN HUMANITARIAN ACTION IN
2025” (HFP 2008)**

| Social Drivers of Change | Certainty |
|---|---------------|
| Demographic growth and changes in demography World population continues to grow to 9bn in 2050. Population ages in developing world leading to increased economic growth but also increasing aged population needing care. | Predetermined |
| Urbanization and growth of slums World continues to rapidly urbanize, especially sub-Saharan Africa. Growth of slums without adequate services. | Predetermined |
| Globalisation and migration Growth in migration | Uncertain |
| Improved access to education There is universal primary education for all by 2020. | Uncertain |
| Health care improvements Malaria largely eradicated, deaths from diarrhoea massively reduced. | Uncertain |
| Increased social inequality Wealth increases across the world, but majority of planet does not share improved standard of living | Uncertain |
| Changing role of women Revolution in women's rights in developing countries, leading to more women in work and more economic support for health care and education. | Uncertain |
| Potential for pandemics | Uncertain |
| Technological Drivers of Change | |
| Continued rise of World Wide Web leads to increased communications and trade | Uncertain |
| Information and communications technology (ICT) continues to revolutionise business and leisure | Uncertain |
| Nanotechnology | Uncertain |
| Advances in medicine such as bio-mechanics and in-situ diagnostics | Uncertain |
| Genetics Leading to advances such as new vaccines | Uncertain |
| Artificial intelligence | Uncertain |
| Scientific approaches to social policy (decision making) | Uncertain |
| Biotech | Uncertain |
| Robotics and new materials | Uncertain |
| New military technologies | Uncertain |
| Economic Drivers of Change | |
| Realignment of world economy due to rise of BRICS | Uncertain |
| Continued global growth driver by US economy Dollar continues to underpin world economic system | Uncertain |
| Continued stagnation of Sub-Saharan Africa | Uncertain |
| Continued stagnation of Middle East | Uncertain |
| Energy supply shortages/price increases | Uncertain |

| | |
|--|---------------|
| Finite oil supplies lead to price rises and intense competition for energy | |
| Income distribution disparity | Uncertain |
| Changing geographical nature of poverty related to migrations and global realignment | Uncertain |
| Viability of current economic model | Uncertain |
| Environmental Drivers of Change | |
| Global temperature rise | Predetermined |
| Rising sea levels | Predetermined |
| Increase in tropical cyclones and severe weather incidents | Uncertain |
| Changing rainfall patterns | Uncertain |
| Increased displacement and migration | Uncertain |
| Decreasing global food production | Uncertain |
| Water access constraints | Predetermined |
| Political Drivers of Change | |
| Change in world security as a result of rise of BRICs | Uncertain |
| Expansion of Europe | Uncertain |
| Continued instability in Africa | Uncertain |
| Instability in Middle East | Uncertain |
| Continued intra-state warfare | Predetermined |
| Water and other resource wars | Uncertain |
| Nuclear conflict threat (terrorist, accident or war) | Uncertain |
| New forms of terrorism Bioterrorism | Uncertain |
| Politics of identity | Uncertain |
| New forms of global governance Trans-national corporations; unwinding of nation state concept | Uncertain |
| Collapse of US As sole superpower | Uncertain |
| Humanitarian Drivers of Change | |
| Number of people affected by disasters continues to rise | Predetermined |
| New types of disaster and vulnerability | Uncertain |
| New specialism within agencies as result of new threats | Uncertain |
| More funding for humanitarian crises from a greater diversity of donors and channels | Uncertain |
| Professionalism | Uncertain |
| Demand for accountability | Uncertain |
| Powerful political forces setting agenda | Uncertain |
| New organisations working in the humanitarian sector | Uncertain |
| Lessening influence of UN | Uncertain |

| | |
|--|-----------|
| Shrinking of humanitarian space | Uncertain |
| Rise of national capacities | Uncertain |
| New technologies | Uncertain |
| New international humanitarian law Driven by use of robots in war and other patterns of new warfare | Uncertain |

¹ For instance Sohail Inayatullah's *Six Pillars* recommends a mapping of the past, present and future in order to achieve a "shared history" among the participants in a Future Studies/ Foresight process (Inayatullah 2008). In their *Guidelines for Strategic Foresight* Hines and Bishop (2006) include the steps of 'Map the system' and 'Study history'. To provide readers with a sense of a generic strategic foresight process the table of contents of *Guidelines for Strategic Foresight* is reproduced in Annex 4).

² Total official humanitarian assistance expenditure is the combination of: bilateral humanitarian assistance from DAC donors; bilateral humanitarian assistance from the EC; multilateral contributions to UNHCR and UNRWA; and a share of multilateral contributions to WFP. The figure does not include general public donations to NGOs, UN agencies and the Red Cross and Red Crescent Movement; DAC donor humanitarian expenditure that falls outside the official definitions of ODA (official development assistance) and humanitarian assistance; and humanitarian expenditures by donor governments that are not part of the DAC.

³ Development Initiatives arrives at this figure by estimating the humanitarian activities funded from voluntary sources for 19 of the largest NGOs and assuming that these NGOs accounted for 75-80% of the total for all NGOs.

⁴ <http://ocha.unog.ch/fts/pageloader.aspx> viewed 13/7/09.

⁵ <http://www.gatesfoundation.org/grants/Pages/search.aspx> viewed 13/7/09 and the 2008 Annual Report of the Bill and Melinda Gates Foundation.

⁶ <http://ocha.unog.ch/fts/pageloader.aspx?page=Profile-donorCountrylist> viewed 13/7/09.

⁷ For instance a WFP assessment a month into the 2006 Lebanon conflict found that the economy and people of Lebanon were highly dependent on remittances, particularly the elderly and the unemployed (WFP, 2006)

⁸ Four categories of objectives are identified in social protection:

- Provision measures designed to provide relief from deprivation
- Preventive measure designed to prevent deprivation
- Promotive measures designed to enhance income and capabilities
- Transformative measures designed to address concerns of social justice and exclusion. (Sabates-Wheeler et al. 2008)

⁹ Afghanistan, CAR, Chad, Colombia, Cote d'Ivoire, DRC, Ethiopia, Georgia, Guinea, Haiti, Indonesia, Iraq, Myanmar, Nepal, Kenya, Liberia, Somalia, Uganda, Zimbabwe.

¹⁰ Burundi, Eritrea, Niger, Occupied Palestinian Territories, Sri Lanka, Sudan, Timor-Leste.

¹¹ This discussion draws heavily on Borton (2009).

¹² My thanks to Adil Najam, Director of the Frederick S. Pardee Center for the Study of the Longer-Range Future, Boston University, for drawing this work to my attention.

¹³ *Exploring the Future: Tools for strategic thinking* Horizon Scanning Centre, UK Government Office of Science Foresight Programme

<http://hsc toolkit.tribalctad.co.uk/content/view/136/2/>

¹⁴ Tamkang University, Taiwan; Stellenbosch University, South Africa; University of Houston, Texas USA; University of Hawaii USA; Turku School of Economics, Finland;

Swinburne University of Technology, Australia; Regent University, Virginia USA; Leeds Metropolitan, UK; the European Innovation and Foresight Masters (eInnForm) is provided jointly at the Universities of Potsdam, Malta, Turku and Teeside.

¹⁵ Such a scenario is termed “overshoot and collapse” by futurists.

¹⁶ <http://www.thinkingfutures.net/sopiff>

¹⁷ In the preface Richard Slaughter calls it “one of the first, if not THE first, truly ‘broad church’ and ‘ecumenical’ futures texts” (Hines and Bishop 2006).

¹⁸ National power scores, computed by the International Futures computer model, are the product of an index combining the weighted factors of GDP, defense spending, population, and technology.

¹⁹ Benchmarking UK Strategic Futures Work – Government Performance and Innovation Unit

²⁰ World Bank: Long Term Economic Prospects: www.worldbank.org downloaded 28 Feb 06

²¹ World Population Prospects: the 2004 Revision Population Database, UN Press Release, 5 Sep 06, on line www.un.org/News/Press/docs/2005/pop918.doc.htm

²² The State of food Insecurity in the World 2005, Food and Agriculture Organisation, UN, on line

<http://www.fao.org/docrep/fao/008/a0200e/a0200e.pdf>

²³ International Energy Agency: World Energy Outlook 2005.

²⁴ UN-HABITAT (2003) Slums of the World -The Face of Urban poverty in the New Millennium. United Nations Human Settlements Programme, Nairobi.

²⁵ UN EP: <http://www.unep.org/vitalwater/21.htm#21b> published 2002

²⁶ Urban Population Trends 26 Jan 05, [peopleandplanet.net](http://www.peopleandplanet.net) online at <http://www.peopleandplanet.net/doc.php?id=1489>.

²⁷ A mobile vision for Africa, 6 Jul 04, on line

<http://www.textually.org/textually/archives/2004/07/004433.htm>.

²⁸ UN Department of Economic and Social Affairs/Population Division. International Migration Report 2002 (New York, 2002).

²⁹ United Nations Office on Drugs and Crime Annual Report 2005 page 4.

³⁰ www.drugwarfacts.org/economi.htm.

³¹ OECD Science, Technology and Industry Scoreboard 2005 – Towards a knowledge-based economy.

³² The term ‘Interdisciplinary’ is used to mean a culture that reflects science and technology as a continuum and not a series of discreet areas (physics, chemistry and biology) bounded, primarily, for the sake of education.

³³ US National Intelligence Council – ‘Mapping the Global Future’ Dec 04.

³⁴ OECD Science, Technology and Industry Scoreboard 2005 – Towards a knowledge-based economy.

³⁵ OECD Science, Technology and Industry Scoreboard 2005 – Towards a knowledge-based economy.

³⁶ Ibid.

³⁷ OECD Science, Technology and Industry Scoreboard 2005 – Executive Summary.

³⁸ Peter Cochrane, ‘Uncommon Sense: Out of the box thinking for an in the box world’, Capstone, 2004.

³⁹ Dr Harry Woodroof, Horizon Scanning Centre, Office of Science and Technology.



Humanitarian Horizons
Mapping a Future for Action