JANUARY 2010

HFP HUMANITARIAN FUTURES PROGRAMME

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Strengthening the humanity and dignity of people in crisis through knowledge and practice

Humanitarian Horizons: A Practitioners' Guide to the Future

KING'S College LONDON
World Vision
CRS
Oxfam
RESCUE
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The authors would like to acknowledge the support – in the form of both financial and substantive contributions – provided by the Inter-Agency Working Group throughout the course of the Humanitarian Horizons project. The project was generously funded by the following organizations: Catholic Relief Services, the International Rescue Committee, Mercy Corps, Oxfam America, World Vision Australia, World Vision Canada, and World Vision International.

M.V- 8074,

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This guide results from the future intruding into the present. Whilst we were carrying out what was to be a two-year collaborative research program, with many iterations of consultation planned between the researchers and the commissioning aid agencies, one of those Black Swan events, made infamous in Nassim Taleb's book of the same name, intervened, causing us to take a radical change of direction. We know that history is dominated not so much by trends but by unexpected events which knock or nudge society in new directions. The future will be even more dominated by the unexpected.

This guide is an attempt to help humanitarian aid agencies look a generation into the future to begin making the necessary changes now to their thinking and organization to ensure that they deliver the right assistance and protection in the right way to the right people, in whatever future our children may experience.

The future is now!

The Humanitarian Horizons project, commissioned by the agencies of the Inter-Agency Working Group (IWG) and implemented jointly by the Feinstein International Center of Tufts University and the Humanitarian Futures Programme of King's College, London, was launched in the fall of 2008, with the objective of assisting the humanitarian sector to prepare for the complexities of the future. Although circumstances eventually altered the intended scope and course of the project, it began with the commissioning of four reports on what the future might look like, focusing respectively on climate change, globalization, demographics, and changes in the humanitarian system.

The IWG agencies collaborated with us to reflect on these reports, and to map and collate our individual and collective views of the future. These views, the "so whats," were tested against the commissioned futures studies and it is this analysis you see presented in the second section of this guide, following a summary of the four commissioned reports.

This Practitioners' Guide to the Future is just one tool to encourage creative thinking and more experimentation with new practice. We hope agencies will use it to stimulate debate about their futures, and the futures of the communities they serve, working with them to develop new ways of providing assistance and protection. That, after all, is where the biggest changes in operational methodology and purpose are going to have to take place.

Agencies are getting better at identifying *what* they have to tackle in the future; witness the near-weekly reports on the consequences of climate change, globalization, the future use of cell-phone technology, and mobile banking. The more difficult question is *how*; both how to deliver and how to continuously adapt to meet the mission. We need to be honest: humanitarian agencies are, ironically, rather risk-averse. They rationalize that they do not have the right to experiment with the unproven when their business is delivering life-saving and sustaining services. That, however, is really not a justification for risk aversion, but for risk management. It should prompt agencies to experiment but be rigorous in their research and data gathering. It should lead to spreading risk – working in consortia to support a range of alternative strategies and ideas.

What's next? No one predicts the future. Rather, like an artist working with a new medium, if we learn, experiment, and take risks, we become more comfortable and more adept at dealing with the opportunities and constraints it presents.

We know this future will evolve at an ever-faster pace. Changes in society accumulate; they are not a sequence of one-off events. Moore's law, which predicts a geometric growth of computer processing power, applies to all aspects of human future, not just semi-conductors. We know the future, like the past, will be partly driven by unexpected events: inventions, social movements, economic highs and lows, wars. We know that survival and success will be products of rapid and appropriate adaptation.

As we examine possible future scenarios and the consequences they may bring with them for humanitarian agencies, three central themes emerge. They are:

- The emergence of a "new humanitarianism" that will be part of neither the humanitarian nor development systems;

- The continued growth of information, communication, and technology tools will transform the way in which the world does business;

- Strategic leadership will be central to humanitarian action in an increasingly uncertain world.

Navigating these dynamics will require leadership that is comfortable with ambiguity and risk, which is obsessive about evidence and data, but is not constrained by it. We will need leadership that encourages dissent and experimentation, in organizations that are flatter, more dominated by the twin functions of ground delivery and global analysis, and less dragged down by the compliance processes of financial obligations and public opinion.

This Practitioners' Guide is but one nudge in that direction. We hope it will stimulate others.

In an effort to map future crisis drivers and to locate the most important interconnections between them, four studies were commissioned by the Humanitarian Horizons project. The first three focused on future projections in (1) demography, (2) climate change, and (3) globalization, with a view to achieving a better understanding of the potential influences of these external crisis drivers on humanitarian action over the next two decades. Further to the studies on external drivers, a study was also commissioned to explore (4) key dynamics internal to the humanitarian sector as a means of identifying major trends within the industry expected to have an influence on planning and action in the future.

Whilst these papers revealed a number of important trends within each discipline, it is only by viewing them together that we can create the multilayered canvas that is critical to a clearer and more strategic vision of the future. We are doing that here, in this Practitioner's Guide, collecting and comparing the most salient points from each of the research papers, and integrating them into a shorter and more focused narrative. Although it was not possible to carefully address every futures topic in detail – new pandemics, forms of war, or uses of technology, for example – we believe that this project has captured the essence of how humanitarian practitioners need to think about the future.

By synthesizing projections across critical disciplines, it is hoped that an overall architecture is built that presents a probable or at least plausible future that can assist with planning. The data are presented here in an abridged and visual manner in order that the reader can seek to identify trends and patterns within those trends as may be relevant to humanitarian work and planning.

More specifically, this narrative seeks to:
- Provide clear building blocks of what we know and what we don't know in each of the disciplines under study;
- Identify linkages, feedback loops, and tipping points between the different disciplines;
- Offer a tool for further futures analysis and inter-agency collaboration.

DEMOGRAPHICS

Demographics provide one of the few predictable foundations for mapping future trends. Perhaps more so than in any other socioeconomic discipline, past is prologue in demography, allowing one to make future population projections based on current levels with some level of certainty. Barring cataclysmic changes in mortality or wild swings in the birth rate, a population's age distribution – and even more significantly, its fertility rates – play the primary role in future population growth or decline (Haub 2009).

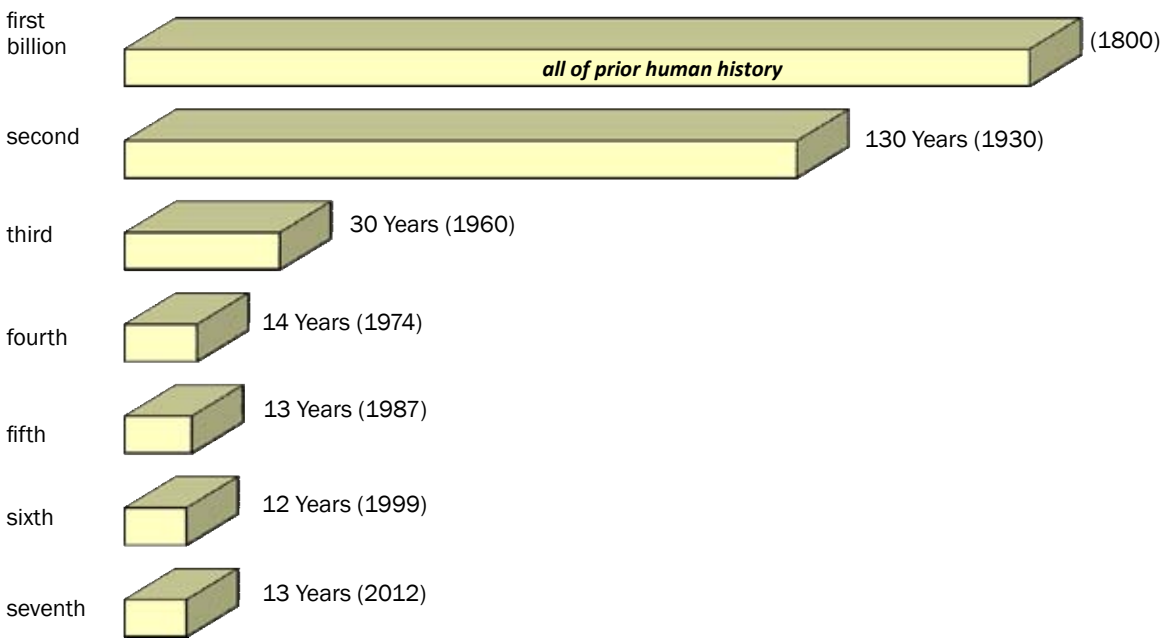
Research under the auspices of this project revealed four major demographic trends:
- The speed of population growth will be unprecedented;
- The largest population growth will be in the developing world;
- Sub-Saharan Africa will be the region in greatest demographic crisis;
- Unplanned, peri-urban environments will be home to large concentrations of at-risk populations.

The speed of population growth will be unprecedented.

The graph on the facing page illustrates the sheer speed by which the global population has multiplied in the past, with an added billion every 12 to 14 years since 1974.

The implications for humanitarian action are manifold. Experts project that the rapidity by which growth will occur means that global societies will not have adequate time to absorb the numbers. There is little chance that governments will be able to develop the required infrastructure, social service delivery, and employment opportunities to sustain them. In a world of exploding population growth, it is highly probable that a high percentage of persons will be born into chronic risk.

World Population: Number of Years Required to Add Each Billion



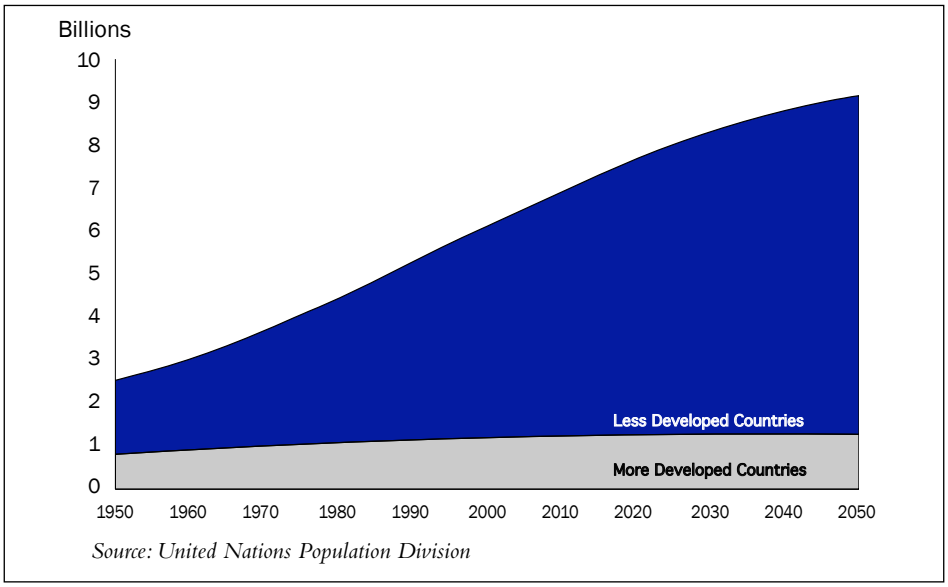
Source: Population Reference Bureau, United Nations Population Division

The largest population growth will be in the developing world.

As illustrated in the graphs below, the largest population increases are now taking place in the poorest countries of the world and in the poorest areas *within* countries. Demographers assert that this will almost certainly continue to be the trend for the balance of this century.

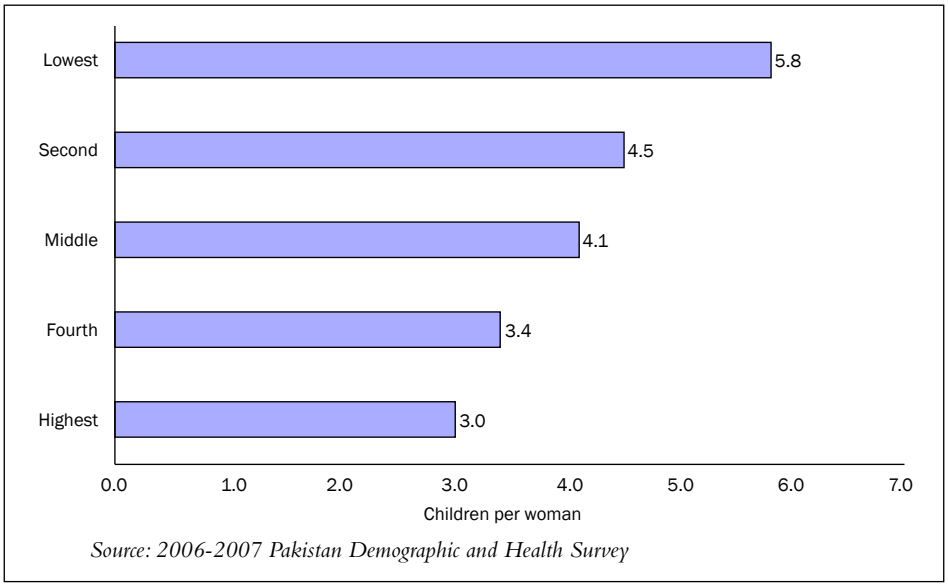
The growth of the world's poorest populations has far-reaching consequences for humanitarian action. For one, growth amongst the poorest subsets in the developing world will mean simply that many more people will be at risk. Secondly, the collapse of the birth rate in many developed countries and an unprecedented aging of these same societies will result in a decreased tax base. As a result, one can validly posit that wealthier nations may be unwilling to provide assistance to poorer nations to the necessary degree in the future, as they themselves will be saddled with both the rising expenses of a pension-age population and the dwindling support of a smaller working-age population.

Population of Developed and Developing Countries, 1950-2050



Source: United Nations Population Division

Total Fertility Rate by Wealth Quintile, Pakistan, 2006-2007



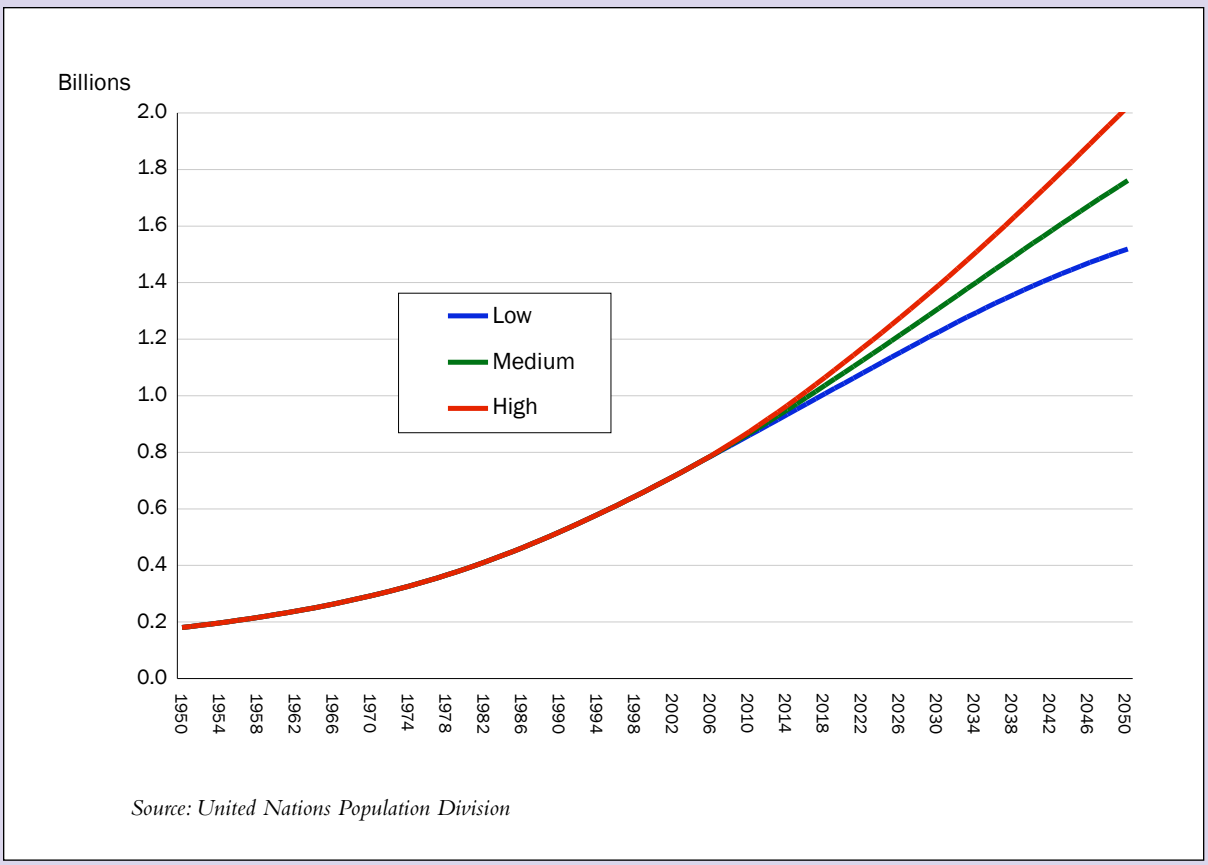
Source: 2006-2007 Pakistan Demographic and Health Survey

Sub-Saharan Africa will be the region in greatest demographic crisis.

No other region continues to typify the classic notion of the population "explosion" as does sub-Saharan Africa. Asia may add more people over the course of this century due to its sheer initial size, but populations in sub-Saharan Africa are projected to more than double in size between 2009 and 2050, despite projections of a total fertility rate decline in the region (Haub 2009).

The United Nations reports that of the 15 developing countries with the smallest declines in fertility worldwide, 14 of them are in sub-Saharan Africa (Haub 2009). On average, not until women in sub-Saharan Africa already have five children do half of them report that they would stop having children. As a result, projections of fertility decline in the region are exceedingly unlikely and mean that this demographic trend is unlikely to be altered in the foreseeable future. Additional issues of humanitarian concern include HIV/AIDS and its consequences, and the phenomenon of the "youth bulge" in the region.

Population of Sub-Saharan Africa, 1950-2050: Three Scenarios



Source: United Nations Population Division

Increase in HIV/AIDS orphans

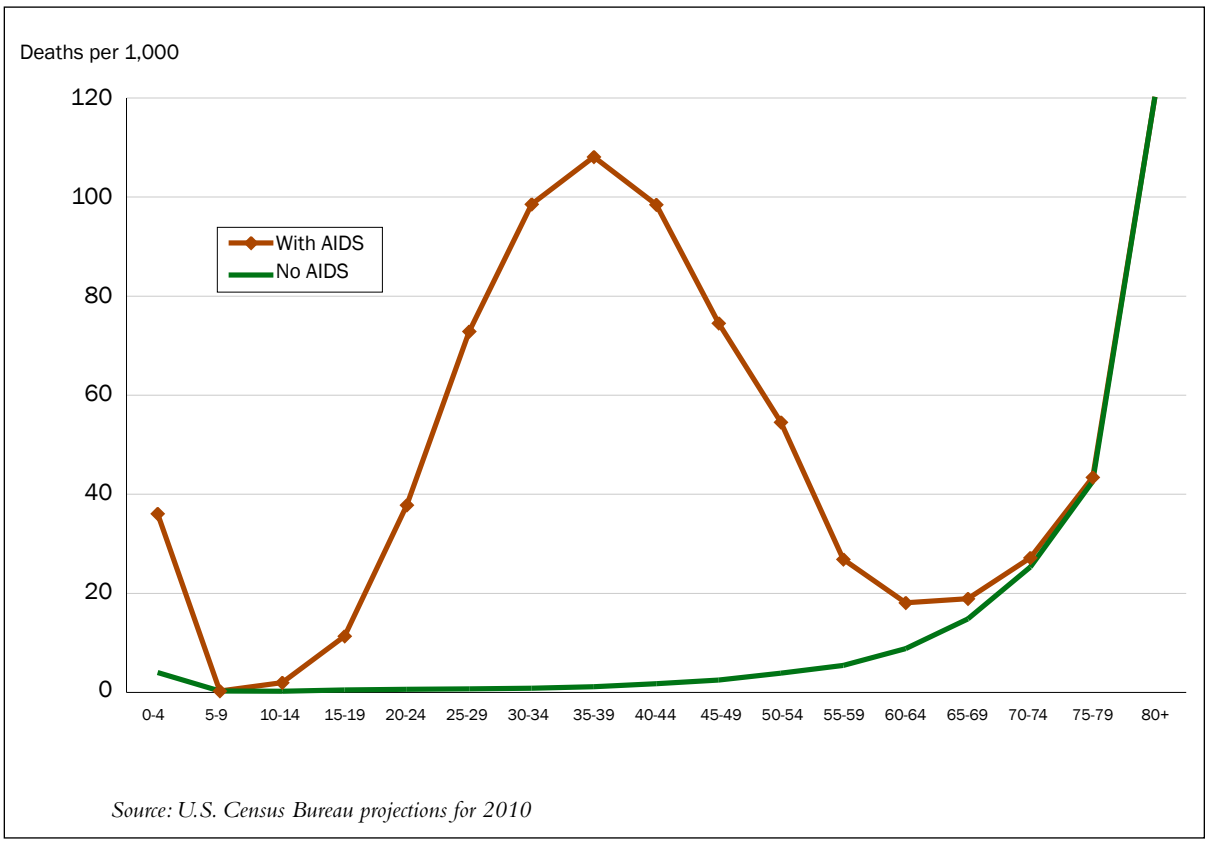
Although HIV/AIDS will not lead to a major decrease in overall regional populations, the disease is expected to continue to result in deaths of individuals in their reproductive and working prime in sub-Saharan Africa, and thus, to a spiked increase in HIV/AIDS orphans across the region.[1] An increase in HIV/AIDS orphans has been generally expected for some time; however, the speed by which the numbers have risen has surprised even experts. In 2001, there were eight million such orphans worldwide; in 2007 this number had reached 15 million. At least 80 percent of these children are in sub-Saharan Africa (Haub 2009).

The graph below of death rates among women in Botswana illustrates this projection clearly, as HIV/AIDS death rates are highest just after the critical family formation period. Unlike the shape of the green line representing mortality rates of healthy women, the death rate of women with HIV/AIDs spikes in the mid to late 30s, and the deaths of these young mothers are expected to leave behind a large number of orphan children.

Continued evidence of a youth bulge although not necessarily an increase from today

A youth bulge will continue to be an issue in sub-Saharan Africa for the next twenty to fifty years. Today, it is estimated that up to 45 percent of populations in the region are below the age of 15. And statistical projections for the future indicate that by 2030, 60 percent of all urban dwellers will be under the age of 18 (Haub 2009). Layered with the data described above regarding HIV/AIDS orphans, one may anticipate a proliferation of street children and homeless orphans in overcrowded urban settings.

Age-Specific Death Rates for Females with and without AIDS in Botswana



Source: U.S. Census Bureau projections for 2010

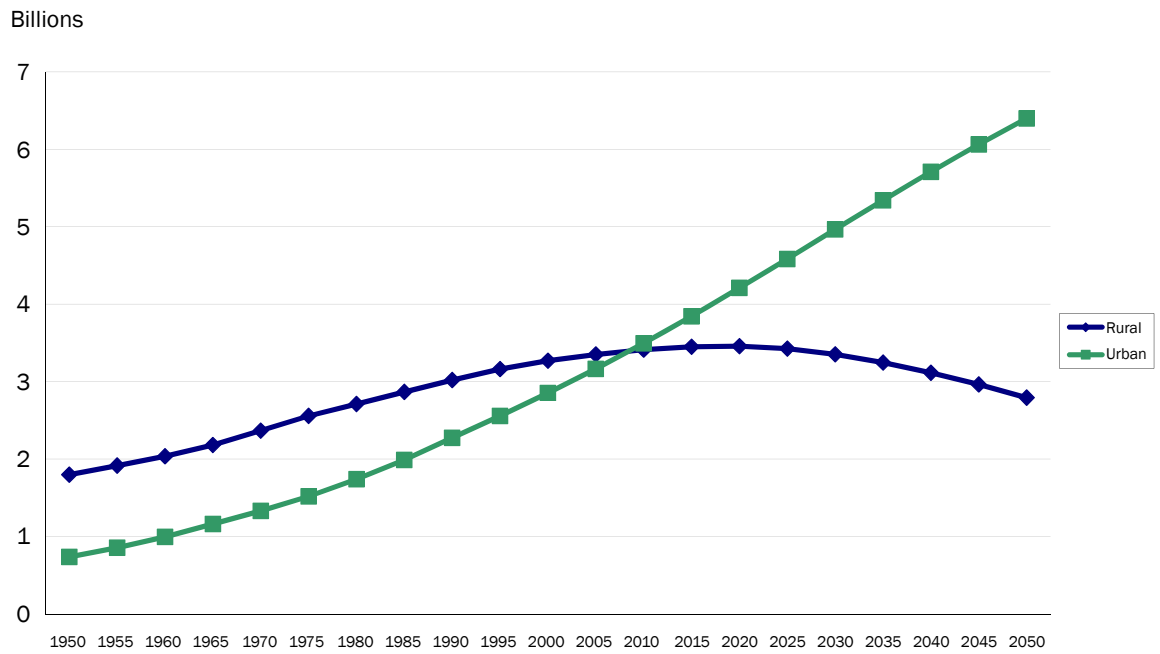
[1] UNAIDS estimates that there are 22 million people living with HIV in sub-Saharan Africa, two-thirds of the world total.

Unplanned, peri-urban environments will be home to large concentrations of at-risk populations.

The global population will become increasingly urban during the course of this century. The most recent UN Population Division estimate, issued in 2007, projects that the proportion of the global population residing in urban areas will reach 70 percent by 2050, up from 29 percent in 1950. Rural populations – now at a plateau – will begin to decrease in number from 2025 (UNPD 2009, as found in Haub 2009).

Of note for humanitarian practitioners are the following two elements of urbanization: (1) the movement will take place with such velocity that the world's urban centers will not be able to keep up with the growth. This will exacerbate the already existing trend of having two cities within one – one part of the population that has all the benefits of urban living, and the other part, the

Urban and Rural Population, 1950-2050



Source: United Nations Population Division, World Urbanization Prospects, The 2007 Revision

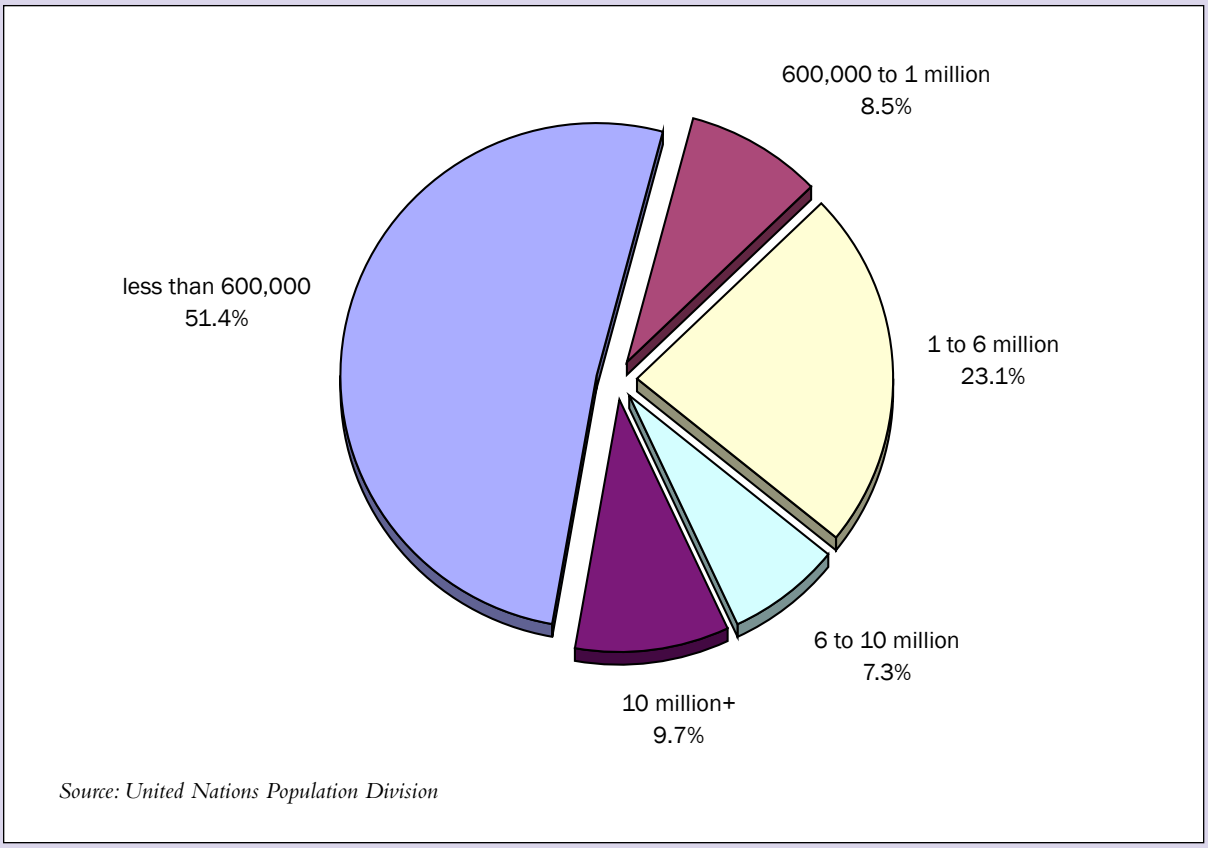
slums and squatter settlements, where the poor will live under worse conditions than their rural relatives;[2] (2) as urban growth continues, a much larger proportion of global urban population will reside not in the world's megacities, but rather will be found in small- and medium-sized cities, i.e., cities with less than 600,000 persons, as illustrated in the following graphic.[3]

CLIMATE CHANGE

Unlike demographics, climate change predictions are messy and uncertain as past data is not an adequate indication of future risk. As noted by the Stockholm Environment Institute (SEI), who conducted the research for this portion of the project, "The only thing that is certain (in climate science) is that there will be surprises."

That said, distinguishing what is currently known from what is unknown in climate science is critical to developing a common vision of the future. And there are an increasing number of research-based factors within the discipline that can assist in developing a common understanding around climate change's anticipated impacts.

World Urban Population Distribution by City Size, 2025



Source: United Nations Population Division

[2] According to HABITAT, the slum population accounts for 70 percent of cities in many sub-Saharan African countries, and Mumbai, India currently has a population designated as 54 percent slum dwellers (Haub 2009).

[3] In addition to small- and medium-sized cities, "megacities," i.e., those with a population of 10 million or more people, will also continue to grow. By the year 2015, there are expected to be 60 megacities in the world (O'Brien 2008, as found in Morinière et al. 2009).

Key issues currently surfacing from climate science that will impact humanitarian action are:

- Climate change will involve small, fast risk processes embedded in large, slow risk processes;
- There will be more extreme climatic events.[4] We just don't know when or where they will occur;
- Land degradation will be the single most complex and interlinked of all *physical* climate change consequences;
- Reduced access to resources will be the most complex and interlinked of all *human* climate change consequences, followed by impaired health and heightened mobility.

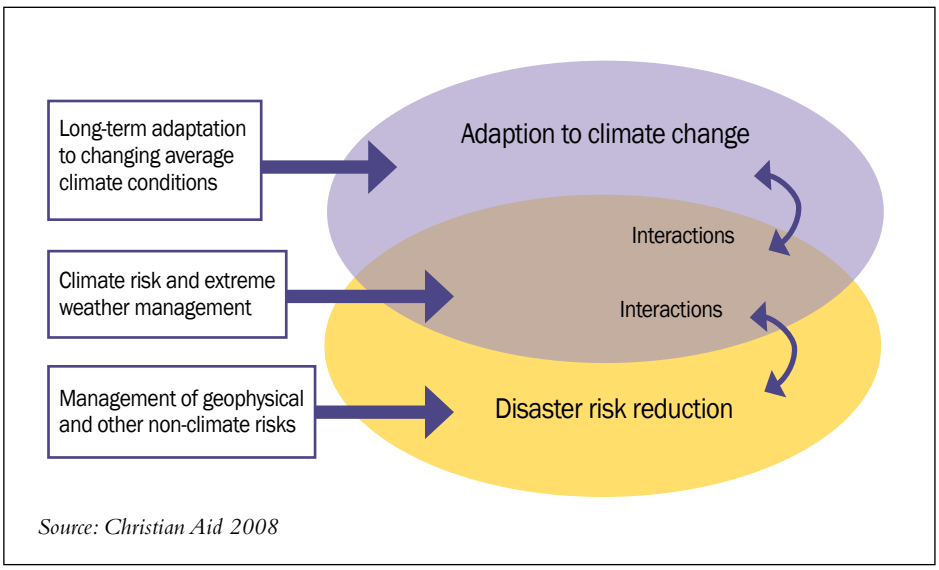
Climate change will involve small, fast risk processes embedded in large, slow risk processes.

It is now acknowledged by both climate scientists and humanitarian practitioners alike that the physical consequences of climate change will result in human impacts along two streams – one that results in a greater frequency, intensity, and unpredictability of extreme events or small, fast risk processes, and one that will result in slow-onset processes that will impact human vulnerability at an incremental rate through diminished livelihood, health, and quality of life opportunities.

In terms of planning, this means that the humanitarian community will have to understand the different effects of short-term and long-term climate change. Whilst the former is linked to disaster preparedness and disaster risk reduction, the latter is more directly associated with fundamental changes and/or adaptation strategies targeting the productive bases of societies. Humanitarians will also have to identify at the local level how the two different processes will interrelate through forcings and feedbacks[5] to make global populations even less able to cope with either. A visual from a recently released Christian Aid climate change adaptation module offers a useful illustration of the interplay between fast- and slow-onset climate change processes.

There will be more extreme climatic events. We just don't know when or where they will occur.

The increase of extreme climatic events is oft referenced by climate change experts and humanitarian practitioners. Unfortunately, however, existing research is unable to predict, either temporally or geographically, how precisely these extreme events will manifest themselves. Although reports of the Intergovernmental Panel on Climate Change (IPCC) strongly indicate changes to come in the frequency and intensity



Source: Christian Aid 2008

[4] Some examples of extreme events include temperature changes, floods, storms, and landslides (Morinière et al. 2009). Drought is considered both an extreme event and an extreme process.

[5] In this context, "forcings" are those factors which impact the energy balance of the planet, such as greenhouse gases, deforestation, changes in albedo, etc. "Feedback," in turn, refers to the effect of one climate-related process upon another.

of hazards and have progressively linked climate change to an increase in natural disasters, they clearly avoid making any statements that could be construed as *disaster predictions* – the exact element from which humanitarian agencies could most benefit (Morinière et al. 2009).

In sum, although climate science has made the linkage between extreme events and climate change and asserted that such events and processes are increasing in frequency, intensity, and/or unpredictability, the science remains unable to project the geographies and exact human consequences of extreme events. That said, the IPCC has released information indicating that the most vulnerable industries, settlements, and societies are likely to be those located in coastal regions and river flood plains, those whose economies are closely linked with climate-sensitive resources such as water or rangeland, and those in other areas prone to extreme weather events, especially where rapid urbanization is occurring.[6]

Land degradation will be the single most complex and interlinked of all *physical* climate change consequences.

Across both physical and human ecosystems, land degradation – here including erosion, pollution, glacier/ice melt, deforestation, and desertification – is the most complex of all climate change consequences. Despite the fact that land degradation has serious consequences for agriculture, food security, and livelihoods, it is rarely discussed in the humanitarian literature, and only marginally more so in climate change literature. This suggests that humanitarian practitioners may wish to place a greater focus on this phenomenon and its direct and indirect consequences[7] on human populations.

Research by the Stockholm Environment Institute suggests that in direct comparison to all of the consequences considered within both the physical and human subsystems, land degradation has the largest number of direct and indirect feedback loops.[8] Changes in temperature and precipitation, for example, are likely to increase degradation of soil, the diminished productivity of which in turn means less vegetative cover, reduced surface albedo, and therefore a possible increase in global temperatures.

Reduced access to resources will be the most complex and interlinked of all *human* climate change consequences, followed by impaired health and heightened mobility.

Reduced access to resources

Scarcity of accessible natural resources, including water, land, biodiversity, forests, and energy, will be one of the most challenging and immediate impacts of climate change on human populations (Schipper and Pelling 2006, as found in Morinière et al. 2009).

Water, a source of life and livelihoods, is naturally a key focus of this section, as water stress is anticipated to be a concern for many parts of the developing world. Water availability, quantity, and movement will be affected by changing temperatures and levels of precipitation. As a result, water flows supporting human settlements and agriculture are expected to decrease, exacerbating pre-existing pressures in some areas already experiencing water stress. Warming temperatures also mean that water supply stored in glaciers and snow cover will decline,[9] with consequent risks to agriculture, the environment, and human settlements immediately downstream of these sources.[10]

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[6] IPCC WGII 7.1, 7.3, 7.4, 7.5, SPM (IPCC 2009, as cited in Morinière et al 2009).

[7] These consequences include the following: sea level rise, floods, storms, landslides, drought, degradation from the physical subsystem, reduced access to natural resources, impoverishment, conflict and inequality, heightened mobility, food insecurity, and impaired health from the human subsystem.

[8] "The robustness of these conclusions and the particular selection of consequences merit investigation; the triggers are clearly sensitive to the choice of consequence included in the analysis. It is important to note that these are potential forcings and feedbacks. They will not occur in every situation and they depend on a host of confounding factors. There are certainly more links than those identified [here] and the list will grow as science expands to understand the complexities of climate change consequences in a coupled system" (Morinière et al. 2009, p. 38).

[9] Regions dependent on melt-water from major mountain ranges concern one-sixth of the world's current population (IPCC WGI 4.1, 4.5; WGII 3.3, 3.4, 3.5, as found in Morinière 2009).

[10] In coastal areas, sea level rise will exacerbate water resource constraints due to increased salinization of groundwater supplies (IPCC WGI 11.2-11.9; WGII 3.2, 3.3, 3.4, 4.4, as found in Morinière, 2009).

Below is a list of projections regarding future global water stress:

- According to the latest World Bank Hotspots Analysis, roughly 38 percent of the world's land area is exposed to some level of drought, representing 70 percent of the global population and the same proportion of agricultural production (WB 2005, as found in Morinière et al. 2009).
- By 2020, up to 250 million additional people in sub-Saharan Africa could have their livelihoods and prospects compromised by a combination of drought, rising temperatures, and increased water stress (UNDP 2008, as found in Morinière et al. 2009).
- Extreme drought conditions are expected to affect eight percent of land area by 2020, and no less than 30 percent by the end of the century (Save the Children 2008, as found in Morinière et al. 2009).
- A very large increase in both the spread and the severity of drought will leave almost a third of the planet with extreme water shortages by the end of this century (Hadley Centre 2006, as found in Morinière et al. 2009).

Closely interlinked with water scarcity is agricultural productivity, which will become riskier and less profitable in many developing countries as the climate continues to change. At the global level, acute vulnerability may not be immediately visible since aggregate agricultural output potential may be only slightly affected by climate change. In fact, experts project that agriculture potential could actually increase by eight percent in developed countries by 2080 due to longer growing seasons, whilst agriculture potential in the developing world could fall by nine percent with the ever-growing expansion of drought-prone areas (UNDP 2008, as found in Morinière et al. 2009).

Heightened mobility

Forced migration will increase in the future as a result of environmental or climatic stresses. According to UN University research recently carried out under the EACH-FOR project, people on the move as a result of environmental stresses will fall into three categories:

- *Environmental Emergency Migrants/Displaced* comprise those who will flee the worst of an environmental impact/event on a permanent or temporary basis;
- *Environmentally Forced Migrants* refer to those who will have to leave in order to avoid the worst of environmental deterioration; and
- *Environmentally Motivated Migrants* are those who may leave a steadily deteriorating environment in order to pre-empt the worst of its consequences (Dun and Stojanov 2007, as found in Morinière et al. 2009).

The above definitions indicate *why* and *how* populations may move in the context of a warming climate. *Where* they move is also of great concern to humanitarians. The majority of these populations will move to urban settings, further defining urbanization as a major trend of the future.

If this migration occurs in coastal cities, as some experts believe (O'Brien 2008, as found in Morinière et al. 2009), there will be considerable humanitarian implications. Not only will undue stress be placed on infrastructure and social services in these urban conurbations – such as will be the case in non-coastal areas – but it will also become more difficult to deliver at-risk people from the negative impacts of climate change, given that heavily-populated coastal cities will be precisely the locations increasingly exposed to risk by way of sea level rise, tsunamis, and other coastal-based hazards (Christian Aid 2007, as found in Morinière et al. 2009).

Impaired health

Human health, as well, is a consequence heavily impacted by both direct forcings and feedback from other physical and human climate consequences. For example, the three main consequences impacting on health include drought as a direct link and impoverishment and inequality as indirect links. Already, the ranges of several disease

vectors have been observed to shift, such as the mosquitoes responsible for the spread of malaria and Chikungunya (Chretien et al. 2007 and McMichael 1993, as found in Morinière et al. 2009), and weather shocks such as drought or floods are known to increase the risk of both short-term illness and longer-term disease burden, whether through the direct impacts of, for example, water-borne illness, or the indirect effects of malnutrition due to diminished agricultural productivity (UNDP 2008, as found in Morinière et al. 2009).

GLOBALIZATION

It is widely acknowledged across all disciplines that globalization is a major force shaping relations worldwide. In order to anticipate the impacts of globalization on humanitarian action, practitioners must understand the dynamics of the process – one that will facilitate human interconnection at a speed and scope unprecedented in recorded history.[11] Whilst the future of globalization, like that of climate change, is made from many open parameters, there are certain existing factors which are expected to continue to influence the evolution of human society well into the rest of this century. These can serve as indicators about the world to come.

Drawing from the research commissioned under the auspices of this project, some of the main impacts of globalization are noted as follows:

- The acceleration and intensification of global human interaction are projected to lead to still greater social inequality worldwide;
- Globalization is and will continue to be associated with the growth of unsustainable economic activity in at-risk parts of the world;
- State structures are expected to weaken at the same time that state responsibilities will increase;
- Human mobility will increase to fulfill the demands of globalization and in turn serve as a driver of the globalization process;
- There will continue to be variation in knowledge and availability of technology between countries.

The acceleration and intensification of global human interaction are projected to lead to still greater social inequality worldwide.

Whilst the issue of whether globalization has alleviated poverty or mired countries further within it remains contested, the literature on exclusion and inequality is less controversial. Inequalities, particularly income inequality, have increased both within as well as between countries as a result of the current wave of globalization. These inequalities are expected to get even worse in the future. As an indication of global inequality trends, one can note that in 1960, the average per-capita GDP in the richest 20 countries in the world was 15 times that of the poorest 20. Today, this gap has widened to 30 times due to the fact that rich countries have on average experienced faster growth than poorer ones. Indeed, per capita incomes in the poorest 20 countries have hardly changed since 1960 and have fallen in several (World Bank undated and 2002, as found in Khan and Najam 2009).

In the context of globalization, populations in developing countries have for the most part been marginalized by the world economy and are today experiencing declining employment and labor standards (Ghose 2003, as found in Khan and Najam 2009). In addition, there is an emerging consensus that globalization has increased economic and political insecurity, whether defined as job insecurity, lack of social protection, and/or food insecurity.

The challenge for humanitarians will be both to support governments to assist the most vulnerable through anti-poverty measures and to provide social safety nets where governments cannot.

[11] For the purposes of this Guide, a working definition of globalization is taken from Held, et al. "In its simplest sense, globalization refers to the widening, deepening and speeding up of global interconnectedness. Globalization can be thought of as a process (or set of processes) which embodies a transformation in the spatial organization of social relations and transactions – assessed in terms of their extensity, intensity, velocity and impact – generating transcontinental or interregional flows, and networks of activity, interaction, and the exercise of power" (Held et al. 1999, as found in Khan and Najam 2009, p. 7).

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Globalization is and will continue to be widely associated with the growth of unsustainable economic activity in at-risk parts of the world.

Many experts term the process of globalization as "a race to the bottom" in terms of environmental standards. A fully globalized and competitive market obliges countries to fight to attract more foreign capital and to keep domestic investment at home. In the process, it often encourages the transfer of unsustainable practices between countries, rather than the elimination of them.

The market drive of the global economy also means that the survival of a number of agricultural economies depends on cost-competitive high yields. It is, therefore, reasonable to assume a link between globalization and degradation of agricultural land, as most experts do. Modern plowing, overgrazing, and fertilizer and pesticide use result in the depletion of worldwide topsoil, yet these practices seem imperative to farmers seeking to compete in the global market. An estimated 25 billion tons of topsoil are lost to erosion each year (Paul and Wahlberg 2008, as found in Khan and Najam 2009). The UN estimates that erosion has seriously degraded 40 percent of the world's agricultural land.

Whilst advances in genetic and trans-genetic technology that make it possible to engineer crops to cope with a wide range of environments and developments in plant breeding that allow for better yields do provide some remedy, wide-scale positive impacts have yet to be experienced and absorbed into mainstream globalization discourse.

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State structures are expected to weaken at the same time that state responsibilities will increase.

Another recurring theme in globalization literature is the dilution of state control over global processes, particularly over the management of trade and capital flows. The Westphalian concepts of sovereignty and territoriality are expected to become much less important in international transactions and human interaction as the process of globalization matures. Globalization refers to "a reconfiguration of geography, so that social space is no longer wholly mapped in terms of territorial places, territorial distances and territorial borders" (Scholte 2000, as found in Khan and Najam 2009, p. 7). De-territorialization then gives rise to alternative structures of governance that compete with the traditional nation-state for division of responsibilities. As explained by Ulrich Beck (2000), a leading expert in modernity and risk, "Globalization – however the word is understood – implies the weakening of state sovereignty and state structures" (as found in Khan and Najam 2009, p. 7).

In the context of developing countries, this is likely to result in even greater difficulties for states as they struggle to provide critical social services to ever more impoverished and vulnerable populations. In the worst of circumstances, it may also lead to the complete breakdown of state structures and potentially result in inter- and intra-state conflict. Humanitarians will need to think carefully about how best to support vulnerable populations and the states that are responsible for them in an increasingly globalized world.

Human mobility will increase to fulfill the demands of globalization and in turn serve as a driver of the globalization process.

The ease of international travel combined with reduced costs has resulted in global mobility, rather than migration per se, as a primary response to labor needs and a key driver of the globalization process. In this current wave of globalization, mobility is witnessed in its informal modes alongside formal ones, with the practice of illegal entry strategies alongside those that are sanctioned (Conway 2006, as found in Khan and Najam 2009). Whilst its benefits are heralded in the form of greater interconnectedness, concerns are being increasingly voiced with regard to its regulatory, border security, and human rights consequences.

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Voluntary migration

Voluntary international migrants have increased from about 75 million in 1965 to 200 million in 2000. By 2050, the figure is expected to reach 230 million. In 2000, the majority of voluntary migrants in the world resided in just 28 states with countries such as the United States, Germany, Japan, Canada, United Kingdom, and Australia as the main recipients (Zlotnik 2005, as found in Khan and Najam 2009). Increased education and income have resulted in women becoming principal applicants for work permits and visas on their own accord, rather than solely migrating as "tied-movers" or "reunifying spouses," and this trend is set to continue.

Circulatory migration

The sheer volume of people moving about has increased exponentially and the expectation is that migratory patterns will continue to evolve, moving progressively from permanent to circulatory migration, a phenomenon whereby one or more repetitive moves across borders becomes common. Circulatory or transnational migrants may maintain two homes or even two nationalities, interacting within multiple local and transnational fields. Profitable economic returns of short-term migration are resulting in self-generated flows of skilled transients and a global economy of remittances that has surpassed even foreign aid (Conway 2006, as found in Khan and Najam 2009). Shorter-term temporary international movement is likely to increase in significance in the future as people in search of work avoid permanent emigration, leading to an overall rise of dual nationalities and growth in "transnationalism" (Crisp 2008, as found in Khan and Najam 2009).

Irregular migration

A major feature of global migration systems is the rise of "irregular migration," defined as a "growing global search for gainful work" (Khan and Najam 2009, p. 34). Estimates of irregular migration flows are naturally difficult to pin down. The United States has had the largest number of irregular immigrants, with the numbers increasing from four million in the early 1990s to 10.3 million in 2004. For the EU-25 group, irregular migration flows amounted to 800,000 in 2001 (Khan and Najam 2009). The smuggling of migrants and asylum seekers constitutes a separate phenomenon from trafficking and falls under the overall rubric of "irregular migration."[12]

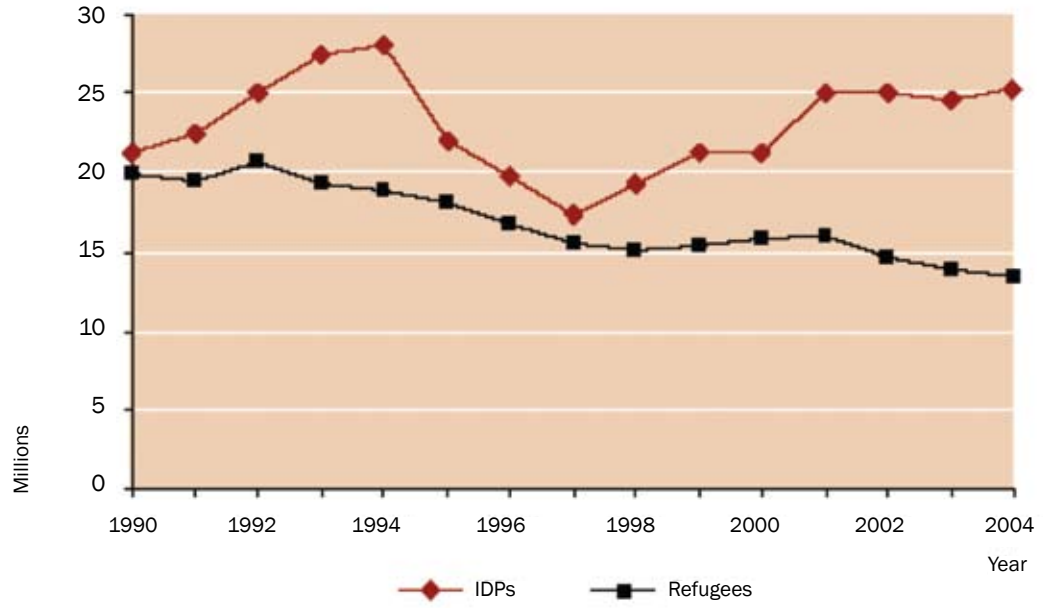
Forced migration, including human trafficking

Forced migration as the result of disaster and conflict will surely continue as a major global trend in the future. It is likely that the bulk of forced migration will manifest itself in the form of internal displacement, as opposed to cross-border movement. Natural disaster-led displacement is expected to rise. According to the researchers commissioned for this project, the total number of people affected by natural disasters has tripled over the past decade to two billion, a trend certain to continue (Khan and Najam 2009). They also assert that, based on past trends, the world can be expected to face a "major" emergency involving human displacement every 16 months and a "massive" one every two years (Khan and Najam 2009).

In addition to traditional forms of forced migration well known to humanitarian practitioners, human trafficking will feature as a central aspect of forced migration in the future, expected to reach ever more alarming proportions. According to the International Labor Organization, there are an estimated 800,000 to 900,000 victims of human trafficking each year, with half that number forced into the sex trade (ILO 2005, as found in Khan and Najam 2009).

[12] *Trafficking of human beings* is defined as: 'the recruitment, transportation, transfer, harbouring or receipt of persons, by means of the threat, or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation.' The *smuggling of migrants* is defined as: 'The procurement, in order to obtain, directly or indirectly a financial or other material benefit, of the illegal entry of a person into a state Party of which the person is not a national or a permanent resident.' *Sources*: UN Protocol to Prevent, Suppress and Punish Trafficking in Persons (2000); UN Protocol against the Smuggling of Migrants by Land, Sea and Air (2000).

Trends in the Numbers of IDPs and Refugees



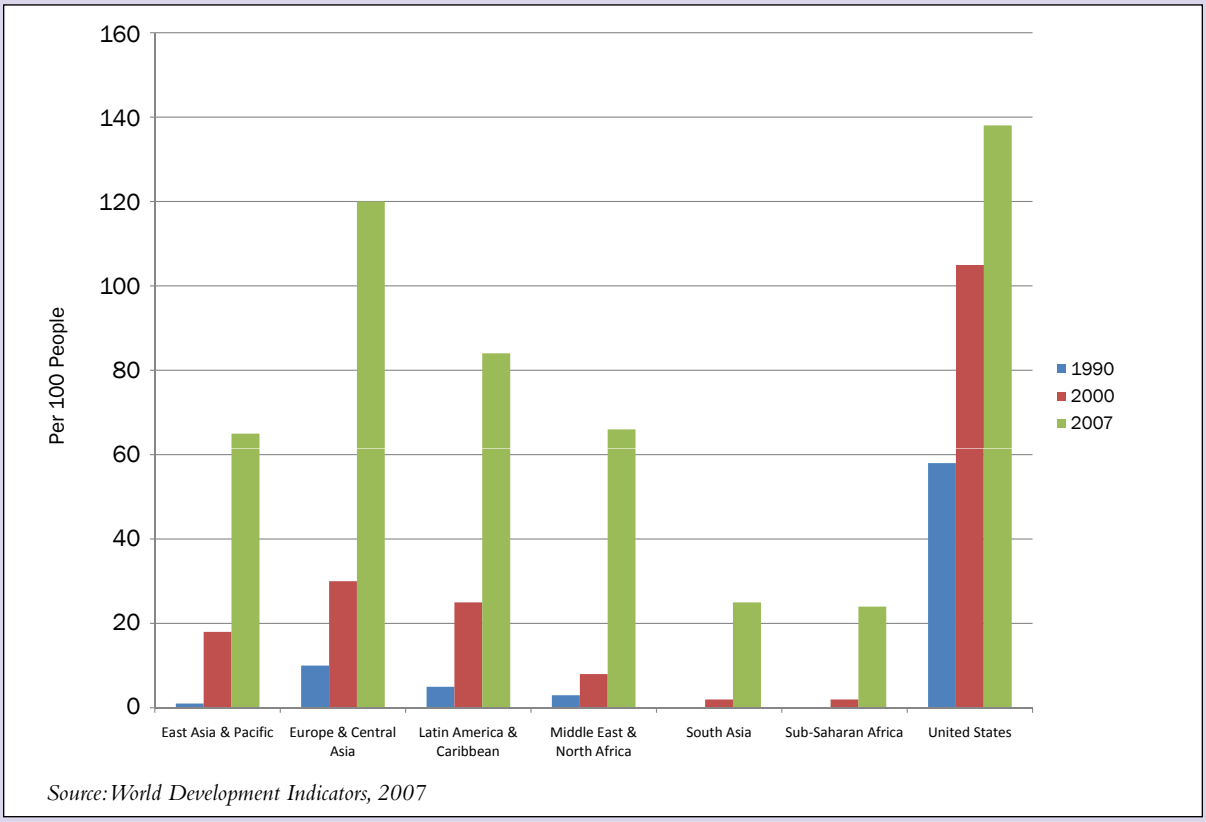
Source: UNHCR, UNRWA, US Committee for Refugees (1990-2000), The Global IDP Project/Norwegian Refugee Council (2001-2007)

There will continue to be variation in knowledge and availability of technology between countries.

Arguably the most significant driver of globalization has and will continue to be remarkable developments in technology and information. Even if the pace of future progress is a fraction of what it has been over the past three decades, technology will continue to be a force in the intensification of human interaction, resulting in a global convergence in the construct of economic, political, and cultural organization.

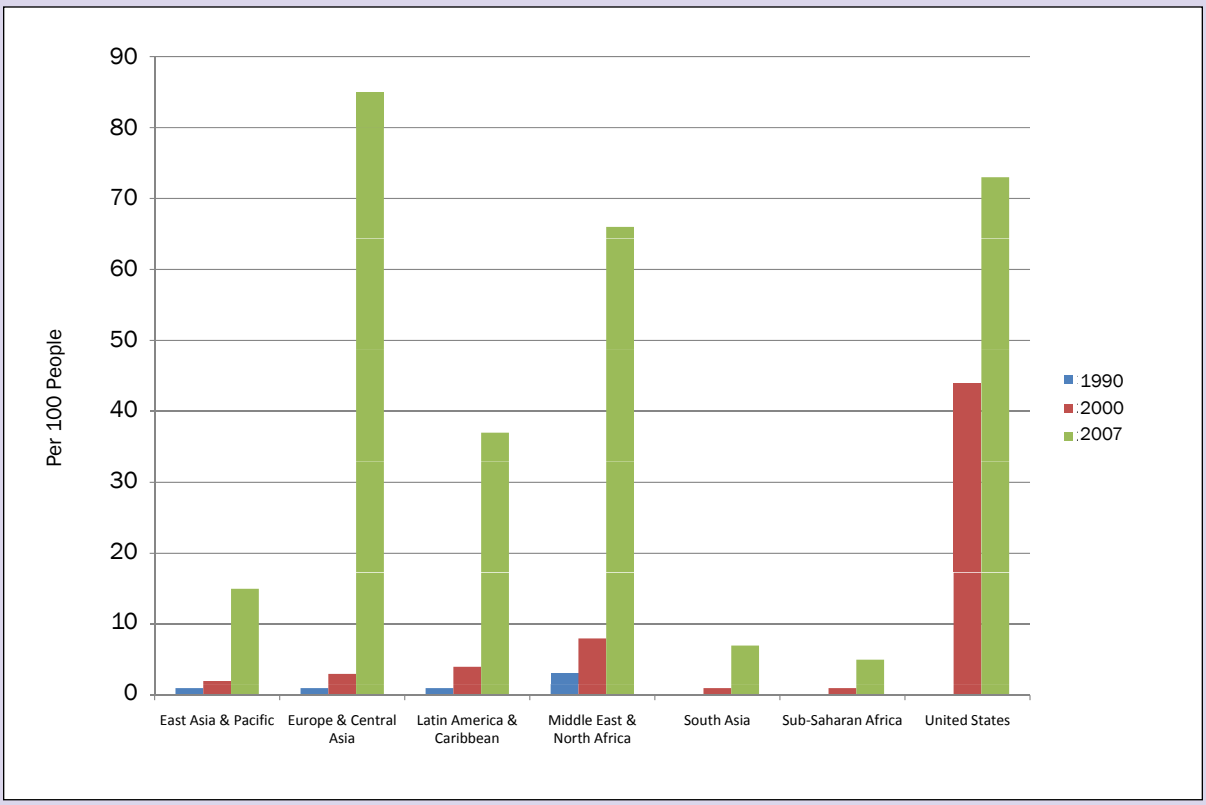
Despite significant growth in communications sectors in developing countries, a digital divide remains between developed and developing countries. Although developing countries' share of world mobile phone subscribers has increased from only 30 percent in 2000 to 70 percent in 2007 (World Bank 2009), the penetration rate of this technology has been lower in Africa than in nearly every other part of the world. The gap in Internet access between developed and developing countries is greater. In 2000, OECD countries accounted for 95.6 percent of Internet hosts, while non-OECD countries had only 4.4 percent (World Development Indicators 2007, as found in Khan and Najam 2009). Currently, internet use in developed countries is five times that in developing countries (World Bank 2009). That said, although penetration and growth rates have been lower in developing countries – particularly in sub-Saharan Africa and South Asia – increasing competition in these economies has led to dropping prices and growing usage. These trends are set to continue, and will have implications, both positive and negative, for increasing global interconnectedness.

Mobile and Fixed Line Telephone Subscribers



Source: World Development Indicators, 2007

Internet Users



KEY DYNAMICS WITHIN THE INTERNATIONAL SYSTEM

Further to the external drivers studied under the auspices of this project, it is acknowledged that the humanitarian system is affected by trends and events in the world in which it operates and by trends and events within the organizations and networks that comprise the humanitarian system. For this reason, the project team wished to explore, in addition to global crisis drivers impacting from the outside, dynamics within the humanitarian system that may influence the character and quality of humanitarian action in the future.

In an increasingly interconnected world, these dynamics, together with external drivers, are polymorphous and, hence, difficult to categorize as either squarely "internal" or "external" in nature. Ultimately, all trends and events that drive change within the humanitarian system have their roots outside the system (Borton 2009). That being acknowledged, certain features were nevertheless distinguished as "internal" to the humanitarian system for the purposes of this mapping exercise. The main internal dynamics identified under the auspices of this project include:

- The sheer scope of human vulnerability will grow ever greater;
- Humanitarian and development activities will become increasingly conflated;
- The shift from a uni-polar to a multi-polar system will have an impact on the level and influence of traditional humanitarian funding;
- Anything currently resembling "humanitarian space" will become even further constricted;
- There will be an increased involvement of military actors in humanitarian action, particularly in instances of natural disaster;
- Continuing developments in technology will have significant impacts on humanitarian action.

The sheer scope of human vulnerability will grow ever greater.

By any measure, the humanitarian system has grown rapidly over the last two decades, and this growth is expected to continue for the foreseeable future, due in large part to the population, environmental, and economic trends highlighted in this section. If climate change – either through slow-onset processes, extreme events, or a combination of the two – leads to a dramatic increase in the number of disasters, then we can also expect to see even more affected persons requiring humanitarian assistance. In a recent report, Oxfam International notes that

> *…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 2009, as found in Borton 2009, p. 44)*

Greater vulnerability means greater need. Total official humanitarian assistance[13] in 2006 was almost 2.5 times greater (in constant price terms) than it was ten years previously in 1997 (Development Initiatives 2008, as found in Borton 2009). 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.[14] Although these trends have thus far been positive, it remains to be seen whether the growth in response will be proportionate to the growth in need, in particular if countries become more insular around their own concerns, in light of changes in population distribution.

[13] 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.

[14] Significantly, this data excludes 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 (Borton 2009).

Humanitarian and development activities will become increasingly conflated.

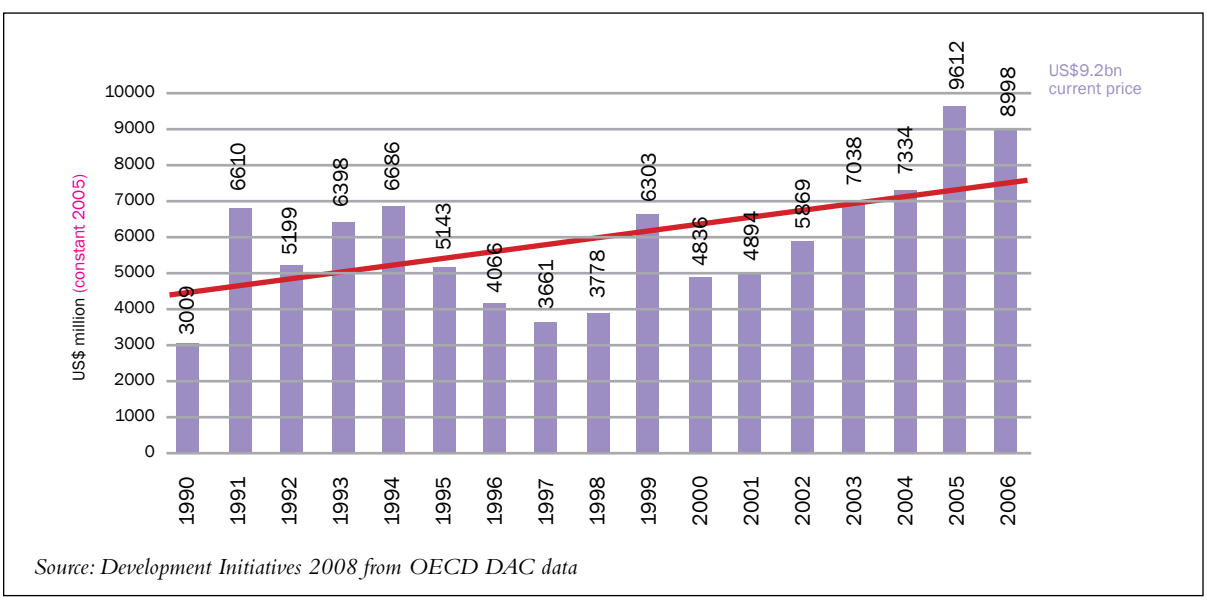
In addition to a rapid growth in expenditure levels, the humanitarian system has also seen a remarkable expansion in the range of activities undertaken as part of its operations. Whilst health services, water/sanitation and hygiene promotion, food security, nutrition and food aid, shelter, settlement, 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, gender-based violence, and advocacy and support to the re-establishment of the rule of law, all areas of intervention arguably comprising the traditional development sector.
For humanitarian programs in those parts of the world that will experience even more frequent natural disasters and concomitant conflict and insecurity, it will be increasingly difficult to distinguish between humanitarian activities and expenditures and development activities and expenditures, given that organizations of all kinds will be active during overlapping phases of the disaster cycle, as priorities shift and resources must be reallocated according to need.

The shift from a uni-polar to a multi-polar system will have a profound impact on the level and influence of traditional humanitarian funding.

It is widely acknowledged that the economic power and significance of Brazil, Russia, India, and China (the so-called BRIC states), as well as countries like Indonesia, Mexico, and South Korea will significantly influence all spheres of global action, including humanitarian action.

Although the US will remain the single most powerful global 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. The ability of existing global institutions (often referred to as

Total Official Humanitarian Expenditure, 1990-2006



Source: Development Initiatives 2008 from OECD DAC data

"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.

The current dependence of the humanitarian system on funding from "Western" governments is clearly evident and is likely to change significantly as a result of the above-described growth over the next several decades. In 2006, the 23 member governments of the OECD/DAC[15] provided 80.9 percent of the global humanitarian assistance. It is highly unlikely that OECD/DAC will be able to maintain this kind of dominance in global foreign aid in the future. The table below prepared by Development Initiatives demonstrates a breakdown of expenditures as of 2006.

Anything currently resembling "humanitarian space" will become even further constricted.

Attacks on aid workers have increased significantly in recent years. Experts widely believe this "shrinking of humanitarian space" is associated with a proliferation of armed non-state actors and with an over-politicization of aid since 9/11. Since that time, staff of UN humanitarian agencies, international NGOs, and even the ICRC have been largely regarded as instruments of Western policy by groups and populations, not just in Afghanistan and Iraq, but more widely (Zwitter 2008 and Donini 2009, as found in Borton 2009).

In 2008, the number of major incidents of violence affecting aid workers was 177 percent higher than the number in 1997. Analyses of the apparent motives indicate that "attacks on aid workers in the most insecure contexts were increasingly politically motivated,

Estimate of Global Humanitarian Assistance in 2006

SOURCE OF FUNDING FLOW	AMOUNT $USm	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[16]	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 figure 1.7, p.10

[15] OECD/DAC is the Organisation for Economic Co-operation and Development, Development Assistance Committee.

[16] 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 percent of the total for all NGOs (Borton 2009).

reflecting a broad targeting of the aid enterprise as a whole" (Stoddard, Harmer, and DiDomenico 2009, as found in Borton 2009, p. 14). With a growing number of non-traditional actors entering the humanitarian space, including military forces and corporations, it is envisioned that there will be a growing perception that principles of humanitarian impartiality will be minimized still further. Such thinking may presumably lead to even greater humanitarian staff insecurity in some of the most difficult operational environments.

There will be increased involvement of military actors in humanitarian action, particularly in instances of natural disaster.

Military forces across the globe are increasingly orienting themselves to intervene in situations of natural disaster and humanitarian crisis. Most countries already have a long history of deploying national military assets in a domestic context to assist fellow citizens in 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 People's Liberation Army in response to the 2008 Wenchuan earthquake (Borton 2009).

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 response to the 2005 earthquake (Cosgrove and Herson 2008, as found in Borton 2009). 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, and more than 100 aircraft (Kent and Ratcliffe 2008, as found in Borton 2009).

The growth of military presence and action in humanitarian operations looks set to continue for the rest of the twenty-first century, in part due to the sheer scope of humanitarian need that will present itself, but also due to the fact that significant military forces provide a type and scale of logistics and other capacities that can be deployed more quickly than other entities.

Continuing developments in technology will have significant impacts on humanitarian action.

The role of technology in anticipating and responding to humanitarian crises of the future cannot be underestimated. Recent years have been witness to a major growth of a sub-industry of humanitarian technologists. Today, both Microsoft and Google have dedicated humanitarian information units, other NGOs such as InSTEDD, FrontlineSMS, and Ushahidi focus their full attention on technological tools for humanitarian and human rights monitoring and response at the community level, and collaborations like NetHope aim to bring the technical expertise and resources of other NGOs together for greater effectiveness.

The proliferation of cell phones, in particular, is expected to give rise to still more innovative humanitarian programming and looks to involve beneficiaries in their own community preparedness and response as perhaps never before. The number of mobile subscribers globally is estimated to have reached four billion in 2008, with mobile penetration reaching 61 percent (ITU 2008, as found in Borton 2009). 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 2008, as found in Borton 2009). These statistics are astonishing and will likely change the way in which humanitarians do business in the future.

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In the rapidly changing and increasingly complex world described in Section 1 of this Guide, humanitarian practitioners are expected to keep abreast of a growing number of trends across a range of disciplines. They are naturally preoccupied with what future projections of all kinds might mean in terms of global human vulnerability and humanitarian action. However, they are finding it difficult to identify and sort the most relevant trends and interdependencies between them from an ever-growing body of literature about the future.

In the face of transformational change, humanitarian practitioners want to know what it all means and how best to prepare now. The continual question posed by IWG members throughout the course of this project has been "so what?" What will the future mean in terms of humanitarian action? A second critical question has been "how?" Given the way in which the future is shaping up, humanitarian organizations are asking how to anticipate and prepare for what might be in the most practical and immediate of terms.

From a careful analysis of the project research and a series of discussions with representatives of the IWG organizations,[17] the FIC/HFP project team has developed a short list of priority "so whats" or core humanitarian challenges coming out of the *futures* research. This list includes the following eight points:

1. An increased overlap of humanitarian and development agendas will transform the scope and nature of the humanitarian endeavor;
2. The humanitarian system will be asked to address significantly more need with significantly fewer traditional resources;
3. There will be an increasing humanitarian imperative to take effective action in situations of persistent uncertainty;
4. Ever-diminishing "humanitarian space" will dramatically change the operational methods by which humanitarian organizations do business;
5. The humanitarian system will have to find effective ways to work with ever-weakening and overburdened state structures;
6. Humanitarian organizations will have to invest time and money in expanding collaborative networks whilst remaining focused on "core competencies;"
7. The humanitarian system will need to adapt traditional rural-oriented programming to urban and peri-urban operational environments;
8. Technology will play a critical role in mitigating human vulnerability in the future, provided humanitarian organizations are able to harness its capabilities.

(1) An increased overlap of humanitarian and development agendas will transform the scope and nature of the humanitarian endeavor.

The humanitarian system is currently experiencing transformative change. Stemming from a growing recognition that current humanitarian practice does not provide sustainable solutions to address human vulnerability, or at least not at the level desired, coupled with an enhanced understanding of the complexity and interrelatedness of future humanitarian challenges, academics and practitioners alike are asking profound questions about the scope and nature of the humanitarian endeavor.

Their questions would seem to focus around the following issues:

- Will the growing significance of slow-onset risks presented by climate change and other futures crisis drivers alter the way in which humanitarians define "disaster" and the "disaster cycle?"
- Will the seemingly inevitable merging of humanitarian and development agendas oblige practitioners to rethink the sector's founding principles of impartiality and independence?
- How can humanitarian practitioners adjust organizational structures and policies to allow for integrated humanitarian/development programming in a way that adequately responds to the challenges of the future?

[17] Following the completion of the four initial research papers, ten IWG representatives gathered with the Humanitarian Horizons coordination team on the Tufts University campus on 30 July 2009 to discuss the priority change drivers outlined in the project, as they are perceived from an operational perspective. Participants noted the priority implications and concerns for their agencies as per the drivers of change outlined in the four papers, and these concerns in turn contributed to the discussion of the "Core Challenges" identified in this document.

Will the growing significance of slow-onset risks presented by climate change and other futures crisis drivers alter the way in which humanitarians define "disaster" and the "disaster cycle?"

The increasing interrelatedness of threats to human vulnerability oblige practitioners to think of humanitarian "disasters" and the humanitarian "disaster cycle" in whole new ways. No longer are humanitarian activities limited to immediate response and post-conflict recovery. Instead, humanitarian organizations have to be increasingly aware of the root causes of vulnerability and, moreover, of the continual interface between myriad factors on different temporal planes influencing both slow-onset and rapid-onset risks. Whilst there already exists a growing recognition amongst humanitarians of the need to look at vulnerability from a more holistic perspective, risks brought about by unprecedented population growth, climate change, and globalization are transforming the way in which experts consider "disasters" and "disaster cycles," a transformation that has far-reaching conceptual, financial, and operational consequences.

For some time already, humanitarian organizations have sought to address both the "causes" as well as the "effects" of disasters, leading to an increasing number of humanitarian interventions that look more and more like traditional development activities. Pre-disaster investment within the humanitarian system has been most prominently demonstrated over the last years by the Disaster Risk Reduction (DRR) agenda.[18] DRR, in tandem with climate change adaptation efforts, has grown in profile and significance as a preparedness tool designed to reduce the humanitarian and economic impacts of disasters – disasters widely believed to be gaining in frequency and significance as a result of climate change. As the DRR agenda grows, states will increasingly call on humanitarian agencies to assist them in providing social safety nets and climate change adaptation mechanisms for their most vulnerable citizens.

In this context, humanitarian and development agendas are becoming conflated. No longer are activities in the two sectors viewed as different points on the "disaster cycle" continuum, challenging long-standing assumptions regarding the sequencing and prioritization of activities on a linear "disaster cycle" timeline. This being the case, it would seem that a "new humanitarianism" is emerging, one that more explicitly expands the humanitarian agenda to include governance, livelihood security, social protection, and other, more development-like activities, focusing mostly on environments where risk remains continually high, state services continually low, and violence endemic – the so-called "fragile" or inappropriately-named "transitional" states.

Will the seemingly inevitable merging of humanitarian and development agendas oblige practitioners to rethink the sector's founding principles of impartiality and independence?

Realizing that a more long-term view of human vulnerability is required, practitioners are being challenged to rethink some of the founding principles of the humanitarian system. According to the "new humanitarianism," it seems apparent that organizations will find themselves working with greater frequency and in more formal partnership with existing state structures and systems to deliver goods and services rather than creating separate and independent aid delivery systems, as has traditionally been the case. As such, the humanitarian system's defining principles of

[18] The Disaster Risk Reduction agenda became an official focus of organizations engaged in humanitarian action with the adoption of the Hyogo Framework for Action in 2005.

impartiality and independence are, if not threatened, at the very least becoming the focus of transformative reinterpretation.

Whilst enhanced partnership with governments and civil society is widely viewed as the most appropriate approach to addressing human vulnerability, it nevertheless presents a paradigm shift in terms of how humanitarian organizations will do business in the future. Employing a more development-like approach requires a long-term commitment and presence in operational contexts, contexts that will increasingly be guided by partnerships between states and national, not international, agencies. This long-term, more supportive role, by its very nature, would seem to compromise the ability of international humanitarian organizations to operate independently, observe impartially and advocate sharply for the rights and security of the populations they serve, lest they be asked by government and community partners to leave. This is not to say that impartial assistance and human rights advocacy cannot be done, but the methods by which organizations will approach these roles are likely to look quite different than they have in the past.

The inalienability of founding humanitarian principles is not only being challenged by the conflation of humanitarian and development agendas. It is also being tested by a changing operational context that requires humanitarian organizations to work in tandem with an increasing number of non-traditional actors, many of which are national and international military forces, national and transnational corporations, diaspora, and small foundation donors. At the same time, even traditional donors are changing the basis of their funding motives, moving, if not increasingly, at least more explicitly, from a needs-based to a more political approach, diminishing humanitarian space still further (see also #4 below for a discussion of this issue in the future).

The pressure being placed on founding humanitarian principles may well lead to a schism within the humanitarian movement, with some agencies opting for a limited but "principled" operational style, focusing on the use of neutrality and independence to deliver impartial aid in situations of conflict on a presumably short-term basis, whilst others – probably the majority – opt to prioritize the most effective alleviation of present and future suffering in states of prolonged crisis, capitalizing on an array of resources and partnerships which see less utility in the principles of impartiality and independence.

How can humanitarian practitioners adjust organizational structures and policies to allow for integrated humanitarian/development programming in a way that adequately responds to the challenges of the future?

As humanitarian and development agendas converge, the ability of organizations – many of which have always had dual focuses and apparatus – to design and implement integrated programming in a systematic and scope-appropriate way is proving very challenging.

As noted by John Borton in his paper commissioned for this project, it has long been the case that most organizations referred to as "humanitarian agencies" also function as "development agencies" (Borton 2009). However, the funding architecture, methodologies, and culture by which agencies conduct business on the two sides of the house have always been markedly separate and different. For one, traditional donor governments from whom they solicit funding maintain separate funding processes and evaluation requirements for the two kinds of interventions, providing a real disincentive for organizations to design integrated programming. At the same time, the kinds of partners cultivated and the methodologies employed are also very different. It is also increasingly

clear that the philosophical and cultural approaches to humanitarian and development programming have decidedly different origins. In the simplest of terms, humanitarian and development people are just plain different, and the merging of organizational cultures is happening at a pace that is slower than that of the changes in the world around them.

This is not to say that there has not already been a profound shift in the way in which humanitarian practitioners think and operate. On the contrary, the last ten years have seen a major move from a nearly exclusive hardware aid approach to a more software, process-based approach centered on social cohesion and systems-building as core components of societal resilience. Still, humanitarian agencies continue to encounter problems in developing an integrated approach at the scope and speed required to maintain a competitive advantage as an industry overall.

Our analysis, alluded to in the previous sub-section, suggests that what will emerge in the future is a three-part system:

- One part devoted to impartial humanitarian aid delivered through the utility of impartiality and independence in and around conflict zones;
- A second part providing development assistance in parts of the world where poverty is rife but the state stable and infrastructure growing;
- A third new part focused on the uncertain, disaster-prone, crisis-driven "fragile state" where governance, rule of law, basic services, and infrastructure are in a state of continual vulnerability due to weak governance and corruption.

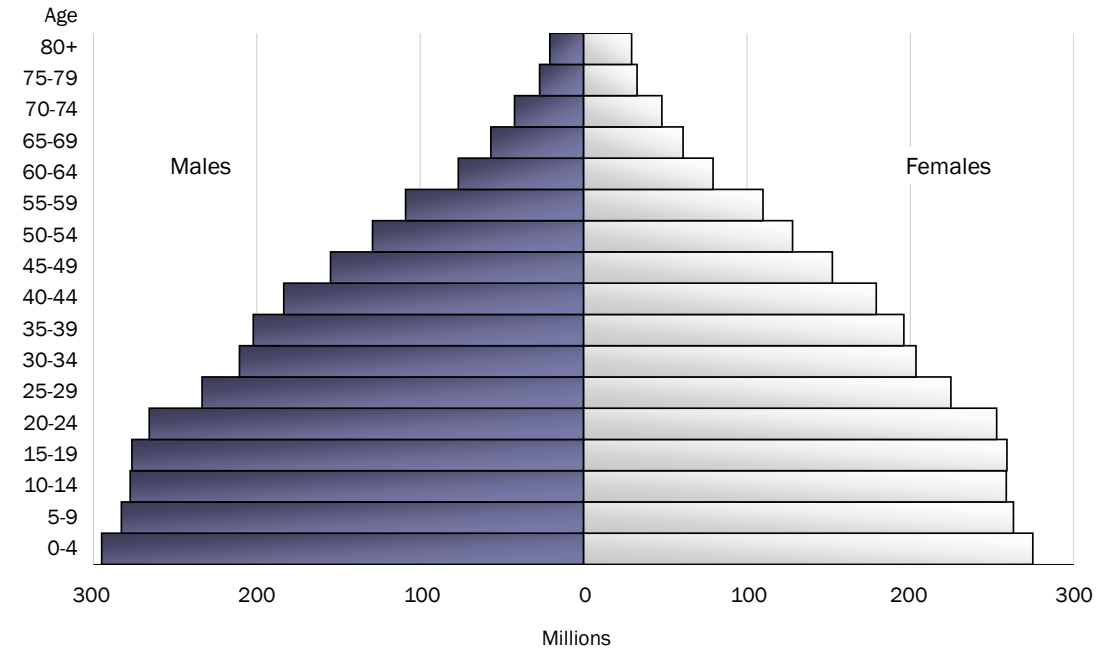
In this last context, humanitarian agencies will find themselves compelled to commit to open-ended and continuously changing types and levels of engagement in an effort to adapt and reorient programming to an ever-evolving crisis environment, even with growing efforts to mitigate and prevent crises from occurring. This new field will reflect neither traditional humanitarian nor development fields. And like the white water rafter, success will only be as good as the last action.

(2) The humanitarian system will be asked to address significantly more need with significantly fewer resources.

As noted in the research commissioned for this project, many more persons, in terms of sheer numbers, will be in need of humanitarian assistance in the future (Borton 2009). More frequent and far-reaching natural disasters, coupled with overall diminishing human resilience, will mean that a larger number of persons will be made vulnerable to humanitarian risks for longer periods of time, resulting quite simply in the need for more humanitarian financing support.

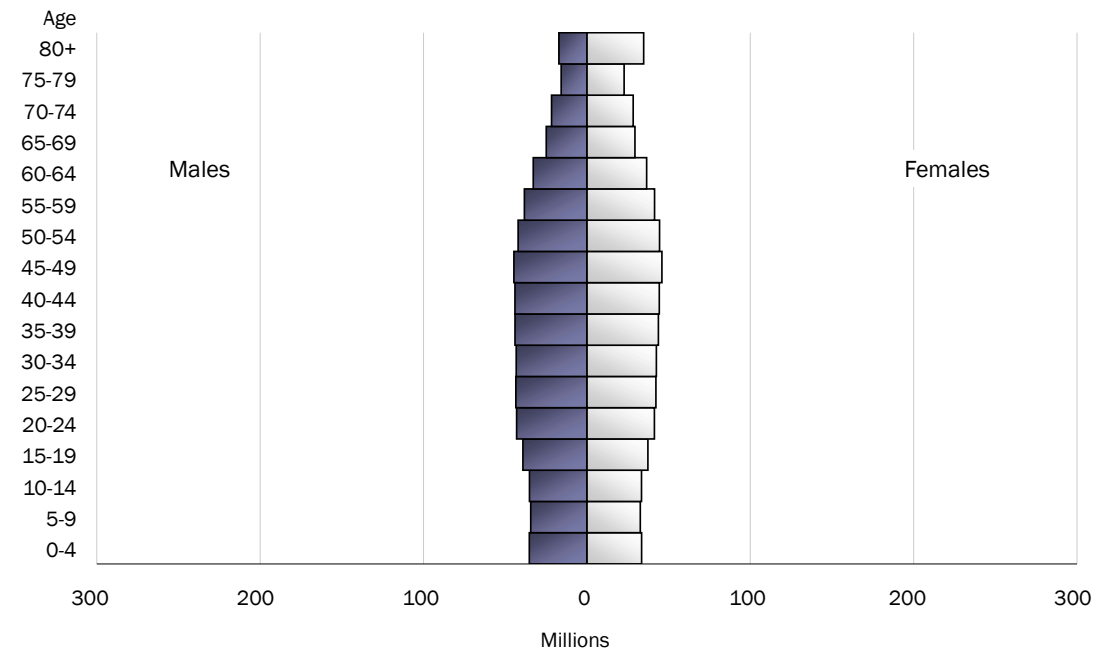
Further to an acknowledgement that overall humanitarian need will increase are growing concerns about the stability of traditional financial support for humanitarian action. Carl Haub, the demographer commissioned for this project, describes "two worlds of population:" one world, in developing countries, wherein there will be overwhelming population growth amongst the poorest, most at-risk sectors of society, and another world, in developed countries, where populations will grow little, if at all (Haub 2009). What this means for humanitarians is that they will have to diversify funding sources and develop more cost-effective programming if they are to stay in business.

Developing Countries by Age and Sex, 2009



Source: United Nations Population Division

Developed Countries by Age and Sex, 2009



Source: United Nations Population Division

Some of the core questions presented by evolving global financing architecture are:

- To whom will humanitarians look for new sources of funding and support?
- In what ways will a changing financing architecture challenge existing humanitarian business models?
- How will the humanitarian system utilize limited resources most effectively in the future?

To whom will humanitarians look for new sources of funding and support?

As indicated in the research conducted for this project, traditional funding for humanitarian action is unlikely to increase proportionate to burgeoning need. Whilst traditional humanitarian donor countries may be willing to provide significant sums to aid disaster victims, they will increasingly need to support aging populations at home, putting a strain on national budgets; they will also have a decreased tax base due to the smaller size of working age populations. Although foreign aid – as a relatively small proportion of national budgets – is unlikely to be cut entirely, growing domestic pressures will nevertheless make it difficult for traditional donors to increase their budgets.

With less support from traditional donors, it is oft commented that the fast-growing economies of BRIC nations (Brazil, Russia, India, and China) will fill the gap, contributing in more substantive and predictable ways to traditional humanitarian funding systems.[19] And current indicators, particularly in terms of funding for recent Asian disasters such as the Indian Ocean Tsunami of 2004, the Pakistan earthquake of 2005, and Cyclone Nargis in 2008, demonstrate that China and India are taking a more and more participative role in global humanitarian action. Still, there remains a significant imbalance in the amount of funding proffered by these newly emerging humanitarian powers. Moreover, given that Asia is currently the global region most hard-hit by natural disasters, it is arguable that China and India, at least, will focus their aid on disasters close to home, making it imperative for international humanitarian organizations to understand BRIC country interests and perspectives about humanitarian assistance as they confront the challenges of the future.

In his research for this project, John Borton indicates that the 23 member governments of the OECD/DAC still provided 80.9 percent of global humanitarian assistance as of 2006 (Development Initiatives 2008, as found in Borton 2009). However, the dominance of OECD/DAC countries in humanitarian giving is diminishing and is sure to lessen still more during the rest of this century. The question remains as to the extent to which emerging economies like China and India will realistically be able to fill the expected gap in need.

With significant risk to their own national populations as a result of climate change, globalization, and other crisis drivers described in this Guide, these countries may arguably need to focus their resources and energies at home. Central to China's ability to act as a global humanitarian leader will be developments in the Third Pole, a mountainous region that is the source of ten major river systems that together provide irrigation, power, and drinking water for over 20 percent of the world's population. This water system is currently under considerable stress and may be involved in future crises encompassing disputes over dams and river diversions, floods, water shortages, and contamination, many of which will divert China's attention from

[19] China and Brazil, for example, began contributing to the UN Central Emergency Response Fund (CERF) in 2007, indicating an increased commitment to global humanitarian action (UN OCHA 2009) http://ochaonline.un.org/Donors/Donors/tabid/5370/language/en-US/Default.aspx.

humanitarian need on the global arena (Kent et. al, forthcoming). India may be equally preoccupied with domestic issues related to rapid urbanization and increasing difficulties in feeding and delivering social services to its fast-growing national population. [20]

Outside of funding from government donors, the humanitarian system will need to continue to nurture relationships with private foundations for increased funding. However, in a potentially volatile global economy, diminishing endowments may restrict their abilities to make substantial multi-year grants. They may also prefer to invest their monies more directly through grants to national NGOs and other regional/local entities. Corporate donors are widely acknowledged as an under-utilized resource for humanitarian action, particularly given corporate interest in creating consumer markets in the very countries expected to be most at risk in the future. Unfortunately, the discussion about corporate involvement in humanitarian financing tends to get stuck, often bogged down by a lack of common goals and clear modalities for moving the corporate/humanitarian partnership forward.[21]

In what ways will a changing financing architecture challenge existing humanitarian business models?

There is little doubt that dwindling humanitarian resources will challenge traditional humanitarian business models. Today, humanitarian agencies are largely called upon to design, scale up, and manage independent aid and social services delivery systems. But this kind of business model will be less and less relevant in a world where governments begin to take a longer-term view of human vulnerability and wish to create national structures to address that risk in a more permanent and continuous manner. In this environment, the legitimacy of the post-World War II UN/INGO/NGO model may be called into question as governments, particularly in Asia, become more involved in national social protection programs and seek open-ended, longer-term technical support for national risk management systems as opposed to independent aid delivery.

At the same time, aid contributions from individual citizens, as well as diaspora remittances, will likely become part of a more formalized financing model that facilitates direct household-to-household transactions, altering what at-risk populations need from both host governments and international actors.[22] At the same time, diaspora elite may play an increasingly active philanthropic role, as is currently being witnessed in California and elsewhere amongst successful Indian and Chinese populations.[23] These new philanthropists will presumably have little understanding or patience for traditional humanitarian financing processes, arguably too slow and indirect to meet needs quickly, and may instead prefer to organize the distribution of their assistance through national companies, municipal authorities, and community groups back home. In short, the humanitarian system will need to remain watchful of a transformation in the realm of humanitarian business, with a view to functioning in an international technical assistance role as opposed to direct implementation.

[20] The populations of China and India are projected to reach 1.4 and 1.8 billion, respectively, by the year 2050 (Haub 2009).

[21] This is not to say that progress is not being made. HFP, for example, together with a couple of IWG member organizations, is currently engaged in an initiative to create mechanisms for more effective and consistent corporate/humanitarian collaboration.

[22] Indeed, these transactions already make up a significant proportion of GDP in many countries. Total remittances in 2008 reached $375 billion, $283 billion of which went to developing countries (Khan and Najam 2009).

[23] For example, the Chao Family Foundation (http://chaofoundation.org/) and the American India Foundation (http://www.aif.org/).

How will the humanitarian system utilize limited resources most effectively in the future?

In the face of limited financial assistance, funding will need to be distributed and utilized as effectively as possible, with profound implications as to how agencies structure themselves, prioritize interventions, and collaborate for enhanced capacity. If the goal is to provide the best assistance possible to populations in need rather than ensuring institutional survival, the humanitarian community will need to determine whether the best business models will continue to rely on the distribution of available funds to multiple NGOs for project-based sector-specific work or whether more cost-effective processes such as pooled resources, specialization partnerships, and just saying "no" to certain interventions might work better.

(3) There will be an increasing humanitarian imperative to take effective action in situations of persistent uncertainty.

Above all, the primary message coming out of foresight thinking is that the future is uncertain. We can surely refer to futures projections based upon assumptions about the trajectory of current trends and patterns, but, in reality, the parameters of these assumptions and the models that connect them are derived from the past, a past that humanitarians are continually told does not necessarily portend the future. Add to this the crisis drivers that produce humanitarian consequences in a nonlinear or exponential manner, wherein creeping hazards or synchronous small events lead to more disastrous ones, and one is confronted with an increasingly complex and ambiguous future (Morinière et al. 2009). In such a world, humanitarian agencies will contend with uncertainty at every step, naturally producing profound questions about how they will respond to it. Two of these are:

- What kind of humanitarian leadership will be necessary to ensure action in increasingly uncertain situations?
- How can humanitarian agencies resolve the inherent tension between organizational processes that promote strategic direction and those that allow for a flexibility that accommodates surprises?

What kind of humanitarian leadership will be necessary to ensure action in increasingly uncertain situations?

As noted by the Stockholm Environment Institute team that conducted the climate change research for this project, uncertainty and unanticipated events will act as barriers to the effective application of climate change information by the humanitarian system (Morinière et al. 2009). Humanitarian organizations are inherently tied to cost

effectiveness in their programs and emerging response, a reality made many times more complicated by growing uncertainty, complexity, and nonlinearity (Morinière et al. 2009). An element that humanitarian agencies will likely need to alter is the degree of risk that they are willing to take in planning for future crises. And this is certainly the case for all kinds of crises, not just those directly related to climate change.

In order to plan and act effectively, the humanitarian system will need strategic leadership that is sufficiently bold and confident to act on the basis of imperfect and incomplete information when the humanitarian imperative requires. Strong leadership will be critical not only in moving the sector in the right direction, but in realizing when it is necessary to change approaches and/or adjust strategies. In an increasingly uncertain world, even the best of initiatives will at times not result in the impacts anticipated. In these instances, the humanitarian system will need leadership that is willing and able to acknowledge failure and the need to start afresh.

Leadership will be critical to the ability of agencies to adapt rapidly to the world around them. This will require leaders who are comfortable with ambiguity and uncertainty and who see leadership as a facilitating service rather than as power to wield. The future we envision will be increasingly driven by the informal connections of networks rather than the formal structures of organizations (see #6). And in networks, people effect changes by nudging others, by persuasion, by example, and by enthusing. Effective leadership will involve high levels of emotional intelligence and perceptive abilities, sensitive and adaptive to the views and convictions of many individuals and influences.

Strong humanitarian leadership will come not just from the top, but from anywhere, including the ground swell of individuals who want to make a more effective organization or a more competent profession. Modern-day organizations often say that their most valuable asset is their personnel. This will remain true in the future, and will require agencies to think far more deeply about how they unlock the true potential of their personnel (Kent 2006). Maintaining and building strong staff capacity in the context of growing poverty and increasing disasters remains a challenge, particularly in high-risk locations. However, with increasingly large proportions of developing country populations being reached by education programs, the potential for enhanced national humanitarian leadership and staff capacity is great. With progress towards standardized accreditation for humanitarian action, professionalism is expected to grow still more within the sector.

How can humanitarian organizations resolve the inherent tension between processes that promote longer-term strategic thinking and those that allow for a flexibility that accommodates unanticipated events?

Organizational agility requires existing on the "edge of chaos," on the fine line between an adequate level of structure to provide strategic direction to staff and a flexibility that allows for adaptation and creativity in the face of emerging challenges. Identifying and observing this line has been attempted in many ways in the past. Within agencies, there have been numerous attempts at integrated programming, mainstreaming of certain approaches, and improved integration within organizations, both vertically and horizontally. Now, agencies would benefit by linking interdependencies between sector approaches on different regional levels and in more creative ways. There are concerns, however, that these types of integration, if not done well, lead only to heavier and less agile organizations that move too slowly. The uncertainty of the future requires flexibility, and some believe that this

can be best achieved by bringing NGO activities to scale, that is, by pooling risk and analytical capacity, and by launching joint ventures, creating consortia, and possibly merging activities and funding streams. The current financial context has incentivized merging operations as well. In addition, there is a general call for improved lateral communication both within and between agencies, which would help to improve both leadership and coordination.

(4) Ever-diminishing humanitarian space will dramatically change the operational methods by which practitioners do business.

Another critical element that will transform humanitarian action is the highly referenced "diminishing of humanitarian space" (DHS). At the core, this refers to the reduction of ideological, political, and geographic space for traditional humanitarian practice. This space is increasingly threatened by many factors, not least of which is a diminishing level of governance in the increasingly fluid and rapidly changing socio-political environments in which humanitarian organizations operate as well as an increasingly overt politicization of aid by traditional donors.

Two of the main concerns presented by DHS are as follows:

- How will the humanitarian system safeguard the security of staff in high-risk environments or, alternatively, manage programs remotely without transferring risk to national partners?
- How will humanitarian organizations ensure the accountability of programs and the impact of activities without the ability to remain close to at-risk populations over sustained periods of time?

How will the humanitarian system safeguard the security of staff in high-risk environments or, alternatively, manage programs remotely without transferring risk to national partners?

The scale of attacks against aid workers increased by 66 percent between 1997 and 2008, and researchers assert that these attacks may be increasingly politically motivated. In high-risk areas such as Sudan, Afghanistan, and Somalia, planned attacks against aid workers have become common.

Forced to operate in increasingly difficult contexts, humanitarian organizations are being called upon to balance exposure to risk with their mission to access those most affected by war and disaster. In many cases, this has led organizations to rely on a form of "remote programming" to continue activities. In Sudan, for example, where NGOs were asked to leave in late 2008, programming has continued through the hiring of expelled staff by UN agencies.[24] In Afghanistan, the relocation of UN agencies in late 2009 has put programming at risk, and will likely result in a form of "remote programming" through the use of national staff left behind to carry on much-needed activities.

These latest developments are not viewed as one-offs. As noted in other sections of this Guide, the future is likely to result in a growing number of at-risk populations found in fragmented and failed states. As noted in the globalization research commissioned for this project, future crisis drivers such as population growth, climate change, and urbanization will create situations wherein very weak state structures are confronted with unprecedented responsibilities. One can only presume that a fair number of states already operating "on the edge" will be at even greater risk of collapse. In these instances, humanitarian

[24] According to Helen Young, in Darfur UNICEF now employs more than 180 of the expelled staff, and WFP about 360 (6 November 2009, personal communication).

organizations can only hope for intermittent access to populations most in need, often operating in protracted situations of extreme political instability and in "no man's lands."

"Remote programming" is a new concept for the humanitarian system, traditionally reliant on direct observation and on-the-ground implementation to ensure the quality and impact of interventions. Without regular and direct communication with at-risk populations, however, humanitarian agencies will need to operate according to a new paradigm, one that will transform their relationships with governments, donors, partners and, most of all, beneficiaries. Given current operational contexts and projections for the future, it would seem that the humanitarian system may wish to explore a more systematic approach to "remote programming" that will ensure quality interventions in situations of acute and prolonged insecurity, rather than relying on ad hoc arrangements as has generally been the case up to now. This will be a continuing trend in the future, and it would seem that organizations will have to adopt approaches to accommodate it.

How will humanitarian organizations ensure the accountability of programs and the impact of activities without the ability to remain close to at-risk populations over sustained periods of time?

In an industry struggling to improve overall performance over the last two decades, a further diminishing of humanitarian space will prove yet another obstacle to the attainment of meaningful results. As noted by John Borton in his paper for this project, despite honorable and – to a certain extent – successful efforts to improve humanitarian accountability over the last 15 years, significant work to fine-tune standards and methodologies and, moreover, to encourage their application on the ground is still required.

In situations of heightened insecurity, resulting in an even wider gap between practitioners and the beneficiaries that they serve, and those that reflect pervasive uncertainty about how drivers will manifest themselves in terms of human consequences (see #3), it will be even more difficult to monitor and evaluate the quality and impacts of humanitarian action. Unless practitioners devise new strategies to communicate with beneficiaries and to collect their feedback in situations where agencies are not able to manage programming directly, it will be more difficult than ever to measure the success of interventions.

The establishment of principles and benchmarks within international documents is one thing, applying these principles and benchmarks to real-life situations is quite another. Therefore, serious reflection must be done about where the field of monitoring and evaluation is headed in a changing world and how agencies can make themselves most accountable to the people they serve.

(5) Humanitarian organizations will have to find ways to work effectively with ever-weakening and overburdened state structures.

A key finding coming out of the globalization research conducted under the auspices of this project is that state structures will be further weakened in the future as their responsibilities become greater. Under the assumption that most humanitarian organizations will shift their approach to one that focuses on more long-term sustainable humanitarian impacts as discussed previously (see #1 above), practitioners will be expected to work with greater frequency and in more formal partnerships with existing, if fragile, state structures. In a world struggling to keep up with unprecedented population growth, rapid urbanization, climate change consequences, and decreasing resources, states

will be overburdened by the demand of at-risk populations as perhaps never before. How to work effectively with states to strengthen infrastructure and social services delivery for community resilience, whilst at the same time filling critical gaps in the event of state collapse, will be a central challenge for the humanitarian system in the future.

Key issues related to work with weakened state structures include:

- To what extent can humanitarian organizations work with governments on technical humanitarian issues whilst neglecting to support governance and capacity-building more generally?
- How can humanitarian organizations adapt their approaches and methodologies to deal with state structures in fluid and ever-changing phases of capacity?

To what extent can humanitarian organizations work with governments on technical humanitarian issues without supporting governance issues and capacity-building more generally?

In the future, governments will be increasingly focused on assisting at-risk populations unable to access scarce resources, including food and water, on building urban infrastructure, and on bridging the widening gap between the "haves" and the "have nots" both within and between states. National security and human security will become intractably entwined. Much of the support required for governments will be in program areas such as water and sanitation, anti-poverty, health, education, and urban planning. Humanitarian organizations will undoubtedly play a critical role in supporting governments with these technical issues, but these efforts are likely to be unproductive if governance issues such as corruption, ministerial management, transparency, and accountability are not addressed at the same time.

For this reason, a shift in approach from traditional humanitarian action to a broader development-like approach focused on strengthening existing state systems and looking at "causes" as well as "effects" of conflict and disaster will necessarily call on humanitarian organizations to enter into the realm of governance and state-building at a depth not covered before by the sector, or at least not in the explicit way that it will in the future. Further to governance work, humanitarian organizations will likely become more and more involved in "society-building," focusing on the resilience of civil societies in a holistic and continuous way. The challenge in supporting societies will be to maintain a balance between supporting state systems and still being prepared to safeguard populations in times of state failure/absence.

How can humanitarian organizations adapt their approaches and methodologies to deal with state structures in fluid and ever-changing phases of capacity?

Globalization experts have identified four ways in which state fragility has been exacerbated as a result of the globalization process. This fragility is expected to continue as a result of ongoing compression of human interaction during the foreseeable future. Experts map it out as follows:

- Whilst the security of a state's citizens and the potential threat to the security of other states used to be the central tenets of state-to-state power relations, globalization has rendered the internal weakening of states as the main threats to one another.
- As a plethora of issues such as global climate change and economic movement across boundaries are now beyond the control of governments, politics is being displaced and the normal state-to-state instruments of diplomacy and regulation weakened.
- States now have to contend with a greater number of active and influential non-state

actors and must consciously choose between openness to the international system or trying to close off debates on "sensitive" issues.
- States now have to operate in an environment where international norms constrain the advantages that states once enjoyed as the preeminent actors in the international arena (Lambach and Debiel 2007, as found in Khan and Najam 2009).

At the same time, demographers and climate change experts assert that states will have more and more responsibility over the course of the next several decades. As noted across all four research papers commissioned for this project, human vulnerability will increase exponentially in the future as states see their traditional mechanisms for control, regulation, and adjustment diluted.

(6) Humanitarian organizations will have to invest time and money in expanding their collaborative networks whilst remaining focused on "core competencies."

In the next twenty years, the expansion of collaborative networks, both traditional and non-traditional, is likely to become more common, if not essential, to effective humanitarian action. Collaborative networks will promote information exchange, joint fundraising, advocacy, and program design. They will comprise groups of humanitarian organizations, governments, regional entities, corporates, scientists, academics, diaspora, and faith-based actors, among others. They will also allow traditional humanitarian agencies to interface with a growing number of new actors who wish to contribute to activities aimed at safeguarding vulnerable human populations.

In this context, humanitarian agencies will have to invest considerable time and money in expanding their collaborative networks and in participating in them in an effective manner so that they produce effective change and results in the humanitarian sector. Collaboration will be key to enhancing organizational expertise and capacity in a world of unprecedented, complex humanitarian need.

However, it is not as easy as it may seem. Effective collaboration takes time, money, and trust. How to make collaboration work whilst remaining focused on core competencies will be a core humanitarian challenge of the future and brings to surface two main issues:

- How will humanitarian organizations identify and prioritize the most important collaborative opportunities?
- How will they improve the financial feasibility of collaboration, particularly with scientists, military, academics, and the private sector, partners widely viewed to be of growing significance?

How will humanitarian organizations identify and prioritize the most important collaborative opportunities?

In an increasingly interconnected world, humanitarian agencies will have to rely on collaborative networks to enhance expertise, capacity, and access. The trick for organizations will be to ensure that they are participating in the right networks at the right time. The humanitarian imperative will not accommodate collaboration for collaboration's sake, making the identification and prioritization of networks critical to an organization's continued relevance and success. A related challenge will be to ensure that institutional structures do not impede person-to-person collaboration and, in turn, that person-to-person collaboration is not inappropriately defined as institutional partnership. Person-to-person collaboration will become even more central to global interaction of all kinds, including humanitarian action, and the humanitarian community

will need to learn how to harness the power of social networks in a way that is aligned with institutional strategic objectives and in a way that makes them effective partners that others would like to solicit.

The identification of key collaborative networks and the nurturing of relationships to make sure they are useful take time, time that is not traditionally acknowledged in humanitarian project budgets. Humanitarian organizations will be challenged to communicate to donors, board members, and other partners the need for this kind of investment. Collaboration is about process as much as it is about product, obliging humanitarian organizations to adapt organizational culture and business models to these kinds of priorities (see #2).

In a world where information exchange and communication is becoming more and more affordable, building and participating in collaborative networks with local partners such as government authorities, community groups, and beneficiaries will be increasingly valuable. As noted in #1 above, governments and national NGOs are likely to play a much larger role in longer-term humanitarian interventions, such as those related to social protection and climate change adaptation. However, partnerships and/or networks will need to revolve around more than simply "partnering down" with local NGOs as subcontractors as has been done in the past. In the future, international actors will likely shift from a direct implementation role to one in which they provide technical assistance support to local actors.

According to the research commissioned for this project, national and international military forces will become more and more involved in humanitarian action, particularly in situations of natural disaster (Borton 2009). In many cases, military involvement in humanitarian response contributes a capacity for logistics and access to resources and infrastructure that otherwise would be unavailable. National military forces of the future will continue to expand their role in disaster response, working ever closer with national and international humanitarian agencies. And internationally, the delivery to civilian populations of relief from extreme suffering and protection from violence may be seen as an increasingly legitimate and effective tool in the military arsenal.

Partnerships with the military challenge the humanitarian values of impartiality and independence and have traditionally been avoided, although relations between governments and humanitarians have long been contentious. Navigating this relationship will remain challenging, in particular when disasters take place in conjunction with complex emergencies or post-recovery situations, where the military may already be an active stakeholder and may have objectives in direct conflict with those of other involved groups. Situations of this kind, where natural disasters occur in politically vulnerable settings (such as seen in Myanmar with Cyclone Nargis), are likely to become more common in the coming years. In such environments, it is difficult to see how humanitarian agencies can be effective, independent, and neutral. The paradigm will need to shift.

Further to building national and local collaborative networks, the humanitarian system has shown a growing interest in collaborating with the private sector and, in fact, many humanitarians see this as a natural step in the evolution of aid. The problem remains, however, as to how to engage with corporates in a way that provides equitable and fair economic growth in at-risk environments whilst at the same time providing safety nets for those unable to compete in global markets (see #2). Greater

collaboration will occur along a spectrum of relationships, from philanthropic to business-to-business to collaborative to contractual, and agencies will need to wrestle with how their relationships with corporates impact their resources, structures, and values. An area that will continue to be a concern for humanitarians is how the business goals of the private sector influence prevailing humanitarian ethics, codes of conduct, and professionalism standards.

How will they improve the financial feasibility of collaboration, particularly with scientists, military, academics, and the private sector, partners widely viewed to be of growing significance?

Scientific data, military logistics, and academic analyses will play a more and more critical role in the effective delivery of aid and services in complex and unstable environments. No longer will humanitarian interventions be carried out according to silos and sector-specific thinking. Instead, the connections and interdependencies between sectors will have to shape program design, and the humanitarian system will need the help of data generators – be they scientists, academics, or business leaders – who can help them design the best kinds of interventions.

Improved collaboration and coordination with scientists to improve access to the expertise held by climatologists, geologists, and glaciologists, for example, will help agencies to generate greater analytical capacity for risks, especially those related to water, land degradation, desertification, or animal health. Collaboration with social scientists and anthropologists is sought to better understand the complexities of communities and societies, particularly those in rapid transition, and collaboration with political and military scholars is sought to improve negotiation and collaboration with states, the military, war lords, and rebel movements. Partnerships between humanitarian organizations and academia are becoming increasingly common, especially in the field of health care, and there is room and a desire for more of this growth. Such partnerships suggest that not only is the humanitarian community action-oriented, but it also desires to ground its actions in evidence. Collaborating with academic partners can allow organizations to take a new perspective on possible future scenarios, and to improve adaptability and agility within existing strategies and structures in light of likely futures.

The costs associated with research to back up action often come as an unexpected shock to operational agencies, prompting interest in exploring ways in which collaboration between agencies may be able to back research. Opportunities for such cost-sharing exist within the growing movements to improve collaborative activities within the humanitarian community (i.e., among agencies). This is evidenced by the existence of coordinating and implementing groups such as the IWG, the Emergency Capacity Building (ECB) initiative, DFID funding for collaborations, the Humanitarian Horizons project, and the cluster approach. These efforts have the potential to reduce the costs and overlap associated with programs and research and development, an area that agencies will nonetheless have to invest in if they are to conduct effective operations in the future.

(7) The humanitarian system will need to adapt traditional rural-oriented programming to urban and peri-urban operational environments.

Research conducted under the auspices of this project and elsewhere suggests that movement to urban centers will be a defining demographic trend of the twenty-first century and, furthermore, that some of the most vulnerable populations of the future will be in slums and other peri-urban environments on the outskirts of larger cities with little access to infrastructure and basic social services. With this in mind, practitioners can no longer remain focused on rural programming. A major challenge, therefore, will be how and to what extent organizations will make a shift to urban programming.

Questions central to this challenge are:

- What are the distinct differences between urban and rural programming and to whom can humanitarians go for assistance in rapidly building an urban programming expertise?
- How will a global shift from agriculture-based to cash-based economies influence human vulnerability in the future and how can the humanitarian system prepare for this change?
- What kind of early warning and response mechanisms are required to intervene in the event of large-scale disasters in highly concentrated urban contexts?

What are the distinct differences between urban and rural programming and to whom can humanitarians go for assistance in rapidly building an urban programming expertise?

It is widely acknowledged across all disciplines that the twenty-first century will be one of rapid urbanization. The most recent UN Population Division estimate, issued in 2007, projects the proportion of the global population residing in urban areas to reach 70 percent by 2050, up from 29 percent in 1950. Rural populations, now at a plateau, will begin to decrease in number from 2025 (Haub 2009).

Of significance for humanitarian practitioners are the following three elements of urbanization: (1) the movement will take place with such velocity that the world's existing urban centers will not be able to keep up with the growth. This will exacerbate the already existing trend of having two cities within one – one part of the population that has all the benefits of urban living, and the other part, the slums and squatter settlements, where the poor will live under worse conditions than their rural relatives; (2) as urban growth continues, a much larger proportion of the global urban population will not reside in the world's megacities but will instead be found in small and medium-sized cities, i.e., cities with less than 600,000 persons; (3) the bulk of growth will be in urban slums on the outskirts of major metropolitan centers.

In an industry in which programming has always been rural-focused, humanitarians must now reach out to urban planners and other experts to enhance expertise for effective urban programming. They must also build a knowledge base that clearly distinguishes the differences between urban and rural programming. Urban programming may also require retargeting exercises and the (re) identification and (re)prioritization of those groups most at risk. Basic but simple challenges, like being able to estimate how many people live and work in a shanty town or how to map health clinics or water delivery sources in ever-changing slum areas, will need to be addressed.

How will a global shift from agricultural-based to cash-based economies influence human vulnerability in the future and how can the humanitarian system prepare for this major change?

A shift to urban programming will accelerate the already existing trend within the humanitarian system that has agencies offering less in-kind inputs and more cash as a means to support vulnerable populations. A shift in operational context from rural areas to densely populated non-agriculture-based economies will oblige humanitarian organizations to adjust their approaches still more. The trick will be to develop innovative programming that allows for this shift while still providing effective and trusted safety nets through existing programs for at-risk populations.

As all communities, including the most disaster-prone and those caught up in conflict, become incorporated into an economically globalized world, the pervasiveness of finance – as cash flow, savings, and credit – and financial resilience as the basis of survival will increasingly dominate people's survival strategies and chances. How will today's agencies deliver financial resilience? Will the transfer technologies we are beginning to see with mobile cell phone banking and microcredit and savings render the traditional delivering of goods obsolete?

What kind of early warning and response mechanisms are required to intervene in the event of large-scale disaster in highly concentrated urban contexts?

Natural hazards, disease outbreak, and conflict will arguably create more vulnerability in urban and peri-urban environments due to the density of populations and potential problems related to needs identification and access. Apart from urban earthquake preparedness, it would seem that humanitarian agencies have not yet placed adequate focus

on emergency response in urban centers, a responsibility that they will increasingly need to fulfill in the future. It will become necessary for humanitarian agencies to create better linkages with city and town authorities in order to be most effective following crises. Identifying and strengthening existing service delivery institutions will be essential. In many ways, municipalities are far more agile than states or countries, and they can be better partners for agencies concerned about remaining both flexible and effective. Municipal authorities, by nature of their relationship to the community, are often genuinely concerned about the outcomes of their local cities and inhabitants. Mobilizing private sector actors operating in these urban environments may also be a major aspect of humanitarian interventions in this regard.

(8) Technology will play a critical role in mitigating human vulnerability in the future, provided humanitarian organizations are able to harness its capabilities.

The impact of technological developments on humanitarian action has been profound over the last decade or so. VHF and HF radio communication, GIS mapping, satellite communications, broadband connectivity, web-based information gathering and knowledge management, remote sensing and mobile phones, improved drug and medical equipment, as well as water treatment technologies are just some of the technologies that have transformed the way in which humanitarians conduct operations and the kinds of programs that they implement. Mobile phone technology, in particular, is having a considerable impact on relationships between humanitarian organizations and intended beneficiaries and, moreover, between at-risk populations themselves.

Remarkable developments in information, communication, and technology (ICT) are projected to continue and have the potential to advance human resilience vis-à-vis conflict and disaster in profound and transformative ways. A major challenge, however, will be the extent to which humanitarian organizations are able to keep up with and harness these rapid advancements.

A couple of questions central to this challenge include:

- How will the humanitarian system strike a balance between employing useful technologies and maintaining an operational environment that puts people first?
- How will humanitarian organizations secure adequate investments to explore and employ cutting-edge information technologies in their work?

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How will the humanitarian system strike a balance between employing useful technologies and maintaining an operational environment that puts people first?

Technological progress in all areas, but in particular in information technology and communication, over the last three decades has been astonishing and is projected to continue throughout the course of this century. These technologies are expected to have a revolutionary impact on humanitarian action for early warning, enhanced delivery, knowledge management, and sharing among others.

A major concern of humanitarians is how to harness smart uses of technology as opposed to employing technology for technology's sake. For many practitioners, it is felt that there is simply too much emphasis placed on technology, with some arguing that it does not have an appropriate place in certain contexts where populations lack infrastructure and education.

According to globalization experts, however, technological developments are happening at such unprecedented speed and offering all segments of global society such benefits that

the emergence of an electronically networked world economy is now considered irreversible (Khan and Najam 2009). The challenge for humanitarians will be to understand the latest developments in information technology well enough to be able to determine what are the most important and relevant tools for the populations that they serve and, moreover, how different technologies can be further developed and tailored for the greatest impact within the humanitarian sector.

Certainly, people should remain at the center of the technology debate; standards and methodologies to facilitate a rights-based approach to technology in situations of conflict and disaster have to be developed. However, it would be a shame if the humanitarian system did not capitalize on transformative communication tools and other technologies in its work simply because practitioners did not fully understand nor trust the potential uses of technology for at-risk populations. Social networking and online communities have great potential to improve humanitarian practice, both by increasing awareness and by incorporating new ideas and approaches to its work. It is not an understatement to say that these tools will change the way in which humanitarian organizations think about their beneficiaries, how their beneficiaries think about aid organizations, and most importantly, how beneficiaries think about themselves and their role in their own risk reduction.

How will humanitarian organizations secure adequate investments to explore and employ cutting-edge information technologies in their work?

One of the major challenges of the humanitarian system since its inception has centered on the ability to collect, analyze, and manage information about at-risk populations. Digital technologies have the potential to revolutionize this area of humanitarian action. The production and consumption of information is no longer contingent on time and place, allowing people in diverse locations to have rapid access to critical data needed for decision-making. Moreover, technological developments have in many cases allowed for information exchange to take place at a much reduced cost.

Still, it would seem that humanitarian organizations remain hesitant to incorporate cutting-edge information technologies into their processes and systems, at least at the scope required to make profound changes in how decisions are made. This is due, in part, to the fact that it is simply difficult to make transformational changes within large institutions, but also, and perhaps more importantly, because the financing architecture for humanitarian action has until recently not permitted large-scale and long-term investments in organizational management processes and the role of technology in transforming them.

Traditional donors remain very project-based in their grant making and humanitarian organizations project-based in their culture, preventing the large-scale, necessary changes in how aid is conceived and delivered for tomorrow's world. Given the import of the information technology revolution, however, it would seem critical for humanitarian actors – organizations and donors alike – to focus much greater strategic attention on how they will interface and use this technology in all facets of their work, to improve programming and knowledge management, to anticipate crises, and to conduct meaningful advocacy as well as successful fundraising.

Economists have a great phrase they use when talking about the future: "all other things being equal," which of course, they never are. The same is true for humanitarian foresight thinking. Any prediction about the future is just that, an educated guess. In this Guide, we have sought to bridge the gap between *futures* projections by lead thinkers in a number of key disciplines and the "so whats" for humanitarian action. Naturally, we are not able to predict the future nor are we able to calculate how certain or uncertain these predictions are. All we can say is that, given what we know and have researched, given what agency staff have shared and discussed with us, we would not be surprised if the future unfolded something like this.

There are many things to pull from the research and analysis provided in this Guide. It is the hope of the FIC/HFP project team that the IWG and the humanitarian system more widely is able to use this Guide as a point of discussion to develop and give more specific guidance about each of the core humanitarian challenges, to determine how, to the greatest extent possible, they can validate and/or localize the Guide's analysis through regional and field work, to prioritize certain challenges that require an extended focus today and, finally, to collaborate and/or partner with each other as a means to share the burden as we move toward a much more complex future.

Of all of the analyses and insights provided herein, there are three central dynamics critical to any organizational consideration of futures preparedness. These are:

- The emergence of a "new humanitarianism" that will be part of neither the humanitarian nor development systems;
- The continued growth of information, communication, and technology tools will transform the way in which the world does business;
- Strategic leadership will be central to humanitarian action in an increasingly uncertain world.

A "new humanitarianism"

The shape of the future leads us to believe that what is presently called humanitarian action will split into two, maybe three fields. One will go back to the rigorous definitions and methodologies of impartial and independent action specifically constructed to provide protection and assistance to those caught up in violence and conflict, those whom the warring parties will not or cannot help.

This endeavor, which will almost certainly involve the ICRC, will be increasingly bipolar itself: those conflicts and wars where access is allowed and those where every effort is made to deny it. In the gray areas of anti-terrorism, and defense of the state against the unknown minority with access to extraordinary powers to kill and spread fear, impartial humanitarian agencies committed to protecting and saving lives will face immense problems and may no longer be able to rely on the unconditional support of democratic states for their work.

Alongside this tightly defined humanitarianism, we may see assistance and protection, in conflict zones, being provided in other impartial

ways. For outside foreign states, the use of aid in conflict to help shape the course of that conflict will become an accepted tool. It may be delivered by the military in the form of "hearts and minds" campaigns or by commercial contractors. It may be delivered by contracted NGOs. Its purpose will have more to do with the desired "end game" of the conflict and less to do with the alleviation of suffering. The aid will be a means to an end, not an end in itself.

The final field will be occupied by what today we call fragile states. It is where peace and structure have not been attained, but outright war has ended. These borderlands will be typified by low-level, but sustained, violence, a lack of rule of law, low or nonexistent state services, and the ebb and flow of power between various legitimate and less legitimate sources. In these areas, humanitarian agencies may need to redefine themselves. They will not just be the providers of the last resort, but hopefully more open-ended safety nets that can assist states before they reach a point where they may collapse. They will be well-funded to keep the anarchy at bay, but they will not be neutral or impartial. It is not humanitarian work, and not development work, but social service delivery. This endeavor will move from the purview of international agencies to a more national focus. Nation states will want their groups, not someone else's, to provide this service. Outside states, wanting to contain and maintain stability, will want to fund groups they trust. Perhaps a compromise will emerge with large federations of national organizations emerging out of the present day Western-centric international NGOs.

Information, communication, and technology (ICT)

Technology, particularly communication technology, may change beyond recognition the ways in which humanitarian agencies work. If cash can be delivered direct to phones, if GPS and radio tagging allows us to know in real time where people and the resources to support them are, agencies may have a much lighter footprint and may be able to run programs that constantly adjust to the changing needs on the ground. What we do know is that almost all the innovative use of technologies in the past few decades were not predicted in detail. We did not anticipate the timing of the innovation correctly, the speed of growth, or, in many cases, even the form that the new technologies would take. And this brings us back to one of the issues we started with, the ambiguous and constantly changing nature of the future.

Research in the past few years has started to allow us to understand far more about how networks of people form and function. In the twentieth century social scientists unlocked the workings of limited organizations; the companies we build to do business, or the armies we put together to fight wars. In the twenty-first century, we may come to appreciate how vital social networks are to our

future, and we may be able to affect them, to nudge them to enhance those behaviors that add to human well-being and dissuade those that do not. Building and shaping social networks may become the institutional capacity-building at the heart of humanitarian work.

Strategic leadership

At the center of this ambiguity and rapid change, these networks and chaotic environments, is leadership. Leadership, not necessarily leaders, will be critical to the ability of agencies and communities to adapt rapidly to the world around them.

Organizations require decisions, and they function least effectively in environments of ambiguity. Hence, the future as described in this paper will require organizations to be far more adept at handling uncertainty and far more willing to be administratively and programmatically more flexible. A critical element in becoming more adept will be strong and unwavering strategic leadership.

It is often the inclination of decision-makers working under extreme pressure to discard issues and options with which they are not familiar. However, in a situation of rapid change and complexity, and, more importantly, one in which nonlinearity provides the framework for understanding, one can no longer resist anticipating the future because the future cannot be definitively "proven." In the future, it will be important to develop the analytical skills of leaders in order to enhance their familiarity with emerging issues while also making it clear to them that *speculation* will be a central function of their organization and central to the organization's survival.

Parting words

If this description of the future proves to be accurate, we can begin preparing for it now. Whilst some of the predictions expressed here may be intriguing, the purpose of posing them is not to crystal-ball gaze. It is to suggest that the range of possible changes is wide and fundamental. How will organizations deal with these and all the other changes that will inevitably make up the complex web of the future?

This is a concern that will affect the wider international community. It is also, however, a concern with particular relevance to organizations that have a responsibility to play an independent and impartial role for disaster and emergency prevention, preparedness, and response. With this in mind, humanitarian organizations must begin to think about what sorts of innovations and structural and procedural adjustments they should consider in their efforts to be more responsive to the future.

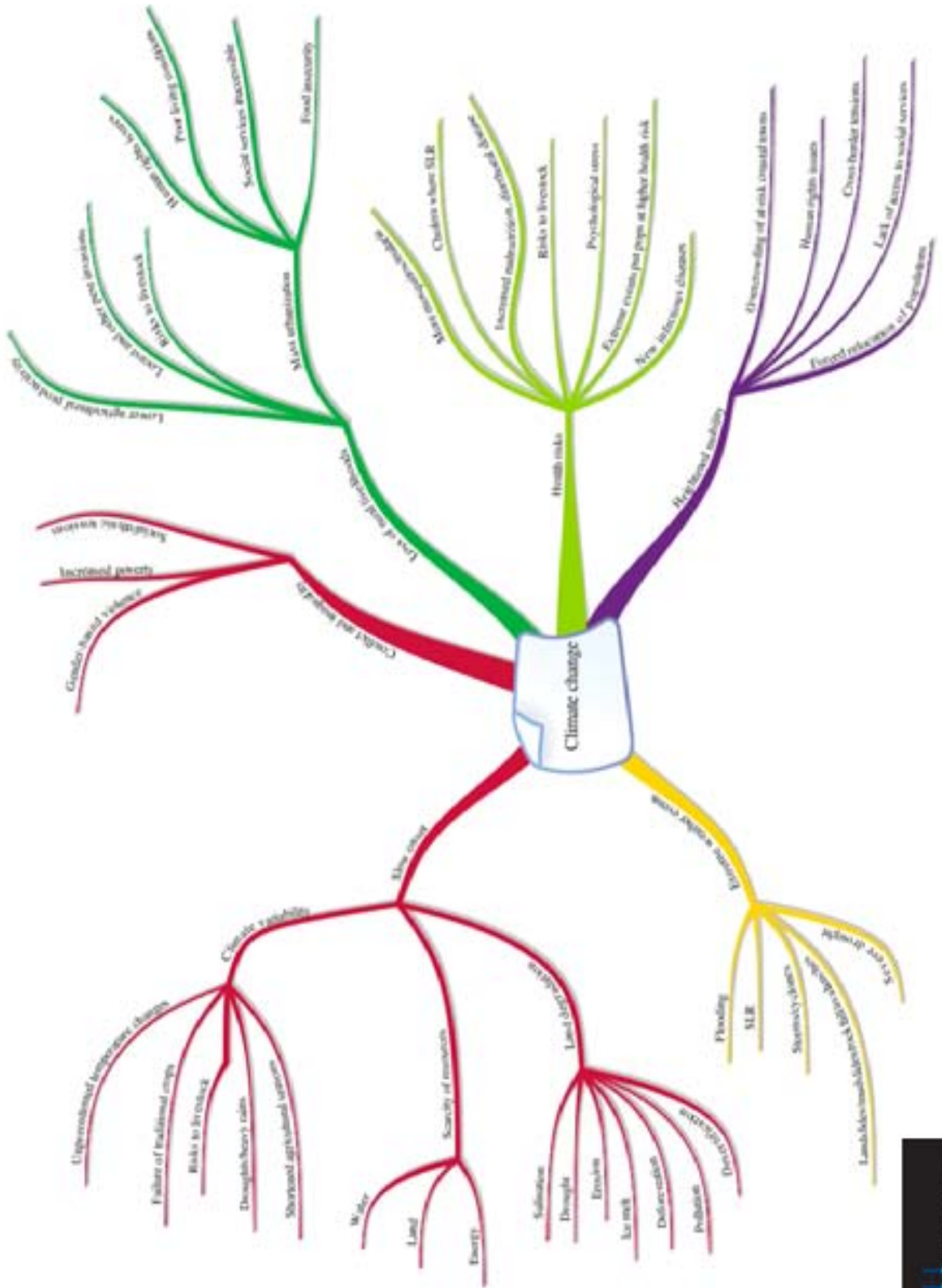
In the final analysis, a futures agenda reflects a very fundamental concern that human vulnerability – as eventually may be evidenced by various new and old types of disasters and emergencies – may not receive the attention it requires because of the reluctance of organizations to adapt to significantly changing circumstances. The humanitarian futures agenda must ultimately be about making planners and policy-makers more adaptive to the type of rapid change and complexity that could otherwise leave the world more prone to disasters and emergencies.

Under the auspices of a 30 July 2009 focus group discussion of IWG representatives, MindMaps were produced to chart the central ideas of each of the four research papers. These maps were used as reference points in the group's discussion regarding the core humanitarian challenges presented by the project's research. These MindMaps have been reproduced and annexed here for review by the reader. These images were created using iMindMaps software.

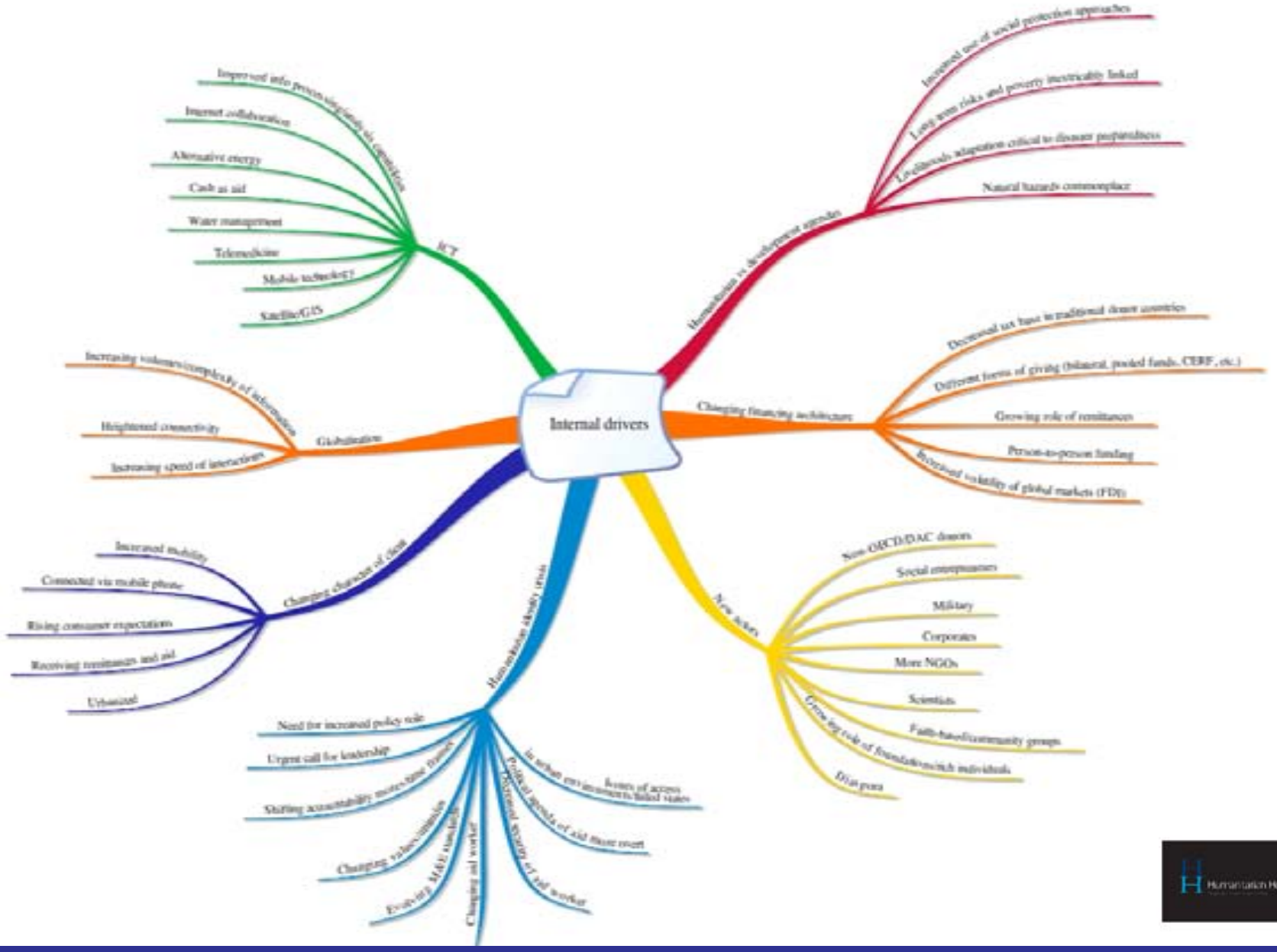
Potential human consequences

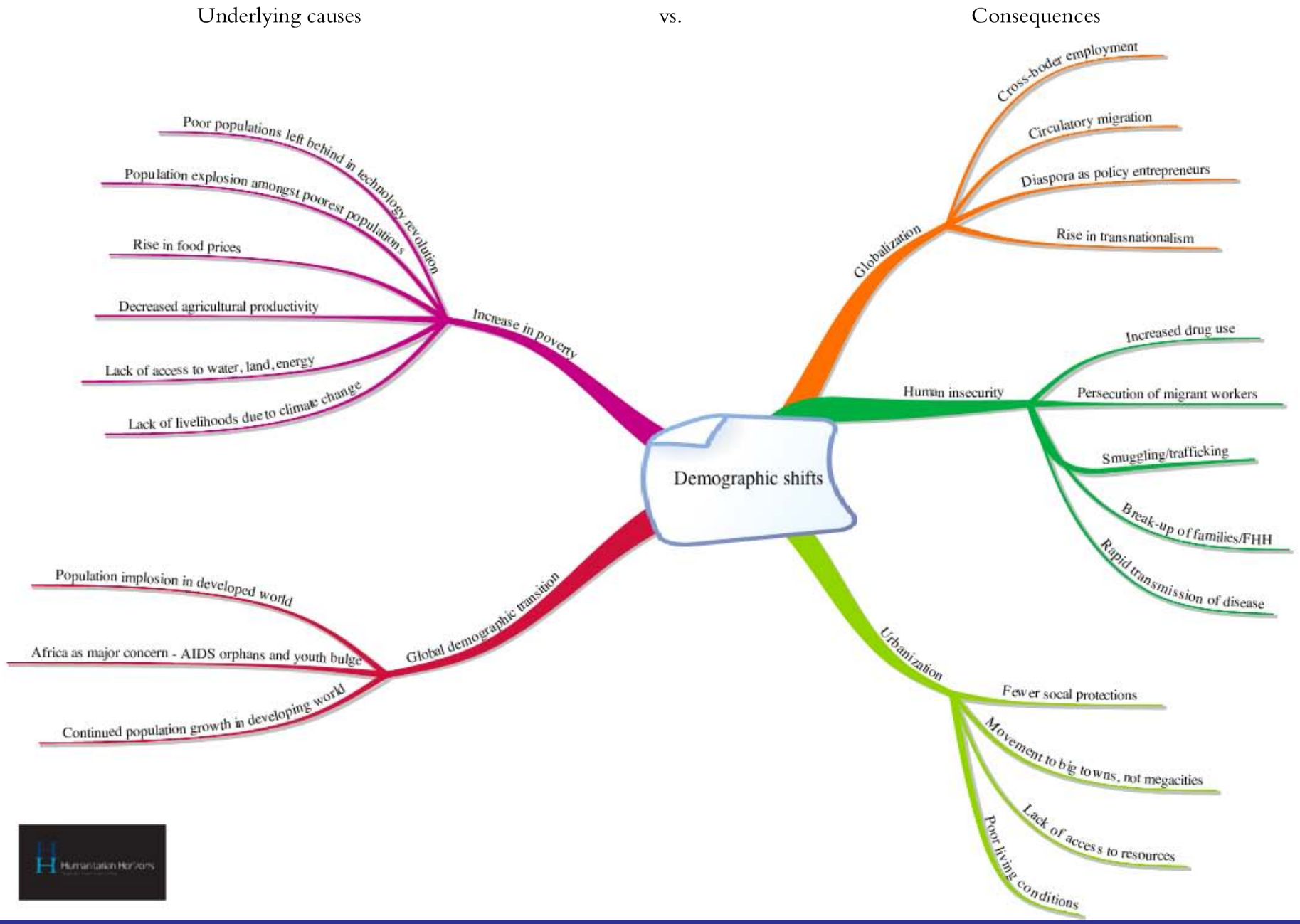
vs.

Trends affecting physical environment

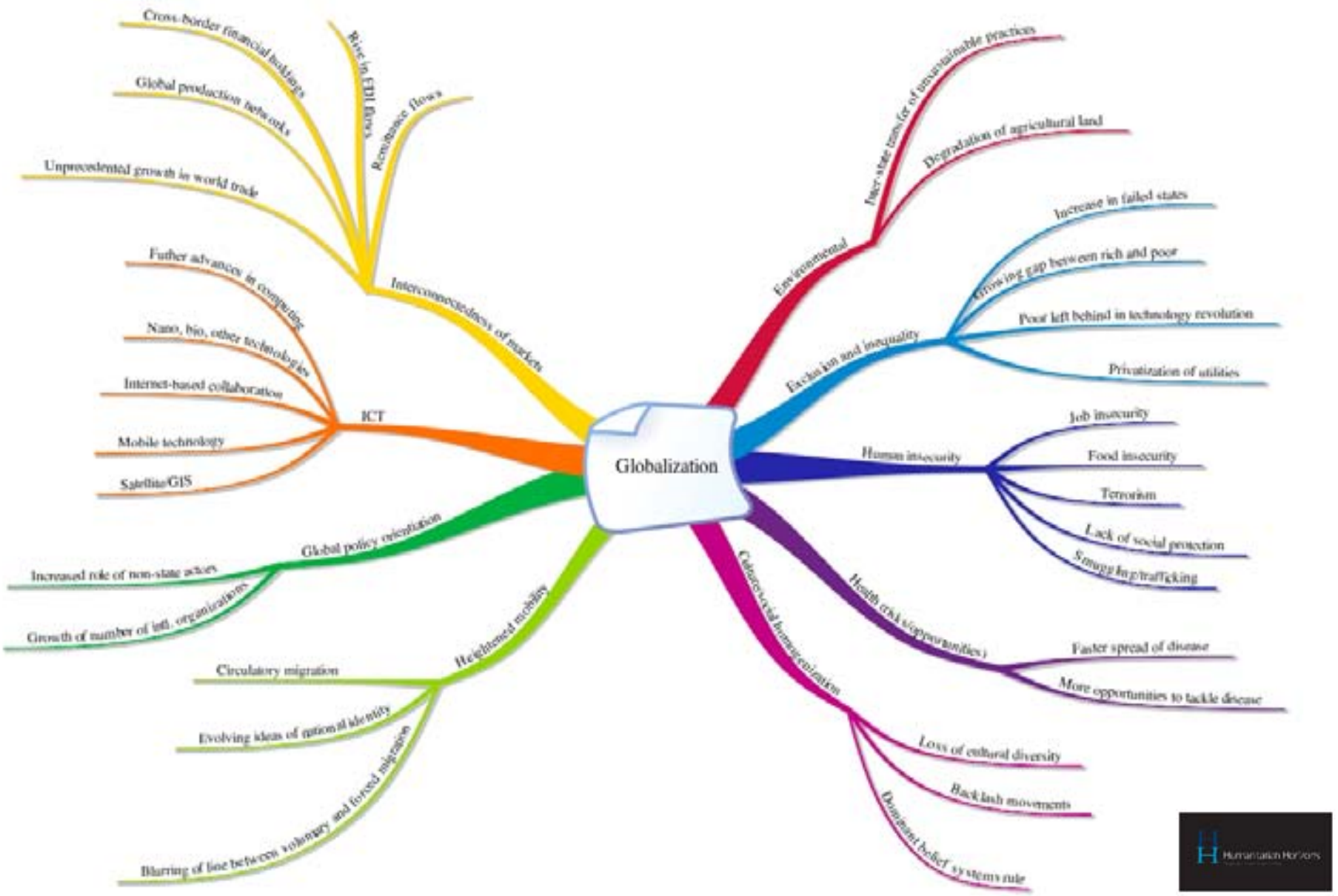


Making the linkages between external drivers and an already dynamic and rapidly changing industry




Underlying causes
vs.
Consequences
Demographic shifts
Increase in poverty
Poor populations left behind in technology revolution
Population explosion amongst poorest populations
Rise in food prices
Decreased agricultural productivity
Lack of access to water, land, energy
Lack of livelihoods due to climate change
Global demographic transition
Population implosion in developed world
Africa as major concern - AIDS orphans and youth bulge
Continued population growth in developing world
Globalization
Cross-boder employment
Circulatory migration
Diaspora as policy entrepreneurs
Rise in transnationalism
Human insecurity
Increased drug use
Persecution of migrant workers
Smuggling/trafficking
Break-up of families/FHH
Rapid transmission of disease
Urbanization
Fewer socal protections
Movement to big towns, not megacities
Lack of access to resources
Poor living conditions

Drivers of globalization vs. Key areas of human impact



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