



Report on Wilton Park Conference 951

INTERNATIONAL FUTURE CHALLENGES AND OPPORTUNITIES

MONDAY 12- WEDNESDAY 14 JANUARY 2009

in co-operation with the Foreign and Commonwealth Office, the Cabinet Office, the Department for International Development, the Government Office for Science, and the Ministry of Defence

1. The purpose of the conference

The purpose of the conference was to further senior officials' understanding of international perspectives on key global questions, and to consider future trends, challenges and opportunities over the next 5-15 years. It was also designed to help Her Majesty's Government (HMG) develop long-term relationships with international partners, contribute to global dialogue and raise the profile of international futures.

The event was organised by Wilton Park, the Foreign and Commonwealth (FCO) and the Foresight Horizon Scanning Centre (Government Office for Science), with facilitation from Outsights Ltd. The UK participation included senior officials from the Cabinet Office, the Department for International Development (DFID), the Ministry of Defence (MoD) and Her Majesty's Treasury (HMT). Fifty-four people from 16 countries took part in the conference. The participation included influential journalists, leading figures from academia, international institutions and the National Intelligence Council's lead on the recent Global Trends 2025 report, in addition to policy planning staff from Germany, France, China, Canada, Brazil, the United States (US), Italy, Turkey and the European Commission. Keynote speeches setting out the challenges were delivered by Lord Malloch-Brown, Robert Cooper, Alex Allan and Sir Martin Rees.

The two days of discussion and debate were framed by the UK Government's International Futures project work on 'ten dimensions of uncertainty.'¹ The mix of backgrounds and disciplines and the wide range of international perspectives generated a rich range of insights into the international issues of the future, many of which are directly relevant to initiatives taking place today.

2. The major themes emerging were: demography, internet and communications, climate change, values/democratisation, non-state actors, balance of power, security, transnational crime and ungoverned space.

¹ The International Futures Project was initiated and led by the Foresight Horizon Scanning Centre: thirteen Government departments took part alongside experts from universities, business and NGOs.

The key insights on these themes are summarised below.

3. **Headline messages**

- We are at a “plastic, dangerous moment”. Protectionism may compromise global cooperation and the global economic crisis potentially accelerates trends for change.
- Beyond technicalities and promises, the Doha trade round and Copenhagen climate change summit require a spirit of cooperation, demonstration of political will, and the search for grand bargain.
- China, India, and other emerging powers should be engaged “as part of the solution, not part of the problem”. Participants from these countries did not think that current engagement was sufficient
- We are taking part in an experiment: the creation of a new international institutional system in the absence of a major conflict.

4. **Short- to medium-term drivers (indicators of emerging trends, threats and potential shocks)**

The longer-term scenarios will be heavily determined by certain key drivers and actions over the next five years, in particular:

- The length and depth of the **economic crisis** and whether it causes economic openness to stall or reverse (protectionism)
- The speed of the **rise of new powers** (stalled or reversed by economic crisis?)
- The speed of **reform of International Financial Institutions (IFIs) and international organisations**
- The speed and severity of climate change and/or mitigation measures (which will in turn be driven by energy prices and the impact of the recession)

Key determinants of longer-term scenarios include the outcomes of **Copenhagen**, the **G20 summit** and in the **Doha Development Trade Round** within the next 2-3 years.

The conference was urged by one of the speakers to seek to identify **emerging threats** and **potential shocks**:

- Civil nuclear renaissance (and implications for the Non-Proliferation Treaty)
- New and non-state actors (eg. piracy, transnational crime)
- Cyber-terrorism and vulnerability of technological infrastructure (eg. server farms, cabling)
- China - internal difficulties/revolt could “change everything”
- Taiwan – China had a “firm commitment to resolution”
- Russia – “anything could happen”
- Pandemics – imagine a world with no poor people: not because poverty had been eradicated, but because poor people couldn’t afford the cure
- Human enhancement – Scientists are on the cusp of science fiction – memory and muscular enhancement are already feasible; radically increased life-spans and reduced decrepitude are not beyond the realms of possibility
- Collapse of the internet
- Collapse of the euro
- Hyper-inflation- money may become worthless

5. Major themes of discussion

(a) Demography

China

- New (non-government) data suggest that in 2020 the Chinese population will peak at 1.45 billion. This leaves a small window of opportunity for China to push for development and modernisation (before the population begins to decline)
- By 2020, 60% of the Chinese population will live in cities, compared to 40% in 2005. This rapid urbanisation brings the possibility of increasing social tensions
- There are signs that the cities are not keeping pace with growth, e.g. depletion of water sources
- The rights of migrants to space and services are key to their rapid integration into urban areas

There is increasing tension between 'northerners' and 'southerners' in China, based on perceptions: northerners are seen as too 'aggressive' and southerners too 'grasping', - and between coastal and interior regions .

Russia

Rising inequality and cultural separation between the Asian and European regions in Russia (especially Siberia). Populations in the Asian regions are increasingly looking towards China for economic development.

Urbanisation ("Cosmopolitan mobility or glocalisation")

Current urbanisation trends are well understood. Less well understood are:

- How urbanisation will increase the importance of cities as centres of innovation, policy implementation and devolved governance
- The additional risks of pandemics, civil conflict, etc. linked to the urbanisation process
- How the urbanisation process may be accelerated at short notice due to mass migration events caused by climate change or shock events (especially North Africa to Europe)
- How the urbanisation trend may instead be reversed by 'glocalisation' or a return to smaller communities enabled by technology, remote working etc, or necessitated by the carbon-cost of large cities (transportation, intensive agriculture)

6. Internet and communications

Three important social transformations are likely to become more evident over the next 20 years as a result of IT:

- **Participatory politics:** As the Obama campaign has shown, new technologies have the potential to re-engage alienated electorates at home and re-invigorate the political process. IT may also have the potential to create a 'global electorate' able to close the perceived democratic deficit in global governance and create deliberative and participatory channels that improve both the functioning and legitimacy of international institutions

- **Education:** The volume of information available is likely to shift the purpose of education, away from learning facts towards the skills necessary to find, filter and manage knowledge. New ways of teaching may also develop, including remote learning, and virtual classrooms, with major implications for secondary and tertiary education in the developing world
- **Technology leverage between the resource-poor and the resource-rich:** the next phase of the 'leapfrogging' phenomenon could see the technological advances of the industrialised world leading to significant social and economic developments in the developing world. Health and education are starting-points; technology could also lead to energy resources being more easily shared (e.g. solar from Africa through investment in new transmission and grid technologies).

Uncertainties about technology and communications will determine how far these transformations are felt, however:

- **Vulnerabilities of infrastructure:** As we become more reliant on communications technology, the physical cabling and server sites that keep us online become attractive targets for terrorists or unfriendly governments.
- **Closing the digital divide.** Will transformations in society and the way we do business be jeopardised by a 'digital divide' that excludes the illiterate and those with limited access to IT and bandwidth from taking advantage? Groups particularly at risk include illiterate, physically remote or poor communities in the global South, and the elderly and poor in Western societies.
- **One internet or many internets?** Another factor that threatens the potential opportunities of the technological and communications revolution is the potential to create closed versions of the internet. The Chinese, for example, may be moving to an 'IPv6' version of the internet to incorporate Chinese characters into browser searches, but this would effectively cut off the rest of the 'IPv4' world from accessing these sites and vice versa.

'Flattening' or 'clustering'

There is recurrent uncertainty about whether greater openness and inter-connectedness, combined with the emergence of new industrialised powers, will create a 'flattening' or a 'clustering' effect globally. Will the future be characterised by, for example:

- **Economies:** a greater global division of labour or the development of alternative centres for goods such as education, research and development, high-end technologies, etc.?
- **Ideas:** greater cooperation *or* greater competition in research and innovation? Can the West maintain its monopoly on ideas under either scenario? Will the future be 'open source' *or* based on strictly-guarded intellectual property rights?
- **Communities:** Fragmentation or convergence of ideas, identities and narratives? Will virtual connectivity or physical mobility create a more homogenous community (i.e. 'flatter' in terms of cultures, incomes, ideologies) or many heterogeneous communities (more clustered around virtual or real communities of interest/ like-minded individuals)? Will new technologies enable people to 'imagine a global community', and what will be the implications for the nation-state and traditional communities?

7. Climate Change

- There is a broad expectation that efforts to slow climate change through reduction of emissions will be disappointing and that we should therefore assume and plan for dramatic and accelerating change, with the recognised consequences for migration, poverty and instability, particularly in sub-Saharan Africa. In the final instance, we could be forced into dramatic mitigating action.
- There is a tension between the need to boost domestic growth in developing countries (particularly China) and need to tackle climate change urgently. It was suggested that this tension is not sufficiently appreciated in the West.

8. Values / Democratisation

- While the notion of shared “universal values” is broadly accepted, there are different interpretations of what these values are, and what they imply for government policy.
- There is ‘no one model for development’. China does not want to model itself on the US or the EU.
- The “democratisation moment” may have passed (at least for the time being). International relations are increasingly focused on power and not values. With the US desperate for China to hold onto its dollar reserves and recapitalise the US economy, issues such as human rights and Tibet have dropped off the agenda. With Germany and other European countries hungry for oil, Russian behaviour in Georgia has been quickly forgotten. These could all be harbingers of the new world – with elements of “cuius regio, eius religio” and increasing emphasis on non-interference.
- The principle of “Force for good” interventions may be in decline.
- There was an ill-defined, but deep-rooted concern about Islam. The global Islamic population is rising rapidly. Islamic nations control critical resources and trading routes. Major European cities, e.g. Amsterdam, will soon be predominantly Islamic. There is an “ongoing struggle for Islam’s soul”. We should not assume that the result will be a ‘renaissance moment’: it could be widespread ‘Talibanisation’.

9. Non-State Actors

There was much discussion of the role of non-state actors – multinationals, civil society, “city states” on the one hand and terrorists and criminals on the other.

Governance and authority may shift away from traditional forces such as the nation-state, and may move:

- **Down:** through the empowerment of citizens and devolved governance to cities and regions
- **Up:** to supranational forms of governance to manage the complexities and externalities of globalisation
- **Sideways:** to transnational actors such as businesses, global civil society networks, international NGOs, faith groups, super-empowered individuals (celebrity activists, high net worth individuals, global ‘elders’ etc).

However, most participants considered that the state would adapt and continue to be an important centre of authority and meaning for the foreseeable future.

10. Balance of Power

- Multi-polar need not imply different ideologies. There may be competition between powers and/or between institutional structures (the latter at least may be healthy)
- Global governance may take place through power politics (not consensus-seeking international institutions)
- The US-China relationship is seen as the defining factor in international relations. The world in the next 15 years could actually turn out to be bi-polar (or demonstrate 'asymmetric multipolarity'), with India playing a limited international role, Russia being a danger rather than an actor and an ageing, unproductive and disunited Europe with much reduced influence in the world. There is a broad consensus that China and the US are now inextricably tied economically, in a way which reduces the prospect of serious conflict
- China is trying to balance 'what the world wants China to be' and 'what China wants to be'
- China wants greater clarity about the future trajectory of the EU and its role and standing in a multipolar world, e.g. the EU's role in Africa
- China's foreign policy strategy may tend towards being reactive. There may be a tendency to overestimate China's strengths and underestimate its weaknesses.
- Brazil and others- e.g. South Africa, may provide a 'cultural bridge', and invest in trilateral aid relationships (e.g. Brazil providing technology, US providing funds). Brazil will invest in greater regional economic and political integration to mitigate risks inherent in the region, and in so doing is promoting a 'Union of South American nations'.

11. Security

- The concept of 'security' may continue to expand away from the conventional Westphalian and military understanding towards human security, food security, access to resources such as water and gas, and climate security. In the future damming a river upstream of a neighbouring state or severe pollution could potentially constitute an act of war.
- There is concern whether NATO and the UN will be effective in the future. The need for a stand-by UN army continues to be debated.
- A convincing scenario could be drawn of reduced military activity as the centrality and sensitivity of the US/China relationship discouraged risk-taking elsewhere much as the US/Soviet relationship did during the Cold War
- The US's longer-term relationship with Europe (including the UK) was notable for its absence from the discussions

Transnational Crime and Ungoverned Space

- There was concern at the patterns of rising transnational crime and increasing ungoverned space (including cyberspace), but different views on how the changing international environment would impact on these trends.

- Would a powerful China firmly attached to non-interference reduce the net international effort on state-building and governance? Or would a world dominated by two powers increasingly resemble the Cold War with both the risks and stability it established?

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March 2009**

Wilton Park Reports are brief summaries of the main points of a conference. The reports reflect rapporteurs' personal interpretations of the proceedings - as such they do not constitute any institutional policy of Wilton Park nor do they necessarily represent the views of rapporteurs.

Annex A: The Breakout Discussions

The breakout debates

On the second day the Conference breakouts focused on 11 main themes, stimulated by short presentations on each theme. The highlights are presented below with a focus on different views identified and the main challenges. Suggestions for key certainties, uncertainties and “Black Swans” appear at the end of each synthesis.

1. Urbanisation and demographics

The critical differences for the future of urbanisation and demographics lie in the variety of changes between different locations (Africa, Russia, China, Europe). A dramatic divide between developed and developing economies is emerging (the latter growing 10 times faster). The rapidly urbanising world is expected to be the focus for tensions and an important focus for future governance. The increasing mobility of people, the mobility of disease (the risk of pandemics), and environmental stress and poverty will be critical challenges in the developing world. Labour force dynamics will continue to be a key differentiating feature of migration.

Management challenges interlink mobility, poverty, health, urbanisation, environment and social cohesion. Meeting governance challenges requires attention to education, cooperation and in managing inequity, with the role of **cities in this respect increasingly being a focus of policy.**

Certainties: rapid urbanisation and resulting pressures on cities, significant differences in demographic trends between countries

Uncertainties: means of dealing with the resultant tensions, including impacts on migration; direction and size of future migration, e.g. out of weak states

Black Swans: mass migrations out of cities, pandemics, nuclear attack on cities; end of population growth in China

2. Science and technology

Social networking online may contribute further to globalisation and a flattening of communities, or alternatively it may encourage exclusive communities of the brightest to form, online and in the real world. Such brain drain may deprive regions of their brightest and best.

How will **innovation in Science and Technology (S&T) happen**, and what will be the balance or competition between open-

source collaboration research and Intellectual Property? What should be the balance between public funded and private, profit-motivated research? Should there be more collaboration? A further uncertainty is in the **location of future innovation**, especially between the West or the East (with some stressing that the West remains dominated by US innovation, and that this dominance may not be challenged for several decades). How different are the attitudes to science in the West and the East?

The S&T governance challenges range from: concern over the accelerated proliferation of lethal technologies; the extent to which communications technologies empower or disempower governments; and the application of S&T in areas of human enhancement. These challenges raise governance questions of state control and ethics.

Certainties: continued advances in S&T presenting new challenges to society (e.g. in medicine, social networking) and to security (weapons proliferation).

Uncertainties: location of R&D (East versus West, public versus private); open source versus Intellectual Property (IP); do communications empower or disempower governments?; ethics.

Black Swans: positive revolution for education, especially in developing world; breakdown of technology, e.g. of the Internet.

3. Communities and communication

Communications are seen as a **meta-driver** – a powerful tool and catalyst for change. Will virtual communications help address democratic deficits (or alternatively will debate become polarised)? Will digital divides emerge? What happens to human cognitive capabilities? What does it mean for children to become accessors of information rather than storsers of information? Will there be a moral code that develops as a new theory of knowledge emerges? What is the level of privacy required by people? Will there be a decline in trust in online activities such as e-money?. What is the reliability of information itself?. How vulnerable are infrastructure interdependent on networks and may we see a drive towards information efficiency (akin to the desire for energy efficiency today)?

Certainties: communications a meta-driver of change

Uncertainties: improves or worsens democratic deficits; impact on learning and moral code; future of trust and desire for

privacy; reliability of information; vulnerability of networks; greater digi-divides?

Black Swans: *people lose all trust in electronic payments, e.g. due to privacy concerns*

4. The global economy

Against the backdrop of the ongoing economic and financial crisis there is uncertainty about how to continue integrating China into the global economy. Despite the ambition of the peaceful rise, **the crisis is putting pressure on US-Chinese relationships**. What could stop a protectionist backlash? There is concern that **wide differences over energy-climate change** could break the relationship. China requires more domestic driven growth which may not square with concerns about climate change? There is a need to address vertical imbalances within countries, not just the horizontal imbalances between countries. The current prospects of **South America, the Middle East and Africa, and Russia** are generally being seen on the downside. Could the crisis lead to a collapse of confidence in money, in the dollar and a failure of the euro?

More positively, **innovation could come out of crisis**, whilst noting that innovation recently has come out of a benign environment. Easier licensing of technology could stimulate growth.

Certainties: *current economic and financial crisis, and reactions to it, an important shaper of change.*

Uncertainties: *risk of protectionism; means for managing critical imbalances; possible silver linings of the crisis – stimulates climate change action, action against poverty, innovation; risk of East West, China-US tensions rising*

Black Swans: *hyper-inflation - money becomes worthless.*

5. Resources

Population growth puts pressure on resource availability, but, governments want low energy prices, Populations demand economic growth yet the reality of resource availability means that there is growing resource nationalism and the confrontation between rich and poor countries is increasing.

Resource-rich countries are in many cases politically weak, thus greater transparency and accountability is needed. How can, and should consumer countries face-up to and react to this challenge? After an experience of failures of markets and of state intervention, should resource allocation be left to the market or does it require state intervention?

Technological development is important. Resource-poor countries are in many cases technology-rich. Therefore technology transfer could be better used as leverage between resource-poor and resource-rich countries. **Conflict and rivalry over resources** will lead to the need for more international governance and integration. Will countries compete or cooperate?

Certainties: *pressures on supply increasing; resource conflicts more likely.*

Uncertainties: *pricing; can markets govern distribution (or state intervention needed); the next resource? Water desalination.*

Black Swans: *mining on the Moon; technology to dispose of nuclear waste.*

6. Climate change

The complexity of the environment means we do not know when and how intense changes will be; the security impact of climate change; and whether there will be large-scale migration cross-border and internal migration issues. We do not know the relative benefits of mitigation versus adaptation; and the negative (or positive) unintended consequences of action. Nor do we know what a low carbon economic growth model looks like or how we can increase the contribution of renewables.

How to spur action? How to achieve a global deal, made harder by the limited correlation between the locations of action and impact? How can societies be persuaded to accept mitigation policies? Do we have the necessary global governance structures?

Certainties: *climate change largely accepted as a reality.*

Uncertainties: *huge complexity of change itself, of society's reaction and of ability to achieve global action; how does a low carbon world work?*

Black Swans: *models turn out to be wrong, temperatures rise by five degrees instead of one; mass tourism to see civilisation/lifestyles that may change e.g. Las Vegas, iced lands.*

7. Values and beliefs

Do we share universal values in a world of change? What are the implications of the rise of the East, and the links between values and development. **An "African" view**, that culture follows power and economic growth, means values cannot be imposed from outside. Is there a useful typology e.g. covering universal values and traditional/societal values. **A view from China** is that some values can be shared such as good governance, democracy, human rights, the rule of law, but interpretation varies. National identity is required before wealth and

prosperity can be developed. It is important to try to maximise cooperation and share interests where possible and avoid putting others interests under attack. Will there be too much Westernisation in the East with some Easternisation of the West at the same time? Or will each become an amalgam of both East and West?

Certainties: *different interpretations likely to persist (e.g. between Africa, Asia, West); risk of conflict; increasing complexity and interdependence*

Uncertainties: *sustainability of universal values (Human Rights etc) as cultures mix. How much can be shared?*

Black Swans: *not applicable*

8. Education

Whilst we may expect continued pressure for a **move away from the Victorian Age model of education** (i.e. education in institutions, in physical groups) towards everyone learning online, **the impact on socialisation is not clear**. Socialisation is seen as relevant at primary and at adult levels. If we lose the socialisation purpose, what are the needs and the purpose – such as the provision of literacy, creating access to knowledge. What do you need to learn in a world where information is easily accessed? What is the purpose – how much is it about citizenship versus access to knowledge and literacy? Already there can be seen some narrowing of ideas as a result of the way we access knowledge – people can research more deeply *and* more narrowly when using online search tools.

There are **differences between countries:** in **China** the traditional model is still in place allied to a big expansion in higher education. As more places become available it is hoped that there is a shift to a less pressured system. **India's** commitment to education has allowed it to ride the digital wave. In many developing countries, e.g. in **sub-Saharan Africa**, the emphasis on the promotion of primary education at the expense of higher education has led to a loss of skills and the closure of many good universities.

Certainties: *ongoing pressure to put education online; education is critical for development.*

Uncertainties: *future of socialisation as education goes online; effect of online education versus personal – will it work as well? Narrowing of ideas? Future of learning where information is easily accessible.*

Black Swans: *technology drives major advance in education in development.*

9. The global balance of power and international architecture

The relative decline of the US and the shift to a multipolar world are two key dimensions that the future global architecture needs to address – as it cannot manage the issues of today. The rise of the East, the decline of the West, and the decline of the unipolar moment may be the biggest shock, already visible to us.

The US is seen to be in **relative decline** as other powers rise although the US will remain the dominant force, albeit without any form of complete hegemony: an **asymmetric multipolarity** with the US at one pole being beyond any military competition. The ability of the US to reinvent itself will be the key precondition for change.

There is no agreement as to how far multipolarity has developed. If the West maintains disproportionate economic and political power, it will continue to lock out the rest of the world from becoming responsible stakeholders. As a result, will the world be more competitive or more cooperative? Will there be a variety of systems and within this, what will be the role be for smaller powers? What will change the architecture? We are living in an experiment – the attempt to create a new institutional system in the absence of a major conflict. Without change, how do we incorporate non-state actors? We need to be able to cope with a possible breakdown of the non-proliferation regime; a possible disintegration of Pakistan, a possible resource war between China and Russia; frictions over access to resources, water and energy.

There is no consensus that the EU will be a significant force. What is the future of Russia as a global power?

Certainties: *end of the unipolar moment; rise of new powers who do not share West's multilateral preferences*

Uncertainties: *how multipolarity will work – or return to great power politics; how to involve new powers, smaller powers, non-state actors in peaceful governance; risk of breakdowns; wars between states - more or less likely? degree of economic versus political multipolarity; power of EU; future of Russia.*

Black Swans: *not applicable.*

10. Security and conflict

Alongside the range of possible sources of future conflicts, additional challenges include: how to deal with non-state actors (the focus is no longer on inter-state conflict); the need for greater burden-sharing; and the significant proliferation of nuclear weapons and new

types of weapons e.g. small scale nuclear arms.

Future interventions (especially if many states are less willing to take part in interventions) will require clear multilateral mandates which may make use of a cheaper and more effective UN. Is the UN up to this task? Greater multilateralism might see future military operations increasingly under the banner of the UN, NATO etc. Could there be a standby UN army?

However, **can countries reduce the drivers behind conflict** by embracing multilateralism of other types e.g. free trade area between India and Pakistan, or by the promotion of development? Cooperation between US and China was identified as important – can Western and non-Western nations come together?

What will cause future conflicts: uneven development within regions; secession conflicts; resources (food, water, energy, population density)? Could there be more pre-emptive wars?

There could be fewer **inter-state wars** (inspired by the history of the EU). Potential inter-state wars might be between India and Pakistan, with Korea, Taiwan and the Middle East other possible focal points. Solving Israel-Palestine would catalyse change across many international relationships and decrease the risk of conflict across the Islamic world.

Non-traditional, non-state threats include: terrorism; SARS; natural disasters; and a different approach is needed for each of these. Global commons problems cannot be solved without the participation of non-state actors – including diaspora, business, civil society and cities. Yet nation states are uncomfortable in ceding power to non-sovereign entities. China is taking a nuanced approach to Taiwan to avoid war – economic and security and social ties have grown.

Who is going to win the struggle for the soul of Islam? Is Islam going to become increasingly a vehicle for radicalisation or will it be married to the enlightenment? More broadly, radicalisation may permeate different **religions**. Extremism is the issue, not Islam.

Certainties: *new challenges: non-state actors; nuclear proliferation; need for more burden sharing.*

Uncertainties: *specific causes of conflict (e.g. resources, secession, uneven development); internal stability in China? Links between*

religions and radicalisation; how military interventions will be made.

Black Swans: *not applicable,*

11. Health and wellbeing

Five issues are on the agenda. First, do we expect **innovation** to be open source or further tightening of IP especially with respect to pharmaceuticals; what will be the balance of funding, between private and the public sectors? Secondly, we need further debates on the requirement for **personal responsibility** for wellbeing – how we deal with genetic weaknesses, being just one difficult issue for the future, and difficult to govern. Thirdly, for the **developing world there are some major problems for which we know the solutions**, which must be put into action: HIV/AIDS – requires education especially of girls; Malaria - mosquito nets; TB – new and existing vaccines and medicines. Participants felt we should concentrate on these challenges and that the solutions can be counted upon to work. Fourthly, **the Black Swan is the next pandemic disease** that we know is coming but we don't know when or where it will start. Finally, we may see a **dual crisis of concomitant obesity and malnutrition**, as already witnessed in India. We may see a global crisis of hunger without a second Green Revolution. But these challenges cannot be planned to a known timetable so we must encourage people to confront them now.

Certainties: *known major health challenges in developing world with known solutions but...*

Uncertainties: *will we apply the solutions? How will people take responsibility for health and wellbeing? How will we manage public expectations as they rise with every new advance, often with associated ethical issues?*

Black Swans: *the next pandemic.*

Annex B: Three issues for immediate action

Three groups discussed what action could be taken internationally to tackle three of the issues that surfaced during the break-out sessions: the threat of trade protectionism, the risk of sudden mass migration, and the need to reform the international architecture.

The immediate threat: trade protectionism

The world has witnessed 20 years of open markets. At every occasion political leaders have committed to open markets. But one interpretation of the present is that there is a repeat of the 1930s with the League of Nations' pious words quickly being followed by a trade war. The concern of history repeating itself is made all the more worrying because there are the early stirrings of protectionist measures. The world, therefore, is at a plastic and dangerous moment, and is facing the threat of protectionism, which could lead to the total unravelling of the liberal multilateral order. If this were to occur then President Obama will not succeed in his goals of mitigating climate change. It is therefore imperative that there is a successful Doha trade round – which is possible for example, if cotton subsidies are addressed. This would make India and China stakeholders in a benign global order. Doha is necessary for a deal at Copenhagen. It would demonstrate a “spirit of collaboration” while acknowledging that there are difficulties. There was a strong consensus across all the geographies represented that urgent action needed to be taken. Paragraphs 13 and 14 of the G20 declaration (November 15th 2008) says that Doha should be concluded by the end 2008, and that no new protectionist measures should be implemented before a deal is done. However neither has been achieved. The G20 needs to encourage political will, therefore the agenda for the next G20 is critical, especially making the linkages between Doha and Copenhagen. A series of actions for the next G20 meeting to drive towards this ambition were elaborated.

Future shock: sudden mass migration

A sudden mass migration shock would lead to an increase greater than the UN's estimate of two to three million internal and two to three million external migrants. The potential drivers include a pandemic, climate change, natural disasters, and poverty and economic disasters. The more appropriate response is co-ordinated preparation not prevention. This issue needs to be brought onto the agenda of the UN and other international organisations,

and discussed openly with policy responses. Organisations (within the UN and elsewhere) need to be integrated into a broad policy framework. Capacity needs to be strengthened (possibly with a new UN unit) and a global policy framework established within which regional bodies can coordinate countries' actions. Planning an exit strategy for the after-shock will be needed, for long-term people who will want to go home. Supra-national organisations can take flack, providing a political shield for national governments.

Reform of the international architecture

A “given” in the future, is that alongside the challenges noted above, the range of actors is increasing: not only new emerging powers but non-state actors, smaller actors as well as more empowered and informed people globally. A more inclusive international architecture is required for sustainable stability and prosperity. The group proposed a twin-track approach with reform of the informal architecture coming before reform of the formal architecture. The reform of the informal architecture should focus on reinforcing existing fora; the promotion of the enlargement of G8 and reinforcement of G20. Sovereign states need to be willing to cede power, comply with decisions, and informal groupings need to be ready to assume power, with members obligated to contribute. The informal architecture displays a variable geometry including state actors and other kinds of informal groups e.g. NGOs and super-informal groups with difficult non-state actors.