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The interim report of the ippr Commission on National Security in the 21st Century

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ippr Commission on National Security in the 21st Century

This is the interim report of the ongoing ippr Commission on National Security in the 21st Century. This is an all-party Commission preparing an independent national security strategy for the UK. It is co-chaired by Lord Robertson of Port Ellen and Lord Ashdown of Norton-sub-Hamdon. The full Commission membership includes:

- **Lord Paddy Ashdown**, Co-Chair, former leader of the Liberal Democrat Party and former High Representative for Bosnia and Herzegovina.
- **Lord George Robertson**, Co-Chair, former Secretary of State for Defence and former Secretary General of NATO.
- **Dr Ian Kearns**, Deputy Chair, ippr.
- **Sir Jeremy Greenstock**, Director of the Ditchley Foundation and former British Ambassador to the United Nations.
- **Sir David Omand**, former security and intelligence coordinator in the Cabinet Office and former Permanent Secretary in the Home Office.
- **Lord Charles Guthrie**, former Chief of the Defence Staff.
- **Shami Chakrabarti**, Director of Liberty and former Home Office lawyer.
- **Lord Martin Rees**, President of the Royal Society and Master of Trinity College, Cambridge.
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- **Constanze Stelzenmüller**, Director of the Berlin office of the German Marshall Fund.
- **Professor Jim Norton**, Senior Policy Adviser, Institute of Directors and former Chief Executive of the Radio Communications Agency.
- **Ian Taylor MP**, Chair of the Conservative Party Policy Task-force on Science, Technology, Engineering and Mathematics, Conservative MP for Esher and Walton and former minister for Science and Technology at the Department of Trade and Industry.

We publish this interim report in the name of every Commission member.

For more information on the work of the Commission please go to www.ippr.org/security

Acknowledgements

Comments and feedback

We welcome written comments on all sections and aspects of the material presented here, and these should be sent in the first instance to the Commission's Deputy Chair, Ian Kearns, on i.kearns@ippr.org.

As is the case with most projects of this nature, this report is the product of the labour of many, and without their assistance and support we would never have been able to publish. We wish to thank all those who have contributed to our deliberations in the past year and a half.

In particular, we wish to thank the incomparable staff at the Institute for Public Policy Research, especially Andy Hull, Alex Glennie, Katie Paintin and Katherine Gregory in the International and Security Programme, who have worked tirelessly to deliver the Commission's demanding work programme and have contributed to the drafting of this interim report, and many others, including Matthew Lockwood, Georgina Kyriacou, Lemonia Tsaroucha, Catherine Bithell, Lisa Harker and Carey Oppenheim, who all helped us get to the finish line.

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The views in this report are those of the Commissioners and not those of any sponsoring organisation.

Foreword

Over the last twenty years the national and international security environment has changed dramatically. The end of the Cold War and the horrific attacks of 9/11 are just two developments among many that have signalled the arrival of a new 21st century security landscape.

New drivers of change, from globalisation and climate change to scientific advance and the growth and changing distribution of human populations, have come to the fore. Technological advances, stretched global supply chains and the desire to strip out costs in business have made us a more complex, infrastructure-reliant society, and more interconnected across borders than ever before. These processes – from which the UK is neither isolated nor insulated – now challenge both outdated analytical frameworks and old policy prescriptions.

> "There is a pressing need to do more to prevent and prepare for violent conflict, state failure, nuclear proliferation, bioterrorism and global pandemics"

Policymakers are working hard to adapt and to keep up with the pace of change, but the challenges are profound and the progress uneven. As a result, while we commend many of the efforts already underway and welcome the Government's recent publication of the UK's first national security strategy, we also believe that there is a pressing need for constructive external challenge.

We are therefore conducting a detailed assessment of the evolving global security environment and the specific challenges and opportunities this poses for Britain.

In this interim report we consider how the modern world is changing, how these changes manifest themselves in terms of threats to security, and how these threats in turn affect the UK. We outline the nature of our current responses, and identify gaps in them. Finally, we propose the principles that should shape British security policy over the next decade and beyond, and make some specific policy recommendations for how Britain can make a more effective contribution to the promotion of global security and enhance the security of its own citizens at home.

In particular, we suggest there is a pressing need to do more to prevent and prepare for violent conflict, state failure, nuclear proliferation, bioterrorism and global pandemics.

This is not scaremongering. As the analysis that underpins this report demonstrates, the dangers we describe are real. We can face them with confidence, but only if we are prepared to change as the world around us changes, to bring a new governance to bear on diffused and unregulated power in the global space, and to recognise that in this century, more than ever before, our destinies are shared with peoples and places beyond our shores.

We will build upon the foundations laid in this document in our final report in summer 2009, setting out more detailed proposals for a new strategy to achieve national security for the United Kingdom and to promote it for the wider world.

Lord Paddy Ashdown

Lord George Robertson

November 2008

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Summary and Recommendations

Summary and Recommendations

This summary is divided into four parts:

- A contextual introduction
- An articulation of 13 basic observations about the current security environment
- A statement of eight principles that should shape and underpin the UK's response to it
- A summary of the main recommendations in the full Supporting Research and Analysis below.

The ippr Commission on National Security in the 21st century will build on these foundations in its final report, to be published in summer 2009, which will set out more detailed proposals for a new strategy to promote and defend the national security interests of the United Kingdom.

Introduction

We publish this report against the backdrop of a significantly worsening international situation. Recent months have seen turmoil in and the near collapse of the global financial system, the failure of talks aimed at a new global trade agreement, a marked deterioration in relations between Russia and NATO after the conflict in the Caucasus, an escalation of violence in Afghanistan and Pakistan, political violence and armed conflict in many parts of Africa, and continuing high tension over Iran. The UK's extensive engagements in Iraq and Afghanistan continue, the latter in particular with no real end or progress in sight. Behind the headlines and the short-term challenges, deeper, historic and longer-term changes are also underway, reshaping our world and storing up challenges and potential trouble for the future.

This report is both a warning and a call to action. The dangers we describe are real but we should not succumb to pessimism. Provided we are willing to learn lessons, to change the way we think, to find the necessary political will and to adapt our policy solutions and instruments to new circumstances there is much that can be done. We offer this interim report as a contribution to the necessary process of policy change that must now unfold.

Observations

As we look to the future, we observe that:

1. *Globalisation is diffusing power among many different actors in the international system*. It is fuelling a massive redistribution of economic and political influence from the Atlantic seaboard to Asia and the Pacific, increasing interdependence between states, empowering non-state actors, and creating new opportunities for both legitimate and illegitimate action in a largely unregulated and uncontrolled global space.

2. *The global population is growing rapidly*. A world population of 9.2 billion by 2050, only 1.25 billion of which will live in developed countries, means the end of the West as the pivotal region in world affairs, intense pressure on natural resources, an increasingly marginalised global majority, and increased migration flows from poor to rich states.

3. *Climate change is set to transform the security environment*. It is likely to reduce and shift the availability of habitable land, food and water, to exacerbate inter-state tensions and to generate forced movements of people. Weak and failing states in Africa and parts of Asia will face serious challenges in attempting to respond to climate change. The phenomenon may even play a key role in shaping the character and outlook of major powers such as China.

> "Complexity has entered the infrastructure of modern life and our reliance on stretched and interdependent infrastructures has increased"

4. *Weak and unstable states outnumber strong and stable ones by more than two to one*, and state failure and sometimes collapse will be a highly visible feature of the international security landscape for decades to come.

5. *Massive global poverty is a contributing factor to this development* and when combined with inequality, particularly horizontal 'between group' inequality, acts to fuel violent conflict. Within this, joblessness and migration from countryside to town can also provide a context in which young men join extremist movements or criminal gangs.

6. *Conflict itself remains an enormous problem*. While the figures indicate that instances of violent conflict are declining, the total number of conflict-related deaths remains huge, the estimated number of people displaced by conflict is at its highest since the early 1990s, and campaigns of one-sided violence in which civilians (particularly women and children) are targeted and terrorised have become increasingly prevalent. Conflict and the pressures of poor governance, including weak or absent rule of law, are now converging on particular locations, creating both 'swing states' in the struggle for international peace and stability, and the risk of ungoverned spaces that become havens for criminal and terrorist activity that could also affect the UK.

7. *Transnational criminal networks have expanded their trafficking operations in drugs, arms and people* and are undermining and corrupting state governance arrangements in many countries, facilitating and profiting from violent conflict in the process.

8. *Since the end of the Cold War, we have entered a second and far more dangerous nuclear age* in which renewed state proliferation is a major threat, stockpiles of dangerous nuclear materials remain insufficiently secure, and terrorist groups actively seek a nuclear capability.

9. *Terrorism using conventional weapons remains the most likely challenge but the threat of technologically sophisticated chemical, biological, radiological or nuclear (CBRN) terrorism is real* and no longer comes only from organised groups like Al Qaeda and its imitators, but also from lone individuals with relevant expertise and access to the necessary technological infrastructure. Insufficiently secure government laboratories around the world remain a particular worry in relation to bioterrorism.

10. *Rapid advances in information technologies and biotechnologies are creating new vulnerabilities for national and international security*. Cyber-crime and cyber-terrorism are already realities. New discoveries in biotechnology put to deadly purposes would have terrifying implications.

11. *Humanity is increasingly vulnerable to infectious disease and to the possibility of new and devastating global pandemics.* Population concentrations in urban centres in the developing world, global people movement on an unprecedented scale, an increased criminal trade in animals and animal-related products and the growth of drug-resistant diseases are combining to enlarge this threat.

12. *Complexity has entered the infrastructure of modern life* and our reliance on stretched and interdependent infrastructures has increased. Governments around the world own less of their critical national infrastructure and private sector organisations have become more important to delivering security and societal resilience as a result.

13. *The UK is not and cannot be insulated from any of these developments.* Although the country benefits enormously from its participation in an open world economy and society, it is also reliant on world energy markets and vulnerable to their instability, is affected by transnational crime, has its own Al Qaeda-influenced 'home-grown' terrorist threat to address, will suffer infrastructure damage as more local climate change effects unfold, and is potentially highly vulnerable to the spread of infectious disease. While the threat of a direct state-led attack on the country is remote, this too cannot be entirely discounted. More generally, the country will clearly be less secure if the wider international security environment deteriorates and the UK has a clear stake in ensuring that this does not happen.

Principles

Given these observations, we believe that the following principles are important in framing what should happen next:

1. *The scope of national security strategy today must include, but also range wider than, a concern with political violence*. The protection of the state with strong and flexible defence forces will remain important, but a far broader spread of risks, from climate change and disease to transnational crime and energy security, must also be considered and managed. Social and psychological dimensions of security are also increasingly important.

2. *In a globalised world of many weak states, measures to promote international peace and stability and to help others to help themselves offer the best course of action in our own defence*. As the global financial crisis demonstrates, we live in a world of shared destinies where failings in one region quickly generate policy problems and insecurities in others. In this environment, not only can no state guarantee the security of its people by acting alone, but weak, corrupt and failing states have become bigger security risks than strong, competitive ones.

3. *A massive increase in levels of multilateral cooperation is therefore now needed*. This must include but go well beyond a concern with the reform of global institutions. We are in favour of a new era of treaty-based cooperation on specific issues, from non-proliferation to global biosecurity, and believe groups of willing states will be needed to initiate action, set standards, and sustain progress in many areas. A range of different strategic partnerships will be necessary with new emerging powers including China, and the creation of a 'League of Democracies' at this juncture would be a bad idea. Power redistribution means the end of the Western hegemony in international affairs and Western powers will need to be flexible: it is no longer realistic to expect emerging powers to sign up to exclusively Western-led institutions and practices.

"Government would do well to focus not on a fixed list of priorities but on building up core national capabilities that are well integrated"

4. *Partnership action is needed at home as well as abroad*. Government departments must get used to working with others and must build their ability to manage projects encompassing a wide range of contributors. Government cannot take sole responsibility for making people secure. It needs to work in partnership with businesses, community groups and individual citizens to build and enhance security. Government must devolve, and businesses and individuals must accept, more responsibility for national security and the costs will have to be shared.

5. *Legitimacy of state action is a strategic imperative in current conditions*. The voluntarily offered partnership and cooperation of citizens and potential allies will only be forthcoming in the presence of it. In practice, this means more open and inclusive policymaking, and the UK government working harder to address claims that it operates a double standard when comparing its own behaviour to the behaviour of others. More particularly, it means reaffirming the UK's commitment to promoting, protecting and defending fundamental human rights, such as the right to be free from torture, and means following through on this commitment both at home and abroad. It means viewing terrorism as a crime, treating it that way, and dealing with it within the criminal law paradigm, not the 'war on terror' paradigm. Internationally, if interventions in the affairs of another state are deemed necessary, it means these should comply with the UN Charter. Where this is not possible because vested interests paralyse the Security Council even in the face of serious human rights violations, a major humanitarian crisis, or a developing threat to international peace and security, then it means any action taken should be proportionate, have a primary regard for the protection of civilians, have a reasonable prospect of success, and have wide support in the international community. It should also only be taken as a last resort after all peaceful and diplomatic avenues to avert conflict have been exhausted.

6. *We need more preventative action*. Prevention saves lives, saves money, and in an interconnected world, nips problems in the bud while limiting the potential reach of any specific threat or hazard. It follows that, individually and internationally, we need to develop a capacity for 'horizon scanning' and early intervention to prevent conflict and state failure through use of a wide range of aid, diplomatic and other instruments.

7. Domestically, while carrying on with normal everyday life, *we must become more resilient, preparing to withstand some damage and viewing this preparation itself as a form of deterrence*. Since government cannot prevent all forms of harm or damage to the country or its people, preparing for certain assessable dangers is the responsible thing to do. The more effectively we do so, the more resilient we become, and the less attractive we are as a target for those who would do us harm.

8. *Flexibility is needed in national capabilities*. A security environment with so many interconnected drivers and such a wide range of threats and hazards is not one in which perfect prediction is possible. In this environment, the Government would do well to focus not on a fixed list of priorities but on building up core national capabilities that are well integrated (across military, economic, diplomatic, cultural and community fields of engagement), highly flexible and readily linked into the efforts of partners, both bilateral and multilateral, at home and abroad.

Recommendations: What we should do now

In this interim report, we set out initial proposals on conflict prevention and intervention, recommendations related to regional security organisations, and detailed proposals on two fundamentally important areas which require multilateral cooperation (namely nuclear non-proliferation and global biosecurity). We focus on these issues because we are not convinced government is currently doing enough in these areas, because we believe the scale of the challenge or threat demands urgent action, and because in some instances we believe a limited window of political opportunity for action exists.

Conflict prevention

In the full Recommendations (Chapter 9 below), we call upon the Government to develop further and more deeply embed the notion of a **Responsibility to Prevent Violent Conflict** in UK foreign, defence and overseas development policy. This is because violent conflict is a human tragedy, destabilises whole countries and regions, and can contribute to the generation of ungoverned spaces which may become a source of direct threat to the United Kingdom.

In support of this goal, we call for:

- **The generation of shared strategic assessments** of possible conflict situations both across Whitehall and in coordination with international partners (see Recommendation 1).
- **The creation of an independent Conflict Modelling Panel** to assess possible conflicts and the likely human, strategic and financial consequences of not acting to prevent them (see Recommendation 2).
- **The integrated use of a full spectrum of upgraded conflict prevention instruments**, covering aid, trade, diplomacy and military instruments capable of bringing pressure to bear for peace in regions that may be on the verge of conflict (see Recommendation 3). We have restructured whole armed services to be able to project military power. Now we need a similar exercise to project a capacity for rebuilding peace.
- **The addition of a conflict reduction goal to the existing Millennium Development Goals** (see Recommendation 4).
- **A further investment in and refocusing of Britain's in-country diplomatic expertise** to facilitate interventions in conflict prevention that are better informed and better targeted at local conditions (see Recommendation 5).
- **An increase in resources channelled to non-governmental organisations (NGOs) promoting conflict prevention and in-country political dialogue** and increased efforts to coordinate more effectively the activities of UK-based bodies engaged in such activities (see Recommendation 6), incorporating them into prevention, planning and post-conflict intervention.

- **The funding of independent research into successful conflict prevention activities and financial support for a public inventory of case studies of successful preventative action**. This is vital both for lessons to be learned but also as a practical tool to address the deficit of political will in relation to early preventative action (see Recommendation 7).

Intervention in conflict environments

Since we cannot realistically expect all violent conflict to be prevented and since there are likely to be other interventions required at some point in the future, we must also organise ourselves far more effectively for the challenges ahead. We will be returning to this theme in more detail in our final report but we believe some of the changes required are already clear.

We therefore call for:

- **The development of coherent political objectives within which military strategy and tactics must reside in future operations**. This did not happen in Iraq: coalition forces were asked to defeat the Iraqi army and take Baghdad rather than to develop a strategy for the stabilisation of Iraq post-Saddam. Despite some improvements, we are also struggling with the lack of a strategic concept in Afghanistan (see Recommendation 8).
- **A more fundamental review of military doctrine and operational planning**, as they relate to interventions in conflict and failed state situations (see Recommendation 9).
- **Clear unity of command to be established, under a well-resourced civilian leadership, across UK military, diplomatic, aid and reconstruction activities in conflict zones**. This will be required in future and is also needed now in Afghanistan (see Recommendation 10).
- **Stronger and more focused political engagement and leadership, through the creation of a 'security diplomacy' leadership post within the Cabinet, to coordinate the entire UK effort in a major conflict zone and to gather international support for the action required**. Again, this is needed now in relation to Afghanistan. The creation of such a role in Cabinet would embed the notion of unity of command under civilian leadership at the heart of government and would allow one individual to coordinate a joined-up response from across the entire Whitehall machine (see Recommendation 11).
- **On Afghanistan in particular, we believe the UK government should work with the new US administration to promote a regional context supportive of peace-building in the country, bringing in Iran, Russia, Pakistan, China and a range of civil society organisations**. This will not be easy, but should be attempted (see Recommendation 12).

Strengthening and adapting regional security organisations

In addition, we also believe there is a need for:

- **The adaptation and strengthening of Europe-based regional security organisations such as the European Union (EU), the Organisation for Security and Cooperation in Europe (OSCE) and the North Atlantic Treaty Organisation (NATO), with the last of these incorporating the full engagement of the United States**, as a central plank of British strategy on more effective multilateral security cooperation (see Recommendation 13).
- **A massive increase in the EU's and NATO's logistical and financial help to the African Union**, the regional security body that is likely to be tested the most in the next five to ten years, but which is currently the least well equipped to respond (see Recommendation 14).

Issue-specific and treaty-based multilateralism

Nuclear non-proliferation

Given the growing dangers associated with nuclear weapons, we believe it is not safe for the world to rely on nuclear deterrence for long-term security. **We therefore support the view that the long-term goal of our policy must be the creation of a world free of nuclear weapons and believe action on non-proliferation is urgent ahead of the Non-Proliferation Treaty Review Conference in 2010**. We know the road to achieving this goal will be long and the path towards it not always clear, but we call upon the Government to pursue it actively and to:

- **Use all the instruments at its disposal to encourage further rapid reductions in the strategic arsenals of both Russia and the United States** (see Recommendation 15).
- **Pursue a strengthening of the Non-Proliferation Treaty provisions on monitoring and compliance, to provide greater assurances to all parties on the effectiveness of the Treaty** (see Recommendation 16).
- **Increase further its financial contribution to the International Atomic Energy Agency (IAEA)** and encourage other states to do the same (see Recommendation 17).
- **Provide further practical help to those states wishing but not fully able to implement Security Council Resolution 1540 on improving the security of nuclear stockpiles** (see Recommendation 18).
- **Provide a financial contribution to the IAEA/Nuclear Threat Initiative (NTI) nuclear fuel bank fund, which is aimed at establishing an internationally accessible nuclear fuel bank** (see Recommendation 19).
- **Use all of its influence inside NATO to ensure that the review of NATO's strategic concept, being carried out in 2009 and 2010, produces a result sensitive to and supportive of the requirements of a successful outcome to the NPT Review Conference in 2010** (see Recommendation 20).

Moreover, the Government should:

- **Seek to use its membership of the P-5 to stimulate a deeper and more active strategic dialogue on non-proliferation within this group of states** (see Recommendation 21).
- **Invite the foreign and defence ministers of the P-5 to a non-proliferation strategic dialogue meeting prior to the 2010 NPT Review Conference in pursuit of a joint P-5 position at the conference** (see Recommendation 22).
- **Fund and contribute to a second, less formal track of diplomatic activity involving former senior officials and policy experts from the P-5 plus India, Pakistan and Israel, if possible.** This would not be easy to put together, but should be attempted and should be aimed at identifying and thinking through the political and strategic issues required for a phased progression to zero nuclear weapons among this group, the representatives of which would cover the eight key nuclear weapons states (both signatories and non-signatories of the NPT) (see Recommendation 23).

In addition:

- To ensure that non-proliferation issues remain at the forefront of national political debate and to ensure domestic awareness of the need for these measures, **the Defence Secretary and Foreign Secretary should make annual joint statements to the House of Commons on current proliferation concerns and trends, and on the Government's full range of activities and resources being deployed to respond to them** (see Recommendation 24).

Global biosecurity

We draw particular attention to the challenges of bioterrorism and disease throughout our full interim report. As emerging problems, these expose significant weaknesses in the international institutional landscape and an urgent response is required. Since there is widespread consensus that the arrangements for detecting and responding to the deliberate release of a deadly pathogen are largely identical to those required for detecting and responding to naturally occurring disease, our recommendations here are aimed at improving global readiness to deal with both.

We call for the Government to:

- **Work with international partners to create a panel of scientific experts, equivalent to the Intergovernmental Panel on Climate Change, for purposes of reviewing and bringing to policymakers' attention developments in the biological sciences that may have implications for security and public safety** (see Recommendation 25).
- **Increase its support to the Global Outbreak Alert and Response Network (GOARN)** and to encourage other countries to do so the same (see Recommendation 26).
- **Use its own bilateral aid programmes to upgrade developing countries' skills and capacities in the field of disease surveillance and response** (see Recommendation 27).
- **Promote the idea of a Global Compact for Infectious Diseases** (see Recommendation 28). This would be a new treaty designed to deliver a number of internationally coordinated biosecurity advances including:
    - The creation of a network of research centres aimed at the carrying out of fundamental research on infectious diseases
    - Improved data and knowledge sharing from research and bio-surveillance activities around the world
    - The harmonisation of national standards, regulatory practices, and best laboratory practices
    - A major expansion in the production of important drugs and vaccines.
- **Couple its promotion of the Compact with moves to expand the International Health Partnership (IHP) as an urgent priority**, to ensure that the Compact does not lead to a locking-in of vaccine access and health governance advantages already enjoyed by the wealthiest countries (see Recommendation 29).
- **Support the creation of an event-reporting system for animal diseases** equivalent to that set up in relation to human health in the International Health Regulations 2005. In a world where so many diseases cross the species barrier, the absence of such an event-reporting system is a major weakness in the international architecture for ensuring biosecurity (see Recommendation 30).

Further work

Beyond these recommendations, there are further policy areas that our final report will explore, including:

- The possibilities for expanding a law-based approach to international security issues and recommendations related to domestic resilience, counter-terrorism and counter-radicalisation policy.
- Energy security challenges and wider defence policy, and a fuller view on the appropriate roles of the EU and NATO in future security policy. Within this, we will also offer a more detailed examination of how the UK and its allies might best learn to project a post-conflict reconstruction capability in a world of failing states and increasing conflict pressures.
- Key questions such as the approach required to relations with Russia and the United States, issues related to the machinery of government, and the implications of our recommendations for the allocation of public resources.

The goal in our final report will be as it has been in this: to challenge the Government and others to promote action relevant to 21st century threats and to offer implementable strategies for moving forward. The threats and hazards described in these pages, and in our full interim report, demand that this happen.

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1. Introduction

We publish this report – in November 2008 – in the context of a changing and significantly worsening international situation.

Recent months have seen profound turmoil in the global financial system, the collapse of the Doha talks aimed at a new global trade agreement, a deteriorating relationship between Russia and NATO over Georgia and worrying levels of armed conflict in Somalia, the Democratic Republic of Congo and Sudan. There is continuing high tension over the Iranian nuclear programme and its potential to trigger a nuclear arms race in the already volatile Middle East, a degenerating security situation both in drought-hit Afghanistan and in Pakistan, where last year there was on average one suicide bombing every week, and elections that have recently been marred by political violence in Kenya and Zimbabwe, threatening further instability in Africa.

"If globalisation of power is one of the key phenomena of our time, then bringing governance to the global space is one of its key challenges"

Progress on some of the big global challenges such as climate change is painfully slow, too, and changes in science and technology and their wider dispersal while bringing enormous benefits to humanity are allowing lone individuals, as well as small groups, to engage in more devastating forms of terrorism. New forms of network-enabled and biological warfare, and new vulnerabilities associated with each of them are also now either upon us or just over the horizon. Power is becoming increasingly globalised, and this vertical transfer of power from the nation state, where power was subject to governance, regulation and law, onto the global stage, where these constraints are either weak or non-existent, is one of the major destabilisers of our age. If this globalisation of power is one of the key phenomena of our time, then bringing governance to the global space is one of its key challenges and future stability will in large measure be defined by our success or failure in this enterprise.

The UK's extensive engagements in Iraq and Afghanistan continue, the latter in particular with no end in sight and with little real progress to report.

Moreover, while many of the challenges we face require more effective and more diverse forms of multilateral cooperation, we are at the same time moving rapidly into a world with multiple centres of power, complicating and magnifying the already difficult challenges associated with building the multilateralism we need. And it is not clear, given these circumstances, that even current bedrock institutions such as NATO or the EU will be adequate to meet the challenges that confront us. Each faces questions as to its effectiveness and unity: NATO in Afghanistan and the EU as it addresses the pressure on energy supplies from Russia.

We face dangers that are both clear and present as well as dangers being stored up for the future. Our report should, against that backdrop, be read both as a warning and as a call to action. Despite the scale and diversity of the challenges we face, there is no need to surrender to pessimism. Periods of change are periods of opportunity as well as threat. Negative outcomes are not preordained and there is much that can be done to respond positively to today's security challenges, provided we are willing to learn lessons, to question old habits, to alter the way we think, and to adapt our policy solutions and instruments to new circumstances. While much depends on the strategic approach adopted by the incoming administration in the United States, this is as true for the UK as it is for the US.

Objectives

In this supporting research and analysis document, which underpins and develops the ideas set out in our much shorter Summary and Recommendations, we therefore seek to lay the foundations for a re-think of UK national security strategy. We offer some specific policy recommendations in Chapter 9, where we believe the issues concerned are so urgent that action is required immediately, but beyond that, the bulk of our report is focused on three supporting objectives. These are:

- To outline the nature of the security challenges we face today, and to give an account of the underlying and longer term forces and trends driving the day-to-day security agenda
- To summarise current UK government security policy and provide a brief account of the policy positions adopted by the two main opposition parties
- To set out a framework of principles and ideas that we believe should now shape the overall direction of national security policy and that should underpin a series of more specific and targeted policy innovations.

The Commission's full view on what those more specific innovations should be will be set out in our final report in summer 2009.

Structure of the report

In pursuit of these objectives, the material that follows is organised into four parts.

- In this first part, we introduce the report and offer an account of the policy terrain that we have defined as in-scope for our deliberations.
- In Part 2, we provide an account of the security landscape, both internationally and here at home.
- Part 3 offers an overview of government policy and the policies of the Conservatives and the Liberal Democrats in opposition.
- In the final part, we set out the overall principles that we believe should now underpin and inform policy and we offer our initial policy recommendations in a number of priority areas.

Our sources

Throughout, our report draws on a number of sources, including:

- Recently published national security strategies in France and the Netherlands (see President of the Republic of France 2008, Netherlands Ministry of the Interior and Kingdom Relations 2007)
- The recent strategic outlook assessment from the National Intelligence Council in the United States
- Expert views of members of the ippr Commission on National Security
- Interviews with senior ministers and officials in government
- Dialogue with relevant experts and practitioners
- Independent research and synthesis of a wide range of secondary sources and literature by the Commission Secretariat within the Institute for Public Policy Research.

The report is also informed by the UK government's own first national security strategy, published in March 2008. In the view of the Commission, the government strategy contained a reasonable account of some of the problems we face today while implying that there was little need for further policy change, a conclusion with which we do not find ourselves in agreement. Both this interim report and our forthcoming final report are offered as constructive challenge to the Government's own published document and as a wider contribution to the ongoing policy debate.

2. Scope: The terrain of national security policy

The traditional view of security policy focuses primarily on the role of states, on the tendency towards competition and conflict between them, and on the central importance of the balance of power. It does so in response to a history of major and frequent inter-state wars, and many of the issues with which it is concerned remain pivotal to contemporary security policy debates.

An awareness and understanding of the concerns to which the traditional view gives rise is, however, no longer enough. Assuring security may once have been a matter for a nation's Ministry of Defence but it now involves every Department of State, not just in one's own country but in those of one's allies and partners, too. The traditional view of security policy, in short, now leaves too much out. The privileging of states and of the inter-state level of analysis means the importance of many non-state actors, be they terrorist groups, private sector bodies, international governmental organisations like the United Nations, or non-governmental organisations (NGOs), is largely ignored. The emphasis on military issues, while obviously still vital, comes at the price of a serious exclusion of wider social and economic issues of relevance to the security agenda. And the over-emphasis on some strategic drivers, such as the balance of power between states, leads to an under-emphasis on others that are now critical, such as globalisation and climate change.

Consequently, whatever the merits of the traditional view, there is now a strong case for moving beyond it.

The Government significantly widened its own interpretation of the relevant terrain when it published the United Kingdom's first national security strategy earlier this year (Cabinet Office 2008a). Here in this interim report, the ippr Commission on National Security in the 21st Century does the same.

In the material that follows we have adopted an issue-led rather than an actor-led approach. We focus on those risks, be they human-made threats or natural hazards, that have the ability to threaten the security and safety of the UK state, its communities, and the families and individual citizens living here. The traditional concern with defence, with the threat of external military attack on the UK from another state, and with the need for strong and appropriately configured conventional forces remains crucial but is nested within a frame of reference that stretches far beyond to issues such as energy security, global poverty, the stability of the international economy, terrorism, transnational organised crime and the security effects of climate change.

The adoption of this wider issue-based approach shifts the emphasis of the analysis in this report. It opens up the relevant terrain to more actors and to several other levels of analysis, some above and some below the level of the national state. Again, depending on the issue, actors from lone individuals and local community groups at one extreme, all the way up to global bodies like the United Nations, are defined as in-scope.

We believe this widening of the terrain brings analytical advantages over the traditional view. In doing so, however, it also raises an important question. If the terrain of national security policy today is much wider than traditional notions would allow, where do we now draw the line between national security policy and other policy areas? Some attempts to re-think security policy have gone wider than others, arguably to the point where almost all areas of policy become defined as security policy (see Commission on Human Security 2003). This can be valuable in pointing out risks to human life and safety that go well beyond the threat of political violence, but in our view it can also result in a loss of policy focus.

Applying a 'threat test'

In delimiting the terrain of UK national security policy and the terrain with which the Commission is concerned we have therefore applied a UK threat test. The threat test asks whether an issue has the potential to be a direct threat to British life and interests in the short to medium term. If it has, then it is defined as relevant to UK national security policy and to our deliberations here. If not, it is excluded from our enquiry, though without prejudice as to whether it ought still to be a focus of other areas of UK government policy.

We would stress at the outset that the use of a threat test to delimit the terrain does not in any way imply acceptance of an overly narrow approach to the definition of UK interests. On the contrary, and as will become clear throughout this report, in a globalised world in which no state can isolate itself or fully provide for the security of its people without the help of others, the best way to protect ourselves and to look after our own interests will often be to have regard for the interests and concerns of others and to help others to protect themselves.

"The best way to protect ourselves and to look after our own interests will often be to have regard for the interests and concerns of others and to help others to protect themselves"

Seen through the lens of a threat test, national security policy still also legitimately encompasses a wide area. Some elements of aid and trade policy and some elements of global health policy are included within our remit, for example, as the former are directly relevant not only to poverty reduction and conflict management but also to failed states that may become the source of threats, and the latter is directly linked to infectious disease that may come from overseas but still have devastating impacts here at home. Even under the threat test, we are concerned with issues of climate change and with the potential for international poverty to contribute to emerging threats to British life and interests. What the threat test does exclude, however, is a concern with *all* global health policy, or a concern with *all* development policy, despite the fact that health and development challenges represent massive threats to human life all over the planet.

Subsidiarity

In this report we have also adopted the principle of subsidiarity. This principle suggests that responsibility, as well as power and resources, should rest at the level best placed to handle the issue being faced. On some issues this might be at the global level, on some it might be at the level of the UK or other national state, and on others still it might be at the local level.

Our argument here, therefore, is obviously not that global health and development issues are unimportant. Rather, the health of citizens of other countries is primarily the responsibility of the governments of those countries themselves. To the extent that the UK has a responsibility to help them, morally or otherwise, in the absence of a threat to UK life and interests, it should seek to fulfil this responsibility through its influence in multilateral development organisations, its emerging global health strategy, and the wider activities of the Department for International Development, rather than through its security policy.

With all these ideas in mind, the range of issues, actors, and the various levels of analysis that we have defined as in-bounds for national security policy, and therefore for the work of the Commission, are captured in Appendix 1. (Some use the notion of 'human security' to describe the approach we have adopted. See Human Security Centre 2005, Commission on Human Security 2003.)

PART 2:
The security landscape today

3. Long-term drivers of change

Security challenges are often portrayed in the media as a series of disconnected crises erupting suddenly without warning. Many governments, under the pressure of dealing with day-to-day events, behave as though this is the case, too. However, while the timing and specifics of individual challenges can be highly unpredictable, the threats and hazards visible in the international security environment today can, for the most part, be seen to emerge on the basis of a number of underlying strategic trends and drivers. Together, these provide overall shape and context to the stories in the headlines at any given point in time, and they offer insights into the boundaries and dynamics of what is possible and probable in the years ahead.

An awareness and understanding of these trends and drivers is therefore our starting point. In this chapter we outline the following, which we consider to be the **most important trends and drivers**, noting the character of advances or trends underway and highlighting the security implications that may flow from them:

- Globalisation
- Demographic change
- Global poverty and inequality
- Climate change
- Scientific and technological change

Several of these trends, in particular globalisation and demographic change, are accelerating and facilitating a historic shift of power from West to East, transforming the structure of the international system and key elements of the international security landscape in the process.

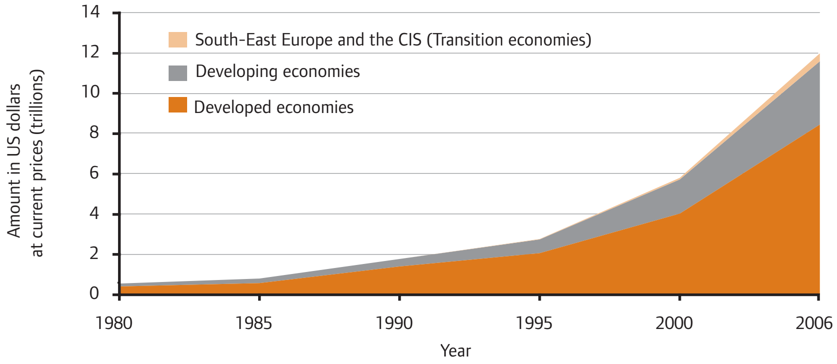
Globalisation

A major trend impacting on the international security environment is deepening globalisation, which refers to the process by which states and communities are becoming economically, socially and culturally more interconnected and interdependent, with power slipping beyond individual states and into an often uncontrolled and unregulated global space as a result.

Globalisation trends

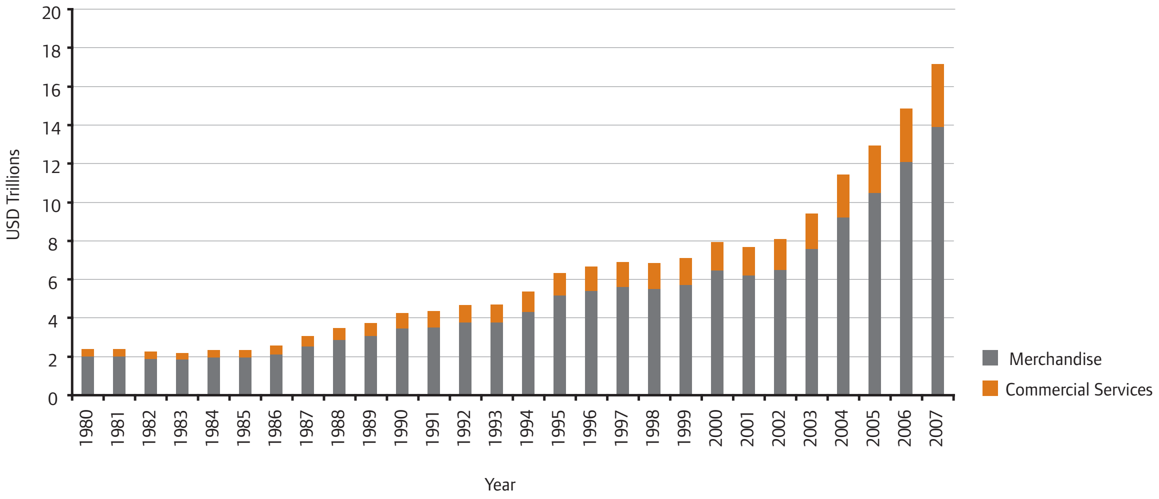
Headline features of deepening globalisation, beyond the integration of international markets all too visible in this year's global financial crisis, and beyond the development

Figure 3.1: World inward Foreign Direct Investment (FDI) stock



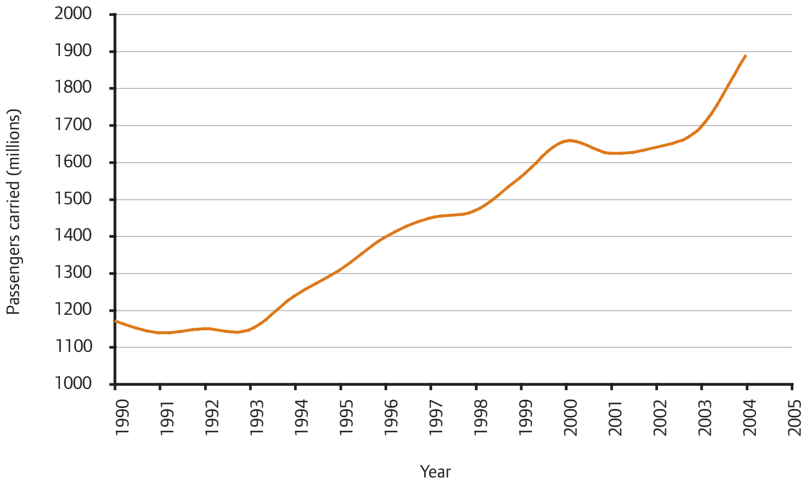
Source: UNCTAD 2007

Figure 3.2: Total trade exports, 1980-2007



Source: World Trade Organisation 2008

Figure 3.3: Civil aviation passengers



Source: International Civil Aviation Organization/United Nations Statistics Division 2008

of global social movements on issues such as human rights, include large increases in the cross-border flows of investment, capital, goods, services and people. These increases are captured and reflected in Figures 3.1-3 above.

Figure 3.1 shows that total world inward Foreign Direct Investment (FDI) stock has increased more than tenfold over the past three decades and that while developed countries account for the bulk of it, developing and transition countries and regions are beginning to attract FDI on a larger scale, and to take a greater share of the world total, too. Some places, such as Hong Kong in China, and the Russian Federation, are emerging particularly strongly as locations for inward investment (UNCTAD 2008).

Figure 3.2 shows the increase in value of global trade (by exports) over a similar timeframe.

Figure 3.3 is indicative of the massive expansion in international passenger travel numbers.

The whole process of globalisation, partly captured and reflected in these graphs, has itself been facilitated by a number of underlying factors, including proactive decisions by policymakers in the major developed states in recent decades to liberalise and further integrate global markets, significant long-term reductions in the cost of international transportation, and the onset of the information and communications technology (ICT) revolution (as described below). To illustrate some of this, between 1955 and 2004 it is estimated that the cost per ton-km shipped for all air traffic fell more than tenfold, from US$3.87 per ton-km to under US$0.30 in 2000 US dollars (Hummels 2007). This cost reduction has been matched in other areas, for example in a considerable drop in the real costs of air fares, which has paved the way for the explosion in international travel.[1] In telecommunications, meanwhile, the decline in costs has been steady, with the price of international telephone calls having fallen sixfold between 1940 and 1970 and then tenfold between 1970 and 1990 (World Bank 1995). While a three-minute phone call between New York and London would have cost US$293 in 1931, it is now almost free on some platforms (Krueger 2006).

Against this backdrop, it is not only global financial markets that have become more integrated. Businesses in many other sectors have taken advantage of the high speed and low cost of the evolving communications environment, often working in partnership with other companies or networks of companies around the world. This in turn has created opportunities for players in the developing world to tap into and service global markets. The result has been a new pattern of winners and losers both within and between the states and regions of the world. Indeed, globalisation has had a number of effects which, collectively, are creating a new geopolitical landscape and are therefore directly relevant to the contemporary security agenda.

Globalisation: implications

Globalisation and interdependence are diffusing power to new and different actors in the international system.[2] This is visible both within and across the community of states and in a diffusion of power from state to non-state actors such as global businesses, international organisations, terrorist groups, and transnational criminal networks.

At the state level, we are witnessing a massive and historic shift of power from the Atlantic seaboard to Asia and the Pacific, with China and India in particular benefiting from the integration of global markets and their emerging role within them. China has been enjoying rapid economic growth and as a consequence is now the world's fourth largest economy behind the United States, Japan, and Germany.[3] Its seemingly endless supply of low-cost labour has been particularly instrumental in the growth of its manufacturing sector, and the unprecedented trade surpluses that have followed.[4] It is also accounting for an increased share of the world's research and development (R&D). According to data compiled by the OECD, China's R&D spending reached an estimated US$84.6 billion in 2003 (up from US$12.4 billion in 1991) and increased from 0.6 per cent of GDP in the mid 1990s to 1.3 per cent in 2006, putting it in third place globally in terms of R&D expenditure behind the United States and Japan (NSB 2006, OECD 2006).

India is also enjoying an enhanced power position, based on dramatically higher levels of economic growth that have resulted from a targeted reallocation of land, capital and labour from low-productivity agriculture to high-productivity and high-value-added services and industry in recent years (Goldman Sachs 2007). The Indian government's strategy of promoting open trade, providing cheaper credit, and investing in IT and communications technology and infrastructure has paid off, with Goldman Sachs now predicting that the Indian economy can sustain a growth rate of about 8 per cent until 2020. India will surpass the UK in terms of GDP within the next decade if this growth trajectory transpires despite global slowdown, and recent projections suggest that its GDP will also exceed that of the US before 2050, which would make it the world's second-largest economy (Goldman Sachs 2007).

This shift of economic power to China and India, though its indefinite continuation should not be taken for granted,[5] is of profound importance.[6]

Already, solutions to some of the most pressing international problems, such as climate change, cannot be found without Chinese and Indian involvement. As China and India have grown, moreover, and their demand for energy has increased, this has had a significant tightening effect on world energy markets, driving up prices, pushing massive

[1] The declining cost of shorter-distance fares (stimulated by the proliferation of low-cost carriers and operating efficiency improvements) has been reasonably steady, although the cost of long-distance flights has tended to fluctuate depending on the rise and fall of fuel prices.

[2] By power in this context, we mean the resources and capacities that may potentially be used to achieve influence over the security environment. In this section of the paper, we discuss the relative distribution of such resources and capacities among actors in the international system. Later on we return to the issue of which resources and capacities are thought most important in current circumstances (the hard and soft power debate), and to the issue of how they might best be combined for maximum effect (integrated power).

[3] Though in 2005 China's GDP at US$5.3 trillion was still less than half that of the US at $12.4 trillion, and in terms of GDP per capita, China lagged behind Lebanon, Kazakhstan and Armenia. Figures from *The Economist* 2007, the US Bureau of Labor Statistics and UNDP 2006.

[4] China's foreign currency reserves soared past US$1 trillion in early 2007 and kept racing up to more than $1.3 trillion by the middle of that year. Reserves of this scale effectively give the Chinese government the power to dump dollars on world markets, forcing a crash in the value of the dollar and potentially putting the US and global economy into recession.

[5] Particularly in the case of China where we may well see a temporary check in the Chinese growth curve as a result of the fact that, sooner or later China is going to have to tackle its democratic deficit and in the Chinese context this kind of change has in the past often led to internal disturbance.

[6] As noted in an earlier ippr report based on the Commission's deliberations, despite current economic trends in both China and India, the continued rise of both cannot and should not be assumed. Each country has enormous challenges. China must continue to grow to lift its masses out of poverty, must deal with pervasive environmental problems, and must answer fundamental questions about the sustainability of Communist Party rule in the long term. India, too, has a massive task to improve the lot of its poor, has significant weaknesses in its educational system (it has a literacy rate of only 60 per cent) and also has a high incidence of HIV. Both China and India, moreover, must navigate difficult security challenges, China in relation to Taiwan, and India in its dispute with Pakistan over Kashmir. See Kearns and Gude 2008.

revenues into the hands of some of the more established oil exporting states such as those in the Persian Gulf, and allowing a new cadre of potentially powerful energy states and regions to emerge as a result.

The Russian Federation has been a particular beneficiary of changing global energy markets and has seen considerable growth in annual GDP, in exports and in currency reserves over the past few years. Despite worsening global economic conditions, Russia posted real GDP growth rates of 7.4 per cent in 2006 and 8.1 per cent in 2007 (World Bank 2008b). According to the Central Bank of Russia, exports, propelled by high oil prices, increased to US$108.1 billion in the first quarter of 2008 from $71.8 billion in the first quarter of 2007, a rise of more than 50 per cent (ibid). This level of exports has also allowed Russia to extend a favourable international trade balance, with its current account surplus having increased to an estimated US$37 billion (in the first quarter of 2008), from $22.9 billion in the same period of 2007 (ibid). As shown by recent events such as the invasion of Georgia, the temporary cutting off of gas supplies to Ukraine, and the decision to resume long-range strategic bomber patrols, Russia, on the back of these trends, is

Table 3.1: Proved reserves of oil

Rank	Country	Proved reserves (billion barrels)
1	Saudi Arabia	264.2
2	Iran	138.4
3	Iraq	115.0
4	Kuwait	101.5
5	United Arab Emirates	97.8
6	Venezuela	87.0
7	Russian Federation	79.4
8	Libya	41.5
9	Kazakhstan	39.8
10	Nigeria	36.2
11	US	29.4
12	Canada	27.7
13	Qatar	27.4
14	China	15.5
15	Brazil	12.6
16	Algeria	12.3
17	Mexico	12.2
18	Angola	9.0
19	Norway	8.2
20	Azerbaijan	7.0
	Top 20 countries	1162.1 (≈94%)
	Rest of world	75.8 (≈6%)
	Total world	**1237.9**

Source: BP 2008

Table 3.2: Proved reserves of natural gas

Rank	Country	Proved gas reserves (trillion m³)
1	Russian Federation	44.65
2	Iran	27.8
3	Qatar	25.6
4	Saudi Arabia	7.17
5	United Arab Emirates	6.09
6	US	5.98
7	Nigeria	5.3
8	Venezuela	5.15
9	Algeria	4.52
10	Iraq	3.17
11	Indonesia	3
12	Norway	2.96
13	Turkmenistan	2.67
14	Australia	2.51
15	Malaysia	2.48
16	Egypt	2.06
17	Kazakhstan	1.9
18	China	1.88
19	Kuwait	1.78
20	Uzbekistan	1.74
	Top 20 countries	158.41 (≈89%)
	Rest of world	18.95 (≈11%)
	Total world	**177.36**

Source: BP 2008

becoming more assertive. Indeed, despite the weak and less than united response to Russia among members of the European Union in recent months, Russia's declining population and its reliance on foreign investment may mean it has over-exaggerated its own strength and overplayed its hand.

Power shifts are occurring elsewhere, as energy markets tighten, with proved oil and gas reserves concentrated in a relatively small number of locations. Tables 3.1 and 3.2 above show where the proved reserves of crude oil and gas are concentrated.

In particular, countries in a position to export substantial amounts of oil, such as those in the Caspian Sea region, in former Soviet Central Asia, and countries including Iran, Qatar, Nigeria and Libya, are all increasing in importance on the international stage.

Perhaps the most emblematic feature of a changed and changing distribution of international economic power between states, however, is to be found in the location and size of the world's largest sovereign wealth funds (SWFs). According to a recent report, these government-owned funds have an estimated current value of approximately US$2.2 trillion, a figure that has the potential to soar further to US$13.4 trillion within a decade if growth rates remain moderately healthy over the longer term (Standard Chartered 2007). Despite the lack of transparency about the total assets held by these funds, analysts have determined that the seven largest are owned by the governments of the UAE, Saudi Arabia, Singapore, Kuwait, China and Norway. Between them, these funds have more than US$1,810 billion to invest, and they have been growing faster than the world economy as a whole (ibid). Table 3.3 lists the so-called 'super seven' sovereign wealth funds and their assets, as of March 2007.

Table 3.3. The 'super seven' sovereign wealth funds and their assets (March 2007)

Country (fund)	Assets* (US$ billion)	Inception year
UAE (Abu Dhabi Investment Authority)	875	1976
Norway (Government Pension Fund – Global)	380	1996
Singapore (GIC)	330	1981
Saudi Arabia (various)	300	n/a
Kuwait (Reserve Fund for Future Generations)	250	1953
China (China Investment Corporation)	200	2007
Singapore (Temasek Holdings)	159.2	1974

*Estimated, except for Norway
Source: The Economist 2008a

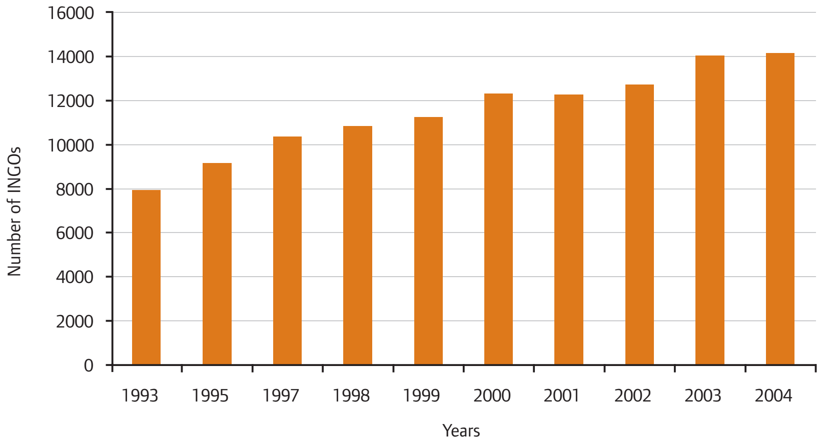
These funds have become increasingly important not only as the possible long-term guarantors of their owners' interests in a post-oil economy but also to the wider functioning of the global economy, and have begun to take large stakes in important and previously Western-owned and controlled enterprises and sectors. A number of major banks, including Citigroup, Morgan Stanley and UBS, turned to them in attempts to offset the effects of the global credit crunch and in recent times the funds have started taking bigger stakes in sensitive sectors in developed countries such as energy and telecommunications (see Wray 2008, The Economist 2008a).

The evidence of a historic shift of economic power between states, therefore, is all around us. Old categorisations of the powerful and wealthy West sitting alongside all the rest are being confined to history. Inter-state relations are becoming more complex with more players able to influence events. After the bipolar years of the Cold War and a brief unipolar moment with the United States as the only superpower, we are moving back into a multipolar world. This, as we set out in Chapter 4, may have direct security consequences in the years ahead.

Non-state actors

In addition to its impact on the distribution of power between states, globalisation is further facilitating the growing influence of a new set of transnational non-state actors. This is visible in the growth in numbers of international non-governmental organisations, as shown in Figure 3.4.

Figure 3.4: Number of international non-governmental organisations (INGOs)



Source: Union of International Associations 2008

It is also visible in the scale of resources available to many transnational corporations: Exxon Mobil for instance (ranked second in the 2008 edition of the Fortune 500 list) reported profits of US$11.7 billion in the second quarter of 2008 on overall sales of $138 billion, a figure which is roughly the GDP of Hungary (Associated Press 2008a).

Beyond corporations and NGOs, however, the main beneficiaries have been transnational organised criminal networks and transnational terrorists, who have quickly discovered that the global space, being largely unregulated, with the rule of law either weak or non-existent, is a place where they can operate with a reasonable prospect of impunity, just as they could in the mountains of Afghanistan before 9/11.

Criminal groups have been able to use globalisation to broaden and diversify their operations into cross-border markets in intellectual property crime (such as counterfeiting and piracy) and in the trafficking of people, money, arms and drugs. They have frequently, in the process, exploited and contributed to the problems of weak and failing states.

Terrorist groups, meanwhile, have been of increased significance since 9/11, the point at which a new form of 'super-terrorism' took centre stage in international affairs (Freedman 2002). They have emerged as a long-term structural challenge both because of their potential access to increasingly destructive and dangerous technologies via both legal and illicit markets (a point we return to at some length in Chapter 5) and because of the advantages now bestowed by advances in digital technology and global communications. The latter have amplified the voice, extended the organisational reach, and enhanced the law enforcement evasion capabilities of terrorist groups. Satellite communications have also shrunk distance and made it much easier for terrorist groups both to make and sustain cross-border connections.

Strong encryption tools meanwhile, available more cheaply and easily than ever before, are facilitating terrorist use of such communications channels in a more secure and secret environment (Ministry of Defence 2007). While security agencies are now alive to this last development, it nonetheless represents a significant shift in relative power from state to non-state actors since, only three decades ago, strong encryption tools required such financial and computing resources that they effectively remained the preserve of states.

"Globalisation has also facilitated the growth of a transnational society with a dark criminal and terrorist underside"

While globalisation has therefore permitted the growth of legitimate international trade, investment and economic interdependence, and while it has altered and is altering the relative distribution of power between states, it has also facilitated the growth of a transnational society with a dark criminal and terrorist underside. This is difficult to manage, especially given a countervailing tendency in some places toward polarisation of identity, culture and religion. One further consequence of this is that no state, no matter how powerful, can adequately address the resulting challenges alone. On some issues, power has shifted away from the individual state level to the transnational and global level and our mechanisms of governance, to be effective, will need to move with it. We return to the security challenges posed by these developments, and to the approach to policy that might effectively deal with it, at greater length in Chapters 4, 5, 6 and 9.

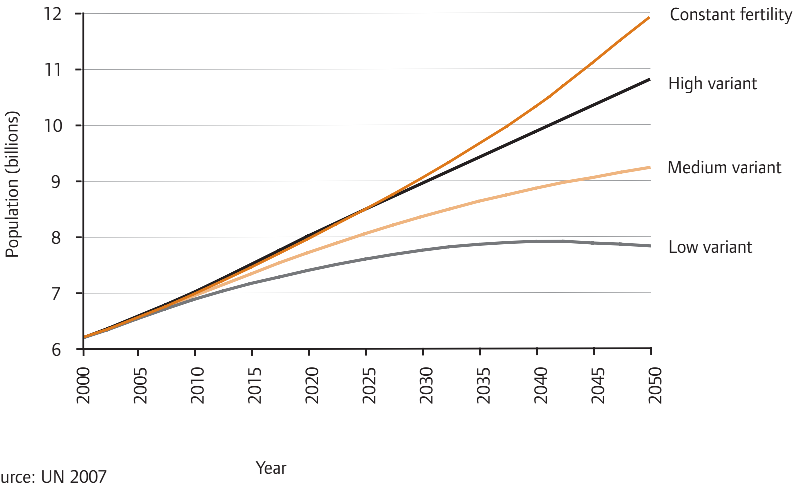
Demographic change

A second important driver of the international security landscape is demographic change. Total world population growth, increased concentrations of people in large urban centres, the changing age characteristics of different populations around the world, and increased flows of international migrants are all likely to have significant influence on the security environment in the years ahead. We deal with each of these trends in turn below.

Population growth projections

Prior to the 20th century, world population growth was held in check by disease, famine and high infant and maternal mortality rates. However, the eradication of pandemic diseases such as polio and smallpox, other advances in medicine, developments in agricultural technology, and changes in reproductive habits all contributed to an unprecedented population explosion during the 20th century, with global population rising from 1.6 billion at the beginning of the century to 6.1 billion at its close. Though the rate of growth will slow, there are few signs that the growth in total world population will come to an end in the short to medium term. The global total now stands at around 6.7 billion people, and recent UN projections suggest that this figure will reach 9.2 billion by 2050: an increase of almost 40 per cent in just over 40 years (see the medium variant, the projection preferred by the UN, in Figure 3.5 below).

Figure 3.5: World population by variant (2000-2050)



Source: UN 2007

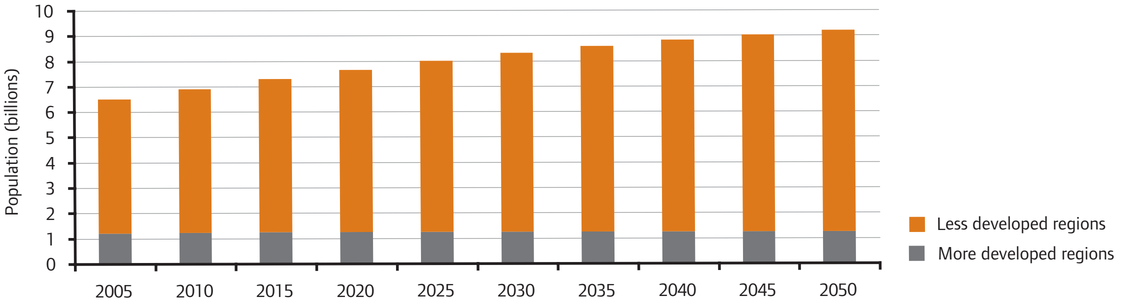
Population distribution by region

Perhaps even more significant than these changes in total world population size, are the figures on population distribution. When the data is broken down, it becomes apparent that growth will be concentrated in the less developed regions of the world, and especially among the poorest countries. As demonstrated in Figure 3.6, the population of the more developed regions is expected to remain virtually constant (at a level of 1.25

billion people) between now and 2050, and may even start to decline if fertility rates drop substantially below the replacement level or if migration patterns change significantly.[7] Within this, it is indeed expected that most European countries will experience declining populations during this timeframe. Russia, since the fall of the Soviet Union, has seen its birth rate fall and its death rate rise, leading the UN to predict that the Russian population, currently approximately 143 million, will decline sharply between now and 2050 (UNDESA 2000). At these levels it seems likely that Russia will be severely under-populated, especially in the East.

In contrast, the population of less developed regions will increase markedly over the next few decades (to approximately 7.94 billion or 86.5 per cent of the global population), while the population of the world's 50 least developed countries is projected to more than double, rising from 0.8 billion in 2007 to 1.7 billion in 2050 (UN 2007).

Figure 3.6: Population distribution projections



Source: UN 2007

Growth will be particularly pronounced in India, China, Bangladesh, Pakistan, Nigeria and Indonesia, while the population of Africa will almost certainly double from its current level of around 740 million between now and 2100 (IIASA 2007). Growth will be especially concentrated in a number of sub-Saharan African countries, with Burundi, Uganda, Niger, DRC, Congo, Eritrea, Benin, Burkina Faso, Guinea-Bissau, Liberia, Mali, Chad and Angola expected to grow by more than 2 per cent a year until 2030, and continuing to experience higher average growth rates than the rest of the world thereafter (UN 2007).

Population distribution by age

Apart from the above changes, there are other notable population trends within regions and countries in terms of the composition of societies. In the developed world especially, one trend already apparent is the increased ageing of populations, as a result of falling fertility rates and increased longevity. As a whole in developed countries, the number of people aged 60 or over has recently surpassed the total number of children aged 15 and under, and by 2050, will be more than double its size. This is illustrated in Table 3.4 below.

In less developed countries and regions, although population ageing will occur, the more notable current feature is one of growth in the young population, or what is often referred to as a 'youth bulge'. Globally, the average percentage of young people aged 15-24 is 18 per cent. However, this figure hides a great deal of disparity between regions. In many European countries, the share of young people is just 12 per cent or less, while in developing regions, and particularly in the Middle East, Africa and parts of Asia, it is frequently higher than 20 per cent (UNDESA 2007b). Table 3.5 below illustrates this in relation to selected countries in the Middle East and North Africa (MENA) region.

Although the youth bulge will subside over the next few decades as fertility rates fall across the MENA region as a whole, the youth populations of certain countries are set to

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[7] There are deviations from the constant in both directions for individual countries within the group classified as developed. While declines in most European countries are expected, the population is expected to continue to rise in Australia, Canada and New Zealand, primarily as a result of international migration. See Chamie 2007.

Table 3.4: Percentage distribution of different age groups, 2005 and 2050 (projected)

	Percentage distribution in 2005				Percentage distribution in 2050			
Age range (years)	0-14	15-59	60+	80+	0-14	15-59	60+	80+
World	28.3	61.4	10.3	1.3	19.8	58.3	21.8	4.4
More developed regions	17	62.9	20.1	3.7	15.2	52.2	32.6	9.4
Less developed regions	30.9	61	8.1	0.8	20.6	59.3	20.1	3.6
Least developed countries	41.5	53.4	5.1	0.4	28.2	61.5	10.3	1.1
Africa	41.4	53.4	5.2	0.4	28	61.7	10.4	1.1
Asia	28	62.7	9.2	1	18	58.3	23.7	4.5
Europe	15.9	63.5	20.6	3.5	14.6	50.9	34.5	9.6
Latin America and Caribbean	29.8	61.2	9	1.2	18	57.8	24.3	5.2
North America	20.5	62.7	16.7	3.5	17.1	55.6	27.3	7.8
Oceania	24.9	61	14.1	2.6	18.4	56.9	24.8	6.8

Source: UN 2007

Table 3.5. Proportion of young people aged 15 to 24 in selected Middle Eastern and North African countries

	1995	2005	2015	2025
Algeria	21	23	17	15
Bahrain	16	16	15	14
Egypt	20	21	18	17
Iran	20	25	17	15
Iraq	21	20	21	19
Jordan	23	20	19	18
Kuwait	16	16	14	14
Lebanon	19	18	17	15
Libya	23	22	16	17
Morocco	21	21	18	15
Occupied Palestinian Territories	19	19	21	21
Oman	17	22	19	16
Qatar	14	14	13	13
Saudi Arabia	17	18	18	17
Syrian Arab Republic	21	23	19	18
Tunisia	20	21	16	14
United Arab Emirates	16	16	14	14
Yemen	19	22	21	20
Average:	**19**	**20**	**17**	**16**

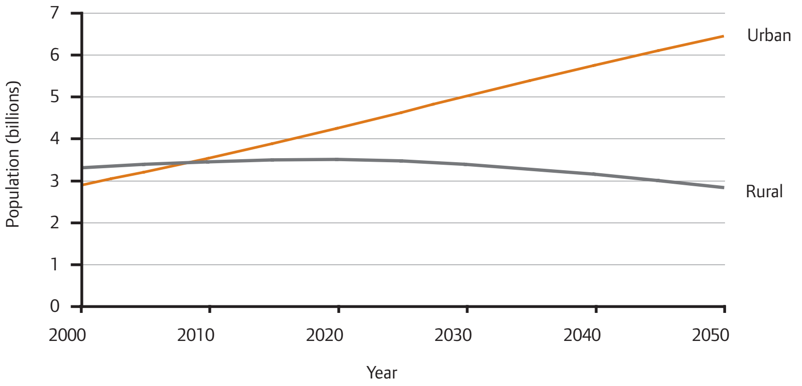
Source: UN 2007

stay high, including in Iraq, the Occupied Palestinian Territories and Yemen, where 15- to 24-year-olds will still constitute approximately 20 per cent of the population in 2025 (Assaad and Roudi-Fahimi 2007).

Urbanisation

Another demographic feature of note is a trend toward urbanisation. According to UN projections, the percentage of the global population living in urban areas will equal the percentage living in rural areas in 2008 or 2009, and will then continue to grow. As Figure 3.7 shows, around six and a half billion people will live in urban areas by 2050.

Figure 3.7. Urban and rural populations, 2000-2050



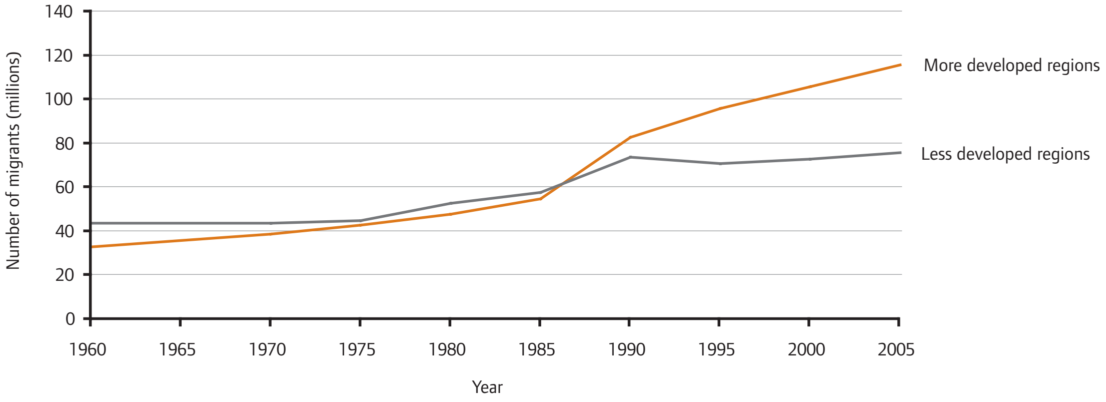
Source: UN 2008a

As with the other demographic trends described here, different regions will experience urbanisation in different ways. 74 per cent of people in the developed world already lived in urban areas by 2007; in the developing world the equivalent figure was just 44 per cent. The future growth in urbanisation will therefore mostly be concentrated in less developed regions and countries, and it is estimated that 67 per cent of the developing world's population will be urban by 2050 (UN 2008a). Although the majority of urban dwellers will continue to live in towns or small cities of less than half a million people, it is also anticipated that there will be an increase in the number of urban centres with a population of 10 million or more over the next few decades. There are currently 19 of these so-called 'megacities', and their number is expected to increase to 27 by 2025 (UN 2008a).

International migration flow projections

As demonstrated in Figure 3.8, the estimated international migrant population has risen considerably over the past 60 years. It has also become increasingly concentrated in the

Figure 3.8. Estimated number of international migrants in less developed and more developed regions

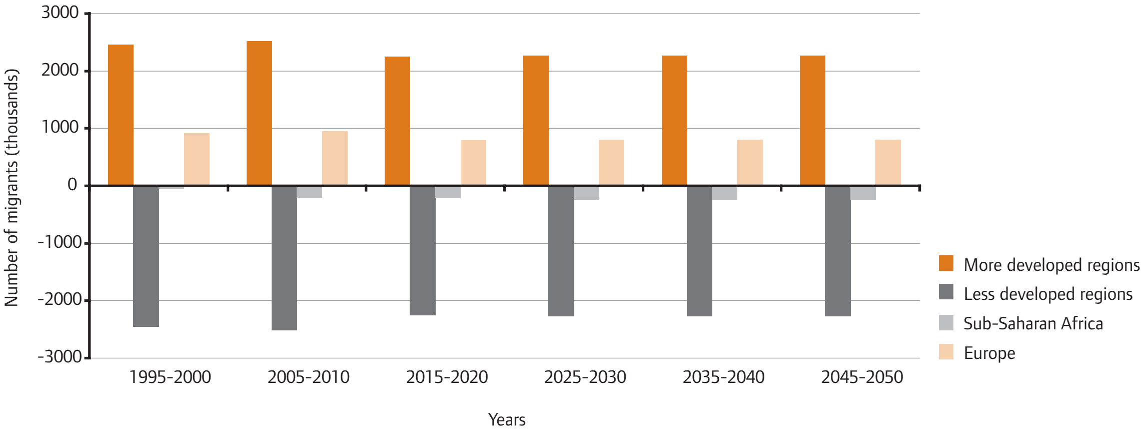


Source: UN 2006

more developed countries. While 57 per cent of all migrants lived in developing countries in 1960, this figure had dropped to 37 per cent by 2005.

Although it is difficult to make accurate long-range projections about the scale and direction of future migration flows, UN demographic statistics suggest that global economic patterns will reinforce the existing trend of high overall migration from developing to developed regions. Between now and 2050, the more developed regions, including Europe, will continue to be net receivers of international migrants, with an average gain of two million per annum (UN 2007). This is demonstrated in Figure 3.9.

Figure 3.9. Estimated average annual net migration in selected regions



Note: net migration is defined here as the total number of immigrants minus the number of emigrants
Source: UN 2007

Demographic change: implications

The demographic trends outlined above suggest a number of geopolitical and security implications.

First, at a very basic level, the growth in total world population, when combined with the speed of growth in some of the larger emerging economies, will put enormous pressure on the world's natural resources. This will apply to energy, food and water and this could be the source of renewed competition and even conflict between states in the years ahead (see next chapter).

Second, the shifting geographic distribution of population looks set to reinforce, in the long term, the process of power diffusion that is ongoing already, partly as a result of globalisation. It is emphasising the shift of power from West to East and is reducing the centrality of Europe to the international system. In the absence of further mass migration, the working age population of Western and Central Europe will start to shrink after 2015, falling from its 2005 level of 317 million people to 261 million by 2050 (Muenz 2007). Data presented in a recent World Bank discussion paper suggests that all (native) adult age groups below the age of 65 will be declining in size in Europe after 2030. Meanwhile around 107 million Europeans will be 65 or older by 2025, and this number will rise to 133 million by 2050 (ibid). This trend of population ageing will put serious pressure on both national economies and the EU labour market as a whole, since it will reduce the available pool of working age people even as it increases the percentage of those dependent on pensions and public health services.

These changes mark a startling reversal from just half a century ago, and highlight the relative decline of Europe in population terms. In 1950, the population of Africa was just a third of the size of Europe's; in 2050 it will be three times its size (Chamie 2007). Indeed, the European population will constitute just 7.2 per cent of the global total in 2050, and the population of the UK within that a mere 0.75 per cent (UN 2007).

Third, the figures also highlight the fact that the vast majority of the human race will, for decades to come, continue to live in difficult and distressing conditions of poverty in the many countries of the developing world. Progress in some of the emerging economies will help, but not on a sufficient scale to overturn this reality. Poverty, as we outline below, remains a serious problem and has security consequences not only as a direct threat to human life in its own right but also as a driver of poor governance and the phenomena of weak states, failed states, and violent conflict within states in many parts of the world.

Fourth, youth bulges may exacerbate some already existing conflict hot-spots. For countries and regions with strong education systems and good employment prospects, having a large cohort of young people can be economically and socially advantageous. But in the Middle East and North Africa, where unemployment rates are higher than almost anywhere else in the world (one in four people under the age of 25 in the region is out of work) and where social and political unrest is endemic, the existence of a large population of educated but unemployed youth is worrying from a security perspective (Barber 2008). As Noland and Pack have observed: 'the region faces a contest between two opposing forces – the demographic pressure to create jobs and the limited capacity of the economy to absorb new entrants productively' (2008: 2). Youth bulges are therefore one of a wider range of 14 conflict and state failure risk factors that we return to in the next chapter of this report.

Fifth, urbanisation will bring new policy challenges – such as those it is already posing to traditional counter-insurgency doctrine – and potentially new vulnerabilities. Urban dwellers tend to be better educated, have higher incomes and enjoy better health than their rural counterparts, and studies carried out by the OECD and UN-HABITAT (the UN agency for human settlements) have suggested that countries with higher levels of urbanisation often have more stable economies and stronger political institutions than those with lower levels (UN 2008b). However, many individuals are unable to benefit from the economic opportunities available in cities, and as urban populations grow larger in the developing world, so too will slum areas and levels of urban poverty. Moreover, as more people move from the country to the city in search of jobs that do not involve manual labour, the numbers employed in agricultural production are likely to fall, which could exacerbate the emerging global food security crisis.

According to research compiled by the UN, 85 per cent of all governments have expressed concern about the potentially negative effects of urbanisation, by which they mean the excessive concentration of national wealth and infrastructure in urban centres, the associated problem of resource depletion in rural areas, and the potential for collapse or heavy strain on urban public health infrastructures. This last worry and the related increased population exposure to possible pandemic diseases are of significance here because of the way in which biosecurity and public health challenges are increasing in importance more generally (see Chapter 5) (UN 2008b).

Sixth, societies are becoming more diverse in places such as Europe, where the Muslim birth rate, for example, is three times the non-Muslim rate, contributing to Islam becoming the fastest growing religion (The Muslim News 2003). As large numbers of skilled and unskilled workers seek to move from developing countries to seek jobs on the continent, moreover, this will become a significant source of additional diversity as well as of population replacement and economic growth for a region that is experiencing declining fertility rates and ageing populations. It may also cause resentment among certain sections of the existing European population and, although certainly not inevitable, could cause challenges in terms of social cohesion.

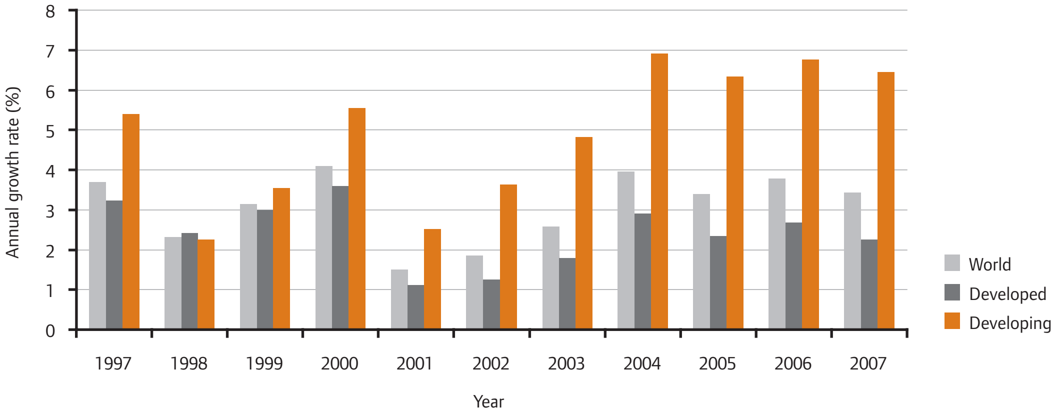
Poverty and inequality

A third set of important drivers in the security environment today, as indicated above, relates to global poverty and inequality. This is despite the fact that some recent progress has been made in reducing rates of extreme poverty for individuals within states and in lessening the level of inequality between states.

Trends

In recent years, the level of economic inequality between states has been declining because the rate of economic growth in low- and middle-income countries (which the World Bank currently defines as having an average GDP per capita of US$11,115 or less) has persisted at around 7.5 per cent – more than double the rates observed in most developed countries (see Figure 3.10).[8]

Figure 3.10: Annual global GDP growth rates



Source: World Bank 2007a

The percentage of people living in extreme poverty in the developing world (which the World Bank classifies as those living on less than US$1 a day) has also been declining. Between 1990 and 2004, this figure fell from 31.6 to 19.2 per cent, or from 1.25 billion to 980 million people in actual terms. If projections of annual per capita income gains in the developing world over the next decade are borne out, this figure could drop further still to 624 million by 2015, which would enable the Millennium Development Goal on halving extreme poverty to be met (World Bank 2008a).

However, such headline figures conceal a more complex overall picture. Reductions in levels of extreme poverty have occurred largely as a result of concentrated growth in the larger emerging economies of China, India, Brazil, Russia and South Africa, as well as in some of the oil-exporting states. Consequently, although poverty rates have fallen significantly in East and South East Asia over the past two decades, little comparable progress has been made in Sub-Saharan Africa, most of Southern Asia or Latin America (see Figure 3.11). There are still, therefore, huge areas of extreme poverty affecting hundreds of millions of people in many states. All 20 states with the lowest scores in the most recent UN Human Development Index rankings, for example, are located in Sub-Saharan Africa. (These are: Eritrea, Nigeria, Tanzania, United Republic of Guinea, Rwanda, Angola, Benin, Malawi, Zambia, Côte d'Ivoire, Burundi, Democratic Republic of the Congo, Ethiopia, Chad, Central African Republic, Mozambique, Mali, Niger, Guinea-Bissau, Burkina Faso and Sierra Leone [UNDP 2007].)

Despite projected long-term growth rates for the international economy (many of which will have to be revised downwards as a result of the developing world recession), it is still estimated that nearly a third of the world's population will be living on less than US$2 a day in 2015. Even the gains that have been made on poverty reduction to date are not secure. Huge numbers of families in developing regions are already suffering as a result of a trend of rocketing energy and food prices (notwithstanding any recent, temporary drop). Robert Zoellick, World Bank Group President, has warned that if urgent global action is not taken, the effect of the current food crisis on poverty reduction worldwide will be 'in the order of seven lost years' (Zoellick 2008, Chalmers 2008). When viewed in this light, the prospect of achieving the Millennium Development Goals (MDGs) by 2015 appears remote at best. A recent report by the World Bank observes, 'most countries are

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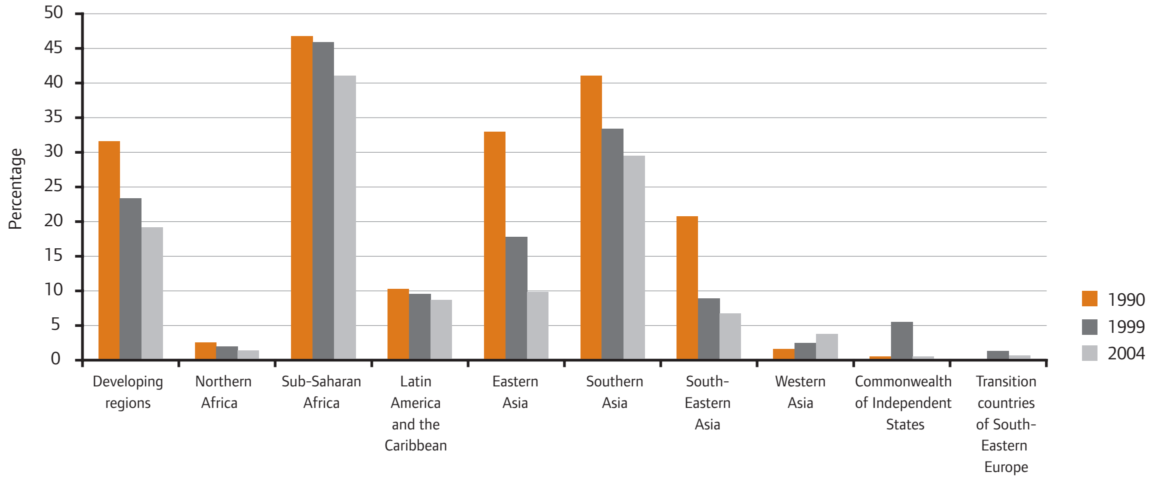
8. Following the classification system of the UN General Assembly, developed regions are defined in this paper as all regions of Europe plus Northern America, Australia, New Zealand and Japan, while less developed (or developing) regions comprise all regions of Africa, Asia (excluding Japan), Latin America and the Caribbean plus Melanesia, Micronesia and Polynesia. A list of the 50 least developed countries can be viewed at: http://esa.un.org/unpp/index.asp?panel=5.

Figure 3.11: Population living on less than US$1 purchasing power parity (PPP) a day

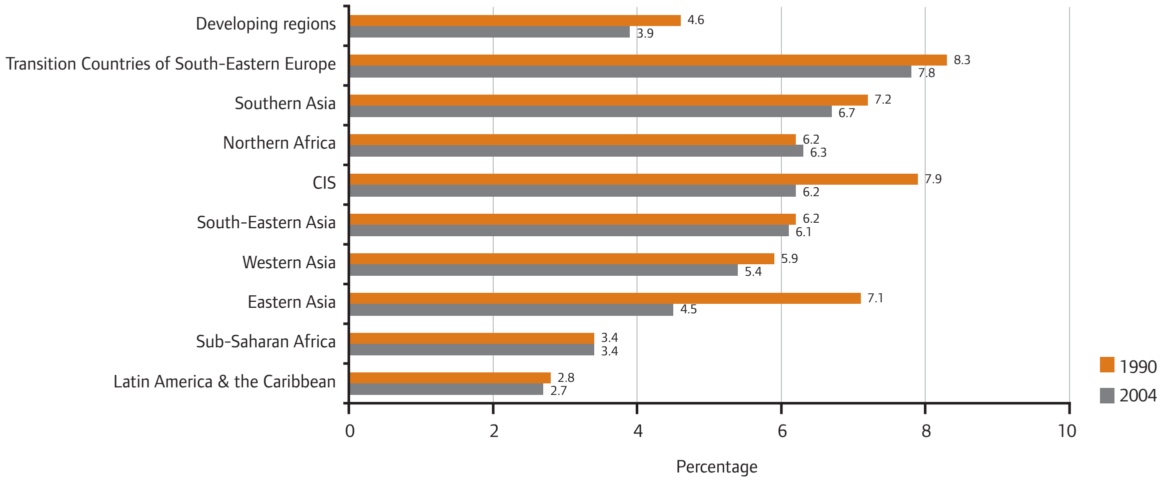


Source: UNDESA 2007a

off track to meet most of the MDGs, with those in fragile situations falling behind most seriously' (World Bank 2008a: xvii).

Levels of inequality within states are also continuing to rise. Although patchy data and diverse national methodologies make it difficult to calculate and compare changes in inequality within states with a high degree of accuracy, a number of credible sources suggest that in all but a few regions, the distribution of income and wealth has become increasingly unequal over the past few decades (see IMF 2007, World Bank 2008a, Chalmers 2008). Between 1990 and 2004, the share of national consumption by the poorest fifth of the population in developing countries dropped from 4.6 to 3.9 per cent. These inequalities are particularly pronounced in Latin America and Sub-Saharan Africa, where the share of the poorest quintile in national consumption is around 2.7 and 3.4 per cent respectively, according to recent estimates (see Figure 3.12).

Figure 3.12: Share of the poorest quintile in national consumption, 1990 and 2004



Source: UNDESA 2007a

Poverty and inequality: security implications

This combination of persistent poverty and worsening levels of income inequality on the scale described (which is only likely to deteriorate in the face of the present global economic crisis) has serious implications for global security for two reasons (Abbott *et al* 2006).

First, although it is not easy to point to a direct line of causality between high levels of poverty and inequality within a country and an increased incidence of violence and conflict, there is some correlation between these factors, and countries characterised by extreme poverty and high levels of inequality are more likely to experience violent conflict than those that are not. Unequal economic development in India over the past few decades may well be a case in point. Growth has not benefited all groups within the country equally, and there is some evidence to suggest that this has fuelled a Maoist insurgency in an arc running from the Nepalese border through the states of Bihar, Chhattisgarh, Jharkhand, Orissa, and Andhra Pradesh (Kanbur 2007: 3-4).

A number of social scientists also argue that horizontal 'between group' inequalities – severe political, economic or social inequalities between culturally defined groups within a country (Stewart 2003) – are particularly potent, since they can often align with income inequalities to fuel crime, feed grievances exploited by extremists, and foment hostility. A recent report from the Royal United Services Institute considers horizontal inequalities to have played an important and sometimes dominant role in 28 of the 32 active conflicts in 2006, such as that between Sunni, Shia and Kurdish groups in Iraq, and the ongoing struggle between Israelis and Palestinians (Chalmers 2008). Other examples of tension and violence provoked by group inequalities and marginalisation include the war between Sinhala and Tamil ethnic groups in Sri Lanka, and past and current armed conflicts in Sudan, Uganda, Burundi, Rwanda and the Democratic Republic of Congo.

Second, while poverty and inequality can feed violent conflict, there is little doubt that the economic, political and social dislocation caused by conflict also often causes poverty and sharpens the inequalities between individuals and groups. We examine some of the dynamics and wider economic and social effects of conflict at greater length in Chapter 4. These clearly show that a poverty-inequality-conflict trap exists, such that poorer and more unequal countries are not only more likely to fall into conflict but once they have done so are likely to become even poorer, more unequal, and more prone to future conflict as a result. This in turn weakens governance capacities in the countries most directly affected and contributes to the phenomenon of weak and failing states.

Climate change

As with global poverty and inequality, and the demographic and globalisation trends outlined above, climate change must now also be regarded as an important shaper and contributor to the future international security landscape.

Climate change: trends

Although the exact long-term rate of climate change will depend to a certain extent on the energy policies adopted by states, on patterns of global economic development, and on rates of population growth in different parts of the world, it is already clear from detailed scientific research and modelling carried out by the UN Intergovernmental Panel on Climate Change (IPCC) that climate change of a very significant scale is occurring (IPCC 2007a).

In 2007, the IPCC released a series of reports providing authoritative data on climate trends. These reports concluded that the evidence showing warming of the climate system was now unequivocal, with 11 of the last 12 years ranking among the warmest years since records began. They also argued that it is *extremely likely* that human activity, particularly agriculture and the heavy use of fossil fuels, has played the determining role in the warming process (IPCC 2007a).

In the short term, and without further government intervention, the IPCC projects that global emissions of greenhouse gases will increase by a further 37 per cent by 2030, and 52 per cent by 2050. This would raise the global temperature by between 1.7°C and 2.4°C compared with pre-industrial levels (OECD 2008). Longer term modelling, through to the end of the century, suggests an even wider range of possible warming scenarios between 1.8°C and 4.0°C (relative to 1990 levels), with mid-range estimates projecting an increase of around 2.8°C (IPCC 2007a). Soberingly, the IPCC also notes that even if emissions were stabilised now, at 2000 levels, the world would continue to warm for many years because of the slow response of oceans and ice sheets to changes in levels of greenhouse gas emissions in the atmosphere.

The impacts are expected to include sea level rise, melting glaciers and polar ice caps, changing precipitation patterns, and increased flooding in some areas and drought in others. These are likely to manifest themselves in different combinations and in different ways in different parts of the world but in just about all regions they are likely to have consequences that are relevant to the security agenda.

Climate change: security implications

The IPCC projects that China will be at great risk from climate change, coming under pressure particularly as a result of water stress in agricultural areas that will arise partly from 'increasing temperature [along with] increasing frequency of El Niño, and [a] reduction in [the] number of rainy days' (IPCC 2007c: 248). China's own first national report on climate change, released in late 2006, also noted these issues and warned of a coming food production crisis, with as much as a one-third decrease of key crop yields to be expected by 2030 (Li 2007). A further worry for the regime must be the country's vulnerability to sea level rise, since many of its highly populated cities are situated along the coast.

The projected impacts of climate change on China may also play a big role in shaping both the character and stability of Communist Party rule in the years ahead. In the last few years, concerns over environmental issues have been a significant feature of Chinese politics, prompting citizens to demonstrate across the country. Much of this has focused on the issue of industrial pollution, but climate change impacts, too, rank highly in the minds of Chinese citizens. A 2007 poll conducted in China by the Chicago Council on Global Affairs and WorldPublicOpinion.org found that 80 per cent of respondents agreed that within 10 years global warming could pose an important threat to their country's 'vital interest' (Chicago Council on World Affairs 2007). Key questions for the Chinese leadership therefore relate to whether it can maintain robust economic growth while responding and adapting to these challenges and whether it can do so to such a degree and at such a pace as to avoid the need for repressive measures. How the regime handles these challenges could have a profound effect on international affairs in the decades to come.

> "The projected impacts of climate change on China may also play a big role in shaping both the character and stability of Communist Party rule in the years ahead"

Warming has significant implications for Russia, too. Flooding there has become a major challenge. The country's hydrological regime is deteriorating as the frequency of both floods and droughts increases. In 2001 the town of Lensk in Yakutia was inundated during the worst floods to hit Siberia for a century. On current predictions, within 10 years there may be catastrophic floods in St Petersburg, with water levels rising as much as three metres (WWF and Oxfam 2008).

However, in northern Russia and its coastal waters, the melting of ice and permafrost is affording new opportunities for oil exploration and transportation. Until now, Russia has derived only limited utility from the fact that it has the longest coastline in the world, as its coastal waters have been frozen for much of the year. With the exception of Murmansk on the Arctic, all major Russian harbours lie on border seas such as the Black and Caspian. But, as Perelet *et al* have observed, 'melting of the Arctic ice cap will prolong both the northern sea and Siberian river navigation seasons, [and] make the Arctic marine route along the Russian coastline navigable most of the year' (Perelet *et al* 2007: 15). This will give rise to the construction of new harbours along Russia's northern coast. The associated increase in shipping – much of it related to increased mineral extraction throughout the entire Russian Arctic region – will raise difficult questions of maritime law and may threaten to destabilise international relations, given disputes among polar nations regarding sovereignty over Arctic waters.

Another area likely to be seriously affected by climate change in the near and medium term is the Himalayan region of Asia (IPCC 2007c). The Himalayan glaciers are the largest body of ice outside the Polar ice caps, occupying approximately 500,000 square kilometres, and they are receding at an alarming rate, far faster than any other glacial area in the world. On current IPCC projections, there is a very high chance they could disappear altogether by 2035 and a virtual certainty that they will shrink by at least 80 per cent to cover only 100,000 square kilometres. This will have the effect of depriving the Indus, Ganges, and Brahmaputra river systems of their main source of water, likely making those rivers seasonal and bringing massive changes in agricultural food production, declining crop yields, and severe water stress. At the same time, rising sea levels will also harm fresh water ecosystems in the many 'mega-deltas' in the region, further stressing agriculture and food supplies dependent on fishing.

It is highly likely that these developments will put stress on Bangladesh to such an extent that the wider stability of South Asia is threatened. The population of Bangladesh is exploding (it is projected to nearly double to 250 million by 2035) even as climate change destroys a significant portion of the country's already limited habitable land, forcing many people to move inland and to seek a stable environment without regard to the region's many contested borders (Barnett 2001). India, which will also face climate stress although not as severe as its neighbour, is already bracing itself for a wave of Bangladeshi environmental migrants by constructing an eight-foot-high iron fence along the 2,100-mile India-Bangladesh border (Joehnk 2007).

Turning to the Middle East, the already complex politics of that region will also be complicated further by what some have described as a new 'hydrological security complex' (Schultz 1995). The Middle East region is home to 6.3 per cent of the world's population but only 1.4 per cent of the world's renewable fresh water (Roudi-Fahimi *et al* 2002). The water that is available, moreover, is concentrated in only a few countries, namely Turkey, Iran, Lebanon and Syria. The complex set of water dependency relationships that exist in the region are set to get worse, with Israel in one of the most vulnerable positions (Campbell *et al* 2007). Israel will have fewer than 500 cubic metres of water per capita per annum by 2025 in a context in which 1,000 cubic metres per capita per annum is considered the minimum reasonable amount for a developed country (Homer-Dixon *et al* 2004). Much of that meagre water supply is also located in politically fraught territory: one third of it in the Golan Heights and another third in the mountain aquifer that underlies the West Bank. This could add further flash-points to the Israeli-Syrian and Israeli-Palestinian relationships and water scarcity in general could become a significant new driver of tension and conflict in the region (Bitar 2005).

"Higher temperatures and lower and more seasonal rainfall will also place up to 250 million more people in Africa under severe water stress by 2020"

Higher temperatures and lower and more seasonal rainfall will also place up to 250 million more people in Africa under severe water stress by 2020. This will affect the East, West and North of the continent, with North Africa suffering a rapid and severe decline in potable water, possibly by as much as 50 per cent by 2050. East Africa will likely see up to 20 per cent more winter rain causing flooding and soil erosion, while at the same time the summer months will be significantly dryer, resulting in severe droughts and additional stress on agricultural regions (Case 2006). Agricultural production makes up nearly half of East Africa's GDP and employs four out of every five workers in the region. Any loss in so vital an economic sector could have devastating consequences on the region's overall economic and political development (ibid). West Africa, for its part, is already suffering a severe problem of desertification: approximately 1,350 square miles of Nigerian land turns to desert each year, uprooting farmers and herdsman and causing internal migration towards coastal areas (Podesta and Ogden 2007). As a result, by 2020, migration in the region will create a West African urban sprawl of 50 million inhabitants that extends from Accra in Ghana across the breadth of the Niger River delta, though even this relief will be temporary for those concerned since the entire area is also at major risk from sea level rise (McCarthy 2006).

This set of developments in some of the world's poorest regions may well add further stress to the existing conditions of poverty and conflict described in earlier sections. Climate events themselves are likely to claim human lives on a very significant scale but migration flows are also likely to be a further factor overwhelming the capacity of state authorities to respond in a number of areas. This may be a particularly acute problem in East Africa, where the concentration of weak or failing states is already high and numerous unresolved political disputes characterise the region. In short, climate change may be a significant driver of further state failure in Africa.

Moving closer to home, many of the climate pressures and impacts described above point to significant additional international migratory pressures, possibly elevating the trends and effects already expected and presented above. It cannot be assumed that these flows of people will stay within the regions most directly affected. Indeed, it is highly likely that some of these flows of people will be directed towards the European Union and the UK in particular. British colonial and family ties to South Asia, for example, mean that flows from Bangladesh and the surrounding area must be anticipated. Water stress, massive population displacement and the ongoing mix of conflict and poverty in Africa will also mean that Southern Europe grows as an EU entry point of choice for many seeking to escape the harsh difficulties of life in Africa. If entry is refused or highly restricted, the potential for growing political resentment will rise.

Two further observations can be made regarding our response to climate change. First, failure to adapt to its consequences is by no means confined to developing nations, as was tragically demonstrated when Hurricane Katrina hit New Orleans. Second, the mitigation of climate change and its implications may itself pose problems in terms of maintaining our energy security, a subject we explore in Chapter 6 (see Taylor 2008).

Scientific and technological change

We now turn to examination of the swift advances in science and technology in recent years and the extent to which we have become a technology-rich, technology-driven, and technology-dependent society. This encompasses advances in physics, nanotechnology, information and communications technology (ICT) and the biotechnology revolution.

Here, we concentrate primarily on biotechnology and on advances in ICT, outlining some of the most important developments before going on to examine the security implications of the changes underway. We focus on biotechnology because while the security environment of the 20th century was dominated by physics, it is likely that that of the 21st century will be dominated by advances in the biological sciences and their applications (Daschle 2008). We focus on ICT because it sits at the heart of much else that is going on, including globalisation and its power-diffusing effects, and because our reliance on it, as well as bringing enormous benefits, is exposing us to new vulnerabilities.

Science and technology: trends

Advances in the biological sciences, though controversial, have the potential to transform many areas of human life and to offer solutions to many of the problems and pressures we have described already in this chapter.

In the field of human health we have seen the great scientific venture in the attempt to map the human genome: to analyse the order, chemical characteristics, spacing and function of the more than 23,000 genes on human chromosomes (Shapiro 2008). As progress is made in this field, medical applications are starting to emerge. Among these so far have been new tests for genetic predispositions to breast cancer, cystic fibrosis, and liver disease. In the near future, according to the US National Institute of Health, stem cells may become a 'renewable source of replacement cells and tissues to treat Parkinson's and Alzheimer's diseases, spinal cord injury, stroke, burns, heart disease, diabetes and more' (Shapiro 2008: 307). British scientists have already used stem cells from umbilical chords to grow small versions of the human liver in their laboratories and it is hoped that by 2020 this technology will have advanced to the stage at which new livers can be grown for transplant (MacRae 2006).

These developments in medicine are paralleled by others in agriculture and energy. In agriculture, despite the political resistance of some countries to the genetic modification of crops, it appears highly likely that strains of 'golden rice' high in beta-carotene will soon be introduced in some developing countries where populations suffer from severe vitamin A deficiencies. Dr Norman Borlaug, one of the architects of the agricultural revolution of the 1960s, has also argued that genetically modified food sources could be crucial to feeding the world's rapidly expanding population in the decades ahead (Shapiro 2008). In energy, agri-biotech applications (and particularly biological fuel sources) have also become a priority research area in recent years, as the world looks for ways to respond to climate change and, for both environmental and political reasons, to reduce its dependency on fossil fuel supplies from potentially unstable regions.

These developments have stimulated considerable growth in the biotechnology industry. A recent report by Ernst & Young – who define biotechnology companies as those that use biological processes to develop products or services for human and animal health care, agricultural productivity, food-processing, renewable resources, industrial manufacturing or environmental management – recorded a huge leap in the profits of biotechnology companies in 2006: the revenues of public listed companies rose 14 per cent from 2005 levels to reach almost US$73.5 billion globally (Ernst & Young 2007). If this rate of growth continues, biotechnology is set to become a US$100 billion dollar industry by 2010.

Much of this biotechnology revolution has itself been built on the back of advances in ICT as well as advances in scientific knowledge: increases in computational power and advances in software, for example, have been required to make quick progress on endeavours such as the human genome project.

ICTs, in turn, have themselves been changing very rapidly across an even wider front spanning a converging set of technologies in microelectronics, computing (hardware and software), telecommunications, broadcasting, and optoelectronics (Castells 1996). In addition to facilitating scientific advance, progress in each of these areas over the last four decades has made possible major leaps forward in networking and transmission technologies (such as those seen in the development of satellites, fibre optic cable technology, the electronic switchers and routers that allow traffic to flow over the internet, and in the use of radio spectrum for digital cellular telephony). Exponential growth continues in performance per unit cost across all the key areas of processing, storage and communications too, facilitated by the miniaturisation and increasing power of micro-chips, which have been doubling in power (for a given price) about every 18 months for many years now. These combined advances have transformed the speed and ease of human communication and have ushered in a near instantaneous and truly global communications environment that has been central to globalisation itself.

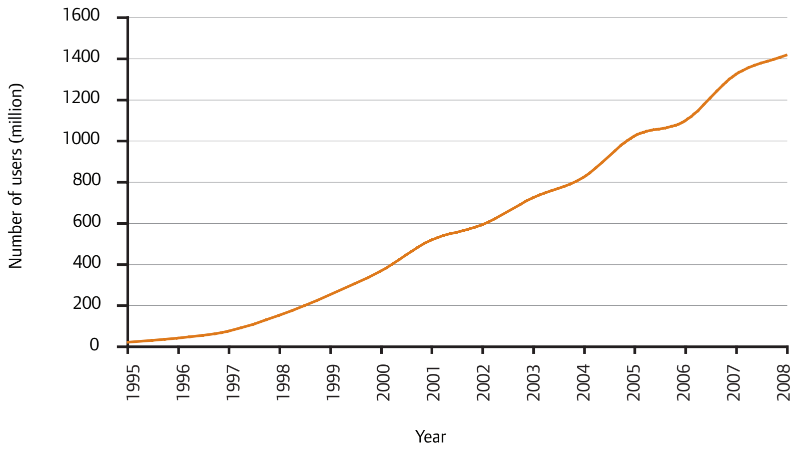
Take-up of the new technologies involved has been rapid. In 1990 there were approximately 530 million fixed or mobile telephone subscriptions but by 2004 there were almost 3 billion (ESRC 2007). Much of this increase has occurred via mobile technology with whole developing countries effectively choosing to leapfrog the development of an old fixed line infrastructure in favour of the straight adoption of mobile. There has also been explosive uptake of the internet, with recent estimates suggesting that more than a fifth of the global population is now connected (see Figure 3.13).

In addition to making information and knowledge easier to acquire, and the empowerment of individuals, groups, businesses and governments through its use, ICTs have become far more embedded in the structure of our societies and have increased the complexity of the infrastructure upon which modern society depends.

Satellite communications and imaging technology, for example, are essential for secure inter-governmental communication and military coordination, particularly in relation to maritime and aviation security. Satellite-based navigational data is utilised by the military in weapons systems and surveillance capabilities, and in civilian communication systems related to transport systems, weather forecasting and environmental monitoring. Telecommunications between satellite ground stations also function as backup for land-based communications such as mobile technology, emergency services and media broadcasting.

In addition to forming the backbone of the communications infrastructure upon which we all rely, ICTs are now also heavily embedded in the running of more traditional and

Figure 3.13: Numbers of internet users, 1994-2008



Source: Internet World Stats 2008

familiar infrastructures, playing important roles in the management of water, power and transport systems to name just a few. The significance of this is all the greater when one considers the extent to which we have become an infrastructure-reliant society more generally. Over the last decade, companies around the world have taken steps to adopt a lean approach to business operations. Moving to 'just in time' manufacturing and delivery, squeezing out stock, removing warehousing and intermediaries, and shedding excess staff are all developments that have been seen as central to competitive edge in a global economy. At a consequence, the supply chains of businesses, including British businesses, have become globally stretched. This has increased efficiency but it also comes with a downside in terms of an increased reliance on a smoothly functioning set of infrastructures in energy, transportation and communications (Norton 2008). In other words, the more efficiently we operate, the less slack there is in the system to cope with major disruption.

Scientific and technological change: security implications

All of this is of great importance to us here for several reasons.

First, our reliance on ICTs while bringing enormous benefits, not least for security (in the form of data mining, pattern recognition, radio frequency identification [RFID] technologies, terahertz devices, light detection and ranging [LiDAR], and intelligence motes), has also exposed developed societies to new points of infrastructure vulnerability and new kinds of malicious act. Some of these have been visible in the Titan Rain campaign of coordinated cyber-attacks on US computer systems since 2003 and in the Estonian Cyberwar of April-May 2007. We return to these issues in later chapters in discussions of cyber-crime and cyber-terrorism and in a discussion of threats to our satellite-dependent society from both the possible militarisation of outer space and the further development of weapons or tactics capable of disrupting space communications. Additionally, as the army transformation debate in the US in recent years makes clear, it is possible that new military vulnerabilities might emerge as a result of over-reliance on high-tech weapons systems and command and control.

Biotechnology for its part, while promising to deliver significant medical, agricultural, and energy advances, may not be benign in all its applications, given that we live in a world where biological weapons have already been used. An important report by the British Medical Association in 2004 observed that our awareness of the need and practical ability to prevent the manufacture and release of harmful biological agents has not kept pace with scientific developments.

There is a basic difficulty over what to do with the research data and scientific knowledge already available. As technical data about the genome structure of viruses and bacteria becomes much more widely available for legitimate research purposes, for example, there is a significant danger that this information will be appropriated and misused by those with hostile intentions (British Medical Association 2004).

As if to make the point, in 2005 the United States Department of Health and Human Services published the full genome of the 1918 influenza virus on the internet in the GenBank database. While it was argued that sharing knowledge about the rapid spread of the virus could aid scientists in developing solutions to the threat of new global pandemics such as avian flu, critics observed that this genome is ‘essentially the design of a weapon of mass destruction’, since it could be used to modify an existing flu virus so as to dramatically increase its deadly effects (Kurtzweil and Joy 2005).

More widely, scientific research advances themselves are also potentially very dangerous.

For example, researchers from the State University of New York at Stony Brook were successful in 2002 in producing a synthetic version of the polio virus, leading to fears that the application of similar techniques could result in the creation of something like the Ebola virus or smallpox. In the same year, it was reported that research into the human immune response to *Variola major*, the cause of smallpox, had resulted in the creation of enzymes that could effectively inhibit proteins in the body that recognise and attempt to destroy it. This research was part of a wider effort aimed at finding more effective therapeutic responses to smallpox, should it ever reappear. But there is also a risk that it could assist those interested in deliberately re-engineering the smallpox virus in order to turn it into an even more deadly bio-weapon (British Medical Association 2004).

In short, without more effective regulation and control of biotechnology research, there is a serious threat that ‘the same science that may cure some of our worst diseases could also be used to create some of the world’s most frightening weapons’ (CIA 2003: 1).

Summary of Chapter 3

In this chapter, we have reviewed a wide range of interlocking trends and drivers of relevance to today’s security landscape and have pointed to the security challenges that either do or may flow from each of globalisation, poverty and inequality, demographic change, climate change and developments in science and technology.

> “A historic shift of power from West to East is underway… and we appear to be moving back into a multipolar world”

A historic shift of power from West to East is underway, partly facilitated and accelerated by several of these trends, and we appear to be moving back into a multipolar world, a tendency that may be accelerated by the effects of the current global financial crisis, particularly if one of its effect is a loss of American confidence and some turning inward on the part of the American people. Within this broader shift, and partly as a result of it, states endowed with large and exportable fossil fuel reserves in a world of tight energy markets are able to increase their wealth and influence accordingly. Russia, on the back of this trend, is becoming more assertive, though there have been recent signs of hesitancy in Moscow as oil prices have diminished with the emerging economic downturn.

We have commented, too, on the rise of non-state actors, their increased organisational reach, and the increased level of threat that some of them are now able to pose, and we have described some of the ways in which persistent and large-scale poverty, inequality, and violent conflict interact.

Demographic change and climate change, as well as interacting with and feeding off each other, are both likely to reinforce some of these wider trends in the long term, contributing to shifts in power, a tightening of markets related to basic resources, and the stoking of further conflict pressure in the international system. While science and technology have been advancing at a truly extraordinary pace, bringing new hope and new tools to aid humanity in meeting the challenges ahead, each, too, has also been noted as a source of new vulnerabilities and new potential threats.

In the remaining chapters of Part 2 we analyse the security environment created by these trends and drivers in greater depth. In Chapter 5, we focus explicitly on the threats

4. Competition, conflict and state failure in the international system

While some analysts believe that the trends outlined in the previous chapter, in particular economic globalisation, point to a fundamentally new context in which major power competition, mutual state distrust, and interstate conflict will inevitably give way to deepened forms of multilateral cooperation, it is far from clear that this is going to be the case. We may wish it, and we certainly should work for it, but we need to do so with a realistic outlook.

Wider evidence on ongoing conflict and its effects is a cause for grave concern. Much of the conflict ongoing today, while occurring within and not between states, is contributing to, but also partly being driven by, a severe and growing problem of state weakness and failure: just about all failed states are experiencing serious political violence of one kind or another on their territories. Moreover, a large number of conflict and state failure risk factors are converging on particular regions and states of concern, creating what might be termed 'swing states' or pivotal points in the wider struggle for international peace and security.

In this chapter, we review some of the trend data on current patterns of violent conflict and their effects, and assess the scale of the profound problem of weak and failing states. We also present data on the locations in which a variety of conflict and state failure risk pressures are converging and analyse the remaining causes for concern in relation to possible renewed inter-state competition and conflict in the years ahead.

Note that all available trend data on violent conflict has to be treated with some caution. Different datasets use different coding regimes, there are variations in the way dividing lines are drawn between politically motivated violence and violent crime and much relevant data is unavailable or goes unreported. In this section of our report we use data from the Uppsala Conflict Data Program as this is clearly coded and covers a reasonably long time period, allowing trends in the data to be observed.

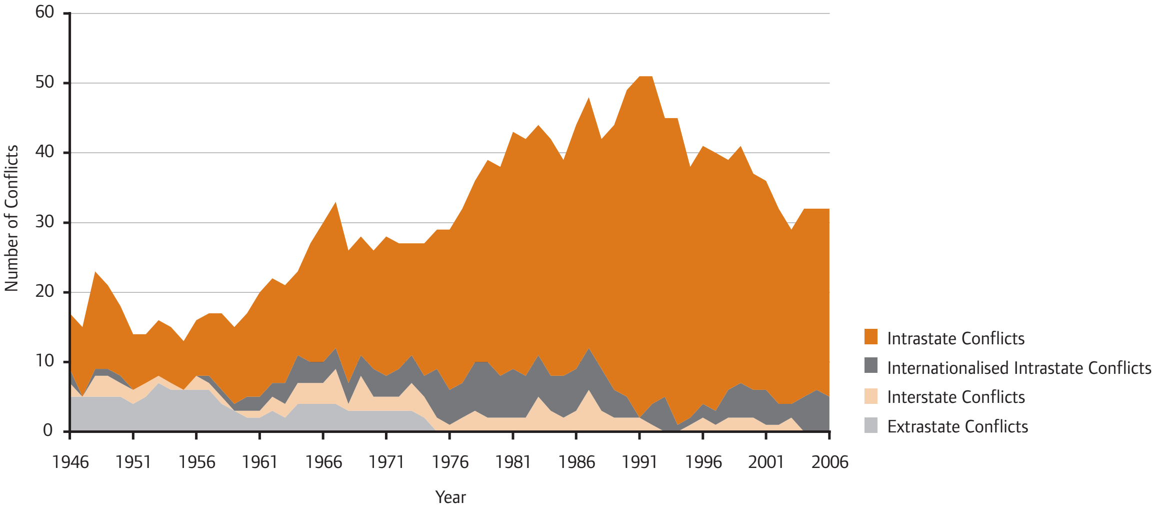
Changing patterns of violent conflict

To take the good news first, while the period 1946 to 1990 saw steep if uneven increases in the number of state-based violent conflicts, the period since then has seen a dramatic, if uneven, decline (Human Security Report Project 2007). (State-based violent conflict is a 'contested incompatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths' [Uppsala Conflict Data Program 2008].)

Figure 4.1 presents the trend data on state-based violent conflict for the period 1946 to 2006. Just about all of the conflicts ongoing today, in which at least one of the parties is the government of a state, are occurring within states rather than as classic confrontations between states. (It should be noted that both Iraq and Afghanistan, which many may consider as interstate conflicts, are classed by UCDP as internationalised intrastate conflicts.)

This declining trend in conflicts in which at least one party is a government is reflected in three further trends. First, there has been an increase in the number of conflict terminations, relative to the number of conflict onsets. As Figure 4.2 shows, for the three decades between 1960 and 1990, the number of state-based armed conflicts beginning outweighed the number of conflicts being terminated. Since 1990, however, this trend has been reversed with the number of conflict terminations outweighing the number of new armed conflicts commencing.

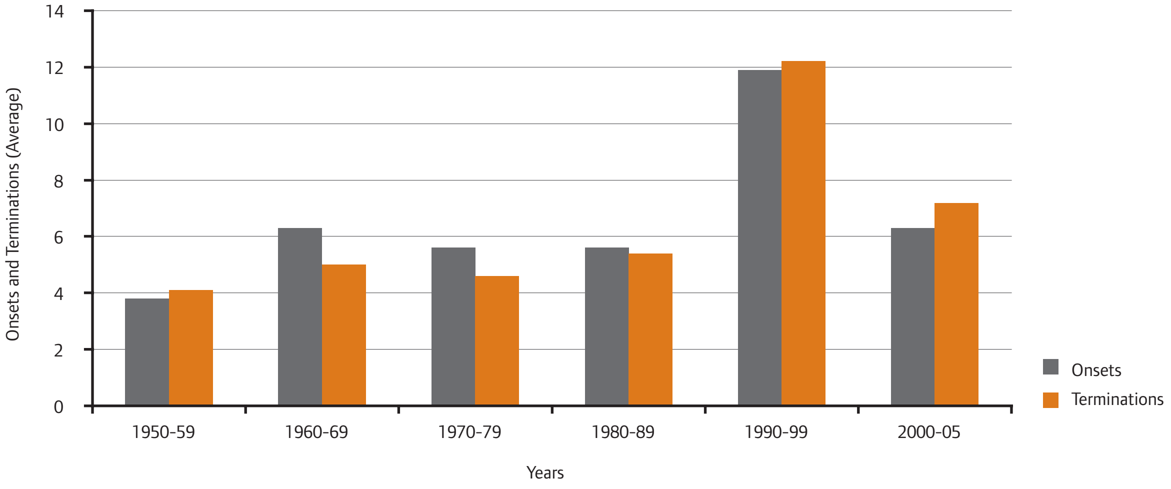
Figure 4.1: State-based armed conflicts by type, 1946-2006



Notes: *Internal/intrastate conflicts*: conflict occurring between the government of a state and one or more internal opposition groups without intervention from other states; *Internationalised internal/intrastate conflicts*: conflict occurring between the government of a state and one or more internal opposition groups with intervention from other states (secondary parties) on one or both sides; *Interstate conflicts*: conflict occurring between two or more states; *Extrastate/extrasystemic conflicts*: conflict occurring between a state and a non-state group outside its own territory. (See UCDP/PRIO 2007)

Source: Human Security Report Project 2007

Figure 4.2: Average number of state-based armed conflict onsets and terminations per year, 1950-2005

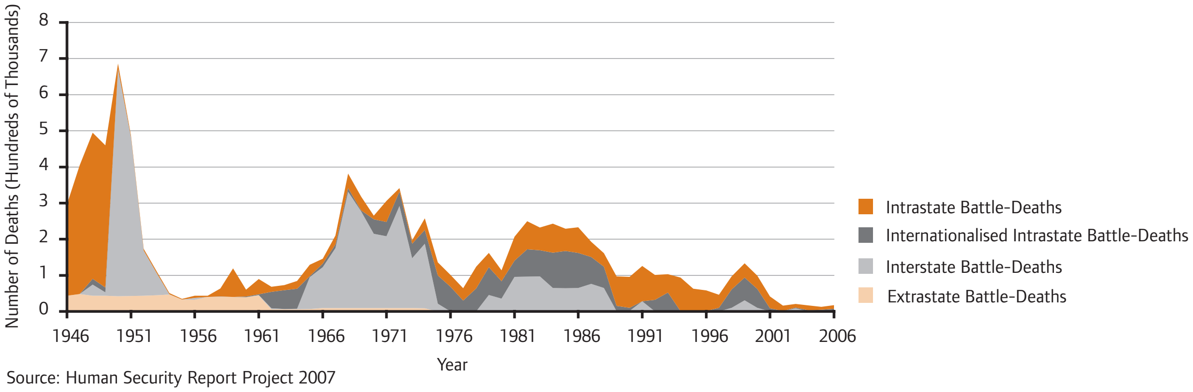


Source: UCDP/Human Security Report Project Dataset, Human Security Brief 2007

Second, the method of termination has also shifted. In the period 1950-1999 the number of state-based conflicts being terminated by a victory of one party or another to the conflict outweighed the number of conflicts being terminated through a negotiated settlement. However, since 2000 there has been a dramatic reversal in these numbers, with 17 conflicts being terminated by negotiated settlement between 2000 and 2005 and only five being terminated by a victory of one side or the other (Human Security Report Project 2007). Though the data is recent and still emerging, and firm conclusions therefore difficult to make, early indications are that conflict terminations achieved through negotiation are also becoming more durable than victories. Of the 17 state-based armed conflicts ended by negotiation between 2000 and 2005, only two restarted in less than five years, representing a re-start rate of 11.8 per cent. Of the five conflicts terminated by a victory in the same period, one re-started in less than five years, representing a re-start rate of 20 per cent.

Third, the number of reported battle deaths from state-based violent conflict, as presented in Figure 4.3, has also declined dramatically, since the late 1980s, as has the average number of battle deaths incurred per conflict per year. In 1950, the average state-based conflict killed 38,000 people. By 2006 this number had shrunk to just over 500 (Human Security Report Project 2007).

Figure 4.3: Number of reported battle deaths from state-based armed conflicts by type, 1946-2006

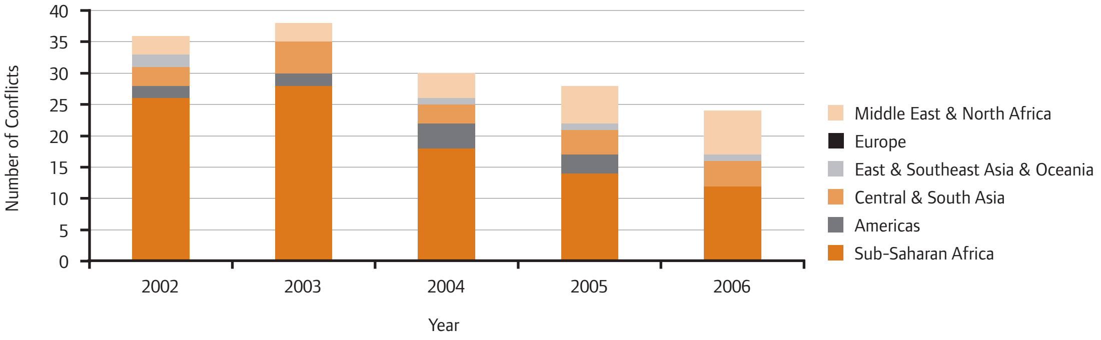


Source: Human Security Report Project 2007

The positive data on state-based conflict is matched by positive developments on conflict between non-state actors in recent years (although data on such conflicts has only been collected systematically since 2002). Non-state conflict is 'The use of armed force between two organized groups, neither of which is the government of a state, which results in at least 25 battle-related deaths in a year' Uppsala Conflict Data Program (2008).

Figure 4.4 shows a breakdown of non-state armed conflicts by region, for the years 2002-2006. In addition to capturing the overall decline in non-state conflict numbers, the data also indicates that Sub-Saharan Africa is the major centre of non-state armed conflict globally, with more conflicts ongoing in each of the last four years in that region than are ongoing in the rest of the world as a whole. Even within Sub-Saharan Africa, however, the number of non-state armed conflicts declined by 54 per cent between 2002 and 2006, helping to drive down the total number of such conflicts globally from 36 in 2002 to 24 in 2006.

Figure 4.4: Number of non-state armed conflicts, 2002-2006

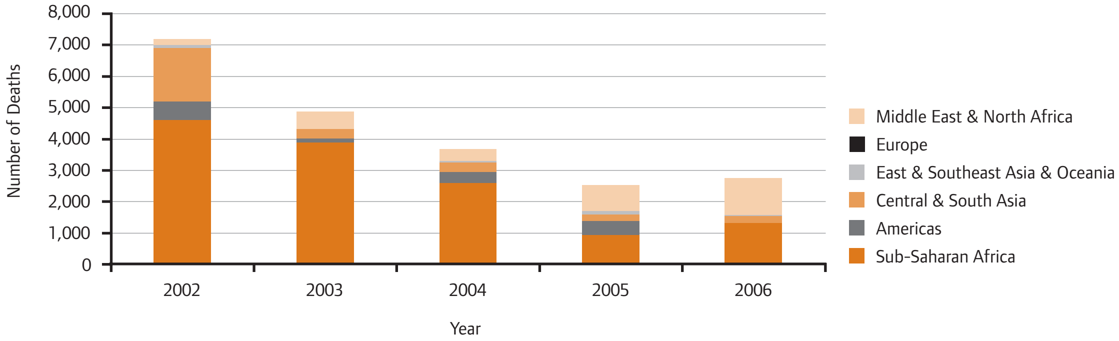


Source: Human Security Report Project 2007

This decline in the number of non-state armed conflicts is matched by a decline in the number of reported battle deaths from this kind of conflict. Figure 4.5 shows a 62 per cent decline in battle deaths in non-state armed conflict between 2002 and 2006, and also how low the total number of battle deaths in non-state armed conflict is overall.

While state-based conflicts killed an average of 17,000 people per year between 2002 and 2006, the number of battle deaths in non-state conflicts amounted to less than a quarter of that, with total reported deaths globally being under 4,000 in each of the years between 2004 and 2005.

Figure 4.5: Reported battle deaths from non-state armed conflicts, 2002-2006



Source: Human Security Report Project 2007

These apparently positive trends in relation to both state and non-state conflict appear to reflect a number of other underlying developments. The drop-off in overall conflict numbers since the early 1990s and the increase in the numbers and durability of negotiated settlements, is attributed by many to the end of the Cold War and its superpower ‘proxy wars’ as well as to an upsurge in international activism in the field of conflict resolution, stabilisation and post-conflict reconstruction (Human Security Report Project 2005). The UN alone has seen its troop deployments increase by over 500 per cent between 2000 and 2005, and as of 31 December 2006 it had a total of 80,368 troops, police and military observers in the field (Center on International Cooperation 2007).

Positive though all of these developments may be, however, it is also important to sound a note of caution. Even assuming that the data presented above offers an accurate account of what is actually going on in terms of conflict patterns and battle deaths (and as noted at the outset of this section, there are methodological question marks in relation to all such data), this still does not capture the full picture in relation to violent conflict. While the data is valuable and important, it should not mask the fact that the costs and casualties of conflict involve more than battle deaths, nor the fact that pressures towards conflict are far from declining and, if anything, are increasing in many respects, as we show later in this chapter.

The true costs of conflict

The measured overall decline in state-based violent conflicts is in large part due to the sharp decline in the number of such conflicts in Sub-Saharan Africa from 13 in 2000 to just seven in 2006 (Human Security Report Project 2007). This has brought the global number down because in 2002, 40 per cent of the world’s state-based violent conflicts occurred in this region. Other regions, however, have a less upbeat story to tell. Some of the decline in Sub-Saharan Africa has been offset by net increases in the number of state-based violent conflicts in both Central and South Asia and in the Middle East and North Africa. Central and South Asia went from seven such conflicts in 2002 to 10 in 2006 while the Middle East and North Africa saw an increase from four to seven conflicts over the same period.

Moreover, the numbers of conflicts ongoing, and the number of battle deaths associated with them (for both state and non-state based violence), do not capture the wider character, costs and impacts of violent conflict.

One dimension of the changing character of conflict relates to campaigns of one-sided violence: ‘the use of armed force by the government of a state or by a formally organized group against civilians which results in at least 25 deaths in a year’ Uppsala

Conflict Data Program (2008).[9] Between 1989 and 2004 the number of campaigns of one-sided violence increased from 19 to 38 cases, in 2004 surpassing the total number of state-based armed conflicts for the same year (Human Security Report Project 2007). Although the data for 2004 to 2006 show a decline in campaigns of one-sided violence, at 26 the number of such campaigns ongoing in 2006 was still at one of the highest levels registered over the last two decades. It is clear, on this basis, that over this period the targeting of civilians has become increasingly prevalent. (The number of casualties from such violence is very difficult to ascertain, however, and without details on the perpetrators there is no way of distinguishing politically motivated violence from criminal violence. See Human Security Report Project 2007.)

The effects and impacts of violent conflict also go well beyond the number of battle deaths, of course. A recent report from the International Rescue Committee (IRC) on the Democratic Republic of Congo, for example, estimates that 5.4 million excess deaths have occurred in that country as a result of more than a decade of armed conflict since the late 1990s. Most of these deaths are thought to have been caused by infectious disease and malnutrition, and by neo-natal and pregnancy-related conditions. The wider effects of violence there also include widespread social and economic disruption, collapsing health systems, low food security and population displacement. Of the 5.4 million deaths, some 2.1 million are estimated to have died since the formal end of the war in 2002. Children made up 47 per cent of the dead, despite representing only 19 per cent of the total population. Only 0.4 per cent of the deaths in the most recent IRC survey period are thought to have been the direct consequence of violence (International Rescue Committee 2007).

While the scale of these estimated excess death figures for the DRC shows the crisis in the country to be one of the deadliest anywhere in the world since the end of World War II, the wider story they tell is not specific to that country. Three years after the decade-long conflict in Sierra Leone, for example, a study concluded that the average crude mortality rate in four rural districts surveyed was nearly four times higher than the Sub-Saharan baseline. Similar findings have been made in relation to indirect conflict effects in Angola, Liberia and southern Sudan. One wider study of 51 countries affected by armed conflict also shows a strong link between conflict and the risk of death and disability for years after the violence has ended (see Médecins Sans Frontières 2006, Sapir and Gomez 2006, Becker *et al* 1993, Ghobarah *et al* 2004).

A further major effect of conflict within countries relates to population displacement. In 2007, the estimated number of people internally displaced as a result of conflict and violence exceeded 26 million for the first time since the early 1990s (Internal Displacement Monitoring Centre and Norwegian Refugee Council 2008). This global total affected 52 countries around the world, though only three, Sudan (5.8 million), Colombia (4 million), and Iraq (2.5 million) accounted for almost half of the global total. Africa was the region hardest hit, itself accounting for nearly 50 per cent of the global total, with the high figure in Sudan being added to by heavy concentrations of displaced people in the Democratic Republic of Congo (1.4 million), Uganda (1.3 million), Somalia (1 million) and Zimbabwe (570,000) (Internal Displacement Monitoring Centre 2008). Outside Africa, the region with the largest relative increase in the IDP population in 2007 was the Middle East, where a rise of almost 30 per cent occurred, primarily as a result of the security situation in Iraq (Internal Displacement Monitoring Centre 2008).

These numbers highlight human vulnerability and suffering on a tragic scale. Internally displaced people often have limited or no access to the basic necessities of life such as food, water and shelter, and they often also suffer appalling violations of their human rights through attacks, detentions or arrests with no reference to any due process of law. Women and girls among the internally displaced population are exposed to rape and exploitation while children often lose any educational opportunities they may have had and become increasingly vulnerable to recruitment to armed groups. Added to this is the heightened risk that internally displaced populations face from infectious disease as a result of the often squalid conditions in many internally displaced persons (IDP) camps. In the camps of DRC's Northern Kivu province, for example, outbreaks of cholera and other water-borne diseases are routinely recorded and rapidly spread among inhabitants (IRIN 2008). And with infectious disease spreading so quickly within IDP camps, there is the very real risk that it may also be transmitted to those outside camps as IDPs return to their homes or are forced to move to other camps in order to avoid conflict and persecution.

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[9] This definition excludes civilians killed in bombing raids against military targets, or those killed in combat crossfire, which are counted in the battle death tolls described earlier in this section.

The economic consequences of all this are huge. A World Bank report in 2003 noted that: 'By the end of the typical civil war incomes are around 15 per cent lower than they would otherwise have been, implying that about 30 per cent more people are living in absolute poverty' (Collier *et al* 2003). Furthermore, the economic impacts of violent conflict continue well after the fighting has ended. In many cases there are long-term consequences in terms of increased expenditure on arms and possible regional arms races, and also a damaging pattern of capital flight, all of which limit post-conflict economic growth.

Not surprisingly, given the scale of death and disruption associated with conflict, the consequences are rarely contained in one country. All too often there are serious spill-over effects both regionally and in relation to specific neighbouring countries, as mercenary groups, small arms and light weapons, and displaced people cross borders, often with violent or politically destabilising results. The interconnected conflicts in West Africa over the past decade – in Liberia, Sierra Leone, Guinea, Cote d'Ivoire, Guinea Bissau and Senegal – are a prime example of how instability in one country can affect the stability of others. During the war in Sierra Leone, for example, it is well documented that the Revolutionary United Front was receiving arms from both Charles Taylor's regime in Liberia and from Burkina Faso (Ero and Ndinga-Muvumba 2005). Moreover, in unstable regions, rebel groups are prone to cross national borders in order to find safe-havens in neighbouring countries, often leading government forces to follow suit, thus spreading conflict across borders (Chalmers 2008). A stark example of this has been in southern Sudan, where Ugandan Government troops have entered that territory in pursuit of the rebel Lord's Resistance Army.

Spill-over effects as a result of large-scale displacement have been particularly visible from the conflict in Iraq, with an estimated 2.5 million Iraqi refugees displaced into neighbouring countries, the majority to Jordan and Syria, with potentially serious consequences (see Box 4.1 for note on disputes over refugee figures). In Jordan, the large-scale influx of Iraqis has put additional strain on the already fragile political and demographic makeup of the country and has increased the population pressure on vital but scarce natural resources such as water. The regime in Amman has responded nervously, tightening internal security and border controls while expressing fears over Iraqi terrorism and concerns that Shiite refugees could become a Trojan horse for influence from Iran. All this occurs against the backdrop of the still scarring experience of internal violence in 1970, following large-scale Palestinian refugee inflows linked to the Israeli-Palestinian conflict.

In Syria, the inflow of Iraqis has impacted differently but nonetheless seriously, with the main effect being a significant worsening of social tensions. Pressure on housing has become acute, leading to inflation in housing costs and the pricing out of many of

Box 4.1. Measuring refugee numbers

There is a major dispute over the numbers of refugees present in the countries neighbouring Iraq as a result of the conflict there. This is partly because the term 'refugee' is being used loosely in this case. 'Technically, a person qualifies as a refugee only if determined by the UNHCR to have a well founded fear of persecution for reasons of race, religion, nationality, membership of a particular social group, or political opinion.' (International Crisis Group 2008: 3)

Perhaps more significant are the practical and political issues associated with the accurate measurement of refugee numbers. In both Syria and Jordan the authorities have not had the capacity to accurately keep track of those entering and leaving the country. There can also be political incentives to inflate the numbers involved (to secure additional international assistance or to use management of a large-scale refugee problem as leverage in negotiations on other issues) and incentives to minimise the numbers (to manage internal tensions that may grow as a result of the refugee presence).

Despite disputes over the exact numbers, however, all concerned agree that refugee flows out of Iraq have been huge, with serious consequences for the countries receiving them.

Syria's urban poor from the housing market. Furthermore, competition in the labour market has increased, just as the government has been forced to scale back increasingly costly subsidies designed to ease pressure on the poor.

Beyond the problems associated with large-scale refugee flows and their effects, spill-over also occurs in the form of economic disruption to those countries adjacent to conflict zones. Not only are growth rates reduced, but neighbouring countries often increase their military expenditure in an attempt to manage perceived increases in insecurity.

Given this range of consequences it is all the more concerning that in 2006 there were around 29 countries experiencing conflicts (UCDP/PRIO 2007), affecting over 2.5 billion people (United Nations Statistics Division 2008) directly or indirectly, and potentially affecting upwards of 50 neighbouring states.

Weak, failed and collapsed states

These current patterns of conflict are visible within the context of an already very serious and visible problem of state weakness and failure in the international system.

First, a brief definition of the terms. In using the labels of weak, failed and collapsed states here, we are drawing explicitly on the framework set out by Robert Rotberg (see Rotberg 2004: 1-49). This framework assumes the main functional role of states to be the provision of a range of public or political goods and services to the citizens inhabiting their territories. Such goods and services might include the provision of security, opportunities for citizens to participate in the political process, medical services, transport infrastructure and so on. Strong states perform well in just about every area. Weak states perform well in some areas but badly in others. Failed states perform badly in just about all areas and are more often than not characterised by high levels of internal violence. Collapsed states, extreme forms of failed state, are places in which there has been a complete collapse of formal authority and in which sub-state actors fight for control.

Over the last 95 years, we have moved from a world of 55 states to one of over 200, through processes such as the decolonisation of Africa and the collapse and break-up of the Soviet Union. The legacy of this historical process has been a group of states with vastly differing capacities. Indeed, it is important to remember that despite formal equality for all states in terms of legal sovereignty, there is huge inequality among the community of states in terms of their available resources.

The reality today is that many states are weak in the sense that they are broadly in a state of crisis, only able to provide some of the full range of goods and services that citizens might expect of them. This may be down to geographical or physical constraints, or it may be down to fundamental economic weakness. It may also be down to temporary factors such as internal political tension and division, poor leadership, or as a result of external attack. Over the last 12 months, significant additional strains have been placed on weak states by rising food and fuel prices, which in several instances have provoked major public disturbances and civil unrest.

In the Failed States Index 2008, which examines 177 states, only 50 states are considered stable and 127 unstable to one degree or another (Fund For Peace and Foreign Policy 2008). In addition, a further group of states can also be said to have already gone beyond weakness into varying degrees of failure and collapse. In some of these states (the most extreme, for example, such as Somalia), there has been a total breakdown of formal authority and warring factions are vying for control. In others, central government is only able to control some, not all of its territory, its power perhaps being limited to control of a capital city and its surrounding area, or to a zone of territory that is ethnically linked to those in power. High levels of violence are noticeable in just about all of these cases, few of them are delivering effective public goods to citizens, and a corrupt bureaucracy is more often than not in evidence. A list of the 20 states that can be said to fall into this category is presented in Table 4.1 below.

Although there is no straight causal link between state failure and conflict, there is some correlation between the two, and many failed and failing states, along with their neighbours, are affected by the devastating and disruptive effects of conflict already described in this chapter while state weakness and failure in turn are contributing factors to conflict. Of the top 20 states in the Failed States Index 2008, all are currently experiencing violent conflict or political violence on their territory.

Table 4.1: Top twenty states in the Failed States Index, 2008

Rank	Country	Rank	Country
1	Somalia	11	Guinea
2	Sudan	12	Bangladesh
3	Zimbabwe	13	Burma
4	Chad	14	Haiti
5	Iraq	15	North Korea
6	D.R. Congo	16	Ethiopia
7	Afghanistan	16	Uganda
8	Cote d'Ivoire	18	Lebanon
9	Pakistan	19	Nigeria
10	Central African Republic	20	Sri Lanka

Source: Foreign Policy and Fund for Peace 2008

Multiple stress points and 'swing states'

Clearly, there is no single cause of conflict or state failure but the policy literature on both is fairly clear in relation to the important (and often overlapping) risk factors associated with each. These risk factors reflect, among other things, many of the underlying and long-term trends related to the international landscape described in the last chapter. Poverty, growing inequality within states, increasing pressure and impacts from climate change, and elements of demographic change all feature strongly.

Below, we present a list of what appear to be the main conflict and state failure risk factors, as these apply at the state level (with references to some of the supporting literature related to each provided in the footnote[10]):

1. A history of recent conflict in the location concerned
2. High levels of underdevelopment and poverty
3. High levels of inequality within the state – particularly 'horizontal inequality', i.e. inequalities that map closely to ethnic or other group identities within the state
4. Poor governance, manifested in corruption, crime, an incapacity to manage conflict peacefully, a rise of factionalised elites, loss of confidence in the legitimacy of the state, and/or institutionalised political exclusion
5. Resource scarcity
6. Easy access to small arms and light weapons
7. The presence of a youth bulge in the population
8. Large or sudden movements of population
9. A sudden and/or severe economic downturn
10. Widespread violations of human rights
11. High levels of food insecurity
12. High level of vulnerability to the effects of climate change

[10] Related references:
1. See: Collier *et al* 2003, Collier *et al* 2002
2. See: Ostby 2008, Chalmers 2008, Kanbur 2007, Stewart 2003, Collier *et al* 2003
3. See: Ostby 2008, Chalmers 2008, Kanbur 2007, Stewart 2003
4. See: Cabinet Office 2005b, Department for International Development 2005, Vallings and Moreno-Torres 2005 (on the links between weak states and armed conflict/state failure); Andvig 2007 (on the links between corruption and armed conflict)
5. See: Matthew 2008, Diamond 2004, Klare 2001, Homer-Dixon 1999, Wenche and Ellingsen 1998. For the effects of climate change on resource scarcity see: German Advisory Council on Global Change 2008, International Alert 2007, Barnett and Adger 2007, CNA Corporation 2007. For water scarcity see: Wolf and Priscoli 2006, Bitar 2005.
6. See: United Nations Secretary General 2008, IRIN 2006, Small Arms Survey 2005, UNDP 2005
7. See: Urdal 2006, Cincotta and Leahy 2006, Cincotta *et al* 2003
8. See: Kolmannskog 2008, Gleditsch *et al* 2007
9. See: Elbadawi and Hegre 2008, Dube and Vargas 2008
10. See: Thoms and Ron 2007
11. See: Evans 2008, Johnson K 2008, ODI 2008 (on food insecurity and recent food price inflation); German Advisory Council on Global Change 2008, Cohen 2007, Messer and Cohen 2006, Messer *et al* 2001 (on food scarcity and its relationship to armed conflict and state fragility)
12. See: German Advisory Council on Global Change 2008, International Alert 2007, CNA Corporation 2007, Hendrix and Glaser 2007, Nordås and Gleditsch 2007, Barnett and Adger 2007 (on links between climate change and insecurity). Norwegian Refugee Council 2008 (on links between climate change and forced population movements).

The more a state has these characteristics, the more likely it is to be at risk of armed conflict, state fragility or state failure and collapse. Moreover, as noted in the last chapter, many of the trends related to these risk factors are worsening. There are also signs that risk factors feed off each other and that multiple risks may be converging in particular locations.

To capture this, we have analysed risk factor convergence in particular states. Opposite we present a map and accompanying list of the states where we consider this to be happening most acutely. The map and list have been compiled following an analysis of data related to the 14 indicators listed in Box 4.2.

Box 4.2. Conflict and state failure risk indicators

The following indicators map closely to the risk factors identified above. Some are drawn, where appropriate, from other already existing indices such as the Failed States Index (FSI) or the Global Peace Index (GPI); others are based on UN data or other publicly available conflict data sets, and some draw on specialist political and environmental risk consultancy data – see notes in brackets next to each item. (The full list of sources used is provided below the indicators.)

Economic indicators

- The level of Human Development, as defined by the UNDP Human Development Index (HDI)
- The existence and extent of uneven economic development along group lines, including high levels of unemployment in certain groups (FSI)
- Evidence of a recent sharp or severe economic decline (FSI)
- The level of food security, as defined by Maplecroft's Food Security Index

Social indicators

- Evidence of a 'youth bulge', as defined by the percentage of the population under the age of 24 (United Nations Population Division)
- Current or projected large movement of refugees or internally displaced persons (FSI)

Political indicators

- Poor governance, measured as criminalisation or de-legitimisation of the state (FSI)
- Potential for terrorist acts (GPI)
- Widespread violation of human rights (FSI)
- Rise of factionalised elites (FSI)

Military/conflict indicators

- Intervention of other state or external actor (FSI)
- The presence of armed conflict on a country's own territory between 2001 and 2006 (UCDP/PRIO dataset)
- Ease of access to small arms and light weapons (GPI)

Environmental indicators

- Climate change vulnerability, as defined by Maplecroft's Climate Change Vulnerability Index

Sources:

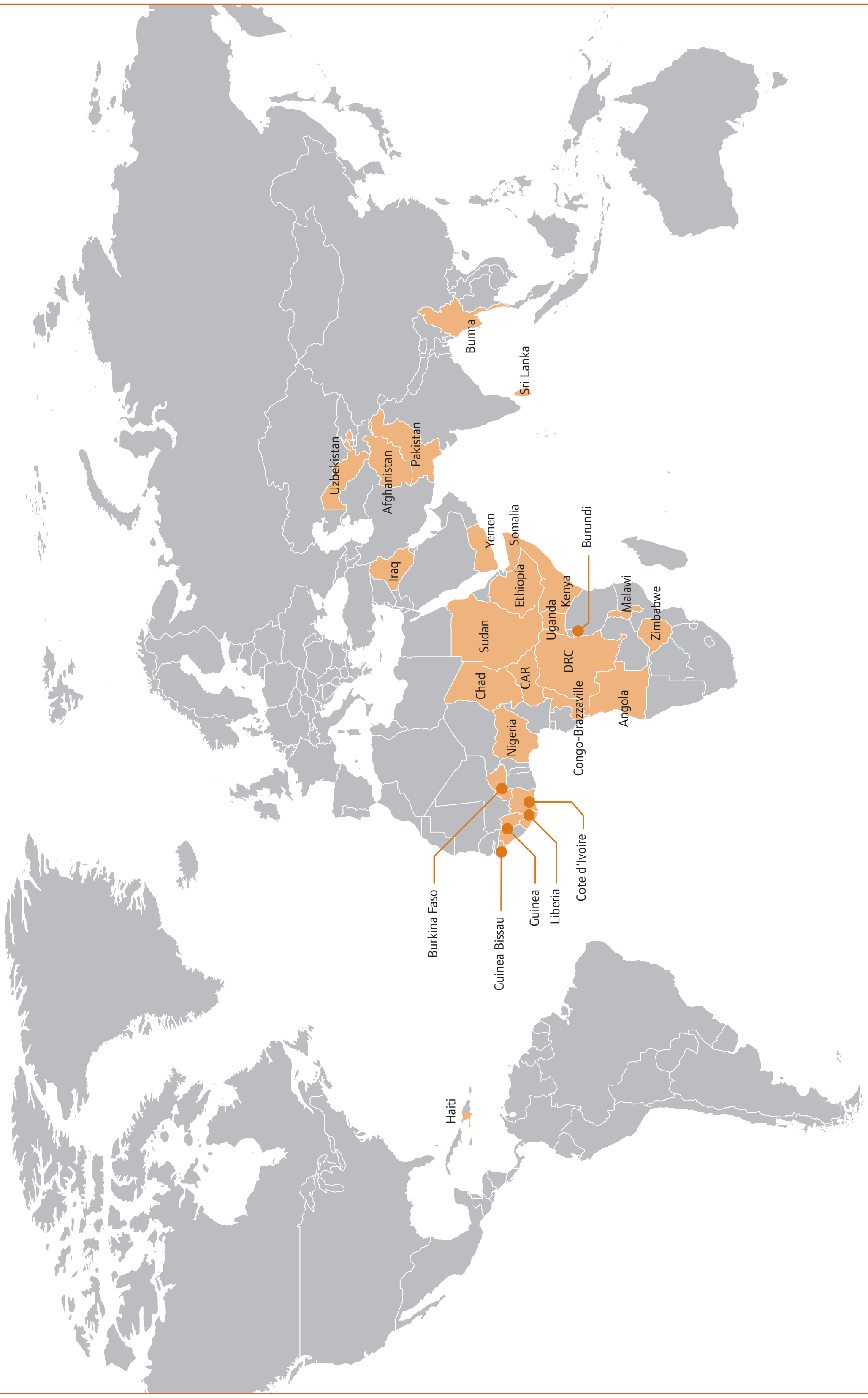
- For Failed States Index (FSI) see Fund for Peace and Foreign Policy 2008
- For Global Peace Index (GPI) see Institute for Economics and Peace 2008
- For Uppsala Conflict Data Program (UCDP)/Peace Research Institute Oslo (PRIO) Armed Conflict data set see UCDP/PRIO 2007
- For 2007/2008 Human Development Index (HDI) rankings see UNDP 2007
- For Maplecroft, a private political and environmental risk consultancy, see www.maplecroft.com
- For the United Nations Population Division see United Nations 2007

Acknowledgement: We are particularly grateful to Maplecroft for allowing us to use its indices and data sets on state level food insecurity and state level vulnerability to the effects of climate change.

To be included in our map and list of states under the most acute pressure, a state must be categorised as being at high risk in relation to eight or more of the 14 indicators in the box, each of which has been weighted equally. A note on what constitutes 'high' in relation to each indicator can be found in the table in Appendix 2.

On the basis of this analysis, we believe 27 states are now under multiple sources of acute pressure in relation to conflict and state failure. These states are presented in Map 4.1.

Map 4.1: States under acute pressure in relation to conflict and state failure


Burma
Sri Lanka
Uzbekistan
Afghanistan
Pakistan
Yemen
Somalia
Burundi
Iraq
Ethiopia
Kenya
Malawi
Zimbabwe
Uganda
Sudan
DRC
Chad
CAR
Angola
Congo-Brazzaville
Nigeria
Burkina Faso
Guinea Bissau
Guinea
Liberia
Cote d'Ivoire
Haiti

In alphabetical order, the states highlighted are: Afghanistan, Angola, Burkina Faso, Burma, Burundi, Central African Republic, Chad, Congo (Brazzaville), Cote d'Ivoire, D. R. Congo, Ethiopia, Guinea, Guinea Bissau, Haiti, Iraq, Kenya, Liberia, Malawi, Nigeria, Pakistan, Somalia, Sri Lanka, Sudan, Uganda, Uzbekistan, Yemen, Zimbabwe

In addition to particular pressure points such as those in Haiti, Burma, Sri Lanka and Zimbabwe, the map shows a huge concentration of pressures in Sub-Saharan Africa and what might be called an arc of instability stretching from the coast of West Africa, right across to the east coast of the continent and up through the Persian Gulf region and into central Asia. Both Iraq and Afghanistan – where the UK has its largest military commitments – feature on the list, as does nuclear-armed Pakistan and increasingly important energy-producing states such as Nigeria and Sudan. The total population of these states classified as high risk is approximately 880 million (UN 2007), meaning that a huge number of people are living directly under conditions where these risk factors converge.

We do not claim predictive powers for this analysis. Predicting individual instances of conflict or state failure is extremely difficult, precisely because a large number of factors can be involved, in different mix and measure in individual cases. That said, this kind of analysis can still have utility to policymakers seeking to make judgements about actions and the deployment of resources in a turbulent and fast changing world and in many ways the states we have identified can be seen as 'swing states' in the struggle for international peace and stability over the next five to ten years.

If these states can be lifted out of conflict or kept from falling into it, and assisted to re-form or strengthen state institutions capable of delivering a range of public goods, this could be an immense contribution to international peace, stability and prosperity more widely. If, on the other hand, they cannot achieve this status and are allowed to deteriorate further, they are likely to become increasingly vulnerable to instability, conflict and state failure where this has not already occurred, and to become the focus for a wide range of forced policy interventions aimed at containing the ensuing disruption and violence. They could also become, as could some other failed or failing states, the sources of significant direct threat to the UK. The point of presenting the analysis here is therefore not only to point to the states under the most acute pressure but also to show the sheer scale and seriousness of the problem.

Inter-state competition and possible conflict

As well as the risk posed by fragile and failing states and the potential for increased conflict within states, we must also add to this picture a possible return to increased competition and conflict between states in the years ahead, including among the major powers at global level. Here we address the following issues as they relate to a possible return to interstate competition:

- Balance of power politics
- Competition over natural resources
- Competition in outer space
- Protectionism
- Nuclear proliferation

Balance of power politics

The rise of China and India, the re-emergence of Russia, exemplified by this summer's Caucasus conflict, and the role of the EU all have fundamental and long-term implications for the structure and shape of the international system. While there is nothing inevitable about a return to a system of great power rivalries, the view that this is becoming more likely is gaining momentum in certain circles. Some conservative analysts in the United States now characterise the international system as one dominated by a return to great power nationalism in a world of 'one superpower, many great powers' (Kagan 2008). There is also evidence that the Bush administration has been influenced in some important respects by these increased perceptions of a return to balance of power politics. Perhaps the clearest sign of this was the recent and controversial nuclear deal between the Bush administration and the Indian government. This deal effectively condoned Indian development and use of a range of nuclear technologies outside of a full international inspection regime and was rightly criticised by many for potentially dealing a serious blow to the nuclear non-proliferation regime. It has been justified by its supporters, however, as a deal designed to draw India closer to the West, helping to balance the rise of Chinese power in the process.

Competition over natural resources

Another source of possible tension may come in the form of competition over natural resources. While this would not be a new phenomenon, some of the trends outlined in the last chapter may now bring it back to the fore with a vengeance. There is a chance, for example, that international struggles for energy resources will increase with the US, the EU, Russia and China all vying for influence in a number of strategically important regions such as the Caucasus and Central Asia. The Arctic is also becoming more contested as the ice caps recede, allowing easier access to resources in the area.

Africa is also becoming a site of increasing competition with its oil and gas reserves and its vast range of precious metals. China already receives about 33 per cent of its oil imports from Africa as well as significant amounts of copper, timber and diamonds (Hanson 2008). In late 2007, the Congolese government announced that Chinese state-owned businesses would invest US$12 billion in refurbishing railways, mines and roads throughout the country in return for the right to mine copper ore of an equivalent value (The Economist 2008d). This sum is approximately ten times the amount promised to the DRC each year by the ‘consultative group’ of Western donors (World Bank 2007b) (this group includes bilateral donors such as the US and UK and multilateral donors including the EU, UN and World Bank). In oil-rich Angola, too, Chinese investment is outstripping that of more traditional aid donors as Chinese development aid is exchanged for access to oil. This ‘aid for resources’ policy has ruffled the feathers of Western powers, not only because China is viewed as a potential heavy-weight competitor in the region, but also because its no-strings-attached aid policies are guided by short-term economic and trade considerations, often at the expense of longer-term political development (The Economist 2008c). There are signs, as a result, that the US is beginning to re-organise and re-focus its Africa policy with a view to addressing growing Chinese influence.

Competition in outer space

Elsewhere, the activities of the major powers in outer space may add further tension. The US is the unambiguous leader in terms of international activity in space, operating half of the military satellites in orbit and accounting for around 90 per cent of worldwide R&D expenditure on military space (IISS 2008). At more than US$22 billion a year, the space budget of the US Department of Defense far exceeds that of other would-be space powers, including Russia, where spending has fallen from Cold War levels to just US$170 million annually (Parliamentary Office of Science and Technology 2006).

However, China is becoming more active in outer space. In 2003 it became the third country to put an astronaut into orbit, and in September 2008 the first Chinese spacewalk was conducted successfully.

More worryingly from an international security perspective, in January 2007 China launched an anti-satellite (ASAT) missile from a mobile launcher, destroying an old Chinese weather satellite and adding a further field of debris to the detritus-strewn orbital space around the Earth. Although officials claimed that this test was not aimed at any country in particular, it has been widely interpreted as a direct challenge to American superiority in space and a signal that China seeks to develop space capabilities to help prevent and resist US military intervention over Taiwan (The Economist 2008b). Meanwhile, the Indian Space Research Organisation has seen commercial success and in October 2008 launched the unmanned Chandrayaan 1 spacecraft to perform the country’s first lunar mission.

Developments like these are taking place in the context of a major gap in the international arms control architecture as it relates to outer space. The use of space is currently governed by the 1967 ‘Outer Space Treaty’, a universally accepted and binding UN convention which bans the deployment of weapons of mass destruction but which otherwise places no restrictions on military use (IISS 2008) (the treaty’s full name is the Treaty on Principles Governing the Activities of States in the Exploration and Use of

Outer Space, including the Moon and Other Celestial Bodies). Its clause stipulating that the Moon and other celestial bodies must be used exclusively for peaceful purposes has been widely interpreted as permitting the use of space for defence and intelligence-gathering activities, invalidating the frequently repeated assertion that space is or should be a military-free zone.

In a world so reliant on satellite communications for a very wide range of both civil and military purposes, these issues are not as peripheral as they may once have been. The deliberate targeting of satellites in particular would have the potential to cause major damage and disruption to societies and populations worldwide and as the International Institute for Strategic Studies noted in a recent report, 'there is reason to be concerned about threats to human security and social stability if protection against disruption of satellite systems that underpin many public services is not pursued as an issue of wide international concern' (IISS 2008: 81).

Protectionism

While no one would argue that the sorts of issues described above are likely alone to cause major power conflict, these are nonetheless signs that conflict pressures and points of friction remain and may be growing in the inter-state system. It is possible, too, particularly alongside the global financial crisis and the collapse of the World Trade Organisation's Doha trade round in July 2008, that these points of friction will multiply as a result of growing pressures toward protectionism. This pressure is evident in many regions of the world.

Although the Doha round's specific intention had been to consolidate freer trade in farm goods, which would have significantly benefited poorer countries by opening up markets, the talks were ultimately derailed because of Indian and Chinese insistence on maintaining the right to impose 'safeguard' tariffs in order to protect their own farms in the event of sudden import surges (The Economist 2008e). There is pressure in the United States, too, both for knee-jerk trade restrictions on imports of goods from China and for the possible renegotiation of the North American Free Trade Agreement (NAFTA) to protect American jobs.

In Europe, even against the backdrop of restrictive trade policies that have been enshrined in the EU's Common Agricultural Policy (CAP) for many years, there has been a fresh surge of protectionist rhetoric and the European public is clearly fearful of the effects of an increasingly globalised world economy. A 2007 Financial Times/Harris Poll, for example, found that of the total number of people polled, majorities in Britain (53 per cent), France (53 per cent), Spain (54 per cent) and Italy (55 per cent) believed that globalisation was having a negative effect on their countries (Harris Interactive 2007). This all has to be a major concern not only because it could exacerbate tendencies towards interstate competition but also because overall, trade has proved to be one of the most effective levers for greater equality and poverty reduction.

Nuclear proliferation

There is one other challenge that is a major cause of concern in relation to interstate competition and conflict: nuclear proliferation. Although the nuclear non-proliferation regime remained relatively stable until the late 1990s, with the five declared nuclear powers – the US, Britain, Russia, China and France – largely maintaining a monopoly over nuclear weapons capabilities up to that point,[11] the last decade has witnessed a disturbing trend towards wider state proliferation. India and Pakistan each conducted a series of nuclear weapons tests in 1998, bringing the total of acknowledged nuclear weapons states to seven, and demonstrating the potential for existing regional tensions to underpin new nuclear arms races.

In 2006 North Korea conducted a low-yield nuclear test, becoming a new member of the nuclear weapons club in the process. It did this following its decision to resume the reprocessing of plutonium in 2002 at a facility that had been under International Atomic Energy Agency (IAEA) inspection since 1994 and, despite having now suspended reprocessing activity at its Yongbyon nuclear reactor once more, is thought to have developed enough nuclear fuel to construct two nuclear bombs per year (Niksch 2008). It also, in recent months, has been threatening to re-open the Yongbyon facility once again.

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[11] The exception to this being that Israel was allowed covertly to develop a nuclear weapons capability.

Iran is also of great concern. There is reason to believe that its government is pursuing a nuclear weapons programme, even though it maintains that its efforts are purely intended to produce peaceful nuclear energy. Western intelligence agencies and independent analysts believe that on its current course, Iran is from two to ten years away from obtaining a nuclear weapon. These developments have spurred at least another 11 countries to hedge against an Iranian bomb and to seek assistance from the International Atomic Energy Agency to develop their own nuclear energy programmes. Egypt, Turkey and Saudi Arabia, all Sunni Muslim countries fearful that mastery of nuclear technology by Shia Iran could entrench the Islamic Republic as a regional hegemonic power, are leading this new wave of nuclear development. Turkey has pledged to build three new reactors, Egypt four, and Saudi Arabia has pushed the five other members of the Gulf Cooperation Council to pursue nuclear technology (Cirincione and Leventner 2007). If current trends are not reversed, by 2015 the perpetually volatile Middle East could have two nuclear-weapons states (Israel and Iran) and a dozen other countries with scores of nuclear reactors requiring large amounts of nuclear fuel. These are profound shifts affecting the stability of an already troubled region.

Added to this is the continued failure to bring the Comprehensive Test Ban Treaty into force, the worsening of relations between the world's two main nuclear powers, the United States and Russia, unilateral US withdrawal in 2002 from the Anti-Ballistic Missile Treaty (ABMT) after three decades as a signatory, and a failed 2005 Review Conference of the Nuclear Non-Proliferation Treaty. The main feature of the latter, in the words of the conference president, was the 'progressive drifting apart' of the nuclear and non-nuclear weapons states party to the Treaty. Some, particularly in the United States, have also begun expressing much more serious interest in smaller and more usable nuclear weapons, so-called bunker-busters, designed to penetrate and destroy facilities deep underground. Into this mix must also now be thrown the potential proliferation consequences of a renaissance in the global nuclear industry in response to climate change and, as highlighted by the A.Q. Khan scandal, concerns over ongoing trade in nuclear black markets (Barnaby forthcoming).

In combination, this range of factors and developments has created the most serious nuclear proliferation environment for decades, and since the world has already seen atomic weapons used in war, and today's weapons are far more powerful than those responsible for the death of more than 150,000 people in Japan in 1945, this has to be one of the most pressing issues on the international security agenda today.

Summary of Chapter 4

It is emphatically clear from the material presented in this chapter that there is no room for complacency over conflict between states, or over conflict within and across them, despite some recent progress. Not only are the long-term trends described in Chapter 3 increasing conflict pressure in a variety of ways, but this conflict pressure and the risk factors associated with it are also converging in a number of states with potentially very serious and destabilising consequences for the viability of those states themselves and for the entire regions in which they sit.

More traditional inter-state competition and conflict concerns are also re-emerging, not least on the crucial issues of nuclear proliferation and competition over natural resources, and this is occurring against a background of rapidly worsening and potentially much more divisive international economic conditions. It must be expected, in fact, that the global financial crisis will exacerbate some of the problems we have described in this chapter (not least those caused by poverty and deprivation), particularly if wealthier states turn inward, reduce their development assistance and weaken further the many states in the international system that are already weak and suffering converging conflict and state failure risk pressures. Storm clouds, in other words, are gathering, creating profound and direct challenges to UK and wider international security, and forcing UK policymakers to go well beyond current preoccupations with Iraq and Afghanistan, important though these are.

"There is no room for complacency over conflict between states, or over conflict within and across them, despite some recent progress"

5. Transnational threats and risks

Having outlined in Chapter 3 long-term trends such as those related to demographic change, scientific and technological change, increasing inequality, and globalisation, and having analysed in Chapter 4 existing and growing pressures towards further inter-state competition and the problems of conflict and weak and failed states, we now turn to examining the range of transnational threats and risks that emerge out of or are facilitated by the combination of all of these factors.

State weakness and failure, scientific and technological change and the effects of globalisation, for example, have come together to increase the importance and to change the scale of the threat we face from terrorism and transnational organised crime. Demographic change, in the form of an increasing global population, its increasing urbanisation, and people movement on an unprecedented scale in the era of globalisation are combining to create new human vulnerabilities to global disease pandemics. Each of these, though less traditionally (beyond the issue of terrorism) part of the national security policy terrain, must now be treated as such.

Consequently, in this chapter we first review the nature of the terrorist threat, focusing principally on Al Qaeda and on the increased threat of chemical, biological, radiological or nuclear (CBRN) terrorism. Second, we analyse the changing role of transnational organised crime, and briefly touch upon the ways in which it overlaps with terrorism. Third, we outline the nature of the increased risk from global disease pandemics, and some of the factors underpinning and driving it. We conclude by drawing out wider implications from this range of transnational risks and threats.

Terrorism

Box 5.1: Definition of terrorism

There is now broad international agreement on the fundamentals of a definition of terrorism. The UK, EU and UN, while differing slightly on specifics such as unrealised threats, motivation, interference with or disruption of electronic systems, and the civilian or non-combatant status of victims, all define as terrorism any action involving serious violence against a person, persons or property with the intention of intimidating a population (or subsection thereof) or influencing or compelling a government (or international organisation) to do or abstain from doing any act (United Kingdom Parliament 2000 and 2006, European Council 2002, United Nations 2004). This limited consensus is sufficient to enable meaningful international debate about a threat that is truly global in its origins, reach and ambitions.

On the face of it, the scale of the terrorist threat is increasing. Data on global terrorist incidents during the period 1998-2006, absent the significant outliers of the 7 August 1998 car-bombings of American embassies in Tanzania and Kenya and the 11 September 2001 aeroplane attacks on the US, displays a trend of marked increase in the worldwide number of attacks, fatalities, and fatalities per attack, as shown in Table 5.1.

The increase in fatalities has been exacerbated by the more widespread adoption of suicide as a tactic by terrorists around the world, enhancing targeting precision and explosive proximity to magnify killing power (Table 5.2).

However, these figures tell only part of the story. Further analysis of the available data for the same period demonstrates that civilian deaths in some regions, including the West, due to terrorism have in fact dropped in recent years. The global rise in deaths appears to be due to now-routine suicide bombings in the Middle East, and in particular in Iraq since the US invasion of 2003, which have increased predominantly Muslim casualties there (La Guardia 2008).[12] Indeed, the global data on terrorism held by three

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[12] Even these numbers have fallen in more recent times, following the death of Al Qaeda in Iraq leader Abu Musab al-Zarqawi in June 2006 and the US troop surge in 2007 (Iraq Body Count 2008). This prompted the assertion in May 2008 by General Michael Hayden, CIA Director, of 'near strategic defeat of Al Qaeda in Iraq' (Warrick 2008). Nonetheless, while the predicament in Iraq may be improving, the average daily civilian death toll in the country throughout 2007 was, at 66, still higher each and every day than the number killed by the London bombers on 7 July 2005 (Iraq Body Count 2008).

Table 5.1: Global terrorist incidents

Year	Attacks	Fatalities	Fatalities per attack
1998	1286	2172	1.69
1999	1171	864	0.73
2000	1151	783	0.68
2001	1732	4571	2.64
2002	2648	2763	1.04
2003	1898	2346	1.23
2004	2647	5066	1.91
2005	4995	8194	1.64
2006	6653	12,065	1.81
Total	24,187	38,824	1.61

Source: RAND Corporation 2007

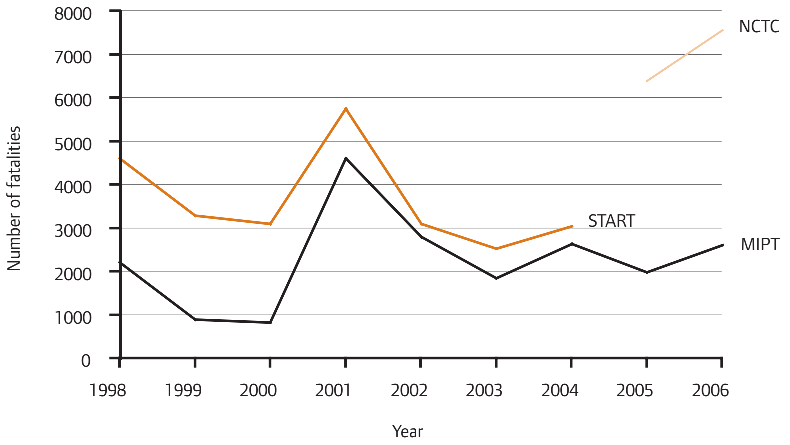
Table 5.2: Suicide terrorist attacks

Year	Attacks	Fatalities	Fatalities per attack
1981-97	50	853	17.06
1998	9	299	33.22
1999	15	31	2.06
2000	10	72	7.20
2001	46	3175	69.02
2002	66	617	9.34
2003	75	717	9.56
2004	111	1730	15.58
2005	337	3055	9.06
2006	261	2005	7.68
Total	980	12,554	12.81

Sources: RAND Corporation 1997, 2007

major US repositories, the Memorial Institute for the Prevention of Terrorism (MIPT), the National Counter-Terrorism Centre (NCTC) and the National Consortium for the Study of Terrorism and Responses to Terrorism (START), shows that, absent Iraq, there has been no major increase in fatalities from terrorism globally since 2001 (Human Security Report Project 2007) – see Figure 5.1.

Figure 5.1: Global fatalities from terrorism, excluding Iraq, 1998-2006



Source: Human Security Report Project 2007

The policy conclusion to draw from this, however, is not that terrorism is a declining threat to our national security. There are at least two reasons why this would be a mistake.

First, despite recent apparent progress in the fight against Al Qaeda,[13] both it and other terrorist groups have killed British citizens in the UK, Bali, Egypt, Turkey and elsewhere in recent years, and these groups are assessed by almost all security experts to remain a serious threat today.

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13. Which might be said to include the damage done to its capabilities in Iraq by the US troop surge in and around Baghdad and the formation and spread of the Sunni Awakening Councils, its failure to 'arise and stand up' in Saudi Arabia (Hussein 2005), its setbacks in Indonesia (Schmitt 2008) and more widely its encountering a 'considerable backlash… across the Muslim world' (Barrett 2008).

Al Qaeda is not, of course, the only terrorist group of recent times. Others include secular nationalist groups such as the Kurdish separatists of Partiya Karkeren Kurdistan (PKK), the Liberation Tigers of Tamil Eelam (LTTE) in Sri Lanka, the Euskadi Ta Askatasuna (ETA) of Spain's Basque Country, and the al-Aqsa Martyrs' Brigade of the Occupied Palestinian Territories; and avowedly religious terrorist groups such as the Christian guerrillas of the Lord's Resistance Army in Uganda, the Shia Muslims of Hezbollah in Lebanon, and the Sunni Muslims of Jemaah Islamiyah in Indonesia.[14] We do not, however, attempt a comprehensive review of active terrorist groups here given their number; we focus on Al Qaeda and Al Qaeda-influenced groups as the most pressing and immediate threat.

The second reason for not concluding that terrorism is declining as a threat is that while the explosion of improvised devices using conventional materials remains the most likely form of terrorist attack, the most fearsome feature of terrorism at this point in our history is the catastrophic attacks that could take place in the future through terrorists' use of chemical, biological, radiological or nuclear (CBRN) weapons. Below we set out background material on both of these dimensions of the continuing terrorist threat.

Al Qaeda and Al Qaeda-influenced terrorism

The most significant terrorist group of the present era is Al Qaeda (The Base), a neo-jihadi[15] enterprise initiated towards the end of the 20th century and that has defined terrorism at the beginning of the 21st. Although the term 'Al Qaeda' only came into popular usage after the attacks on the United States of 11 September 2001 – after which Osama bin Laden boasted that 'the awakening has occurred' (see BBC 2004a) – the group's origins lie further back in the Soviet invasion and occupation of Afghanistan between 1978 and 1989.[16]

In an organisational sense, Al Qaeda has perforce operated on the basis of a three-tiered model. The first tier, Al Qaeda's core – Osama bin Laden, his senior deputies, such as Ayman al-Zawahiri, and the cadre of quasi-professional full-time operatives directly under their control – was badly damaged and disrupted by the US-led invasion of Afghanistan in 2001. It still, however, functions, and Osama bin Laden remains at large. A second tier consists of individuals and groups that can be described as 'Al Qaeda linked'. They share the Al Qaeda ideology, and have occasional contact with core members, but are not under core Al Qaeda command and control. A third, much wider, tier can be termed 'Al Qaeda-influenced', consisting of groups and individuals that share Al Qaeda's ideology but have no current contact with its core. It is thought, for example, that those involved in the 7 July 2005 attacks in London and those in the Netherlands-based Hofstadt Group, linked to the murder of Dutch filmmaker Theo van Gogh on 2 November 2004, fall into this third category.

As direct command and control has been made more difficult for Al Qaeda, so the importance of its ideology has increased, and Al Qaeda has evolved under Western pressure from an organisation in the traditional sense into a modern, transnational, networked, revolutionary movement absolutely predicated on globalisation. Originally configured according to a conventional paramilitary model, Al Qaeda has rapidly become a militant network of networks, operating through a system of often self-directing cells. This globalised, opportunistic operating model has been described variously by commentators as a franchising operation, a resistance movement, a subculture of rebellion, a youth cult of anger, and a venture capitalist undertaking that invests in promising plotters and plots (La Guardia 2008).

Al Qaeda's appeal to potential recruits is rooted primarily in the single narrative it employs of oppression throughout history of the Islamic ummah by the West.[17] Reference is made to wars in Chechnya and Bosnia where Muslims are said to have been persecuted while the West has stood by; to Muslims killed in Afghanistan and Iraq, including specific instances such as the alleged massacre by US marines in November 2005 of at least 15 non-combatants in Haditha, the assault by foreign forces on Fallujah, the City of the Mosques, in November 2004 using white phosphorous shells, and the abuse, torture and murder of prisoners in Abu Ghraib; and to the running sore of Palestine.

The approach is parasitic, hijacking and appropriating others' grievances and causes, such as through the continuation of the Algerian Civil War by the Islamist revolutionaries of the Salafist Group for Preaching and Combat (GSPC), now Al Qaeda in the Islamic Maghreb (AQIM). The single narrative not only explains and legitimises terrorism as a strategy but also identifies duties and rewards which justify individual risk-taking and, ultimately, martyrdom. The ideology it communicates casts terrorist operations as part of a global generational struggle, explaining failure and setback and committing violent extremists to a 'long war' against the 'far enemy' of the United States.

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[14] PKK is suspected of carrying out the double bomb attack in Istanbul on 27 July 2008 that killed 17 people; the LTTE pioneered the terrorist use of suicide bombing; Jemaah Islamiyah was responsible for the murder of 222 people in the Bali bombings on 12 October 2002 and 1 October 2005.

[15] Language in this arena is still settling. There is currently no internationally accepted way of describing the followers of the ideology promoted by Al Qaeda. They refer to themselves as 'jihadis', supposedly defending the world of Islam from attack by the West through a holy war or 'jihad'. We do not accept or condone this modern perversion and narrow interpretation of the term 'jihad' (as necessarily violent and global), and so in this report we refer to these extremists as 'neo-jihadis'.

[16] During this period Arab and Afghan fighters, trained and financed by the US Central Intelligence Agency (CIA) via Pakistani Inter-Services Intelligence (ISI), waged a guerrilla campaign of armed resistance against the Soviets, which became a jihad. After the expulsion of the Soviet forces from Afghanistan in 1989, Pakistan co-opted many of the hardened mujahideen (religious strugglers) and transited them from Afghanistan to Pakistani camps in Kashmir to fight against the Indians in that disputed territory. This group, under Osama bin Laden's leadership, was then developed from a paramilitary outfit to a terrorist organisation, issuing its first anti-western fatwa (legal ruling) and perpetrating its first attacks in 1992, and enjoying bases first in Sudan and then, from 1996 onwards, back in what had become Taliban-controlled Afghanistan.

[17] Al Qaeda exploits the notion of the ummah (global Islamic community) which does not recognise frontiers or borders, to appeal to all Muslims to participate in its global jihad against the US and its allies, justified by reference to belligerent suras (chapters) in the Qur'an, which, it argues, provide liturgical basis for armed struggle against unbelievers. According to Al Qaeda's interpretation, which distorts classical scholars and dismisses many contemporary ones, all the world is currently – until strict Islamic rule is imposed – a Dar al-Harb (House of War) in which righteous violence is authorised.

Al Qaeda has as its long-term, non-negotiable strategic aims (to paraphrase):

- The eviction of the 'Jewish-Crusader alliance' (Zawahiri 2002) from Muslim lands
- The deposition of corrupt, apostate governments, such as the House of Saud, across the Muslim world
- The imposition of sharia (Islamic law)
- The restoration of the caliphate (single Islamic nation, gone since the demise of the Ottoman Empire and rise to power of Ataturk)
- The destruction of the Zionists' Israel.

Hallmarks of Al Qaeda or Al Qaeda-influenced terrorism include simultaneous attacks, attacks on civilian targets, indiscriminate murder, the attempt to cause mass casualties, shahid (martyr) suicide bombers, giving no notice or warning of attacks, and the attempted use of spectacular styles of attack. These tactics can be readily observed in Al Qaeda or Al Qaeda-influenced atrocities such as the sea-borne suicide bombing of the USS Cole in Yemen on 12 October 2000, which killed 17 sailors, the near-simultaneous air-borne attacks on the US on 11 September 2001, which killed 2,998 (including 67 British citizens), the near-simultaneous bombing of four commuter trains in Madrid on 11 March 2004, killing 191, and the near-simultaneous detonation of four suicide bombs on the London transport network on 7 July 2005, which killed 52 people and injured over 700.

Al Qaeda's exploitation of ungoverned space

Al Qaeda exploits ungoverned or poorly governed space. Nowhere is this more evident today than in Pakistan's tribal belt, into which President Zardari's writ does not extend, and which is the current epicentre of Al Qaeda terrorism. The seven districts of the Federally Administered Tribal Areas, a short border-crossing south of the Tora Bora cave complex where Osama bin Laden is once thought to have hidden, are now a primary locus for terrorist training and a haven for neo-jihadis. There, and around Peshawar in the neighbouring North-West Frontier Province, a reconstituted Pakistani Taliban is once again supporting and working closely with Al Qaeda. This group is especially strong among the Pashtun tribes around Quetta, the provincial capital of Balochistan, from where the Helmand insurgency is being directed. It is suspected of the assassination of Benazir Bhutto on 27 December 2007.

There are also credible reports of elements of Pakistan's military and security services working in cahoots with the extremists to manipulate, misdirect and frustrate Western intelligence efforts in the region, although the Pakistani government naturally refutes this.[18] But Al Qaeda is also, of course, active outside Pakistan. Another weakly governed region that it is thought to have penetrated and begun to exploit is the semi-arid Sahel Belt that traverses North Africa between the Sudanian savannah and the Sahara Desert. Increasing concern over Al Qaeda incubation in the Sahel prompted first the US Pan-Sahel Initiative and then its more expansive successor, the Trans-Sahara Counterterrorism Initiative (IISS 2008).

Despite its violent rejection of liberal modernity, Al Qaeda and Al Qaeda-influenced groups have also learned to exploit not just frontier territories and ungoverned places but the ungoverned and unregulated spaces of the virtual world too. They have done this with some success.

A web posting in March 2004 by the leader of Al Qaeda in the Arabian Peninsula (AQAP), Abdul Azziz al-Moqrin, for example, suggested staging attacks and kidnappings targeting the oil sector in Saudi Arabia in order to drive out foreigners (Hoffman 2006). The following month, five foreign workers were killed at a petrochemical plant and

[18] HE Makhdoom Shah Mahmood Qureshi, the Pakistani Foreign Minister, said in a visit to London on 24 July 2008: 'Trust us: this menace of terrorism is our concern as much as yours'. He has claimed there are in excess of 100,000 Pakistani troops stationed along the Pakistan-Afghanistan border at more than 1,000 checkpoints, monitoring 40,000 border-crossings a day. The government also claims that there have been more than 600 high-value arrests of militants by Pakistan's security officials and argues that its efforts needs to be more effectively matched on the other side of the border in Afghanistan. However, President Bush reportedly complained that the sharing of US intelligence with Pakistani officials often resulted in the targets of US operations on the ground in the Pakistan-Afghanistan border area escaping before action could be taken against them.

further attacks in May and June that year prompted many companies to evacuate their foreign workers (New York Times 2004). Al-Moqrin's targeting advice soon spread to Iraq, with the first kidnapping of a foreign national there occurring on 8 April, and over the following three months more than 60 others were taken by a variety of insurgent and terrorist groups (Hoffman 2006).

The Al Qaeda-influenced Madrid bombers in 2004 used a 'virtual dead drop' to communicate, avoiding detection by creating draft email messages on free internet-based email accounts that were shared among the plotters (International Herald Tribune 2006b). The messages were never sent, making them extremely difficult to monitor, but each terrorist could log into the account and read and respond to the drafts. It is thought that the Hamburg cell which planned the 11 September 2001 attacks may have used steganographic techniques to mask their correspondence, embedding secret messages in digitised information such as audio, video or image files to evade detection by all but the intended recipients (see BBC 2001a, 2001b, 2004b).

Popular web tools such as Google Earth have also been used for hostile surveillance and targeting purposes. American prosecutors allege the conspirators who were planning to attack the jet fuel pipelines in and around JFK airport in New York used images from Google Earth to improve identification of their targets. Allegedly, the plot's ringleader, Abdul Khadir, decreed the terrorists' JFK video to be insufficiently detailed for operational purposes, telling his co-conspirators to use Google Earth software to gain more detailed pictures of the airport (The Smoking Gun 2007). Insurgents in Iraq have also been using Google Earth to target British forces in Basra. In January 2007 a raid by the British uncovered 'satellite photographs [that] showed in detail the buildings inside the bases and vulnerable areas such as tented accommodation, lavatory blocks and where lightly armoured Land Rovers are parked' (Harding 2007).

The internet is also used to incite violence in the UK. After the publication of cartoons that caricatured Mohammed by Danish newspaper Jyllands-Posten on 30 September 2005, The Saved Sect (a proscribed successor organisation to the now-defunct al-Muhajiroun) used its website to incite the murder of those who insult the Prophet.

As the main library for jihadist literature and terrorist manuals, the internet is a conduit for extremist propaganda and indoctrination and has been seen to play an important role in radicalisation. The Canadian Security Intelligence Service has reported a worrying trend that young Islamists are moving from radicals to terrorists in 'a very rapid process' (Bell 2007). This transformation, which may witness individuals passing through 'empathetic' and 'sympathetic' stages and finally to the 'operational', is thought at times to have taken as little as ten days (Burke 2008). This echoes then Metropolitan Police Commissioner Sir Ian Blair's assessment in summer 2006 of the men involved in the alleged plot to blow up transatlantic airliners mid-flight with liquid explosives. Blair said the young men went 'from what would appear to be ordinary lives, in a matter of some weeks and months, not years, to a position where they were allegedly prepared to commit suicide and murder thousands of people' (Holden 2007). One of the reasons cited for the fast transformation in these cases is constant access to terrorist propaganda on the internet.

Al Qaeda's effective mastery of technological developments, particularly in clandestine communications and the use of web-based multimedia, has amplified its voice, extended its organisational reach and enhanced its capability to evade law enforcement. Indeed, it is internet-based propaganda that has enabled Al Qaeda to regroup after it was crippled by the US-led invasion of Afghanistan – along with the recruiting sergeant role played by the war in Iraq and policy failures by the US such as the use of Guantanamo Bay to hold terrorist suspects outside of any recognised legal process. Al Qaeda can now spot, recruit, radicalise and organise, all online, allowing it effectively to link its ideological and geopolitical message to the street in neighbourhoods in every corner of the globe.

The danger of CBRN terrorism

Al Qaeda is known to have sought or to be seeking unconventional weapons capability. Former US Assistant Secretary of Defense, Graham Allison, drawing on his

Box 5.2: Definition of CBRN weapons

Chemical weapons are agents that can attack the body in a number of ways (nerve agents such as sarin that attack the central nervous system for example, or blood agents such as cyanide that prevent absorption of oxygen by the blood).

Biological agents are either micro-organisms that survive and multiply within a host body and can be both contagious (for example, small pox) and non-contagious (for example, anthrax) or inanimate agents that cannot reproduce and therefore have similar effects to chemical agents (for example, botulin).

Radiological weapons are most often considered to be explosive devices (dirty bombs) that are used to spread radioactive material over a wide area.

Nuclear weapons are fission devices generating massive explosive power through atomic chain reactions, the essential ingredients of which are either Highly Enriched Uranium (HEU) or plutonium.

For a review of CBRN terrorism in more detail see Cornish 2007.

period inside the US government and on senior intelligence sources, notes that Osama bin Laden attempted to acquire Highly Enriched Uranium from the South Africans in 1992, and that both bin Laden and other senior Al Qaeda figures met with representatives of the Pakistani nuclear weapons programme in 2001 (Allison 2006). The July 2004 Review of Intelligence on Weapons of Mass Destruction in the UK, chaired by Lord Butler, also noted that Al Qaeda had a biological weapons laboratory in Kandahar, and that scientists suitable for a biological weapons programme had been hired by Al Qaeda (House of Commons 2004). Abu Khabab al-Masri, Al Qaeda's chief chemist and bombmaker, who is believed to have trained Richard Reid (the British 'Shoe Bomber') and Zacarias Moussaoui (the twentieth 9/11 hijacker), is also thought to have used dogs for chemical experiments at the Derunta training camp in Afghanistan.

The threat of terrorists using unconventional weapons, however, may not come only from Al Qaeda or from organised groups. The globalisation-induced diffusion of scientific knowledge and expertise, the more extensive embedding and employment of a range of 'dual use' technologies in society, and the challenges faced by some weak states when it comes to effective regulation and enforcement of the law in relation to the use of such technologies, have opened up much greater possibilities for the destructive application of science and technology. In this context, lone individuals with relevant expertise can now be more dangerous than before, and the combined effect of these developments is potentially a large increase in the destructive and disruptive potential of terrorism overall.

The effects of the use of a chemical, biological, radiological or nuclear weapon by terrorists would most likely be measured not only in loss of life, but also in panic, and in major economic and political consequences. We present a combination of both real and as yet hypothetical attack scenarios and their possible effects in Box 5.3 (next page), for illustrative purposes.

Many of the technologies required in putting together a chemical, biological or radiological weapon are widely available and in commercial use. The chemical ingredients for sarin, for example, are in flame retardants, while thiodiglycol, which is used in ball-point pen ink, is just one step removed from mustard gas (Cornish 2007). Many low-grade radioactive materials are also used in hospitals, in industry, the university research sector and elsewhere, often not covered by tight security. As for biological agents, the explosion in biotechnology for both commercial and medical purposes means that many more firms now offer to synthesise complete genes for clients without conducting thorough security screening checks on the buyer. This in turn could allow a terrorist to buy genes for use in the engineering of an existing and dangerous pathogen into a new and more virulent strain.

Box 5.3: CBRN scenarios and their effects

Chemical

- The Japanese Aum Shinrikyo sect attacked the Tokyo subway with sarin gas in 1995, killing 12.
- Estimates of the effects of open-air dispersal of sarin in an urban environment range from 50 deaths for 10kg of released agent all the way up to tens of thousands of deaths, depending on the quantity released (Cornish 2007).

Biological

- The anthrax attacks that took place in the US in the days immediately following the attacks of 11 September 2001 killed five people and injured 17 others (Daschle 2008). However, this attack, which involved anthrax spores being mailed through the US postal system to Senate offices and other government buildings, caused widespread panic and the temporary shutdown of parts of the US government (Gumbel 2001). The anthrax is thought to have originated from a US government laboratory.
- A large-scale biological attack could result in the need for mass decontamination or even the containment by force of infected individuals by the police or military to avoid the contagion spreading. For a more detailed account of such a scenario, see www.atlanticstorm.org – an invented, scenario-based game in which a large-scale biological attack was imagined.

Radiological

- The assassination of Alexander Litvinenko, the former Russian secret agent who died on 23 November 2006, was effected by acute radiation syndrome induced by the ingestion of Polonium-210 planted in London. For the post mortems there were only two surgeons and one mortuary in the UK capable of handling a corpse of this type. In other words, this single murder tested national capacity.
- There has been relatively little modelling of the effects of a radiological weapon in a city. However, it is thought that an explosive device, combined with a sufficient quantity of radioactive source material, could cause lethal doses of radiation within a half-mile radius from the point of detonation. Detonation of a radiological device of this kind could also be expected to cause severe economic damage (Cornish 2007). Buildings and offices in contaminated areas would have to be shut down (possibly for very long periods of time). Such site denial could cause businesses to collapse, financial districts could be severely disrupted, and revenues from sources such as tourism would dry up.

Nuclear

- Former US Under Secretary of State for Defense Graham Allison has projected that a 10 kiloton nuclear device exploded in a city would destroy most structures within one third of a mile, with those left standing reduced to empty shells. There would be a 100 per cent fatality rate in this area. Up to three quarters of a mile, there would be fatal radiation doses for anyone directly exposed to the blast and significant risk of firestorm. Most people in this area would also be left dead or seriously injured. In the remaining area up to a mile from the blast point in any direction, the area would be ravaged by radiation and fires (Allison 2004). For further information on nuclear terrorism, see www.nuclearterror.org and Bennett 2004.

However, although the expertise may be available to terrorist groups or even lone fanatics, these people need access to relatively sophisticated equipment and infrastructure to weaponise these agents. The biggest danger here may come from state weakness and the possibility that terrorists might gain access to state laboratories and facilities that are insufficiently secure. This is true in relation to bioterrorism where, in the name of bio-defence, research and experimentation using deadly pathogens in government laboratories can itself become a point of vulnerability.

It is even more true in relation to access to nuclear warheads and to the materials required to make them. We know, for example, that nuclear black markets, often fed by thefts from state resources, do exist. The International Institute for Strategic Studies (IISS), using estimates drawn from the International Atomic Energy Agency and the Database on Nuclear Smuggling, Theft and Orphan Radiation Sources (DSTO) has shown that roughly 38kg of Highly Enriched Uranium (HEU) and plutonium were seized by law enforcement bodies in the period 1991 to 2006. Not all of this material was of weapons grade, but around 8kg of it was, and this figure in any case, of course, represents only the known amounts of these materials stolen by criminals and then recovered by law enforcement agencies in that period. We do not know how much has been stolen and not recovered over the same period; nor is it easy to calculate that amount without knowing exactly how much of each has been produced since 1945 (Pluta and Zimmerman 2006). Given that only 15.9kg of HEU or 4.1kg of plutonium are required to achieve a nuclear explosion, the suggestive figures on the scale of black market activity in this area remain deeply troubling.

Up to now, terrorists have almost exclusively used relatively unsophisticated conventional weapons – explosives or even aeroplanes. That does not, however, mean that terrorists are not trying to acquire unconventional weapons with which to terrorise. Policymakers must be fully alert to these dangers.

Transnational crime

Turning to organised crime networks, these, too, are becoming more threatening. Increasingly, they are operating across borders, facilitated by decreasing transportation costs, improved global communications and the increased cross-border flows of both people and goods. This gives rise to the phenomenon of transnational organised crime, broadly a series of serious crimes or offences committed by groups of three or more persons, acting in concert for a period of time to obtain, directly or indirectly, a financial or other material benefit (UN 2000b).

Transnational organised criminal networks flourish in areas where state authority is weak or susceptible to corruption, where enforcement of the rule of law is patchy and where borders are permeable. This now increasingly applies not just to individual states, but to the global space, too. These networks stimulate vicious cycles of crime and instability in which criminal groups locate themselves in states or regions where they can escape detection, only to perpetuate conflict and further undermine the rule of law in these areas as a result of their activities. For this reason in 2004, the UN Secretary General's High Level Panel on Threats, Challenges and Change described transnational organised crime as a facilitator of many of the most serious threats to international peace and security, observing that: 'corruption, illicit trade and money-laundering contribute to State weakness, impede economic growth and undermine democracy' (UN 2004: 15).

Transnational organised crime, then, is a major national security concern. In this section, we provide an overview of its global scale and character and briefly address the question of linkages between organised crime and terrorism. In Chapter 6 we return to look at the specific implications of the range of issues raised for the UK.

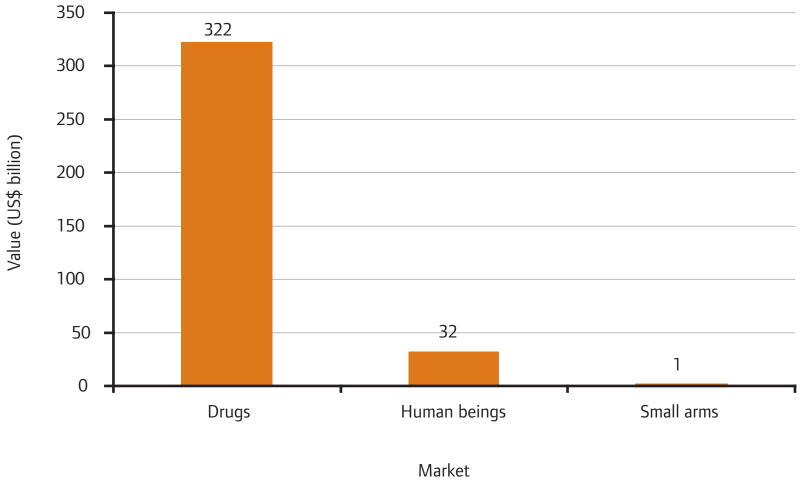
Global scale and character of transnational organised crime

The character of transnational organised crime has changed in recent years (Glenny 2008a). The old image of Mafia-style organisations with rigid top-down hierarchies is no longer accurate; while centralised crime groups like this do still exist, they have been joined by transnational organisations that employ a looser networked structure and collaborate as necessary to engage in specific criminal ventures. This kind of structure lends itself well to activities such as drug trafficking or the smuggling of other illicit commodities, where large hierarchical networks or cartels in source countries will orchestrate the production side of the trade, but where small and discrete groups (or 'cells') will organisation the transportation and sale of goods as part of a dispersed chain. As recent efforts to combat terrorism have demonstrated, it is much more difficult to track and disrupt the activities of these 'flatter' networks, many of which communicate primarily via the internet.

Drug trafficking

Although a diverse range of actors profit from the global trade in illicit drugs, from poor farmers and cultivators of poppies in Afghanistan and coca in Colombia to wealthy urban drug dealers in Western countries, organised criminal groups are the primary beneficiaries of an industry that is estimated to be worth around US$320 billion a year, making it the most lucrative of all transnational organised criminal activities (UNODC 2007: 170).

Figure 5.2: Estimated global value of illicit markets (US$ billion)



Source: United Nations Office on Drugs and Crime 2007

The scale of the activity, moreover, is growing. In Europe, for example, where the open borders that underpin the continent's economic trade and development also give organised criminal groups unprecedented opportunities to expand their operations throughout, there has been a major increase in drugs importation. The available data indicates that European police and other security services seized 20,694kg of cocaine in 1995, for example, but by 2005, seizures totalled 106,057kg, representing an increase of more than 400 per cent over the decade (see EMCDDA 2008). Although this rise in reported seizures may be due in part to improved intelligence and policing, the figures also suggest a considerable growth in the absolute size of the transnational drugs trade on the continent.

The drugs trade has a devastating localised impact on individuals and communities worldwide, causing health risks to users and breakdowns in personal relationships while fuelling other criminal activities such as prostitution, theft and violence. However, it also has deeply negative implications for peace and security in many countries and regions. Afghanistan (which supplies 90 per cent of the world's opium) is a prime example of this. The value of the Afghan narcotics industry is almost half the size of the country's legal GDP, and the 'drug money' produced by this trade both undermines state institutions and empowers the Taliban (Rubin and Sherman 2008). According to Antonio Maria Costa, executive director of the United Nations Office on Drugs and Crime (UNODC), the Taliban and other militants are expected to earn between US$50 and 70 million from Afghanistan's opium and heroin trade as a result of the 2008 harvest, which will enable them to continue their offensive against NATO forces in the country and prolong a war that has directly or indirectly led to the death of tens of thousands of civilians since 2001 (Associated Press 2008b). In this context, the claim that the failure of the West's 'war on drugs' is creating an Afghanistan 'that will be home to Islamic militants and an unstoppable heroin industry' (Glenny 2008b) may not be a major overstatement.

The drugs trade in Afghanistan has also had an impact on regional security, affecting countries such as Iran and Pakistan that lie along the 'Balkan Route' used by traffickers to transport drugs to Europe. Iranian officials recently claimed that the volume of opium-based drugs being smuggled through Iran from Afghanistan by transnational organised criminal groups has increased fivefold over the past five years, making cheap and potent drugs available throughout the country (see Borger 2008 and Tehrani 2008). Transnational organised crime can thus be characterised as a 'threat multiplier' in a region already beset by social and economic problems.

Arms trafficking and natural resource smuggling

Comparatively speaking, the trafficking of goods and natural resources – such as small arms and diamonds – takes place on a much smaller scale than the global trade in drugs. The Small Arms Survey has put the value of the illicit firearms trade at no more than US$1 billion (UNODC 2007). However, the impact of this type of trade on international security should not be underestimated. Although there are difficulties in gathering accurate data on this subject, as indicated in the last chapter, it is believed that the presence of large numbers of small arms in a country is a significant conflict risk factor and that small arms contribute to hundreds of thousands of deaths and millions of injuries each year. Some have suggested that they are responsible for up to 90 per cent of all conflict deaths (Schroeder and Lamb 2006).

The trafficking of small arms and light weapons, often left behind in massive numbers in poor, war-ravaged countries after terminated conflicts (such as in the Balkans), has had a destabilising influence in many countries, in Africa and elsewhere. The proliferation of these weapons has exacerbated and prolonged conflict, and has resulted in the emergence of a culture in which gun ownership is closely linked to identity and status. Some analysts have noted that 'in some societies, gun culture may even result in the perception of violence … as an acceptable and legitimate means of social interaction between people' (Schroeder and Lamb 2006: 73). This has been observed in places such as the Democratic Republic of Congo and Somalia, where state authority is weak or entirely absent, and has made peace-building immeasurably more difficult.

Diamond smuggling has been another major driver of conflict and insecurity, particularly in parts of Africa that contain large deposits of alluvial diamonds. As with small arms and light weapons, diamonds are easily concealed and transported, making them an attractive commodity to transnational crime groups. They are also virtually untraceable to their original source once they have been mixed or polished, due in part to the lack of transparency in the diamond industry: although, since 2000, the international Kimberley Process of diamond certification has made the workings of the industry much less opaque, illegal trade in conflict diamonds persists, estimated to be worth up to 20 per cent of the global trade (Global Witness 2006).

Conflict diamonds are therefore frequently used in lieu of currency in illicit arms deals, money laundering or other crimes, and conflicts in Sierra Leone, Liberia, Angola and the DRC have all been perpetuated by the production and trade in diamonds (US GAO 2002). The Revolutionary United Front in Sierra Leone was a particular beneficiary of this trade during the 1991-2002 conflict, financing its military operations through the sale of diamonds for weapons. Diamonds are also thought to have funded the activities of Hezbollah in Lebanon, and there is evidence to suggest that Al Qaeda has long been involved in the illicit trade in diamonds as well as other gemstones. For example, Al Qaeda reportedly converted US$20 million into untraceable 'blood diamonds' in the months before the attacks of 11 September 2001 (Hill 2002).

People trafficking

A final form of trafficking is the smuggling of human beings. A recent UNODC report on global trafficking trends documented the forced transfer of people from 127 countries (UNODC 2006). Belarus, the Republic of Moldova, the Russian Federation, Ukraine, Albania, Bulgaria, Lithuania, Romania, China, Thailand and Nigeria were classified as the states with the highest recorded levels of trafficking. In contrast, destination countries are more likely to be located in the West, with Belgium, Germany, Greece, Italy, the Netherlands, Israel, Turkey, Japan, Thailand and the United States identified as receivers of the greatest numbers (ibid).

People are trafficked for two main reasons: forced labour and sexual servitude. The International Labour Organisation has estimated that there are approximately 12.3 million individuals trapped in these activities at any given time, with 9.8 million exploited by private agents and another 2.5 million forced to work by governments or by rebel military groups (ILO 2005). Global profits from people smuggling are estimated to be in the region of US$10 billion annually (UN Information Service 2003).

International financial crime

Although sometimes described as 'victimless crimes', also significant are fiscal fraud and money laundering (defined by Interpol [2008] as 'any act or attempted act to conceal or disguise the identity of illegally obtained proceeds so that they appear to have originated from legitimate sources'). The International Monetary Fund has estimated that the aggregate size of global money laundering could be somewhere between 2 and 5 per cent of the world's GDP, which would range between US$590 billion and $1.5 trillion in 1996 prices. To put this into context, the lower figure is roughly equivalent to the value of the total output of an economy the size of Spain (Financial Action Task Force 2008b). It is one of the key mandates of the Financial Action Task Force, the intergovernmental financial body set up in 1989 to address the problem of global money laundering, to work in partnership with national governments and the private sector in the fight against this activity. It has made some progress – notably in its creation of global standards and recommendations to combat the threat – but the increasing sophistication of both information and communication technologies and criminal gangs and terrorist groups themselves makes the scale of the challenge considerable.

> "National governments and global cyber-governing bodies have been overwhelmed by the ingenuity and pervasive online presence of organised criminal gangs in recent years"

Fraud, too, is a major problem, not just in economic terms, but also because the funds raised through it are used to finance a range of other criminal, and sometimes terrorist, activities.

Today, fraud and theft are increasingly occurring online and as a form of cyber-crime. National governments and global cyber-governing bodies have been overwhelmed by the ingenuity and pervasive online presence of organised criminal gangs in recent years. Cyber criminals have adopted tactics including spoofing – impersonating someone else through data falsification, phishing – tricking an individual into revealing private information via emailing of a message designed to appear as if it originates from a legitimate source, and hacking – electronically breaking into databases that contain financial or personal data that is then copied and used fraudulently. They are also becoming increasingly proficient in the use of malware – malicious software that infects the victim's computer, capturing confidential data that is then forwarded to the criminal, and botnets – which aim to disrupt targeted computer systems, block internet traffic, harvest information or distribute spam, viruses and other malicious code. They are made up of a vast number of computers that have been infected and are remotely-controlled through commands sent via the internet.

Cyber criminals have graduated from using email attachments to infect computers, to encoding spam messages, banners and malicious software in ordinary websites. Research by Google, for example, identified 4.5 million suspicious web pages, 450,000 of which were found to launch downloads of malicious programmes. More than two thirds of the malicious programmes identified were of a kind designed to collect data on banking transactions and to email it to the criminals (Hecht 2007).

Transnational organised crime and terrorism

Many analysts have described the relationship between transnational organised crime and terrorism as a nexus of methods, not motives. This suggests that the operational methods of terrorists and organised crime groups frequently overlap, while the goals they seek to achieve – ideological revolution and political change in the case of the former, and personal profit in the case of the latter – usually differ. However, while it is right to be careful about treating terrorists and serious organised criminals as one and the same, it is evident that in many places, 'the grid of connections between terrorism and criminal networks has been highly crisscrossed' (Berdal and Serrano 2002). This is particularly true of groups such as the Revolutionary Armed Forces of Colombia (FARC), which is heavily involved in the illegal narcotics trade in South America, but classified as a terrorist organisation by state authorities and international governments. Meanwhile, the terrorist group that orchestrated the Madrid train bombings in 2004 financed the operation almost entirely through the sale of illicit drugs, drawing on the organised crime connections of one of the members of the cell (Shelley *et al* 2005).

Some serious and respected analysts, moreover, are sceptical of the idea that clear lines can be drawn between transnational organised crime and terrorism, noting a number of similarities and links between the two. For example:

- Terrorists derive financial support from organised criminal activities
- Organised crime groups and terrorists both frequently employ network structures, which sometimes intersect (such as the FARC in Columbia)
- Crime groups and terrorists both often operate in areas with minimal government authority, weak enforcement of the law, and open borders
- Organised criminals and terrorists use corruption in order to achieve their goals
- Organised crime groups and terrorists both use similar communication methods, particularly in relation to their use of the internet and other communications technologies
- Organised criminals and terrorists both launder their money, often using the same methods and even the same operators to move their funds. (Shelley 2002)

Research has indicated that larger and more 'traditional' transnational organised crime groups are less likely to do business with terrorists, since they have a strong stake in maintaining political structures and the legal economy and exploit both in order to facilitate their activities. However, newer transnational groups that operate as loose networks often have little, if any, affiliation with particular states, and care less about the ultimate consequences of their actions. They also thrive in conditions of anarchy or conflict, giving them fewer qualms about who they deal with (Shelley *et al* 2005). The Tri-Border area between Brazil, Argentina and Paraguay is a good example of this: there, drug cartels and terrorists mingle with relatively little fear of their activities being discovered or disrupted. Hezbollah, for example, is believed to have based operatives there while planning and carrying out the 1992 bombing of the Israeli embassy in Buenos Aires (Abbott 2004).

The importance of transnational crime, then, is not merely as an 'add-on' to more important features of the international security landscape. Transnational crime exploits and perpetuates state weakness and failure, it feeds violent conflict, and there is reason to worry that criminals and terrorists can overlap and sometimes collaborate.

Infectious disease and pandemics

Worries over crime also intersect with concerns over new outbreaks of disease. The cross-border and sometimes criminal trade in animals and animal-related products is thought to be a source of increased risk, for example, and according to an official of the UN Food and Agriculture Organisation, 'much of the spread of HPAI (Highly Pathogenic Avian Influenza) can be attributed to trade in poultry and poultry products, particularly the informal trade' (House of Lords 2008: 44).

This is worrying because human vulnerability to disease is on the increase again after decades of progress on that front. According to the World Health Organisation (WHO), there are now nearly 40 diseases that were unknown a generation ago and the WHO has verified more than 1100 epidemic events worldwide in the last five years alone. New diseases are now said to be emerging at the historically unprecedented rate of one per year (WHO 2007).

These developments reflect a number of underlying factors, some medical, some to do with the pattern of human-animal interaction and some to do with globalisation and urbanisation.

First, at the medical level, there is a notable trend to antimicrobial resistance. Mainstay antimicrobials are now failing faster than new drugs can replace them and drug-resistant malaria, HIV and extensively drug-resistant tuberculosis (XDR-TB) are all now a feature of the landscape. This is an ominous development and one that is not widely understood outside specialist policy circles. Indeed, in the general population complacency on the effectiveness of modern treatments is more the norm.

Second, the pattern and level of interaction between humans, animals, and animal-related products is changing. The explosion in the human population and the search for more living space means humanity is increasingly encroaching onto previously uninhabited land, exposing itself to new animal populations and potentially to new sources of animal-borne diseases. Three out of four new emerging infections in humans are thought to have come from animals and it is now widely accepted, for example, that contact with animals is the most likely source of the HIV epidemic, and also a likely factor in the emergence of SARS (House of Lords 2008).

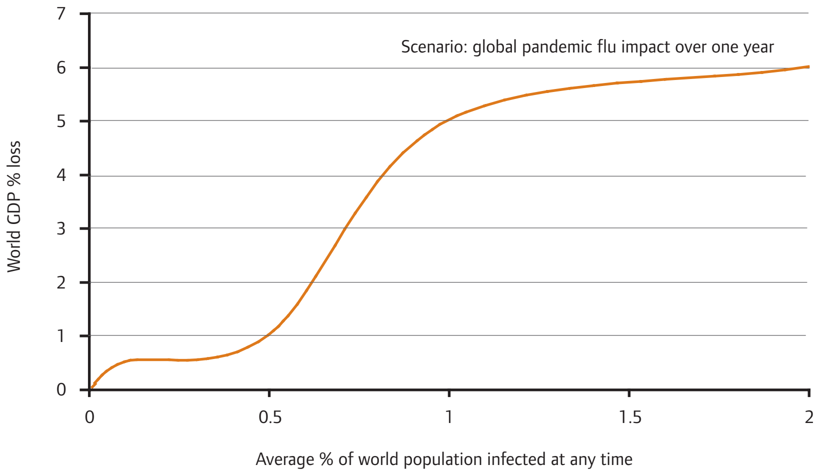
Third, human vulnerability to infectious disease outbreaks is increasing as a result of urbanisation and globalisation. As people move into increasingly large urban centres, often without access to basic sanitation and public health infrastructures, they move into conditions in which infectious diseases can thrive more easily and spread more quickly. When a disease outbreak does occur, in a globalised world the effects are wide ranging and far reaching. Airlines transport over 2 billion passengers a year between the world's urban centres, for example, ensuring that a disease outbreak in one part of the world can quickly become an outbreak in many others. Communications are instant and global, meaning news of a disease outbreak in one location can create social anxiety and even panic elsewhere and businesses and financial systems are so intimately connected across borders that economic disruption is likely way beyond the areas directly impacted by the disease.

The outbreak of SARS in 2003 confirmed what the emergence of a new or unfamiliar pathogen could do in these conditions. Spreading from person to person, incubating for over a week, and mimicking the symptoms of many other less serious conditions while killing around 10 per cent of those infected, it was transported to four continents in just 24 hours by a very small number of infected people. As a result, and because it was initially poorly understood, it caused serious public anxiety and seriously impacted international travel, tourism, and restaurant and other retail sectors in many countries. Although a strong surveillance and epidemiological response limited the number of cases to 8,422 with an 11 per cent case mortality rate, the WHO believes a less effective response could have seen SARS kill millions of people worldwide (WHO 2007). As it was, even this limited outbreak is estimated to have cost the economies of Asia US$60 billion in gross expenditure and business losses in 2003 (Rossi and Walker 2005). It would be naïve to think that other new or unfamiliar diseases will not emerge to create similar challenges and threats over the coming years.

Concern is now shifting to the threat of a new influenza pandemic. Such a pandemic is considered a biological certainty, the only uncertainties being over the timing of the outbreak, the strain involved, and the severity of the outcome. Many experts believe that H5N1 bird flu will be the most likely source and as we know, this is a disease that can already kill human beings (there were 79 fatalities in 2006 alone). If H5N1 mutates into a virus that can be passed not only from birds to humans but also directly between humans, however, then it would probably become a killer of millions. One recent study has ominously suggested that, 'in contrast to seasonal influenza, which primarily involves lung infection, the H5N1 virus might be disseminated throughout the body and affect multiple organs thanks in part to a condition of the immune system known as a cytokine storm. This is a significant finding since cytokine storms help to explain why the 1918-19 pandemic was so deadly' (Osterholm 2007: 50). Furthermore, influenza (unlike SARS) is infectious well before symptoms appear, making management of its spread much more difficult. Consequently, in assessing the likely outcome of an influenza pandemic, the WHO and others believe the effects would likely be far greater than those experienced in the SARS outbreak just described.

For a reasonable projected influenza infection rate of 1 per cent of the world's population, the WHO (using Oxford Economic Forecasting Group data) suggests a 5 per cent reduction in global GDP with subsequent GDP reductions for further increases in the infection rate. Figure 5.3 presents projections on the scale of GDP losses for a sliding scale of infection rates up to 2 per cent of the world's population.

Figure 5.3: The estimated economic impact of pandemic influenza



Source: Oxford Economic Forecasting Group

At a certain critical (though unspecified) infection rate, the WHO also projects a possible 'shut-down' of the global economy on the proportional scale of that experienced in the UK agricultural economy during the 2001 Foot and Mouth Disease outbreak (WHO 2007). Other studies suggest similar or worse outcomes. A recent study by the Lowy Institute for International Policy found that 'were a pandemic as severe as that of 1918-19 to occur, over 142 million people would die and the world's GDP would suffer a loss of some US$4.4 trillion' (Osterholm 2007: 48; McKibbin 2006). With such predictions in mind, the WHO has called the control of such a pandemic a 'global public good'.

We would acknowledge that there have been some important developments on the international policy landscape in relation to this global public health agenda in recent years. In particular, the International Health Regulations (IHR) 2005, which replaced an earlier version of the regulations agreed in 1969, are a major step forward in improving the global approach to infectious disease surveillance and control.

The IHRs of 1969 offered a legal framework for international notification of and response to just six diseases: cholera, plague, relapsing fever, smallpox, typhus and yellow fever. They also placed a heavy emphasis on the use of border controls at major airports and seaports to prevent the spread of disease.

The IHRs of 2005 are a significant departure from this position in a number of respects. They are broader than the version of the regulations they replace, putting a greater emphasis on the responsibility of all states to install effective systems by 2012 for the detection of public health risks. Their application is also aimed at all public health risks and not only at those emanating from a list of named diseases. Moreover, whereas the 1969 regulations required formal state notification of a disease outbreak before the WHO could act, the IHRs 2005 explicitly allow information from non-state actors and media outlets to be taken into account when weighing the risks of a potential emerging risk to public health. This capacity to take on board non-state sources of information, particularly in the internet and global media era, makes it far harder for a state fearing the economic consequences of a disease outbreak to attempt to deny or cover it up.

Welcome though these developments are, there is no room for complacency. Quite apart from the threat of bioterrorism as discussed earlier in the chapter, an expansion of activities related to infectious disease laboratory research has increased the danger of accidental release of dangerous infectious agents and pathogens. Serious gaps in the capacity of the international community to respond to infectious disease outbreaks also remain. Despite the predicted dire impact of an influenza pandemic, few countries can claim to have sufficient stocks of vaccines or the required levels of anti-viral medications to respond to the challenge (WHO 2007). More generally, there is also a lack of basic health infrastructure in many weak, poor and developing states which means that not all the commitments entered into under the International Health Regulations 2005 can be delivered everywhere in practice. Effective delivery requires core national capacities in disease detection as well as international collaboration and these capacities are not always present.

There is also a growing confusion over the roles of the many different organisations, both state and non-state, now seeking to play a role in relation to global health security (House of Lords 2008). Intergovernmental bodies such as the World Health Organisation, UNAIDS, UNICEF and the World Bank are all active in this space, as are national government bodies such as the US Center for Disease Control, private foundations such as the Bill and Melinda Gates Foundation, and other NGOs and public private partnerships such as Médecins Sans Frontières and the Global Alliance to fight Aids, TB and Malaria.

In summary, despite recent progress, the spread of disease on a massive and devastating scale on the back of a growing, increasingly urban, and mobile global population is a real threat. It is made more likely by the existence of weak state institutions in some jurisdictions, by the illegal cross-border trade in animals and animal-related products, and by confusion over governance and leadership arrangements at the global level. The risks and policy deficiencies surrounding this set of issues need urgently to be addressed.

Summary of Chapter 5

The security threats and risks discussed in this chapter have three things in common.

> "Transnational terrorism, transnational crime and the risk of the rapid spread of a deadly disease are not temporary additions or modifications to the policy agenda"

First, they all, fundamentally, originate in and are facilitated by several of the underlying trends and developments outlined in Chapter 3. Globalisation and technological change, unprecedented mobility and a diffusion of power to non-state actors, sit in the background to each of the issues just discussed. For this reason, transnational terrorism, transnational crime and the risk of the rapid spread of a deadly disease are not temporary additions or modifications to the policy agenda. Each is rooted in historical processes and each is here for the long term.

Second, non-existent, weak or corrupt state institutions in some jurisdictions, which as we outlined in Chapter 4 are a major and potentially growing problem in international affairs, play a facilitating role in relation to all of them.

Third, all defy national boundaries and all defy solutions that may be deliverable by a single state. All, in other words, need multilateral solutions. This need for multilateralism, and for strong states to make it workable, is something we return to later in our report, both in relation to the framework of principles we set out in Chapter 8 and in our policy recommendations in Chapter 9.

Before that, however, we turn to an examination of how some of the trends, drivers and features of the international security landscape captured in this chapter and the previous two are playing out in, and impacting upon, the UK.

6. Threats and risks in the UK

The security of the UK is challenged very directly by some of the features of the international landscape described in previous chapters. We are vulnerable, for example, to terrorist attacks launched or inspired from the territory of weak, failed, or crime-captured states as well as to attacks launched from closer to home. We are vulnerable to spill-over effects that may flow from conflict and instability elsewhere in the world, and to transnational crime, increased volatility and uncertainty in the world's tight energy markets, and to the risk of pandemic disease. Our security would be diminished, too, by developments such as a collapse of the nuclear non-proliferation regime, by a slide from an emerging multipolar order into a world of serious great power rivalry and conflict, and by any movement away from a system of open multilateral trade to one dominated by protectionist measures and a recession-fuelled economic nationalism.

In this chapter, however, we examine how this wider international landscape, and Britain's place within it, is combining with domestic factors and vulnerabilities to produce a security agenda that is more specific to the UK. In doing so, we examine 'home grown' threats to security, the increasing vulnerabilities associated with economic interdependence, and the UK dimensions of some of the transnational threats and risks just described. We cover:

- The terrorist threat inside the UK
- UK impacts of transnational organised crime
- The security implications of migration into the UK
- Britain's energy security challenge
- Pandemic disease
- Climate change impacts on the UK, and the damage to infrastructure and life that may result from increasingly severe weather events.

We do not cover the possibility of a direct conventional attack, or one using weapons of mass destruction (WMD), on the UK from another state. This can never be discounted altogether, and there is a clear need for the UK to maintain strong and flexible defence forces, properly equipped and configured to deal with the new world we face, but we believe the possibility of such an attack on the country to be remote in current circumstances.

Similarly, we do not cover Britain's wider links to the world economy or our economic security beyond the crucial issue of energy, and we do not, in our treatment of the terrorist threat in the UK, seek to offer a comprehensive explanation of what the radicalisation process is or how it works. We will return to the latter in our final report. On the former, we believe that beyond the central issue of energy security, we can add little value to the debate that is already raging on this issue in the guise of the global financial crisis, which has to rank as the most significant current threat to the security and stability of the UK and its economy. At the time of the drafting of this report, both the characteristic features of this crisis, and policymakers' responses to it, were changing on a daily basis. In this context we do not comment here except to make the observation that a world of economic chaos is unlikely to be one of strong and stable states, international harmony and peace. A global financial system that fails to regulate and manage risk effectively is a direct threat not only to the security and stability of our own economy, therefore, but also to the economic foundations of wider international peace and security.

The terrorist threat to the UK

The UK faces multiple terrorist threats. Northern Irish splinter groups responsible for terrorism have not altogether disappeared, single-issue fanatics such as the Animal

Liberation Front persist, extreme rightwing outfits such as Combat 18 remain active, and the threat from 'lone wolves' such as the London nailbomber David Copeland cannot be discounted. However, the primary terrorist threat to the UK today is from Al Qaeda and the neo-jihadis influenced by it. This threat is judged (at the time of writing) by the Joint Terrorism Analysis Centre to be Severe, suggesting a 'high likelihood' of future terrorist attack (see MI5's website www.mi5.gov.uk for further details).

There have been at least 15 attempted terrorist plots on British soil since 2001. The police and security services are currently contending with about 30 known plots, monitoring over 200 groupings or networks, and investigating more than 2,000 individuals (Hull 2008). MI5 currently have about 200 operations under way at any one time, of which around 5 per cent reach executive level. There have been more than 200 terrorist convictions in the UK since 11 September 2001 and in the first half of 2008, 31 people were convicted of terrorism-related offences. Of these, 11 people pleaded guilty. In 2007, 36 individuals were convicted of terrorism-related offences. Of these, 21 people pleaded guilty (Metropolitan Police Service 2007). These figures are all rising and it is unlikely that the threat has reached its peak.

There will not be a time in the next two years when there is not a major British counter-terrorism trial at court.

The threat posed by Al Qaeda and Al Qaeda-influenced terrorism is therefore significant, growing and evolving. It constitutes 'the most immediate and acute peacetime threat' in the past century (Evans 2007). Violent extremists are conducting a deliberate campaign, demonstrating a clear determination to mount terrorist attacks against the UK and the indications are that this is a generation-long challenge to confront.

"Violent extremists are conducting a deliberate campaign, demonstrating a clear determination to mount terrorist attacks against the UK and the indications are that this is a generation-long challenge to confront"

Terrorist modes and locations

Different modes of terrorist attack have been attempted in the UK in the recent past. Vehicle-borne (VB) improvised explosive devices (IEDs), for example, were used, for the first time in Britain since the IRA's terrorist campaign ended, in London's Haymarket and Glasgow Airport on 29 and 30 June 2007, in a plot that originated with Al Qaeda in Iraq. Person-borne (PB) IEDs – suicide bombs – were used on 7 July 2005 on the London Underground and a bus and then again, this time failing, two weeks later. Thwarted conspiracies have revealed terrorists' intentions to use fertiliser bombs at Bluewater shopping centre in Kent and the Ministry of Sound nightclub in London, limousines packed full of gas cylinders in underground carparks, liquid bombs onboard transatlantic aircraft, high-powered weaponry such as mortars and rockets, and poisons. Counter-terrorist police are on the look-out for terrorists attempting to steal military vehicles, blue light vehicles, and vehicles containing hazardous materials and fuel. The last of these is of particular concern, because petrol tankers – potentially devastating, if weaponised – have been hijacked and rigged using fuel-air explosive techniques to mount attacks on a synagogue in Tunisia and on checkpoints in Iraq, and it is feared that similar tactics could be used in the UK.

It would also be a mistake to believe that the terrorist threat is a threat only to our capital city, or even necessarily to major conurbations. Significant terrorist activity has been observed not only in the metropolises of London, Manchester, Birmingham and Leeds, but also, for instance, in smaller cities and large towns such as Exeter (BBC 2008a) and High Wycombe (BBC 2008b), small towns such as Crawley (BBC 2007c) and Alva (BBC 2007d), and villages such as Marks Cross (BBC 2006).

Homegrown terrorists

While it is clear that there are links between UK-based terrorists and wider Al Qaeda and Al Qaeda-influenced networks operating overseas, the available evidence at present suggests that the terrorists who threaten the UK are primarily citizens and residents rather than foreign nationals. While there is no UK terrorist profile, two thirds of terrorist suspects have been British nationals, and very few have been illegal immigrants. Often 'cleanskins' (someone with no history or record of criminal activity), they are mostly Muslim males, sometimes married and with children, and usually under 30 years of age (children as young as 15 having been implicated [BBC 2008c]). They cover wide educational, economic and employment spectrums. Those that have studied have usually done so in technical, medical or science faculties. Their knowledge of religion and politics has initially been scant (ACPO 2008 and Travis 2008).

These terrorists are drawn from a hugely diverse[19] and overwhelmingly law-abiding population of roughly two million Muslims in the UK, and there appears to be a well established link to Pakistan. Of the 2,000 suspect individuals identified in the UK by MI5, 65 per cent are of Pakistani origin or heritage, and of the 200 groupings of concern in the UK, 60 are in the Manchester-Bradford-Leeds region, where there is a large concentration of British citizens of Pakistani descent (ACPO 2008). Other terrorist suspects have been of African, Middle Eastern or Caucasian background, with some having fled trauma and persecution in their countries of origin to claim asylum in the UK.

Explaining why any individual chooses to become a terrorist is fraught with difficulty. It is not always safe even to assume a linear process of passage from the radicalisation of an individual's views to the decision to become an active terrorist. The radicalisation process presents complex issues and there are a range of theological, political, sociological and psychological explanations covered in relevant journalistic, academic and policy literature (for example, Burke 2008, Innes *et al* 2007, HM Government 2006). We do not believe it is wise to search for or to offer a single explanation for this phenomenon.

We do, however, believe that terrorist groups function most effectively when a wider tacit circle of supportive opinion in society appears to suggest that the activities of the terrorists are somehow justified. That tacit circle of supportive opinion appears to exist in the UK and to be reflected in various opinion polls. 20 per cent of adult British Muslims, for example, when surveyed, said they had sympathy with the feelings and motives of those who carried out the 7 July 2005 bombings (ICM/Sunday Telegraph 2006). In another survey, 7 per cent agreed with the statement 'There are circumstances in which I would condone suicide bombings on UK soil' (The Times 2006). And, in a third survey, 1.9 per cent – equating to 38,000 individuals – declared a belief that it is justifiable to commit acts of terrorism against civilians in the UK (The 1990 Trust 2006).

We believe these poll findings are significant, not because they imply any simplistic link between sympathetic opinions and a decision to carry out acts of terrorism on the part of any particular individual, but because they demonstrate a clear breakdown of trust between public authority in this country and a very significant number of its citizens and because they point to a fairly widely held set of beliefs that may provide a supportive context within which terrorist groups and recruiters can thrive. They also, moreover, point to ingredients of the political context within which acts of terrorism are taking place.

That political context is one in which the Muslim population of the UK overall suffers from very extensive forms of social exclusion, being under-represented in all spheres of public life, enjoying very limited economic success or social mobility, and suffering very high levels of unemployment (Masood 2006, Mayor of London 2006, Naqshbandi 2006, Wilton Park 2006). While it would be over-simplistic to suggest that this reality, and the corollary perception of community deprivation and even persecution itself drives the radicalisation process, it seems likely that this could be one of a range of background factors that may be relevant.

Other factors could include:

- A sense of alienation among younger generations of Muslims who feel neither close allegiance to the less politicised beliefs of their parents, nor a sense of acceptance or belonging in the country in which they were born and are citizens
- Perceived misrepresentation of Muslims by the mainstream media (68 per cent of British Muslims think that Muslims in Britain are subject to unjustified criticism [Channel 4 2008])
- Perceived victimisation by law enforcement and security agencies
- Specific individual experiences of discrimination and inequality (a single Islamophobic incident can be a trigger)
- A belief that participation in the political process, either through elected representatives or forms of public petition and protest, is pointless

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19. Of the UK's two million Muslims, 38 per cent live in and around London, making up 8.5 per cent of the capital's population. The diversity of London's Muslims, who speak over 50 languages, is exceptional and there are concentrations of specific Muslim communities in particular parts of the city, such as that of Bangladeshi Muslims in the East London borough of Tower Hamlets. Outside London, there are concentrations of Pakistani Muslims, whose families came predominantly from the Mirpur rural province in southern Pakistani Kashmir, in Birmingham, Bradford, Blackburn, Burnley, Dewsbury, Glasgow, Leeds, Manchester and Oldham. Just under 1 per cent of British Muslims are converts to Islam (this group is overrepresented among suspected terrorists). Britain's Muslims are also predominantly young, with half aged below 25.

- Subscription to conspiracy theories in some cases, for example 51 per cent of British Muslims aged 18-24 believe that the attacks of 11 September 2001 were a conspiracy by the US and Israel (Channel 4 2006); 24 per cent of adult British Muslims think that the British government or security services were involved in some way in the 7 July 2005 bombings, and the same proportion do not believe that the four men identified as the bombers were the ones actually responsible for the attacks (Channel 4 2007). Another such theory is the assertion that Princess Diana was killed to stop her marrying a Muslim.

International factors which may be relevant include a perception that:

- Muslim lands are shamefully occupied, colonised, or culturally subjugated by the hypocritical, neo-imperialist West
- The West is manipulating the process of globalisation in a deliberate and calculated attempt to replace traditional structures with Western models
- The UK is complicit in a global attack on Islam or a conspiracy to undermine the unity of the ummah, as evidenced by events such as the wars in Iraq and Afghanistan.

The fact that these factors may be relevant does not mean that they are the causes of terrorism, but it does mean that whatever counter-terrorism measures may be necessary to deal with the terrorist threat in the UK in the short term, it is clear that wider political realities and perceptions must also be addressed by policymakers in an attempt to win the 'hearts and minds' of those currently within the tacit circle of support. Gaining their consent is fundamental to the success of our counter-terrorist effort. Communities can defeat terrorism, but only if all their members want to.

Moreover, it is urgent that we get on top of the situation both in counter-terrorist terms and in political terms. On the one hand this is because terrorists operating in the UK are likely to have plans that go beyond the kinds of terrorist attacks already carried out. We know, for example, that they have the ambition to carry out attacks against elements of our critical national infrastructure. In March 2004, police raided the home of Omar Khyam, the 24-year-old ringleader of the so-called Operation Crevice plot and found CD-Roms with detailed plans of Britain's electricity and gas systems. Khyam was also recorded talking about a planned simultaneous attack on Britain's gas, electricity and water systems (Laville 2006). We have also seen convictions of terrorists intent on using chemical or biological agents, such as the 2005 conviction of Kamel Bourgass for conspiring 'together with other persons unknown to commit public nuisance by the use of poisons and/or explosives to cause disruption, fear or injury' in the so-called Wood Green ricin plot.

"Wider political realities and perceptions must also be addressed by policymakers in an attempt to win the 'hearts and minds' of those currently within the tacit circle of support"

On the other hand, getting to grips with the UK terrorist threat is also important for the security of others outside the UK. The UK has been known to export Al Qaeda-influenced terrorist activity. Asif Mohammed Hanif from Hounslow, West London, for example, became the first foreign suicide bomber in Israel, killing himself and three others in Tel Aviv in April 2003. Richard Reid from Bromley, Kent tried to blow up an American Airlines flight from Paris to Miami on 22 December 2001 with explosives concealed in his shoes. Ahmed Omar Saeed Sheikh from Walthamstow, East London masterminded the abduction and decapitation of Wall Street Journal reporter Daniel Pearl in Pakistan in 2002. Some of these men, and many others, were encouraged in their radical beliefs at a handful of Britain's 1,600 masjids (mosques) by preachers of hate also based in this country, including ideologues such as Abu Qatada, Abu Hamza al-Masri, Omar Bakri Mohammad and Abdullah el Faisal.

The terrorist threat facing the UK is therefore real, as are the political challenges associated with it, and while it draws inspiration from outside the country it also has roots here. Politically, it is arguably the most high-profile challenge facing the country and responding to it comprehensively, both in counter-terrorism and in political terms, must be a priority.

The UK and transnational organised crime

Beyond the challenge of terrorism, the UK is impacted on and penetrated by transnational organised crime. A recent Threat Assessment from the Serious Organised Crime Agency (SOCA) estimated the overall cost to the UK economy of such crime (including the cost of tackling it) to be more than £20 billion a year (SOCA 2008).

The criminal activity in question comes in a number of different forms.

Drug trafficking, although disrupted with some success in the UK and abroad, is thought to feed an illicit market in the UK that is worth between £4 billion and £6.6 billion (SOCA 2008). It is also believed that there are around 300 major drug importers, 3,000 wholesalers, and 70,000 street dealers operating throughout the country, supplying an estimated 385,000 'problem' drug users in England, Wales and Scotland as well as a larger group of 'recreational' drugs users. As the SOCA Threat Assessment notes, 'both markets are critical to the success and spread of serious organised crime, enabling more drugs to be bought, funding other forms of crime in the process, and supporting criminal lifestyles' (SOCA 2008: 32).

Widespread abuse of addictive drugs such as heroin and cocaine is causing serious social problems, both in terms of the physical harm experienced by users and in terms of related breakdowns in familial and other important social relationships. Drug use also fuels a range of associated acquisitive crimes, including theft, robbery and prostitution, and can cause deep rifts in communities. The Home Office has estimated that Class A drug use alone generates an estimated £15.4 billion in crime and health costs each year, of which 99 per cent is accounted for by problem drug users (Home Office 2008). Illegal drug users here in the UK, by their complicity in this illicit trade, also both harm and endanger individuals and communities overseas – usually the poor in the countries from which the drugs come.

Drugs enter the UK from a variety of source countries. Afghanistan is of particular concern, since it is the origin of more than 90 per cent of both the global and UK supply of heroin. Intelligence estimates suggest that the primary trafficking route for heroin to the UK is overland from Afghanistan, via Iran, Turkey and the Balkans. Much of the heroin seized in the UK has also been found to have been transported directly from Pakistan. Meanwhile, Venezuela, Colombia and Peru are the world's primary producers of cocaine, with this typically being shipped into Europe on merchant vessels and yachts via Spain and Holland (McSweeney *et al* 2008).

Drugs, of course, are not the only problem. We also have a serious issue in relation to arms trafficking, particularly the trafficking of small arms and light weapons. These often come from conflict-prone regions or from states where law enforcement is weak and organised crime strong. Small arms seized at UK entry points in recent years have originated from a number of different countries, including but not limited to Albania, Bosnia-Herzegovina, Bulgaria, Croatia and Lithuania, and are increasingly being smuggled in relatively large batches of up to 30 weapons at a time by crime gangs based in these countries. Inside the UK, London, Manchester, Birmingham and Liverpool serve as hubs for criminal supply and distribution of these weapons, accounting for the fact that over half of all recorded gun crimes occur in the Metropolitan Police District of London, Greater Manchester and the West Midlands (SOCA 2008).

While it is important not to get this problem out of proportion (during 2006-7, the Home Office recorded a 13 per cent fall in the number of firearms offences in England and Wales compared with the previous year), it is clear that gun crimes are most pervasive in the poorer areas of the UK, and overlap with areas with large drugs markets. Gun crime also still features highly in public perceptions of important issues facing the UK, prompted in large part by the increasing number of young people involved in firearm offences, and the rise in the number of serious injuries caused by firearms in the 10-18 age range (SOCA 2008).

Organised human trafficking and people smuggling add further to this mix. The UK is an attractive destination for those wishing to enter the country legitimately for the purpose of work or study. However, the 'pull factors' which encourage legal migration – a strong economy and range of employment opportunities, our extensive state support system and diverse population – also appeal to illegal migrants. Transnational organised crime groups have been quick to exploit this opportunity, and organised immigration crime is now a serious problem for the UK, with some estimating that it is costing the country around £3 billion a year in lost revenues (Eads 2006). Immigration crime takes a number of forms, with some organised criminal groups arranging the transport of illegal migrants through Europe and into the UK in order to use them as a source of cheap and casual labour. Other groups provide services such as the falsification of identity documents, work permits and visas.

Human trafficking is a concern in the UK for two primary reasons. First, its impact both on the individual victims (who are often smuggled into the country for the purpose of sexual exploitation from the Balkans, China, South-East Asia and Africa) and its corrosive impact on our communities. Second, people smuggling on a large scale has the potential to undermine trust in the UK immigration system and to create a drawbridge mentality among indigenous people. (People smuggling is defined by SOCA 2008 as the facilitation of the illegal entry of a person into a state of which the person is not a national or permanent resident in order to obtain, directly or indirectly, a financial or other material benefit.) This, in turn, if not properly handled, could come to undermine our openness as a country and to threaten the benefits we accrue through being an open and integrated player in the modern global economy.

There is some controversy and debate over the extent to which criminals and terrorists collaborate in the UK and the evidence seems inconclusive. The evidence that does exist relates primarily to the shared methods and tactics used. Terrorist cells active in this country, for example, have become increasingly reliant on lower-level organised crime – often perpetrated via the internet or e-commerce – to support their activities. International terrorist investigations conducted in the UK over recent years have revealed regular use by terrorists of forged travel and identity documents, and the use of counterfeit money or bank cards to obtain cash and to make phone calls and purchase goods. For example, in April 2008 Scottish police uncovered credit card fraud with a potential value of £1 million, in which individuals hired by an international terrorist network bribed petrol station employees in Edinburgh in order to gain access to more than 5,000 credit card details (Bain 2008).

If terrorists and criminals can operate in the same milieu for this purpose, it must be a concern that they can do so for others. In particular, and given the wider security context outlined in earlier chapters, in which terrorists may seek to use weapons of mass destruction or disruption, there has to be a concern that the routes and tactics used to smuggle people, drugs and small arms into the country could also be used to bring more destructive weaponry and parts for such weapons here, too. When seen in this light, transnational organised crime must be treated not just as a social, economic, and policing problem but also as a potentially major threat to UK national security. Waiting for clearer evidence that criminals collaborate with terrorists and vice versa is a luxury we cannot afford.

The security implications of migration into the UK

The UK is a destination of choice for many international migrants. During the last 15 years there has been net immigration into the UK, brought about by asylum migration at the turn of the century, sustained student migration, and, more recently, by labour migration from inside and outside the EU. This migration is overwhelmingly positive for the UK: immigrants bolster the UK economy,[20] and the diversity they bring[21] serves often to strengthen community cohesion (DCLG 2008, Dorling 2007), as was demonstrated in London, the most diverse city on earth, in the aftermath of the 7 July 2005 terrorist attacks (Hull 2007).

Immigration does also, however, raise certain security issues, often felt most keenly by immigrant communities themselves, and some of which overlap with the organised crime problems just described. For instance, irregular immigrants (also described as illegal,

[20] See: Blanchflower *et al* 2007, Gott and Johnston 2002, Sriskandarajah *et al* 2005, Ernst & Young 2006, Portes and French 2005, Gilpin *et al* 2006, Home Office 2005 and Hansard 2002.

[21] The number of individuals resident in the UK who were born elsewhere rose from 7.8 per cent to 10.6 per cent of the population between 2001 and 2007. Partly as a consequence of this, the number of UK residents of ethnicity other than White British rose during the same period from 13.1 per cent to 18.6 per cent of the population (Labour Force Survey and ippr calculations).

undocumented or unauthorised migrants) are often victimised by virtue of their necessarily twilight existence. Afraid of being deported, and therefore unwilling to report crimes committed against them, such vulnerable immigrants are subjected to widespread exploitation by gangmasters (BBC 2007b) and pimps (MPA 2002).

The so-called 'Battle of Green Lanes' in Haringey, London, in November 2002, which left 43-year-old Alisan Dogan dead and 20 people injured, was sparked by rivalry between heroin-dealing gangs, whose trade and strife is 'based more in Istanbul than London', in the words of Chief Superintendent Stephen James, then Haringey Borough Commander for the Metropolitan Police Service (Thompson 2002).

More widely, migrant communities are sometimes importers of overseas conflict and violence onto the streets of the UK. Elements of the UK population supportive to the Sri Lankan Tamil Tigers, for example, have employed extortion in the UK to raise funds for their campaigns overseas and people who have resisted their demands have been attacked (Human Rights Watch 2006). Somalis, the fifth largest refugee population in the world (Kleist 2004) and the largest refugee community in Britain (Rutter 2006), have played out clan conflicts in the UK. This, mixed with a violent UK gang culture, is thought to have been a factor in the assault or murder of a number of young Somalis on the streets of London in recent years, such as the brutal killing of 18-year-old Mahir Osman in Camden on 28 January 2006 (BBC 2007a).

"Migrant communities are sometimes importers of overseas conflict and violence onto the streets of the UK"

These are powerful illustrations of the global becoming the local, and of the more negative consequences, for UK society, that can accompany wider trends associated with globalisation and demographic change.

Energy security challenges for the UK

Britain's interconnectedness with the wider world economy, starkly demonstrated by the global financial crisis, is also evident when it comes to supplies of energy. This is because the UK is becoming more exposed to international energy markets and their effects, almost by the day.

The UK energy mix

The context for this is that around 90 per cent of the country's demand for energy is now met from the fossil fuels oil, coal and gas. The main use to which the UK puts coal is electricity generation, for which it is currently our most important fuel. About three-quarters of the oil we use goes to the transport sector, in the form of petrol and diesel for road vehicles, and as jet fuel for aviation (BERR 2008a). Gas, which now meets more than 40 per cent of our energy needs, is a crucial fuel for domestic heating and industry, and since the 'dash for gas' in the 1990s has also been used for electricity generation. Despite some contribution from nuclear, and future plans to increase both that and the amount of energy coming from renewable sources, for the next decade at least, this basic reliance on fossil fuels is likely to continue.

Domestic UK production

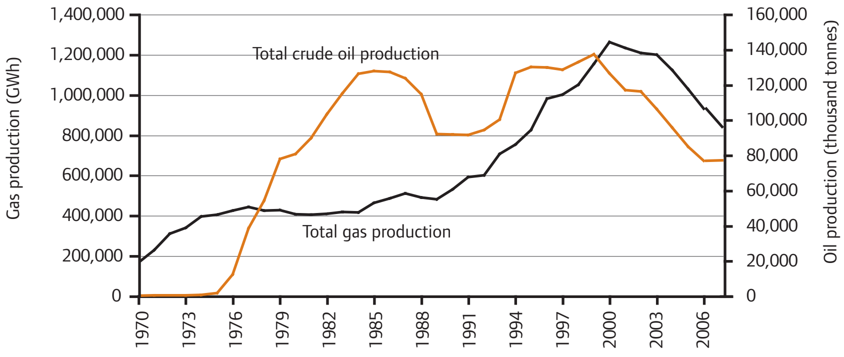
While oil production from the UK Continental Shelf (UKCS) allowed the UK to be an exporter of oil from the 1980s onwards, our oil production has now peaked and is in decline, and the UK is likely to become entirely dependent on oil imports within 20 years (BERR 2007). Gas production from the UKCS also peaked in 1999, and since 2004 the UK has been a net importer (mainly from Norway). On current demand projections, by 2020 we will also have to rely on imports for around 80 per cent of our gas needs (BERR 2007). This shift in UK production of oil and gas is captured in Figure 6.1 (following page).

The story for coal is similar. Imports of coal have risen steadily since the 1970s, and now meet around 70 per cent of demand (Bird 2007), though the shift from domestic production of coal to imports is due to cost factors, rather than to a lack of UK physical reserves, which remain considerable.

Future UK energy needs

This shift from exporting energy to importing it is happening even as UK domestic demand for energy continues to increase. Historically, demand has grown as the

Figure 6.1: UK production of oil and gas, 1970-2007



Sources: BERR 2008c, 2008d

economy has grown but at the same time our use of energy has become more efficient. As a result, total demand for energy in the UK has grown by just over 4 per cent since 1990 (BERR 2008b). If energy is used more efficiently, as projected in the 2007 Energy White Paper, demand could fall by around 6 per cent by 2020 (BERR 2008e), but even in that scenario, the UK will still be consuming energy equivalent to around 140-150 million tonnes of oil in every year over the next decade, and on most projections, demand for energy will in any case continue to grow (BERR 2007, Ryan 2007).

Moreover, as demand increases the UK must also meet a looming electricity generation gap, because a number of ageing power stations (both coal-fired and nuclear) are expected to close by 2015 (BERR 2007). This gap, too, will have to be met, to prevent interruptions in supply, either from new coal, gas or renewable sources, because although there is likely to be a renaissance in nuclear power in the longer term, this will not happen before 2020, given the time taken to approve and build nuclear power stations. Given that there are real question marks over the Government’s ability fully to meet its renewable energy targets, it is unlikely that renewable sources will come on stream quickly enough. Again, the implication seems to be some continued reliance on fossil fuels and continued concern over the security of their supply.

Implications for energy security

This all leaves the UK in its most exposed position for decades in terms of its exposure to and reliance on international markets, and this is a serious concern for two reasons.

First, as the UK becomes more reliant on imports, there is a fear that physical interruptions caused by geopolitical factors will increase (BERR 2007, Bird 2007, JESS 2006). Some of this relates to oil, and to a medium-term increase in reliance on countries that may be less than stable and reliable.

Mainly, however, in the shorter term, the concern is about gas. Unlike globally-traded oil and coal, gas imports come mainly from a regional market dominated by Russia, and while the majority of the UK’s current gas imports come from Norway, with liquefied natural gas (LNG) via tanker from other parts of the world set to play an increasing role (HM Government 2007, BERR 2007) the role of Russia is going to be key. This is, first, because Norway effectively prices its gas according to the level set by the Russians (Helm 2007). However, second, and even more fundamentally, it is because in winter UK gas supplies do still depend critically on the small but growing volume of gas imported from Russia via continental Europe. This gas reaches the UK through pipelines controlled by energy companies in other EU countries, which tend to meet the needs of their own customers before ensuring a smooth supply to the UK. As a result, in tight markets during the winter months, supply can be constrained and wholesale prices can rise very sharply (House of Commons Business and Enterprise Committee 2008).

Due to the long years of North Sea production, the UK also only has a small gas storage capacity able to provide a buffer against short term interruptions in supply or sudden price rises.

In this context, concerns about the reliability of Russia as a supplier of gas to Western Europe have to be taken seriously. Such concerns are heightened by a general worsening in relations with Russia following its invasion of Georgia and by events such as the dispute between Russia and Ukraine in the winter of 2005/06, in which gas pressure to some European countries was reduced (Helm 2007).

Second, we are becoming more dependent on world markets for energy just as these markets are moving from a long period of stability and low prices to one of instability and high prices, not only for oil and gas, but also for coal. One important trend is that production not only in the UK but also in other OECD countries, including the US and Norway, has been in long-term decline. Oil and gas production will in future be increasingly concentrated in non-OECD countries, partly major OPEC players such as Saudi Arabia, Iran and Kuwait, but also countries such as Russia, Azerbaijan and Sudan (EurActiv 2008, Horsnell 2008). Another, related trend, as we noted in Chapter 3, is that after a long period of excess supply, the world market for oil has become increasingly tight over the last five years, a situation that is expected to continue over the long term, even if global recession eases the pressure in the immediate future (IEA 2008, Euractiv 2008).

This picture is further complicated by the fact that increases in demand and higher prices have not produced the expected increase in supply. Whether this is due to global oil reserves running out and production peaking as a result – the 'peak oil' hypothesis – is the subject of fierce debate between peak oil proponents (see Leggett 2005 and Simmons 2005) and sceptics (see Howell and Nakhle 2008). What is clear, however, is that the expected response of new investment in new exploration and expanded production in the oil markets is not functioning smoothly. Behind this is a long period of under-investment in refinery capacity. But more fundamental is a set of developments concerned with incentives for oil- and gas-producing countries. These producers appear increasingly unwilling to invest large sums in new exploration and increasing production if they think their markets may be undermined by energy saving and renewable energy shifts in European and American markets (see Ostrovsky and Daneshkhuin 2006, Blas and Khalaf 2007). Another issue is that some producers, now relatively wealthy, intend to meet their expanding domestic consumption, but are increasingly uninterested in exporting to world markets (ippr 2008).

The result is a global oil market with low buffer stocks and prices that are highly sensitive to potential interruptions, whether geopolitical, such as attacks on installations in Iraq and Nigeria, or weather-related, such as hurricanes in the Gulf of Mexico. There is some evidence that this volatility has been further increased by the speculative activities of hedge funds (Allsop and Fattouh 2008). Most long-term gas supply contracts in the rest of Europe are also linked to oil prices[22] so the general rise and volatility in oil prices is therefore transferred directly to gas markets as well.

Some of these same factors – strong demand growth in Asia, together with investment lags and events disrupting production – have also started to appear in the global coal market, with prices rising sharply since mid-2007 (Lekander *et al* 2008).

It is not an exaggeration, therefore, to say that the UK is entering a new energy world, and one that poses some stark challenges for policymakers. These challenges must be handled, moreover, within a policy framework that can simultaneously address issues of security of supply while also addressing the threat of climate change. Failure to address both together would cause enormous problems not just internationally but also here at home.

Climate change impacts on the UK

The exact impact of climate change on the UK will obviously depend on future greenhouse gas levels and on any mitigation and adaptation measures that are put in place to limit it. That said, however, some outline effects are already clear. Under most

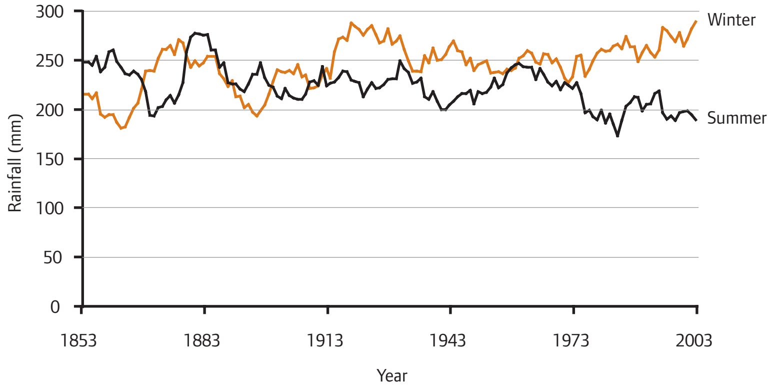
22. The effect of high oil prices feeds through to UK gas prices through the interconnector pipeline between Zeebrugge (Belgium) and Bacton. Britain imports gas through the interconnector so the oil linked price of European gas directly affects UK gas prices. During the summer, higher European gas prices mean higher prices in the UK as gas is exported to Europe. This also increases the cost of putting gas into storage for the coming winter. So the oil price rises affect winter prices too through higher storage costs (Ofgem 2005).

models, these will include a combination of both more extreme weather events, such as heat waves, storms and flooding, and a general rise in land and sea temperatures. (Note that some of our discussion here is based on an assumption of warming temperatures. However, we acknowledge that there are still question marks over the likely effects of greenhouse gas emissions, with a growing body of opinion focusing on possible changes to the Gulf Stream that may follow Arctic melting. This could cause a cooling in the North East Atlantic, making the British climate colder, especially in winter.)

Despite commonly perceived benefits of higher temperatures in the UK, such as less winter transport disruption, reduced demand for winter heating, and fewer health-related concerns, the problems associated with more extreme weather and higher temperatures will certainly outweigh any such benefits (UKCIP 2005). Flooding and extreme weather will not only spell disaster for hundreds of thousands of people's homes in the UK, but will also damage aspects of the country's infrastructure and agriculture. Higher temperatures and hotter summers will also exacerbate water scarcity, particularly in the South East, increase the frequency of droughts, disrupt agricultural productivity, raise mortality rates, and increase demand for energy. The economic consequences are expected to be significant, as pressure on state and private budgets to meet the costs of repairing damage done by severe weather, combined with higher insurance premiums, puts additional strain on many parts of the economy.

While it is hard to pin particular current weather effects directly to human-made CO_2 emissions, some changes are already apparent. There is evidence of decreased rainfall in summer and increased rain in winter (UKCIP 2008). UKCIP also estimates that winters will become wetter by up to 15 per cent by the 2020s and by up to 25 per cent by the 2050s for some regions while summers will be 20 per cent drier by the 2020s and 40 per cent drier by the 2050s. This pattern is already evident over the past century, as presented in Figure 6.2.

Figure 6.2: Winter and summer rainfall in England and Wales, 1853-2003



Source: Office for National Statistics 2008

Severe windstorms have also become more frequent in recent decades, in part due to sea-surface temperature rises around the UK of about 0.7°C over the past three decades (UKCIP 2008). Partly as a result, climate change is indirectly increasing the risk of flooding in the UK and infrastructure damage from flooding and storms is expected to escalate, particularly in coastal areas. In England and Wales, over four million people, and properties valued in total at over £200 billion, are at risk of damage from flooding (Foresight 2004). Flood losses and flood management currently cost the UK about £2.2 billion each year, but projected costs of damage from future flooding range between £1 billion and £27 billion per annum by the 2080s, depending on the model used (UKCIP 2005). Furthermore, annual damages associated with coastal erosion as a result of flooding are expected to increase between three and nine times, costing up to £126 million by the 2080s (Foresight 2004).

The effects of extreme weather on UK national infrastructure are likely to prove costly, dangerous and disruptive. Railways that travel close to the coast, in South West England for example, are threatened by storm surges, high tides, coastal flooding and cliff instability; telecommunications systems are expected to experience more ‘downtime’ as a result of extreme weather; and London is at particular risk, vulnerable to tidal surges from the Thames, local flooding as a result of inefficient drainage failing to cope with intense rain, and river overflows into its floodplain. Most of the city, and an estimated £125 billion worth of its assets, is within the floodplain of the Thames and its tributaries (Association of British Insurers 2005).

The 2007 summer floods

The floods of 2007 must be seen as a taster of what is to come. In that instance 13 people lost their lives, approximately 48,000 households and nearly 7,300 businesses were flooded, and billions of pounds worth of damage was done. Infrastructure was severely affected in Gloucestershire: 350,000 people were left without mains water supply or power supplies, and in many other flood-affected areas transport links and telecommunications were disrupted. The farming sector was one of the most severely affected parts of the economy. Crop losses were huge, particularly since the flooding occurred during the peak production period of the summer months. Approximately 42,000 hectares of agricultural land across England were flooded, 15,600 of which were grassland used for grazing, hay and silage fields. In total the flooded area constituted 0.5 per cent of England’s total agricultural area.

It is also estimated that between 2,600 and 5,000 farms were affected, ranging from partial crop losses to total crop loss, totalling an estimated £11.2 million (Pitt 2008). Although only a relatively small area was affected and there was no discernable impact on food prices nationally, the impact and scale of flooding in the future are expected to be much worse (Greater London Authority 2002).

There has been much debate about the role of climate change in the 2007 floods, as other naturally occurring events such as the position of the Polar Front Jet Stream and high North Atlantic sea-surface temperatures have also been blamed. However, evidence supports the view that the location and strength of the Polar Front Jet Stream is subject to warmer sea temperatures – a consequence of climate change – and that climate change is therefore implicated (Pitt 2008). Furthermore, although the associated river flooding does not conform to the current climate change scenario of drier summers, it is clear that the 2007 floods were the result of extreme weather in the form of intense summer storms, which are expected to result from climate change in the future (see Marsh and Hannaford 2007).

The risk of pandemic disease to the UK

Finally, in this review of the threats and risks facing the UK, we return to the risk to public health and safety from a disease pandemic.[23] The UK must expect and be ready to deal with this in the years ahead. We are a global hub for the movement of people and goods, with an estimated 218 million passenger journeys and 440 million tonnes of freight crossing the UK border each year and with further increases in these numbers expected (Cabinet Office 2007b). In the world of more threatening, more drug resistant, and newly emerging diseases outlined at the end of Chapter 5, we must recognise that we are not only open for business but also vulnerable to imported disease.

The Government acknowledged this in August 2008, when it published a National Risk Register, setting out its assessment of a range of different risks that may directly affect the UK. Topping this list was the threat of pandemic influenza, both in terms of relative likelihood and relative impact (Cabinet Office 2008b). Different diseases, of course, would have different health and wider socio-economic implications but to demonstrate the seriousness of the possible impacts and issues raised by pandemic disease, we focus below on the projected impacts on the UK of an influenza pandemic.

Impacts of an influenza pandemic

Health impacts

An influenza pandemic would have severe health impacts in the UK, as, unlike seasonal influenza, the majority of people affected by a pandemic virus would have no immunity.

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[23] According to the World Health Organization, a pandemic can start when three conditions have been met: the emergence of a disease new to the population; the agent infects humans, causing serious illness; the agent spreads easily and sustainably among humans. A disease or condition is not a pandemic merely because it is widespread or kills many people; it must also be infectious.

As a result, the disease would spread rapidly and cause widespread public health damage. With estimated clinical attack rates (the percentage of the population who become ill from infection by a specific virus) anywhere between 25 and 50 per cent (London Resilience 2007), the Department of Health has forecast that an influenza pandemic could infect up to half of the UK population, and cause between 50,000 and 750,000 deaths over and above the usual mortality rate (Cabinet Office and Department of Health 2007). In London specifically, excess death figures range from 7,200 (for a 25 per cent clinical attack rate and a 0.4 per cent case fatality rate – the percentage of people who subsequently die from the infection) to 89,700 (for a 50 per cent clinical attack rate and a 2.5 per cent case fatality rate) (London Resilience 2007).

Acute Respiratory Infections (ARIs), the category under which pandemic influenza falls, are considered to be particularly damaging in terms of public health impact because not only are they fast-moving and highly infectious, but many carriers of ARIs do not develop symptoms severe enough to be reported to local health authorities, allowing extensive and undetected transmission in a very short time period (Foresight 2007).

Even with relatively low infection rates, any pandemic outbreak will place increased strain on the UK's National Health Service, creating particular pressures across primary care, community health services, social care and the hospital sector. Capacity problems may arise as pandemic flu cases are prioritised above other, non-critical cases (Department of Health 2007).

Economic impacts

Beyond loss of life and pressure on health services, there would also be economic impacts and, in the absence of quick and effective action on the part of the Government, those economic impacts could be dire.

A pandemic outbreak could have a negative impact on the UK's ability to deliver essential services, could result in lower production levels and potentially lead to shortages of essential goods and problems with distribution chains, all of which could lead to overall economic losses (Cabinet Office 2008b). Individual businesses would also feel the effects of a pandemic, particularly if the virus affects people of working age. Reduced staff numbers as a result not only of illness but of absenteeism due to transport disruption, bereavement, the need to care for others, and fear of infection could all have damaging knock-on effects for business continuity, especially for those businesses with weak (or non-existent) business continuity plans (Cabinet Office and Department of Health 2007).

Illness-induced absence from work of 25 per cent of employees over the course of one influenza pandemic (which is only half of what might be expected in a widespread pandemic outbreak), could reduce the year's GDP by between £3 billion and £7 billion. Further premature deaths could cause additional losses to overall GDP in the range of £1-7 billion, depending on fatality rates. Overall it is estimated that a single influenza pandemic has the potential to reduce current year GDP in the UK by 0.75 per cent (Cabinet Office and Department of Health 2007). (These predictions assume that a proportion of lost output due to absenteeism will be made up by unaffected workers and by the resumption of normal working patterns once the outbreak has ended.)

More alarming figures have been produced by researchers at Nottingham University, who have suggested that an avian flu pandemic could cause UK GDP to decline by up to £95 billion, or 8 per cent. The same study showed that 941,000 jobs could be lost, totalling 3.3 per cent of total employment (Blake and Sinclair 2005).

Moreover, if a pandemic outbreak resulted in the need to restrict the movement of humans and cargo through airports and ports, this would impact on trade and cause further economic damage. It has been suggested that the loss of export income due to two-month border closures with non-EU countries would be approximately £13 billion, while loss of income due to two-month border closures with EU and non-EU countries would be £32 billion (Cabinet Office 2007a). The medical consensus, however, appears to suggest that there is no point in the UK trying to shut its borders once a pandemic starts, irrespective of what other countries do, and however loud any media or public clamour to do so may be.

Impacts on society

The social and psychological impacts of an influenza pandemic could also be considerable.

Further modelling carried out by the University of Nottingham shows that a pandemic outbreak of avian influenza could directly affect up to 15 million people in the UK over a period of four months (Blake and Sinclair 2005). This would either be by contracting avian flu, having a family member infected, contracting another form of flu and being restricted from normal activities as a precaution, or being in an area of high incidence and being quarantined as a result. Heightened levels of concern among the population in the event of an outbreak are therefore inevitable, as people come to terms with changes to their daily lives and the loss (or prospective loss) of loved ones.

The emergence of a truly global pandemic could also result in the return to the UK of large numbers of British nationals normally living abroad, of whom there are currently 5.5 million (Drew and Sriskandarajah 2006). Large numbers of people returning to the UK in a relatively short time period may have significant social effects upon the areas in which they choose to resettle, even if only temporarily (Cabinet Office 2008b).

Effective public communication strategies can do much to allay public fears, but in extreme cases, certain factors such as medical care being prioritised, quarantine measures being implemented and the delivery of essential services and goods being disrupted may result in civil disorder if appropriate measures to mitigate such circumstances are not taken swiftly.

Given these projected impacts, and the wider backdrop of people movement on an unprecedented scale, Britain's role as a global hub, and the prospect both of newly emerging diseases and a possibly heightened threat from the use of disease as a weapon by terrorists, it is clear that global and national health security policy must be afforded elevated status by policymakers concerned with security and public safety.

Summary of Chapter 6

This chapter has outlined some of the security and public safety issues and challenges directly facing the UK, among them the threats from terrorism and transnational organised crime, the dangers posed by disease pandemics and severe weather, the challenges posed by increased exposure to world energy markets and increased international political pressure, and some of the security implications associated with migration flows.

Britain therefore not only faces 'home grown' security threats, risks and vulnerabilities but is also deeply penetrated by, dependent upon, and locked into the international economy and the rapidly expanding transnational society that is a feature of globalisation. This chapter has shown, too, that Britain is likely to suffer directly as a result of climate change and that there are questions about the adequacy of the country's national infrastructure and our ability to prove a resilient society and economy in the face of shocks, whether natural or human-made.

Clearly, this presents many questions for policymakers.

> "There are questions about the adequacy of the country's national infrastructure and our ability to prove a resilient society and economy in the face of shocks, whether natural or man-made"

Conclusion to Part 2: A world of shared destinies

In the four chapters in this part of our report, we have identified many of the underlying and inter-related trends and drivers that are shaping the international and national security environment. Globalisation, demographic change, poverty and inequality, climate change and scientific and technological advance have all been considered. Each of these has been shown to be impacting on the range of issues facing policymakers.

Some are driving and feeding existing patterns of violent conflict and the tendency towards state weakness and failure. Some are redistributing power and influence among states, opening up new points of competitive pressure and possibly conflict between them in the process. Others suggest the possibility of new weapons or are facilitating the emergence of flows of people, goods and capital around the world and with that the creation of a transnational society with a dark underside of criminal and terrorist intent.

We have noted a serious situation in relation to violent conflict and have identified countries we believe to be at great risk of either further conflict or state failure in the years ahead. Among them are nuclear-armed Pakistan which occupies a crucial position in relation to the conflict with Al Qaeda and the Taliban in Afghanistan, and several states in regions of resource and energy importance in Central Asia, the Persian Gulf and Africa. We have noted the links between transnational crime, conflict and the spread of disease and have analysed not only the threat of biological and wider CBRN terrorism, but also the dangers and governance weaknesses associated with some of the more pressing challenges in global public health.

We have demonstrated, too, that in security terms the UK is not an island. The country not only has home grown terrorist challenges, but it is also reliant on imported sources of energy in difficult market circumstances, and is increasingly open not only for legal trade and movement but also, inherently, to criminal and terrorist penetration and to the vulnerabilities that come with being a global hub in a world of people movement on an unprecedented scale.

This situation suggests a number of pressing policy challenges for the UK. Achieving a satisfactory outcome to the conflict in Afghanistan is one, for example, because if it can be achieved the citizens of this country will be safer from Al Qaeda, and the drain on our economy and society from illegal inflows of Afghan heroin will be reduced. Limiting our exposure to Russian energy influence, and our reliance on unstable or politically questionable energy providers elsewhere, is another.

The conclusions to be drawn from the analysis presented, however, go much wider than this. Both individually and collectively globalisation, demographic change, poverty and inequality, climate change, and the process of scientific and technological advance are creating a new set of dynamics and a new set of challenges for policymakers to deal with. The distribution of power between states is changing and this may mean more instability and conflict in the years ahead if the process of change is not well managed. Non-state actors are increasingly important both in their own right, but also due to their capacity to influence the very character and behaviour of states. Poverty, inequality and conflict are interacting in parts of the developing world to create instability and a growing problem of ungoverned and corruptly governed spaces. These in turn are becoming jumping off points for terrorist groups and transnational criminal gangs intent on exporting harm to the UK and other locations.

We are witnessing environmental damage and resource stress on energy, water and food sources in particular with a potential for such damage and stress not only to become independent drivers of tension and conflict but also to fuel other related but distinct dynamics of inter-state rivalry and political conflict. Closer to home, we have witnessed the emergence of a range of new and changed socio-economic vulnerabilities within the UK, partly as a result of our interface with the global economy, partly due to the changes to domestic business practices, economic systems and infrastructures that together go to make up the more tightly coupled society that we have described, and partly because of already visible extreme weather events associated with climate change.

Against this backdrop we draw two wider conclusions.

First, to some extent and in relative terms, we believe we are witnessing a downgrading of the ability of state institutions to control the security environment and to provide public protection. Power has moved to new locations and the mechanisms of accountable public control have not moved with it. This is evident in the potential end to state monopolisation of weapons of mass destruction, in the reduced capacity of individual states to deliver their own security in a world of interdependence and in the proliferation of ungoverned spaces in the international system. State actors have literally lost primary control of some territories and environments, as the earlier discussion of weak, failed and failing states and encryption-protected parts of the internet makes clear. Moreover, on some issues such as climate change, where we have not yet been able to construct effective multilateral governance frameworks, there is even a question mark over the current capacity of the entire community of states, acting collectively, to deliver what is necessary for security.

“State actors have literally lost primary control of some territories and environments”

Second, and consistent with this development, it follows that no individual state or government, no matter how preponderant, has the power to guarantee its own security. We now live in a world of shared destinies in which insecurities or policy failings in one part of the system quickly generate policy problems and insecurities in others. The basic reality of what we have just witnessed in the global financial system applies to the security environment, too. In this environment, we rely on each other for security and security must either be common to all individuals, communities and states or it will not be enjoyed by any.

Nor can what this means for practical policy be decoupled from the wider global context: massive shifts in power; the loss of American political and financial hegemony; huge global inequalities; and vast numbers of people living in poverty, many in the large number of weak and failing states in the international system. This is not a hopeful starting point from which to build common security and it is not any longer a context in which the UK, acting alone, can exert decisive influence. To the extent that we can play a role, however, we must address not only specific security issues but also the wider structural context that gives rise to them. How, for example, do we build effective multilateralism in an increasingly multipolar world? How can we build stability and peace in a world in which four out of every five human beings is struggling for basic survival?

We return to some of these challenges in Chapters 8 and 9, and will address them again in our final report. Next we turn to a brief description of current government policy in response to the challenges we face.

PART 3:
Current UK security policy

7. Current UK security policy

There has been much government activity on security policy in recent years in response to the changed security landscape described in earlier chapters. The UK Government has made a number of structural changes to its internal machinery, has made some relevant changes to the legislative framework, and has published its policy in a number of important documents, notably the 'New Chapter' (2002) of the Strategic Defence Review, which sets out the Armed Forces' contribution to counter-terrorism, the comprehensive UK counter-terrorism strategy known as CONTEST (2006), the new strategic framework for the Foreign and Commonwealth Office (2008), the National Risk Register (2008), and the first ever single, overarching National Security Strategy (2008).

In this chapter, we describe the main changes to structure and legislation and summarise the Government's own account of its policy positions and practices as they relate to the issues with which we are concerned. We also outline notable differences between the two main opposition parties and the Government, before going on to a brief overall assessment of the Government's current activities.

The machinery of government

The machinery of government has been developed in a number of areas in recent years. Significant developments include:

- The establishment in 2001 of the Conflict Prevention Pools, jointly administered by the Foreign and Commonwealth Office (FCO), the Department for International Development (DfID) and the Ministry of Defence (MoD), which have been fused into a single £327 million Global Conflict Prevention Pool in 2008
- The creation of the Civil Contingencies Secretariat within the Cabinet Office in 2001, to join up government thinking on preparedness for major emergencies
- The establishment of the Joint Terrorism Analysis Centre (JTAC) in 2003, bringing together experts from the Security Service (MI5), the Secret Intelligence Service (MI6) and Government Communications Headquarters (GCHQ) with others from the Defence Intelligence Staff, the FCO, the Home Office and the Police to analyse all-source intelligence on the activities, intentions and capabilities of international terrorists who may threaten UK and allied interests worldwide
- The creation in 2007 of regional police Counter Terrorism Units (CTUs), Counter Terrorism Intelligence Units (CTIUs) and Security Service Stations (RGs) to spread and decentralise police and MI5 counter-terrorist activity
- The formation of the Centre for the Protection of National Infrastructure (CPNI) in 2007 to provide protective security advice to businesses and organisations across the national infrastructure
- The advent in 2006 of the Serious Organised Crime Agency (SOCA) as an Executive Non-Departmental Public Body
- The creation of the Office of Security and Counter-Terrorism (OSCT) within the Home Office in 2007 to coordinate CONTEST across government
- The forming of the United Kingdom Border Agency (UKBA) in 2008 to join up the authorities' effort to secure UK borders
- The constitution of the Cabinet Committee on National Security, International Relations and Development (NSID) in 2007 to oversee the national security effort
- The establishment of a National Security Forum (nominations have now been sought for its interim membership) to bring together civil servants across departments and security practitioners from outside government.

The legislative framework

In addition to these changes in the machinery of government, new security-orientated legislation has been introduced to the statute books. Key developments here have included:

- The Regulation of Investigatory Powers Act 2000 (RIPA), which regulates state surveillance and information gathering for security and other purposes
- The Terrorism Act 2000 (TACT), which created as new offences the commissioning, preparation or instigation of acts of terrorism, enhances police powers, and proscribes terrorist groups
- The Anti-Terrorism, Crime and Security Act 2001 (ATCSA), which, for a time, legitimised the indefinite detention without charge of foreign nationals suspected of terrorist involvement in Belmarsh prison, pending deportation, until in 2004 the Law Lords ruled this to be incompatible with the European Convention on Human Rights
- The Civil Contingencies Act 2004 (CCA), which enables preparation for emergencies and disasters
- The Prevention of Terrorism Act 2005 (PTA), which controversially introduced control orders (preventative orders that place obligations on individuals that are designed to prevent, restrict or disrupt their suspected involvement in terrorism-related activity)
- The Terrorism Act 2006, which enacted as offences acts preparatory to terrorism, such as its encouragement, dissemination of terrorist publications, and terrorist training
- The Counter Terrorism Bill 2008, which is being debated in Parliament at the time of writing this report. Following narrow victory in the House of Commons and overwhelming defeat in the House of Lords, the Government shelved plans to extend still further to 42 days the maximum period of detention without charge for suspected terrorists. It also dropped proposals for secret inquests. Proposals remain for post-charge questioning, longer terrorism sentences, a terrorism register and monitoring regime, changes to rules regarding interception of communications, and new powers both for the seizure of assets and for the gathering of evidence.

Policy

It is in the context of these structural and legislative changes that substantive government policy on the threats and hazards covered earlier in this report is devised and delivered. Here we describe this policy as it relates to state-led threats, nuclear non-proliferation, and conflict on the one hand, and to terrorism, transnational organised crime and civil contingencies on the other. We do not offer in these sections any comment or judgement on the policies outlined: the material below is descriptive only, largely presenting the Government's own account of the activities in which it is engaged. We pass comment on the overall suitability and effectiveness of policy at the end of the chapter, and via our recommendations for further action in a number of areas in Chapter 9.

State-led threats and inter-state relations

State-led threats to UK security are all but discounted in the Government's National Security Strategy and, as we said in Chapter 6, we do not focus closely on them in this report. The Government assesses, rightly in our view, that no state or alliance will have both the intent and the capability to threaten the UK directly for the foreseeable future. That said, we have also pointed out that a return to competition and conflict between major powers in the international system cannot be wholly ruled out. Government policy clearly must insure against that possibility.

The Government's response to possible future state-led threats has been continued emphasis on the partnership with the United States, NATO, and the EU and support for some new defence capability acquisitions. The latter has included decisions to build two 65,000 tonne aircraft carriers equipped with advanced multi-role strike aircraft, the renewal of the UK's Trident nuclear weapons capability, and support to US plans for further missile defence assets in Europe.

> "The Government assesses, rightly in our view, that no state or alliance will have both the intent and the capability to threaten the UK directly for the foreseeable future"

In addition, the Government has reacted to the changing distribution of power between states by calling for an expansion of the permanent membership of the United Nations Security Council (UNSC) to include India, Brazil, Germany, Japan and permanent African representation, and has said it wishes to work towards a more representative and expanded grouping than the current G8.

Nuclear non-proliferation

The Government says it considers nuclear weapons and other weapons of mass destruction to be the most destructive threat to global security. In response, it supports a Fissile Material Cut-Off Treaty, the bringing into force of the Comprehensive Test Ban Treaty, targeted EU and UN sanctions against states not complying with non-proliferation treaty obligations and the E3+3 process on Iran and the Six-Party talks on North Korea. It has also declared support for accelerated disarmament among existing nuclear weapons states. In addition, the UK supports a strengthening of the inspection regimes of the International Atomic Energy Agency (IAEA), a tightening of international export controls on proliferation sensitive materials and the idea of a uranium enrichment bond to allow states to use nuclear fuel for peaceful purposes without needing their own enrichment and re-processing facilities.

The UK is also actively engaged in the Proliferation Security Initiative, an initiative aimed at the interdiction of banned weapons and weapons technology, primarily nuclear, chemical and biological weapons material. It continues to develop forensic capability in determining the source of material used in any nuclear device and is pursuing the idea of Britain as a 'disarmament laboratory' while working particularly on issues related to the verifiable elimination of nuclear weapons. While maintaining the UK's nuclear deterrent, ministerial statements have also recently become bolder in support of wider efforts at the elimination of nuclear weapons altogether and to show willing, the Government has reduced the number of its operationally available nuclear warheads from fewer than 200 to fewer than 160. Among its forward-looking policy priorities are steps to ensure a positive outcome for the 2010 Non-Proliferation of Nuclear Weapons (NPT) Review Conference.

Conflict

Government policy also acknowledges that instability and conflict, and the issue of failed and fragile states are crucial current challenges, and that important threats to global security, unlike in the past, may now come not from strong states, but from weak ones.

"Important threats to global security, unlike in the past, may now come not from strong states, but from weak ones"

In response, policy covers both development and security measures. The UK's most high profile and strategically important commitment is in Afghanistan, where 8,000 British troops are currently involved in a conflict with the Taliban and Al Qaeda. Beyond this, it is active across a wide front. The Government highlights its support for World Bank efforts to address issues at the heart of the security-development nexus and points to the resources committed to conflict hot-spots like the Middle East, where it has offered £243 million over three years to the Occupied Palestinian Territories in support of attempts to create peace in the region. It says it is agitating internationally for enhanced conflict prevention and peace-building activity on the part of the international community, is active in promoting security sector reform, and is vocal in its advocacy of a global Arms Trade Treaty while pursuing efforts to ban certain cluster munitions.

A £269 million Stabilisation Aid Fund and a joint FCO/DfID/MoD Stabilisation Unit have been established to support post-conflict reconstruction and peace-building. Future stated priorities in this area include increasing civilian/military integration and enhancing the UK's ability to deploy civilians overseas in conflict affected areas. More widely, the Government has declared continued support for attempts to deliver the eight Millennium Development Goals (MDGs), support for the African Peace and Security Architecture, and says it views the Middle East as a clear conflict priority area.

Counter-terrorism

The Government presents its policy on counter-terrorism as framed by the four strands of CONTEST: pursue, protect, prepare, and prevent.

The **Pursue** strand is concerned with stopping planned terrorist attacks, and is delivered primarily by the Agencies and the police. It involves the collection and assessment of intelligence on suspects, disruption of plans and plots, deportation of suspect foreign nationals (supported by the Immigration, Asylum and Nationality Act 2006), use of control orders (of which on 12 June 2008 there were 15 in total in force), imposition of financial controls, the seizing of assets, the proscription of groups, and the arresting and charging of individuals with crimes. Pursue also has international dimensions, and in that context, the Government is pushing for a coordinated G8 approach to international transport security covering standards in aviation, shipping, ports and container distribution, and intends to use the Transport Security Bill outlined in its Draft Legislative Programme 2008 to address current deficiencies in maritime counter-terrorism and airport security. UK involvement in the war in Afghanistan is relevant too, seeking as it does to deny Al Qaeda a base there, and the Government is also liaising with foreign governments and their intelligence agencies to locate and identify terrorists and their supporters, proscribe terrorist groups, and attack their financing. It is also offering other countries training and strategic, tactical and operational advice on counter-terrorism matters.

The **Protect** strand of counter-terrorism policy includes efforts to improve the protection of the critical national infrastructure, hazardous sites and materials, and crowded places, and work to secure our physical and virtual borders. Programme Cyclamen, for example, involves routine screening at ports and airports for the illicit movement of radioactive materials by sea or air or through the Channel Tunnel. Key features of the ongoing upgrade of the Protect strand also include significant changes to border protection with the introduction of the UK's biometric visa system and development of the e-borders programme.

The **Prepare** strand of CONTEST is concerned with identifying, assessing and mitigating risk, and optimising the UK's preparedness for major emergencies and resilience if they occur. This includes scenario testing and exercising emergency plans, and encouraging citizens to take responsibility for their own preparedness for emergency situations.

The Prepare strand is increasingly the focus of Government attention. The Civil Contingencies Secretariat in the Cabinet Office has assessed all the many (200+) security risks which the UK faces, and summarised them in the National Risk Register. Websites such as the Government's 'Preparing for Emergencies' site at www.pfe.gov.uk offer advice to ordinary citizens. Since 2001 the Government has invested £1 billion in Fire and Rescue Services' resilience programmes, to prepare for the aftermath of national emergencies. This money has been spent on capabilities such as urban search and rescue, mass decontamination and the Firelink wide-area radio system. £80 million is to be spent in the next three years on CBRN preparedness. Related work on community cohesion, led by the Department for Communities and Local Government (CLG) aims to make our communities more resilient.

To test these and other relevant capabilities, a National Counter-Terrorism Exercise Programme is underway. Exercises have included: 'Northern Synergy', an exercise along the lines of a Beslan-style siege; 'Lions Keep' in Surrey and Sussex, which simulated a shoulder-launched surface-to-air missile (SAM) attack at Gatwick airport; and 'White Rose' in West Yorkshire, an intelligence-led scenario to test the county's Counter-Terrorism Unit.

Finally, the **Prevent** strand is about tackling the radicalisation of individuals and deterring those who facilitate terrorism or who explicitly encourage others to become terrorists. It is focused on the pursuit of seven strategic objectives, which focus efforts to:

- Challenge the violent extremists' ideology and support mainstream voices
- Disrupt the promoters of violent extremism and strengthen vulnerable institutions
- Support individuals who are being targeted and recruited to the cause of violent extremism

- Increase the resilience of communities to violent extremism
- Address the grievances which ideologues are exploiting
- Improve the evidence base, understanding, analysis and evaluation
- Improve public communications with relevant target audiences.

Emerging out of a strategic refresh of the whole CONTEST strategy, these ideas are now cascading down to delivery level, through, for example, the new Association of Chief Police Officers (ACPO) Prevent Policing Strategy, the rollout of Counter-Terrorism Intelligence Officers and the expansion of Operation Delphinus, which seeks to drive counter-terrorist policing right down to the local, neighbourhood level. The wider police family are being told to look out for suspicious purchases of large quantities of items that terrorists can weaponise, such as castor beans (ricin), barbecue lighter cubes (hexamine), hair dye (hydrogen peroxide), fertiliser (ammonium nitrate) and ball bearings (shrapnel). The public, through advertising campaigns for the Anti-Terrorism Hotline, are being told 'If you suspect it, report it'. Community partners, such as the Mosques and Imams National Advisory Board (MINAB), the National Muslim Women's Advisory Group (NMWAG) and the Muslim Safety Forum (MSF) are engaged and contributing to the preventative effort.

Local authorities and community groups further support the Channel Project (April 2007+) in sites such as Lambeth, Preston, Luton, Derby and Waltham Forest, which seeks, through a Multi Agency Public Protection Arrangement (MAPPA) approach, to support individuals who are thought to be at risk of being radicalised towards violent extremism. Programmes are now in place to counter radicalisation in prisons, universities, and further education colleges, and £400 million has been made available over three years for addressing radicalisation overseas.

There is also a significant military component to CONTEST – based around support to the civil administration in the UK under the Emergency Powers Act 1964. The military component includes, as necessary, hostage recovery, maritime counter-terrorism, bomb disarming and disposal, CBRN capabilities, logistical support, airlift, counter-propaganda operations overseas, and the interception of renegade aircraft. The Special Air Service (SAS), Special Boat Service (SBS) and Special Reconnaissance Regiment (SRR), supported by the Special Forces Support Group (SFSG), all make contributions.

CONTEST as a whole therefore employs the logic that risk = likelihood x vulnerability x impact. The Prevent and Pursue strands aim to reduce the likelihood of attack. The Protect strand aims to reduce our vulnerability to attack. And the Prepare strand aims to reduce the impact of any successful attack.

UK counter-terrorism strategy has been the focus of increased expenditure in recent years: the total resources made available for counter-terrorism and intelligence have increased from £1 billion in 2001 to £2.5 billion in 2008, and will rise to £3.5 billion in 2010.

The Government is currently revising CONTEST. The Home Secretary has said the revised version 'will look very different from its 2006 predecessor' (ippr Security Lecture 2008).

Measures to counter transnational organised crime

The Government's overall strategy for responding to transnational organised crime has a number of elements, but the most important by far has been a variety of changes to the institutions tasked with handling it. Recognising the limitations of traditional policing in dealing with transnational criminal threats, in 2006 the Government established the Serious Organised Crime Agency (SOCA), pulling together and merging a number of different entities. These included the National Criminal Intelligence Service (NCIS), the National Crime Squad (NCS), the National Hi-Tech Crime Unit (NHTCU), the investigative and intelligence sections of HM Revenue & Customs dealing with serious drug trafficking, and elements of the Immigration Service working on organised immigration crime. SOCA now operates a worldwide network of agents seeking to tackle problems at source, including in places such as Afghanistan, shares information at the European level via Europol and Eurojust, collaborates extensively with wider international partners, and is focused on the priority challenges of drugs, arms and people trafficking.

Its efforts are complemented at home by the United Kingdom Border Agency (UKBA), which was created in April 2008 by uniting the Border and Immigration Agency, Customs at the border, and UKvisas. Since then the UKBA has:

- prevented more than 10,200 individuals from attempting to cross the Channel illegally
- searched more than half a million freight vehicles to ensure that they were not attempting to bring illegal immigrants into the country
- detected and confiscated more than 1,000 forged documents
- installed facial recognition gates at Manchester Airport that use the latest in biometric technology to check EU nationals into the country
- unveiled foreign national ID cards to go live on 25 November. (UKBA 2008)

There is also a national strategy against organised immigration crime called REFLEX, which consists of speeding up the process of assessing asylum claims and removing unsuccessful claimants, educating those tempted to use the services of traffickers in source countries to the realities of the trafficking business, and focusing enforcement action against the traffickers (Home Office 2004).

Civil emergencies

The Civil Contingencies Act (CCA), introduced by the Government in 2004, is the primary legislation relating to civil emergencies, such as pandemic flu or other major biosecurity alerts, major floods and a range of other contingencies. The CCA seeks to provide a 'single framework for civil protection in the United Kingdom capable of meeting the challenges of the twenty-first century' (Cabinet Office 2005a: 1). The Civil Contingencies Secretariat (CCS), established by the Government in July 2001 and based in the Cabinet Office, plays five roles in coordinating this civil protection:

- Spotting trouble, assessing its nature and providing warning
- Being ready to respond
- Building greater resilience for the future
- Providing leadership and guidance to the resilience community
- Effective management.

Recent government activity to plan for civil emergencies and build resilience in the face of them also includes the ongoing review process and enhancement programme attached to the CCA 2004, the provision of additional guidance to a range of local responders and emergency planners, and investment in weather-forecasting and flood-management capability.

On the last of these, the Met Office is a key player in tackling all forms of severe weather in the UK. It has responsibility for issuing severe weather warnings. It issues early warnings when it is at least 60 per cent certain that severe weather will impact upon the UK over the following few days. Flash warnings for extreme weather are issued when the Met Office is at least 80 per cent certain that extreme weather will hit the UK in a matter of hours (Cabinet Office 2008b). Similar early warning systems exist for high or low temperatures, operated by the Met Office and Department of Health. If a drought occurs, water companies are required to have plans in place in order to regulate supplies and demand. Emergency Drought Orders (EDOs) can authorise supply restrictions.

Also on flooding, the Met Office and Environment Agency (with its telephone 'floodline'), overseen by the Department for Environment, Food and Rural Affairs (DEFRA), both have monitoring and forecasting systems for rainfall, river and sea flooding. At the local level, the Government has a flood risk management programme aimed at reducing the likelihood of flooding, and Local Resilience Forums (LRFs) are required by the Civil Contingencies Act 2004 to have sufficient plans in place both to assess the risk of flooding in their area and to develop effective contingency plans for handling it. Expenditure on flood management in England is increasing from £600 million in 2007/8 to £800 million in 2010/11, in support of this range of activities.

In terms of preparation for the possibility of a flu pandemic, large volumes of the prescription-only anti-viral drug Oseltamivir (proprietary name Tamiflu) have been purchased, and plans are in place to make it available to priority workers as needed, to maintain the functioning of essential public services in the event of a pandemic. A broad range of public service providers have further been required to draw up specific contingency plans for a wide range of scenarios in the civil contingencies space. The police, for example, are preparing for the possibility of an increase in 'sudden deaths' in the event of a pandemic or other biosecurity alert, and for enforcing mass quarantine arrangements in the face of possible civil disorder, should this become necessary (Lewis 2005).

Shadow security policy

Conservative Party policy

Conservative Party positions concur with Government policy in a number of areas, especially those related to some of its international dimensions. Like the Government, the Conservatives say they place high priority on nuclear non-proliferation, United Nations Security Council enlargement, the critical UK relationship with the US and NATO and the need to enhance the UK's civil expeditionary capacity. At home, the Conservatives and the Government both want to reform the Intelligence and Security Committee (ISC) to render the Agencies more accountable to Parliament.

There are, however, a number of key areas in which Conservative Party policy differs from that of the Government. On international issues, the Conservatives put a greater emphasis on the UK's need to develop a closer relationship with India. On the Middle East, where they advocate 'humility and patience', they propose a 'Partnership for Open Societies in the Middle East'. They argue that the UK military is not just stretched but overstretched and criticise UK foreign policy as merely an 'echo' of US foreign policy (Neville-Jones 2007). The Conservatives also contend that British diplomacy is in need of some repair.

On counter-terrorism, the Conservatives advocate the admissibility of intercept evidence in Court and oppose the further extension of pre-charge detention for suspected terrorists. They also argue for a Cabinet-level Minister for Security in the Home Office and a National Security Council to bring together security experts across Whitehall. They criticise the Government on three specific counts in this field: for its previous 'short-sighted' faith in the 'covenant of security' (its alleged past attitude that radical Muslims can preach hate in the UK as long as they only foment violence abroad); for underplaying the role of the Armed Forces in counter-terrorism; and, most critically, for denying that the Iraq war has 'aggravated the domestic security threat' and made us less safe than we were before.

Liberal Democrat policy

The Liberal Democrats' security policy also shares many characteristics with current Government policy. Both state support for 'internationalism' and more effective international cooperation with partners in the EU, NATO and the UN. Both want more states to contribute to European Union and NATO endeavours, and both emphasise the importance of preventative work in terms of conflict prevention.

However, as with Conservative policy, there are a number of important points on which the Liberal Democrats disagree with the Government. In the Liberal Democrats' own words: 'Labour and Conservative approaches both rely on a narrative of fear, arguing that liberty must be sacrificed on the altar of security… authoritarian responses and warlike psychology' (Liberal Democrat Party 2008: 1). The Liberal Democrats argue that the Government, in its desire to heighten security in the UK, has eroded civil liberties with a glut of knee-jerk, posturing anti-terrorism legislation, muddying the constitutional separation of powers. The Liberal Democrats consider the Government's identity card scheme 'illiberal and unnecessary' and are against biometric passports, stating that 'we do not trust government agencies to protect centralised records from fraudulent use or other abuse'. Also on the matter of trust, the Liberal Democrats criticise the Government for its unwillingness to take a lead on nuclear disarmament while lecturing other nations around the world on non-proliferation, for its allegedly corrupt Al Yamamah deal with Saudi Arabia, compromising our ethical standing internationally, and for putting the Military Covenant at risk by not taking adequate care of our servicemen and -women.

On counter-terrorism the Liberal Democrats, like the Conservatives, oppose extending pre-charge detention and support the admissibility of intercept evidence in court. They also propose 'a willingness to talk' to radical ideologues. The Ministry of Defence budget, the Liberal Democrats argue, also needs to be open to closer Parliamentary scrutiny. On the devolution of responsibility for security matters to the citizen, the Liberal Democrats argue they would reverse what they perceive to be the Government's centralising instincts, and would create 'a force of civilian reservists to rebuild local capabilities'. Internationally, the Liberal Democrats stress the importance of the UK's relationships with its 'neighbours' in Europe, and criticise the Government's attitude towards the US as that of an 'uncritical cheerleader'. They question the utility of the imposition of sanctions in conflict prevention.

Overall assessment of current UK government policy

So far in this chapter we have been descriptive, not judgemental, in relation to current government policy and in concluding the chapter we do not intend to offer a point by point view on every area of policy described. Rather, we make three general observations which serve as a backdrop for our later calls for more urgent action in particular areas.

First, while recent developments on legislation, structures and the content of government policy map to many areas of the problem terrain outlined in this report, and while the Government has certainly been busy in recent years and many officials and others are working very hard in a number of areas, we still believe there is a major gap between the problems and challenges being faced and the level of policy action being initiated or proposed. In fact, a major weakness of the Government's own first national security strategy was that it described a new world but essentially claimed current policy was adequate to meet the challenge. It did not face up to the need for a step-change in activity and structures in order to enhance our capacity for genuinely joined-up and creative approaches. We would argue that much more can and should be done to demonstrate the UK's seriousness of purpose on nearly all of the issues with which we are concerned. Our recommendations in this interim report and in our final report in 2009 are aimed at filling some of this gap.

"We still believe there is a major gap between the problems and challenges being faced and the level of policy action being initiated or proposed"

Second, despite the changes in structures described in this chapter, there remain major weaknesses in the machinery of government related to national security. In our view, the Government lacks a coherent plan for ensuring an integrated approach to policymaking in a world that increasingly requires policy solutions to be joined up. The creation of a National Security Forum and a small national security secretariat in the Cabinet Office will not be enough. This is another issue to which we will return in our final report.

Third, there are some areas of government policy that have been hugely controversial, particularly in areas related to terrorism and to the legal framework in place or sought by the Government to respond to it. As our brief account of the positions of the main opposition parties above indicates, we are a divided country in this area at a time when we really cannot afford to be. There is a need now for government, opposition parties and everyone else to seek out and develop a national consensus to underpin the UK's response to terrorism. We believe we are well placed as an all-party Commission and as a group of individuals with diverse views on these issues to make a contribution in this area. We begin, in the next chapter, by articulating a set of principles that we believe should underpin the UK's entire approach to today's challenging security environment.

PART 4:

A new strategic approach and immediate priorities

8. Principles to underpin UK national security strategy

If, as we have argued, current policy is not bold enough, how and in what ways should our response be bolder, and what principles should underpin and shape it? In this chapter, we address this latter question directly, setting out eight principles that in our view provide at least some of the answer. We return to the issue of specific policy recommendations in Chapter 9.

The principles set out here are built on the belief that the basic challenge of security policy today is one of weakening governance. If, as we argued at the end of Part 2, the power to control the security environment has been slipping beyond the control of states, then the core challenge now is to extend our mechanisms of governance to re-exert a measure of state influence and control over it. In attempting to do this, moreover, we need to absorb an important lesson about influence in the modern world. It is not just that power itself has become more widely diffused among actors in the security environment or that the range of issues and drivers has become more varied and complex, but that what is required to have influence over that environment has changed too.

This is partly about a wider range of policy instruments being relevant to security policy today and partly about successful influence requiring a distributed and coordinated response across a wide range of actors. This distributed response is a necessity in a system that has many centres of power and a high level of security interdependence and this realisation itself implies the need for a collaborative approach to security policymaking and implementation. As a result, in the material below, we set out what we believe are the core principles fit for purpose in these circumstances.

1. The scope of national security strategy today must include but encompass more than a concern with political violence

The protection of the state with strong and flexible defence forces will remain important, but a far wider range of risks must also now be considered and managed, as indicated throughout this document.

2. In a globalised world of many weak states, the best course of action in our own defence will often be to help others to help themselves

As the global financial crisis demonstrates, we live in a world of shared destinies where failings in one part of the world quickly generate policy problems and insecurities in others. In this environment, not only can no state guarantee the security of its people by acting alone, but weak, corrupt and failing states have become bigger security risks than strong states.

3. A massive increase in levels of multilateral cooperation is now needed

This must include but go well beyond a concern with the reform of global institutions. We need not only more effective and relevant international institutions, but also an enhanced capacity for them to work together and with individual nation states. In the kind of world we have described, a crucial element of capacity is the capacity to work together. We are also in favour of a new era of treaty-based cooperation on specific issues, from nuclear non-proliferation to global biosecurity, and believe coalitions of the willing will be needed to initiate action, set standards, and sustain progress in many areas. The creation of a 'League of Democracies' at this juncture would be a bad idea. Partnerships will be necessary and should be sought with states with different systems of government to our own, including with China. Western powers will also need to be flexible: given the scale of power shift now underway, it is no longer realistic simply to expect emerging powers to sign up to Western-led institutions and ways of working.

4. Partnership working is needed at home as well as abroad

Depending on the issue at hand, partnerships, and the ability to ‘dock’ effectively with other organisations will be required not only at global and regional level between states but also often between different institutions and elements within the same state (across central and local levels and across different functional responsibilities) and between public sector actors and private and voluntary sector bodies. In nearly all cases, Government departments will not be ‘doers’ in their own right, but project managers, bringing together a wide range of stakeholders inside and outside Government. This is an obvious necessity on issues such as protection of the critical national infrastructure, where many private sector players are involved, and counter-terrorism, where the security services and the police will be much more effective if working in close partnership with members of the communities they are trying to serve and protect. Government must therefore alter its approach and not seek to ‘do’ security to people but work in partnership with businesses, community groups and individual citizens to build and enhance it. Governments must offer, and businesses and individuals must accept, more responsibility for national security.

5. Legitimacy of state action is a strategic imperative in current conditions

In a world in which the UK government is not always going to be powerful enough to control events alone or even with close allies, the voluntarily offered partnership and cooperation of others will only be forthcoming in the face of legitimacy. In practice, this means two things.

First, it means more open and inclusive policymaking and a seamless ‘through life’ approach to managing crises in which the ‘players’, governmental and non-governmental, required to resolve problems will differ during the different phases of a crisis. While there will always be a need for secret operations and to protect the anonymity of some sources, and while the specifics of particular security arrangements should always be managed on a strictly need-to-know basis, much security policymaking today is too remote and closed off from the wider range of actors that could not only benefit from but also contribute to it. Governments, in any case, themselves no longer own and control all of the relevant and necessary expertise and assets required in the making of an effective security policy. From emergency planning to climate change and from the protection of critical national infrastructure to counter-terrorism, citizens, private businesses and international organisations can all add value to the policymaking process. This all raises difficult questions for those in official positions, particularly in relation to how much information to share and where, and when and how to open up particular decision-making processes, but again, the effort should be rewarded as more partners have a greater sense of buy-in to both the process and the substance of policy, and more partners actively play a role in policy implementation. Added social depth in the decision-making process should, in other words, contribute to greater policy reach and effectiveness.

> “Legitimacy means the UK government working harder to address claims that it operates a double standard when comparing its own behaviour to the behaviour of others”

Second, legitimacy means the UK government working harder to address claims that it operates a double standard when comparing its own behaviour to the behaviour of others. More particularly, it means reaffirming the UK’s unwavering commitment to promoting, protecting and defending non-negotiable and fundamental human rights, such as the right to be free from torture, and means following through on this commitment both at home and abroad. Where insurgents supportive of terrorists are not being confronted on the battlefield, it means clearly viewing terrorism as a crime, treating it that way, and dealing with it within the criminal law paradigm and not the ‘war on terror’ paradigm.

On the international stage, while no government can or should be denied the right to take unilateral action to protect its citizens from a clear and imminent danger, the lesson to draw from the context we have described in earlier chapters of this report is clear: establishing the widely perceived legitimacy of any action will be necessary to carrying public support (essential for any operation to be successful), will mobilise more partners with more resources, and will more often be a route to security policy effectiveness than a barrier to it. Legitimacy, in other words, acts as an international influence multiplier, turning potential power resources into greater actual influence over the environment. Moreover, the opportunity cost of unilateral action to a medium-sized power like the United Kingdom will rise exponentially in the years ahead. If we are seen to act unilaterally in anything other than a context of extreme and imminent threat to core national interests, others will feel free to do the same, and the multilateral cooperation and rules-based order that we all need will not function.

In practice, this all means that if interventions in the affairs of another state are deemed necessary, these should comply with the UN Charter. Where this is not possible because vested interests paralyse the Security Council even in the face of serious human rights violations, a humanitarian crisis, or a developing threat to international peace and security, then it means any action taken should be proportionate, should have a reasonable prospect of success, and should only be taken as a last resort and after all peaceful and diplomatic avenues to avert conflict have been exhausted.

6. We need more non-military preventative action

Prevention saves lives, saves money, and in an interconnected world, nips problems in the bud while limiting the potential reach of any specific threat or hazard. We need to get ourselves out of a mindset that views intervention as a purely military affair. Aid to tackle poverty and actions to prevent a state failing are also forms of intervention, and, used early and effectively, can often prevent the need to involve the military, with huge savings for all in cost and lives. Early action on the challenges we face must therefore become more of a reality and we need to think creatively about how to increase collective political will in this area through both reducing the political risks associated with preventative action, and through increasing the incentives aligned and associated with it.

7. We must prepare for the worst and view preparation as a form of deterrence

In acknowledgement of the fact that government cannot realistically prevent, despite its best efforts, all forms of harm or damage to the UK and its citizens and businesses in current circumstances, we need a greater focus on preparing for, responding to, and recovering from some of the more challenging scenarios that we may face. The more effectively we do this, the more resilient we become, and the less attractive we are as a target for those who would do us harm.

8. Flexibility is needed in national capabilities

A security environment with so many interconnected drivers and such a wide range of threats and hazards is not one in which perfect prediction is possible. In this environment, the Government would do well to focus not on a fixed list of priorities but on building up flexible and inter-operable platforms for action. This has two implications.

First, it means making a better job of integrating a wide range of policy instruments and thinking not in terms of hard or soft power but in terms of integrated power (CAP 2006). To be more specific, it means being committed to a better linkage of military, diplomatic, economic, social and cultural policy instruments in any activity focused on restoring governance to a failed or failing state such as Afghanistan on the one hand, and being committed to better coordination of intelligence, policing, and local community policy instruments used to combat radicalisation and terrorism at home on the other. It also means sometimes integrating instruments across the traditional domestic and foreign policy divide, such that elements of policy from both domains form part of a wider strategic response to a challenge that is no respecter of borders, such as that of transnational organised crime.

Second, flexibility means building up a core capability both to project-manage activity across departments in Whitehall and focusing upon a core capability easily and effectively to dock UK government activities with the efforts of partners at home and abroad.

If these principles are allowed to shape and underpin policy, in our view this will provide a sound basis upon which to deliver security for the UK, its businesses, our many diverse communities and individual citizens.

9: Policy recommendations

We are aware that many people, both inside and outside government, will find most of the principles we have outlined easy to agree with. The challenge, of course, is how to use them to inform practical action. This must now happen far more effectively than it has to date.

If we fail to combine policy instruments more effectively in places like Afghanistan, the credibility of, and confidence in, core organisations like NATO could collapse. If we fail to turn the early 21st century into an era of renewed multilateral cooperation, we will pay a heavy price in failure, whether this relates to failure to handle the global financial crisis, to rise to the challenge of climate change, or in one or more of the many other areas we have identified in this report. If we do not act to prevent many countries falling into conflict or into conditions of state failure, we will pay a price in instability in many parts of the world, in lost markets, in the costs of humanitarian relief and post-conflict reconstruction, and will simultaneously offer terrorists and transnational criminals a hospitable environment in which to base and plan their operations. If we fail, in other words, to take the principles set out above seriously and to turn them into effective action, our own national interest will be negatively affected and we will be less prosperous and less secure as a result.

In this final chapter, we set out some concrete policy proposals that flow from the preceding analysis and embody some of the principles just expounded.

In the material below, we set out proposals in two broad areas. These are:

- Conflict prevention and intervention in conflict environments
- Strengthened multilateralism (with particular reference to regional security organisations, nuclear non-proliferation, and global biosecurity)

Violent conflict is a focus because of the scale of conflict pressures building up and converging in parts of Africa and Central Asia in particular, as outlined in Chapter 4, and because conflict is often linked to terrorism and transnational organised crime. We need to lay the foundations now for an effective strategic response.

We focus on multilateral cooperation and touch briefly on the architecture of international cooperation in direct response to the process of power diffusion that is occurring in the international system. It is time not simply to invite some of the larger emerging economies to play bigger roles in institutions designed for another era, but in the wake of the global financial crisis and the shifting distribution of economic power globally, to start negotiations on a new architecture of cooperation, of which all the major players can feel ownership and with which they can fully engage.

More specifically, however, we focus on regional security organisations because of their centrality to security policy, and in line with our call for treaty-based action on specific issues, we highlight two areas about which we have deep concerns. We focus on nuclear non-proliferation because of the dangers to the global non-proliferation regime now emerging (as outlined in Chapter 4) and because of the urgent need to strengthen this regime at the Nuclear Non-Proliferation Treaty (NPT) Review Conference in 2010. We need more urgency in advance of that conference if the bargain between nuclear weapons states and non-nuclear weapons states at the heart of the NPT is to survive, and time for more effective action is already running short. Our proposals on global biosecurity, for their part, are a response to the dangers of pandemic disease and fears about bioterrorism outlined in Chapters 5 and 6 and though focused on global responses to the challenges are also motivated by the identification of a new influenza pandemic as the number one risk to the UK in the Government's own recently published national risk register.

Our proposals overall reflect a concern with the kind of multilateral cooperation that we have said is necessary. They reflect a determination to take preventative action in a

> "If we fail to combine policy instruments more effectively in places like Afghanistan, the credibility of, and confidence in, core organisations like NATO could collapse"

number of areas more seriously, and they demonstrate a commitment to legitimacy of action in the period ahead.

Before presenting our recommendations, we enter two brief caveats and one preface by way of context for what follows.

On the caveats, first, and as stated in the introduction to this interim report, we would emphasise that our main focus in this document has been on identifying the problems and challenges facing us and on outlining the nature of the UK's current responses. We have set out principles that should guide the UK's overall approach, but the main body of our policy proposals will emerge in our final report in the early summer of 2009. The proposals set out here are not intended to be comprehensive and relate primarily to areas where we believe the scale of the challenge or threat demands especially urgent action or to issues where a limited window of political opportunity for action exists. We will return in our final report to other pressing issues such as the appropriate role for the European Union, relations with Russia, wider defence policy, Britain's energy security needs, domestic counter-terrorism and counter-radicalisation, and the protection of the critical national infrastructure and resilience at home, as well to issues related to the appropriate organisation of government.

Second, we are aware that some of what we suggest below will have cost implications and we have not attempted a costing of our proposals in this report. This is an issue we will return to in our final report but, at this stage, we would stress that even in difficult economic times national security is an area we under-invest in at our peril and under-investment today often stores up trouble and even greater costs for tomorrow.

The preface to the recommendations below is this: although we do not address climate change or international development policy head-on in this report, it is absolutely clear that the effects both of climate change and of global poverty are vast and negative in terms of the international security environment. Doing something about both, which is primarily the task of other areas of government policy, is in our view vital, not only for moral and environmental reasons but also for reasons of national self interest. If we fail on these issues, many of the other proposals that we can offer will be short-term crisis management at best.

"It is absolutely clear that the effects both of climate change and of global poverty are vast and negative in terms of the international security environment"

Responses to violent conflict

Since many areas of the world experiencing violent conflict are at high risk of falling back into it even after some form of initial stability or peace has been established, the distinction between peace and conflict is not as clear-cut as it once was. Some states and regions exist in a murky space that involves a criss-crossing of the boundary between the two. It is important for policymakers bith to be clear about the different phases of conflict (namely prevention, conflict itself, and post-conflict stabilisation and reconstruction) in this environment, and to make sure that policy tools developed for each phase are woven together in a 'seamless garment'. Consequently, we present initial proposals below on conflict prevention and some elements of the overall approach required to interventions in conflict environments. We will return to the more detailed requirements of an effective capacity to project post-conflict reconstruction in our final report, picking up issues such as required civilian capacity and improved civil-military cooperation in the process.

Conflict prevention: the responsibility to prevent

Despite recent and welcome increases in government effort in this area, conflict prevention is still not taken seriously enough. While most analysts and citizens would agree in principle that prevention is preferable to post-conflict intervention, both in terms of cost and in terms of lives lost, in practice conflict prevention activity frequently lacks political support and media attention, and, as a result, is very rarely prosecuted with anything like sufficient conviction and political will. Though the Government is already raising its game in this area, this is a fair criticism of British governments of all political persuasions over many years, and a fair criticism of the international community at large.

We need to be honest and accept that the basic problem with preventative action on conflict is a lack of political incentives to act, coupled with sometimes high risks and uncertainties associated with doing so. This needs to change.

Consequently, we call upon the Government to further develop and more deeply embed the notion of a **Responsibility to Prevent Violent Conflict** in UK foreign, defence and overseas development policy. To make this real, we believe action in a number of areas is necessary.

Recommendation 1: Shared strategic assessments

The Government needs to work with international partners in the EU, NATO and the UN to make sure that horizon-scanning and early warning systems are used to develop **shared strategic assessments** of potential conflict areas. These shared assessments should also be used across Whitehall and where appropriate should include assessments of why a hotspot may be a security threat to the UK or its allies. This would all help with unity of purpose both within the UK government and across a wide variety of international actors. Improved information and intelligence exchange will be required, and at the EU level, some of the work of creating shared strategic assessments could be performed through SITCEN and the CIVMIL cell.[24] More effort should also be made to draw in 'bottom up' civil society inputs to warning systems and strategic assessments, and once such assessments have been developed, effective ways of presenting them to the public must be found.

Recommendation 2: Conflict Modelling Panel

To enhance the improved focus on early warning systems and the building of shared strategic assessments, the Government should appoint and resource an independent **Conflict Modelling Panel**. This would have access to the outputs of official early warning analyses, would be staffed by independent experts, be at arms length from government and would be explicitly tasked with generating both conflict scenario models and assessments of the likely costs and consequences of conflicts should they occur. It would also be tasked with issuing public warnings on the likely human, social and economic costs of such conflicts and with publishing cost estimates both for the international community at large, and for the UK in particular, of humanitarian and other interventions likely to be required should a conflict break out. This would not of course be possible in very fast moving and totally unexpected conflict situations but it would be possible for most. Many countries and regions at risk of violent conflict are, after all, often known about but left to fester for months and sometimes years by the international community.

Although conflict scenario models could not lay claims to offer precise predictions, the literature on previous conflicts and their effects, and on the costs of war both for those directly affected and subsequently for a wide range of neighbouring countries and international actors including the UK government, has moved on in recent years sufficiently to allow reasonable assumptions to be made and credible models to be built. Ministers publicly confronted by reasonably credible assessments of the opportunity costs of inaction, and with a possible long-term financial as well as moral and strategic responsibility to prevent, are more likely to act in preventative ways.

Recommendation 3: Full spectrum of measures

In taking preventative action on conflict, the Government should focus on the use of a **full spectrum of measures**, and while military intervention may be justified and required quickly in a crisis, the purpose of policy should be to use the whole gamut of aid, development and other conflict prevention measures to make sure that this eventuality is either avoided altogether, or effectively viewed as a policy of last resort. We also need to make better use of diplomacy for conflict prevention purposes, and invest in the judicious use of carrots and sticks, personal diplomacy with key players, and coordinated diplomatic pressure, working with partners and through international institutions wherever possible. It is vital to understand that an essential component of capacity in the modern age is the capacity to work with others. In support of this toolbox approach, we believe the following more specific recommendations have a role to play.

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24. SITCEN is the EU Joint Situation Centre. It monitors and assesses potential crisis regions, terrorist activity and developments in WMD-proliferation. It does this through a 24-hour observation system of worldwide events and situations. The centre also provides strategic intelligence assistance to the EU Council, particularly on counter-terrorism issues, as well as backup for EU military and civilian crisis management operations. The CIVMIL cell is the EU Civilian/Military Cell. It provides assistance to the EU's crisis response teams, as well as strategic planning for military, civilian or joint military/civilian operations. It also contributes to the development of crisis response doctrines and concepts based on experience in civilian and military exercises.

Recommendation 4: Conflict reduction MDG

A conflict reduction goal should be added to the Millennium Development Goals both to emphasise the important role that development and aid policy needs to play in conflict prevention and in acknowledgement of how important conflict itself is as a driver of global poverty and inequality. While progress toward the MDGs is frustratingly slow, they nevertheless provide an important focal point for political pressure in this area and it is a major omission that a conflict reduction goal is not already a part of the MDG process.

Recommendation 5: Diplomatic resources and in-country expertise

We need a major investment in and expansion of Britain's diplomatic resources and levels of overseas in-country expertise. This constitutes a vital part of the necessary infrastructure of prevention, can facilitate early-warning intelligence-gathering and strategic assessment development, and can provide the local expertise and understanding of what measures may successfully impact on a situation on the ground. Good diplomatic resources and local knowledge can lead to more nuanced and effective coercive diplomacy, more effective use of economic incentives on possible parties to a conflict, and to more targeted and effective measures to address internal inequalities that often cause tensions inside a country. We totally reject, by implication, the kind of isolationist approach to Iran adopted by the Bush administration in Washington. Diplomacy and deep local knowledge is a key part of effective, including cost-effective, conflict prevention. We also need to re-focus some of our diplomatic effort. It is a perennial failing of British policymaking that we put most of our effort into analysis and all too little into policy implementation or ally-gathering in response to the challenges we face.

Recommendation 6: Resources to NGOs

We need an **increase in resources channelled to NGO bodies** working on conflict prevention or the promotion of political dialogue in potential conflict hotspots. The Westminster Foundation for Democracy is a good example of such an institution and there are obviously many others. The Government should also, in collaboration with the NGOs themselves, seek more effective ways of coordinating NGO activity.

Recommendation 7: Public inventory of case studies of successful preventative action

The Government should fund independent research into successful conflict prevention activities and support **a public inventory of case studies of successful preventative action**. This should act as a resource for policymakers and the media and should be based wherever possible on primary in-country research. The many positive stories surrounding intervention (such as those relating to Sierra Leone and Macedonia) are often not heard. Decision-makers need to know about examples of success and to learn the lessons of those examples. Case studies should focus on what instruments were deployed, how success was achieved, and how success might be replicated in other cases and circumstances. They should also provide a feedback loop into the toolbox approach called for above and in so doing should be part of efforts to **address the deficit of leadership and the collective failure of political will** related to conflict prevention.

Intervention in conflict environments

Where conflict prevention fails, and violent conflict breaks out, this exacerbates many of the other risk factors associated with state weakness, failure and collapse that we described in Chapter 4. The wider problem of weak and failed states is clearly one that goes well beyond the individual instances of Afghanistan and Iraq, crucial though these are.

The challenge of conflict and of weak and failing states is going to be a challenge that is with us for the long term. We need to be clear about both the strategic rationale for responding to it and the overall shape of the response that is required. This is all the more important given the cost of our involvement in Afghanistan in human and financial terms already[25], and given the problems of overstretch being experienced by the armed forces as a result. Politicians of all persuasions must work harder to explain why these issues matter and what the consequences of failure are likely to be: more possible terrorist attacks instigated by groups exploiting poorly governed spaces; the further

[25] Currently nearly US$100 million a day is being spent by the coalition on the war, but only US$7 million a day on the Afghans themselves (BBC 2008d).

effects of transnational crime on our streets and in our communities; possible undetected and unmanaged disease outbreaks or failures to properly regulate or control sensitive research in areas such as biotechnology, that may ultimately cause large loss of life here in the UK.

Of course, the public will want to know that we are acting legitimately and not spreading ourselves too thinly. Where more substantial intervention is necessary, it must be justified in clear terms against a set of criteria. (Can the conflict and the character of the intervention be described as just in the context of a set of 'just war principles'?[26] Has there been a gross breach of international law or standards, especially in respect of human rights or a humanitarian crisis? Does this threaten the wider peace of the region or, in the case of weapons of mass destruction, the world? Is the conflict area or ungoverned space in which we are intervening a direct threat to our vital national interests? Is it being used as a base to attack us, or from which to export dangerous and damaging criminal activity into our territory, or is there a reasonable expectation that it imminently will be? Does it have the potential to undermine key alliances and relationships for us?). But, with these caveats, and where long-term measures to address underlying structural and systemic drivers of conflict have failed, we must stand ready to address short-term pressures and crises in this area more effectively.

To facilitate this:

Recommendation 8: Context for military interventions

Military interventions, when unavoidable, must always take place in the context of a coherent political plan that is developed seamlessly from the 'prevention' phase that precedes conflict and leads seamlessly into the construction phase that follows it. This did not happen in Iraq, where coalition forces were asked to take Baghdad and other important urban centres rather than to develop a strategy for the stabilisation of the country post-Saddam. Despite some improvements, we are also struggling with it in Afghanistan. The point here is that the conflict phase should not be seen as something separate to post-conflict stabilisation and reconstruction but as an integral part of it and military tactics and goals should be shaped by the wider political objective.

"The conflict phase should not be seen as something separate to post-conflict stabilisation and reconstruction but as an integral part of it and military tactics and goals should be shaped by the wider political objective"

Recommendation 9: Review of military doctrine and operational planning

This implies a need to instigate **a more fundamental review of military doctrine and operational planning** as this relates to interventions in conflict and failed state situations. It also means the role of the military needs to be adapted to be just one element in a more comprehensive approach and, since it is highly unlikely that the UK will be engaged in interventions unilaterally, it means investment in a national capability to effectively dock our own activities, military and civilian, with the activities of international partners.

Recommendation 10: Unity of command

Unity of command across UK military, diplomatic, aid and reconstruction activities in conflict zones is also vital, and should ideally be under a civilian leadership that is sufficiently well resourced to ensure that in practice it is not entirely reliant on the military for on-the-ground information, intelligence and delivery. This is true in general, and also applies to the particular case of Afghanistan.

Recommendation 11: A single member of the Cabinet to lead

This principle of unity of command under civilian leadership should apply all the way back to Cabinet level in London. **One member of the Cabinet should effectively take lead responsibility for the entire UK effort in relation to security diplomacy and any major overseas intervention, including in the current case of Afghanistan, and be tasked with gathering international support for action required**. This individual should be backed up by an improved core capability for cross-departmental project management in Whitehall and be able to call upon resources from across government to ensure an effective and joined-up UK contribution on the ground. This would make political lines of accountability to Parliament and the country much clearer than they are at present. The UK should push its international partners for unity of command and voice in the wider multilateral effort in these situations, too. While we understand the sensitivities around command of national forces, it is lack of unity in this area that is unnecessarily undermining our efforts to make progress in Afghanistan at present.

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[26] Two members of our Commission panel, Lord Ashdown and Lord Guthrie, have recently written on the theme of 'just war' (see Ashdown 2007: 43-64 and Guthrie and Quinlan 2007).

The package of proposals outlined above should, if implemented, substantially strengthen our overall approach to dealing with the challenges of violent conflict and post-conflict reconstruction.

Recommendation 12: Promote a regional context supportive of peace
In relation to the conflict in Afghanistan in particular we believe the UK government should also now work with the new US administration to promote the idea of a regional context supportive of peace, possibly through a regional peace conference, bringing in Iran, Russia, Pakistan and China. This will not be easy, but should be attempted.

Strengthened multilateralism

We welcome attempts to reform the United Nations Security Council and moves to widen groupings such as the G8 to a wider group of emerging economies but, on the security front, our recommendations here on strengthening multilateralism comprise two main elements. These are:

- An enhanced and adapted role for key regional organisations
- The pursuit of a new era of issue-specific functional cooperation, through new treaties where necessary, the shoring up of old ones where needed, and the creation of other innovative mechanisms and procedures to extend and improve governance at global level.

Each of these elements is dealt with in turn below:

Strengthening and adapting regional security institutions

Recommendation 13: Strengthening and adaptation of regional cooperation
The strengthening and adaptation of regional cooperation through the European Union, the OSCE, and NATO, with the last of these incorporating the full engagement of the United States, should be a central plank of British strategy on multilateralism. This is consistent and not in tension with continued commitment to the United Nations, since the UN Charter recognises the role of regional organisations.

"We see EU institutions as a crucial mechanism for increasing the security of European and UK citizens"

We see EU institutions as a crucial mechanism for increasing the security of European and UK citizens and we will say more about the role of the EU in our final report. We will also go into more detail about the importance of US-EU relations, and of American leadership on the broad range of security issues covered in this interim report, especially in the light of the policy approaches demonstrated in the early months of the Obama Administration.

NATO also remains vital, but it should continue to adapt its role to ensure relevance to new threats and to assist on the emerging homeland security and emergency response agendas. An example of good work already undertaken would be the change to the role of NATO's Standing Naval Force Mediterranean, in the post-9/11 era. This involved re-tasking to have the Force monitor sea traffic for transnational criminal activity, such as trafficking, and to intercept that activity where necessary. Again, we will return to more detailed recommendations on NATO in our final report.

Recommendation 14: Logistical and financial help to regional security organisations
Beyond the Euro-Atlantic area, it is essential that **the EU and NATO massively increase logistical and financial help to other regional security organisations in need of support. This applies especially to the African Union**, the regional security body that is likely to be tested the most in the next five to ten years, but which is currently the least well equipped to respond.

A new era of issue-specific functional cooperation

While global and regional institutional reform is crucial to the new multilateralism that we need, we cannot wait for all of our long-term objectives in each of these areas to be met. The UK strategy on multilateralism must also therefore focus on specific issues where cooperation is urgent and where existing treaties and arrangements either need shoring up or wholly new ones to be created to deal with particular problems. We must find and work with willing partners in this endeavour. In the material below, we focus on two such areas: nuclear non-proliferation and global biosecurity policy.

Nuclear non-proliferation

Given the current situation, and on the basis of the analysis already presented in this report, it is clear that the effective handling of relations with Iran, and continued progress in relation to North Korea, will be vital if some of the worst-case scenarios on nuclear proliferation and regional nuclear arms races are to be avoided. It is imperative for peace and stability in the Middle East, one of the world's most important energy-producing regions, that Iran does not acquire nuclear weapons.

However, we also need to move beyond dealing with non-proliferation issues on a case-by-case basis.

We fully agree with George Shultz, William Perry, Henry Kissinger and Sam Nunn in the United States, that nuclear deterrence is a decreasingly effective and increasingly hazardous basis upon which to build our long-term security. The threat of further state-based proliferation, of nuclear terrorism, of an increased dispersal of potentially dangerous nuclear technology and know-how around the world, and of a fundamental breakdown in multilateral non-proliferation diplomacy at the 2010 NPT Review Conference, has brought us to the brink of a second, more dangerous nuclear age. **We therefore support the view that the long-term, strategic goal of our policy must now be the creation of a world free of nuclear weapons**.

We recognise that the UK government is already seeking to make a contribution to this overall agenda. Since 1995 it has had a moratorium on production of fissile material for nuclear weapons purposes and has permanently placed excess defence material under international safeguards. It also, in the 2006 Defence White Paper on the Future of the United Kingdom's Nuclear Deterrent, declared its intention to reduce the number of its operationally available warheads to around 160 (Ministry of Defence 2006). The former Foreign Secretary, Margaret Beckett, and former Secretary of State for Defence, Des Browne, moreover, have further floated the idea of Britain becoming a disarmament laboratory and testing ground for measures that the international community could take on key aspects of disarmament, particularly in relation to the verifiable elimination of nuclear weapons (Browne 2008).

These measures are all to be welcomed, as is active UK diplomacy in relation to the Iranian and North Korean cases, UK support for a Fissile Material Cut-Off Treaty[27] and UK diplomacy in pursuit of implementation of the Comprehensive Test Ban Treaty[28] at the earliest date possible. We also welcome the Prime Minister's commitment to the idea of a uranium bond.

Current measures in and of themselves, however, are not enough.

To achieve the long-term goal we seek, we need to go further and to do more.

Recommendation 15: Encourage reductions in the arsenals of Russia and the US

The UK government should now use all the instruments at its disposal to encourage further, rapid reductions in the strategic arsenals of both Russia and the United States. Between them, these two states possess around 95 per cent of the world's nuclear weapons and as a measure to kick-start the wider process, such reductions are in the fundamental national interest of the United Kingdom. The negotiation of a new treaty to further reduce stockpiles and to replace the provisions of the Strategic Arms Reduction Treaty of 1991, currently set to expire on 5 December 2009, is now vital and should be urged on both parties. This would also have wider benefits, since one of the factors weakening the NPT today is the perception by many non-nuclear weapons states that the nuclear powers are not living up to their obligation under article VI of the treaty to pursue nuclear disarmament.

Recommendation 16 below is made to address concerns by some states that current non-proliferation arrangements are not strong enough to prevent proliferation and therefore not a strong enough foundation on which to build national security, and to

27. This is an agreement to prohibit the production of fissile material for nuclear explosives and the production of any such material outside of international safeguards.

28. This treaty bans the testing of nuclear weapons and therefore hinders the development of new generations of weapons in the process. It is awaiting ratification by a number of crucial states, including the US, and its entry into force would send a further important signal to non-nuclear weapons states that those with nuclear weapons do not envisage developing and testing them indefinitely into the future.

address the concern that terrorists may acquire a nuclear weapon or the materials required to make one.

Recommendation 16: Strengthening of the Non-Proliferation Treaty provisions on monitoring and compliance

There is a further need to pursue a strengthening of the Non-Proliferation Treaty provisions on monitoring and compliance, to provide greater assurances to all parties on the effectiveness of the Treaty. The IAEA Additional Protocol, requiring a state to provide access to any location where nuclear material is present, should be accepted by all nations signed up to the Treaty and the policy goal should be to make such acceptance mandatory at the NPT Review Conference in 2010.

Recommendation 17: Increase UK's financial contribution to IAEA

The UK government should also increase further its financial contribution to the IAEA and it should encourage other states to do the same in support of this vitally important part of the non-proliferation institutional landscape.

Recommendation 18: Practical help to those states wishing to implement Security Council Resolution 1540

We also call for more energetic implementation of Security Council Resolution 1540, which obligates nations to improve the security of nuclear stockpiles and allows for the formation of teams of specialists to be deployed in those countries that do not possess the infrastructure or skills to do so. **The UK should provide further practical help to those states that wish to implement Security Council Resolution 1540 but are without the skills and capacities to do so alone**.

None of these measures should in any way hinder the legal right of all states party to the NPT to engage in the peaceful use of nuclear technology. In order to ensure that those states wishing to use nuclear power for the first time, or those wishing to expand their use of civil nuclear power, can do so without this resulting in a proliferation of enrichment facilities around the world, there must also now be progress towards implementing the idea of an IAEA-controlled nuclear fuel bank.

In support of these endeavours:

Recommendation 19: UK financial contribution to the IAEA/NTI nuclear fuel bank fund

The UK government should further provide a financial contribution to the IAEA/NTI nuclear fuel bank fund, which is aimed at establishing such a bank.

In addition to these measures:

Recommendation 20: Review of NATO's strategic concept

The UK government should use all of its influence inside NATO to ensure that the review of the organisation's strategic concept, being carried out in 2009 and 2010, produces a result sensitive to and supportive of the requirements of a successful outcome to the NPT Review Conference in 2010.

The UK in the P-5

There is also scope for the Government to engage in more active diplomacy within the five permanent members of the UN Security Council (P-5)[29] and to go beyond its current technical approach. The proliferation challenges we face today are inherently political, which is precisely why the preamble to the Non-Proliferation Treaty asks all parties to work towards 'the easing of international tension and the strengthening of trust between states in order to facilitate the cessation of the manufacture of nuclear weapons, the liquidation of all their existing stockpiles, and the elimination from national arsenals of nuclear weapons and the means of their delivery.'[30]

Nonetheless, there is a fundamental lack of serious and focused strategic dialogue on nuclear disarmament and on nuclear threat reduction in general among the P-5. There is, as a result, no agreement on perceptions of threat or on the most effective ways to strengthen the non-proliferation regime. If this situation continues, it is likely that many of the measures laid out above, badly needed though they are, will be hard to implement and will not fully deal with the threat.

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29. The P-5 consists of Britain, France, Russia, China and the United States; these same five states are also the only nuclear weapon states to have signed the Non-Proliferation Treaty.

30. See the text of the Treaty on the Non-Proliferation of Nuclear Weapons (United Nations 2005).

Recommendation 21: Deeper and more meaningful strategic dialogue within the P-5

The Government should therefore seek to use its membership of the P-5 and the full diplomatic resources at its disposal to stimulate a deeper and more meaningful strategic dialogue within this group of states.

Such a dialogue should have as its objective the development of a shared agenda for moving beyond the status quo, in a fashion capable of delivering genuine further progress on nuclear disarmament and non-proliferation. Where necessary, this will also need to consider whatever changes in conventional force levels and postures may be necessary to ensure the confidence of all parties in further steps towards nuclear disarmament. Building on the precedent of the joint P-5 statement to the Non-Proliferation Treaty Preparatory Committee in Geneva in May 2008, the aim should be the development of a joint vision document to be submitted to the NPT Review Conference in 2010.

Along the way, the P-5 should also engage in debate and discussion on a number of specific issues including:

- Measures to reduce the risk of accidental or unauthorised use of nuclear weapons, including through possible malicious hacking of relevant defence computer systems
- The possibility of a multilateral commitment within the group not to be the first to resume testing of nuclear weapons, pending entry into force of the Comprehensive Test Ban Treaty
- Identification of the elements that would be key to any verifiable fissile material cut-off treaty
- Views on the relationship between offensive and defensive missile systems and their implications for strategic stability
- The role of tactical nuclear weapons and the conditions under which all members of the group might be willing to consider possible constraints on their deployment
- The possibility of promoting a joint Security Council resolution setting out in clear terms the steps that would be taken to deal with any state withdrawing from the non-proliferation treaty.[31]

Recommendation 22: Non-proliferation strategic dialogue meeting for the P-5

To ensure elevated prioritisation of non-proliferation issues over the next 18 months, and to ensure a focused dialogue aimed at producing a successful 2010 NPT Review Conference, **the UK government should also invite the foreign and defence ministers of the P-5 to a non-proliferation strategic dialogue meeting prior to that review conference**.

Recommendation 23: A less formal track of diplomatic activity

The Government should also fund and contribute to a second, less formal track of diplomatic activity involving former senior officials and policy experts from the P-5 plus India, Pakistan and Israel. This would be aimed at thinking through the political and strategic issues required for a phased progression to zero nuclear weapons among this group. Representatives of these eight countries, credible with but at arms-length from their governments, would cover the eight key nuclear weapons states (both signatories and non-signatories of the NPT) and would have more scope to think the unthinkable.

Recommendation 24: Statements by the Defence Secretary and Foreign Secretary to the House of Commons

To ensure that non-proliferation issues remain at the forefront of national political debate and to ensure domestic awareness of the need for these measures, **the Defence Secretary and Foreign Secretary should also make annual joint statements to the House of Commons on current proliferation concerns and trends, and on the Government's full range of activities and resources being deployed to respond to them**.

Global biosecurity

We have drawn particular attention to the challenges of bioterrorism and disease throughout this report. As an emerging problem, it is exposing significant weaknesses, which we must respond to urgently, in the international institutional landscape.

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[31] For a fuller account of these proposals and a wider discussion on the role of the P-5 see Center for Strategic and International Studies 2007.

Since there is widespread consensus that the arrangements for detecting and responding to the deliberate release of a deadly pathogen are largely identical to those required for detecting and responding to a naturally occurring disease outbreak, we make recommendations here that are aimed at improving global readiness to deal with both.

"We do not believe it is possible to address the challenges of global health in isolation from other drivers of socio-economic well being"

Before doing so, we would draw attention to the linkages between biosecurity and the wider context within which these issues need to be considered. We do not believe it is possible, for example, to address the specific challenges related to bioterrorism and infectious diseases without also addressing the weaknesses in the general health systems of many developing countries. Equally, we do not believe it is possible to address the challenges of global health in isolation from other drivers of socio-economic well being. There are important connections, as noted at several points in this report, between poverty, poor governance, conflict, state failure and the spread of and vulnerability to infectious diseases. As a result, we believe the recommendations already made in relation to conflict reduction, and wider calls for a renewed international commitment to meet the Millennium Development Goals, all have important supporting roles to play in improving global biosecurity.

Beyond these suggestions, however, we also believe more specific measures are necessary.

Recommendation 25: Panel of biological sciences experts
The Government should work with international partners to create a panel of scientific experts, equivalent to the IPCC on climate change, for the purposes of reviewing and bringing to policymakers' attention developments in the biological sciences that may have implications for public safety and may need a regulatory response from governments and others.

Recommendation 26: Support to the Global Outbreak Alert and Response Network
The Government should look to increase its support to the Global Outbreak Alert and Response Network (GOARN) and should encourage other countries to do so the same. The GOARN has a crucial role to play in early warning but is in need of greater investment and considerable strengthening in many countries. Given that a disease outbreak elsewhere in the world could very quickly lead to large-scale loss of life in the UK, and given that the global system for preventing such an occurrence is only as strong as its weakest link, there is a strong case for spending UK taxpayers' money in this area.

Recommendation 27: Disease surveillance and response in developing countries
In line with our belief that effective multilateral action requires strong states to agree and implement it, **the Government should also, through its own bilateral aid programmes, increase the priority given to measures to strengthen developing countries' skills and capacities in the field of disease surveillance and response**.

Recommendation 28: Global Compact for Infectious Diseases
The Government should further promote the idea of a Global Compact for Infectious Diseases. This would be a new treaty designed to deliver a number of internationally coordinated biosecurity advances, including:

- The creation of a network of research centres aimed at the carrying out of fundamental research on infectious diseases
- Improved data and knowledge sharing from research and bio-surveillance activities around the world
- The harmonisation of national standards, regulatory practices, and best laboratory practices
- A major expansion in the production of important drugs and vaccines. (See House of Lords 2008: 375-379)

In practice, the Global Compact would achieve these goals by embodying a principle of mutuality that would generate real incentives for state signatories to deliver on their commitments. Those states investing in bio-surveillance and putting data into the Compact, for example, would be at the front of the queue for receiving vaccines from the internationally enhanced stockpiles. Those who harmonise standards and regulatory practices would enjoy a governance role in the management of the network of research centres, and so on. With these incentives and the principle of mutuality enshrined, the Compact should also increase the chances that the positive commitments on surveillance and response entered into in the revised International Health Regulations 2005 (as described in Chapter 5) will actually be delivered in practice and not only on paper. Private businesses and relevant NGOs should be encouraged to collaborate with Compact activities and be invited to become associate signatories to its provisions.

Recommendation 29: Development of the International Health Partnership

In order to ensure that the Compact would not simply lead to a locking in of vaccine access and health governance advantages already enjoyed by the wealthiest countries, **the Government should couple its promotion of the Compact with further development of the International Health Partnership (IHP) as an urgent priority**.

The IHP (as noted in Chapter 5) focuses on developing recipient country health systems as a whole, develops and supports the national health plans of recipient countries, and coordinates the activities of a wide range of actors to these ends (including donor countries, recipient countries, Intergovernmental Organisations and NGOs). As a result, in embryonic form it not only has the makings of being a much needed implementation arm for WHO standards and guidance but in performing that function, could be a more effective tool for reducing inequalities in global health care systems and capacities. However, with only eight donor country members and seven recipient countries signed up at present, it is severely hampered in its ability to play this role. The Government should therefore seek, working with others in the international community, a rapid expansion of its donor and recipient state membership.

Recommendation 30: Event reporting system for animal diseases

To address the links between animal and human health, **the Government should throw its weight behind the creation of an event reporting system for animal diseases** equivalent to that set up in relation to human health in the International Health Regulations 2005. It should also seek stronger coordination between such a system and the system for monitoring disease outbreaks in the human population.

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Appendix 1: The terrain of national security policy

Issue	Policy challenge	Sub-national	UK National	UK bilateral relationships	Euro/Atlantic regional	Global
External military attack on the UK	Not an immediate threat. But obvious requirement to be ready for defence of national territory		Armed Forces		NATO Alliance; EU	UN Security Council
International institutional reform	Ensure legitimacy and effectiveness of key institutions such as UN Security Council		Foreign & Commonwealth Office (FCO)	Permanent 5 (UK, US, France, Russia, China) plus India and possibly Brazil	EU (possible EU seat on Security Council)	UN Secretary General; Security Council, specific UN agencies; G8
Terrorism	Understand challenge and the radicalisation process. Create policies to win hearts and minds; prevent attacks on UK soil (through intelligence work/policing/protection of UK borders; build domestic consensus around counter-terrorism strategy; combat the terrorism/organised crime interface	Local authorities (e.g. preventing political extremism pilots); Police Constabularies, including the Met; Police Community Tensions Teams; community and religious groups; individual citizens	Home Office; Cabinet Office; Intelligence Services; GCHQ; Serious and Organised Crime Agency; Border Police; Transport Police; organisations protecting critical national infrastructure; Armed Forces as aid to civil power	United States and other allied countries (intelligence service cooperation). Intelligence sharing relationships with countries in the Middle East	EU counter-terrorism strategy; Europol. EU diplomacy on Middle East conflict; EU policy on Turkish entry to the Union	Interpol; G8 Counter-Terrorism Cooperation
Weak, failed and failing states	Eliminate terrorist safe havens; build governance capacity in other failed and failing states through development and climate change adaptation assistance, conflict prevention measures, peace-building, post-conflict reconstruction	UK-based development and aid NGOs such as Oxfam, Save the Children	FCO; Armed Forces; Ministry of Defence (MoD); Department for International Development (DfID); Police		EU (Human Security Force?); NATO (as in Afghanistan)	UN Security Council; other regional bodies, such as African Union, acting under UN mandates; G8; IMF/World Bank; World Trade Organisation
Humanitarian intervention	Prevent genocide and human rights abuses; respond to emergency situations	UK-based development and aid NGOs such as Oxfam, Save the Children	Armed Forces; MoD; DfID		EU; NATO	UN Security Council
WMD proliferation	Prevent proliferation of nuclear, chemical, biological and radiological weapons to state or non-state actors	Actors and institutions securing nuclear facilities and materials within the UK	FCO/MoD work on counter-proliferation; Department for Business, Enterprise and Regulatory Reform (BERR)	With United States and Russia, to encourage denuclearisation efforts	EU nuclear exports control regime; EU counter-proliferation efforts	IAEA; Nuclear Non-Proliferation Treaty; Nuclear Suppliers Group; G8 Cooperative Threat Reduction Programme; Proliferation Security Initiative

Climate change	Prevention of further global warming through post-Kyoto global agreement; adaptation to already inevitable climate change, both for basic human survival and to ease conflict, migration and failed state pressures	Individual businesses and business groups; local authorities; energy consumers	Department for Environment Food and Rural Affairs (DEFRA), BERR, Environment Agency	United States, India, China	EU (Emissions Trading Scheme)	Kyoto Process; Intergovernmental Panel on Climate Change
Energy security	Ensure security of supply, minimum exposure to unstable regions and climate change mitigation	Energy companies; energy consumers	DEFRA, BERR, FCO	With supplier countries (Norway, Russia, Nigeria, Algeria, Caspian Sea region and others)	EU	OPEC, International Energy Agency
Global poverty	Reduce it and widen the circle of economic opportunity both for its own sake and to remove a key background factor to conflict and failed states	UK-based development, aid, and poverty reduction NGOs	DfID, FCO, HM Treasury		EU (trade and aid policy)	World Bank/IMF/WTO; increasingly important private foundations
Socio-economic resilience	Protect critical national and international infrastructure from terrorist attacks, climate events and accidents; ensure strong emergency planning and preparedness; ensure strong business resilience and recovery	Local authorities; regional government offices; private sector companies in key infrastructure sectors and throughout economy; community groups	Cabinet Office Civil Contingencies Secretariat; Home Office; BERR; Confederation of British Industry/Institute of Directors.		EU coordination on critical national infrastructure issues	Global corporations; UN (on some issues, such as space infrastructure)
Disease/ biosecurity	Prevent, contain and if necessary eliminate serious disease outbreak, whether occurring naturally, or as result of bioterrorism	Local authorities and local emergency services; transport authorities; local media	Cabinet Office Civil Contingencies Secretariat; Health Protection Agency; possibly the Armed Forces as aid to civil power; border police; national media	Forward activity in possible source countries, such as Vietnam and other countries in South East Asia	EU public health coordination	World Health Organisation
Transnational organised crime	To limit scale in overseas source countries; tighten UK border to make penetration of UK more difficult; achieve prosecutions where possible	Local communities; Police Constabularies, including the Met	Home Office; Cabinet Office; Intelligence Services; Serious and Organised Crime Agency; Border Police; Transport Police; FCO for assistance on source country policy (e.g. in West Africa)	Arrangements with individual countries on extradition and joint investigation teams	Europol; EU for use of wider economic policy instruments aimed at tackling international corruption	Interpol

Appendix 2: High score thresholds for our conflict state failure risk indicators

INDICATOR	HIGH SCORE THRESHOLD
Economic indicators	
The level of human development, as defined by the UNDP Human Development Index	The 22 states categorised by UNDP as having low human development
The existence and extent of uneven economic development along group lines, including high levels of unemployment in certain groups	Scored 8 or over out of 10 on the Failed States Index 2008 ranking system, where 0 is the lowest intensity (most stable) and 10 is the highest intensity (least stable)
Evidence of a recent sharp or severe economic decline	Scored 7.5 or over out of 10 on the Failed States Index 2008 ranking system, where 0 is the lowest intensity (most stable) and 10 is the highest intensity (least stable)
The level of food security, as defined by Maplecroft's Food Security Index	The 48 states categorised by Maplecroft as being at extreme risk of food insecurity
Social indicators	
Evidence of a youth bulge, as defined by the percentage of the population under the age of 24	60% or more of the total population under the age of 24
Current or projected large movement of refugees or internally displaced persons	Scored 8 or over out of 10 on the Failed States Index 2008 ranking system, where 0 is the lowest intensity (most stable) and 10 is the highest intensity (least stable)
Political indicators	
Poor governance, measured as criminalisation or de-legitimisation of the state	Scored 7.5 or over out of 10 on the Failed States Index 2008 ranking system, where 0 is the lowest intensity (most stable) and 10 is the highest intensity (least stable)
Potential for terrorist acts	Scored 3 or over out of 5 on the Global Peace Index 2008 ranking system, where 1 is very low and 5 is very high
Widespread violation of human rights	Scored 7.5 or over out of 10 on the Failed States Index 2008 ranking system
Rise of factionalised elites	Scored 8 or over out of 10 on the Failed States Index 2008 ranking system, where 0 is the lowest intensity (most stable) and 10 is the highest intensity (least stable)
Military/conflict indicators	
Intervention of other state or external actor	Scored 8.5 or over out of 10 on the Failed States Index 2008 ranking system, where 0 is the lowest intensity (most stable) and 10 is the highest intensity (least stable)
The presence of armed conflict on a country's own territory between 2001 and 2006	Has experienced armed conflict on own territory between 2001 and 2006
Ease of access to small arms and light weapons	Scored 4 or over out of 5 on the Global Peace Index 2008 ranking system, where 1 is very low and 5 is very high
Environmental indicators	
Climate change vulnerability, as defined by Maplecroft's Climate Change Vulnerability Index	The 95 states categorised by Maplecroft as being at extreme or high risk of climate change vulnerability

For a full analysis of conflict and state failure, including a list of states considered to be at the most acute risk from the conflict and state failure risk factors listed above, please refer to pages 48–61, Chapter 4, of this report.

Glossary of abbreviations

ABMT	Anti-Ballistic Missile Treaty
ACPO	Association of Chief Police Officers
ALF	Animal Liberation Front
AQAP	Al Qaeda in the Arabian Peninsula
AQIM	Al Qaeda in the Islamic Maghreb
ASAT	Anti-Satellite Missile
ATCSA	Anti-Terrorism, Crime and Security Act 2001
BERR	Department for Business Enterprise and Regulatory Reform
CAP	Common Agricultural Policy
CBRN	Chemical, Biological, Radiological or Nuclear
CCA	Civil Contingencies Act
CCS	Civil Contingencies Secretariat
CIA	Central Intelligence Agency
CIVMIL	Civilian/Military
CTBT	Comprehensive Test Ban Treaty
CPNI	Centre for the Protection of National Infrastructure
CTIU	Counter Terrorism Intelligence Unit
CTU	Counter Terrorism Unit
DCLG	Department for Communities and Local Government
DEFRA	Department for Environment, Food and Rural Affairs
DFID	Department for International Development
DRC	Democratic Republic of Congo
DSTO	Database on Nuclear Smuggling, Theft and Orphan Radiation Sources
EDO	Emergency Drought Order
EEA	European Economic Area
ETA	Euskadi Ta Askatasuna (Basque Homeland and Freedom)
EU	European Union
FARC	Fuerzas Armadas Revolucionarias de Colombia (Revolutionary Armed Forces of Colombia)
FATF	Financial Action Task Force
FCO	Foreign and Commonwealth Office
FDI	Foreign Direct Investment
FSI	Failed States Index
GCHQ	Government Communications Headquarters
GOARN	Global Outbreak Alert and Response Network
GPI	Global Peace Index

GSPC	Groupe Salafiste pour la Prédication et le Combat (Salafist Group for Preaching and Combat)
HEU	Highly Enriched Uranium
HPAI	Highly Pathogenic Avian Influenza
IAEA	International Atomic Energy Agency
ICT	Information and Communication Technology
IDP	Internally Displaced Person
IEA	International Energy Agency
IED	Improvised Explosive Device
IHP	International Health Partnership
IHR	International Health Regulation
ILO	International Labour Organisation
IMF	International Monetary Fund
INGO	International Non-Governmental Organisation
IPCC	Intergovernmental Panel on Climate Change
IRC	International Rescue Committee
ISC	Intelligence and Security Committee
ISI	Inter Services Intelligence
JTAC	Joint Terrorism Analysis Centre
LiDAR	Light Detection and Ranging
LTTE	Liberation Tigers of Tamil Eelam
MAPPA	Multi Agency Public Protection Arrangement
MDG	Millennium Development Goal
MENA	Middle East and North Africa
MI5	Security Service
MI6	Secret Intelligence Service
MINAB	Mosques and Imams National Advisory Board
MIPT	Memorial Institute for the Prevention of Terrorism
MoD	Ministry of Defence
MSF	Muslim Safety Forum
NAFTA	North American Free Trade Agreement
NATO	North Atlantic Treaty Organisation
NCIS	National Criminal Intelligence Service
NCS	National Crime Squad
NCTC	National Counter Terrorism Centre
NGO	Non-Governmental Organisation
NHTCU	National Hi-Tech Crime Unit
NMWAG	National Muslim Women’s Advisory Group
NPT	Nuclear Non-Proliferation Treaty
NSID	National Security, International Relations and Development

NTI	Nuclear Threat Initiative
OECD	Organisation for Economic Cooperation and Development
OSCT	Office for Security and Counter Terrorism
PKK	Partiya Karkeren Kurdistan
PRIO	Peace Research Institute Oslo
PTA	Prevention of Terrorism Act 2005
RFID	Radio Frequency Identification
RG	Security Service Station
RIPA	Regulation of Investigatory Powers Act 2000
RUF	Revolutionary United Front (Sierra Leone)
SARS	Severe Acute Respiratory Syndrome
SAS	Special Air Service
SBS	Special Boat Service
SFSG	Special Forces Support Group
SITCEN	Situation Centre
SOCA	Serious Organised Crime Agency
SRR	Special Reconnaissance Regiment
START	National Consortium for the Study of Terrorism and Responses to Terrorism
SWF	Sovereign Wealth Fund
TACT	Terrorism Act 2000
TOC	Transnational Organised Crime
UAE	United Arab Emirates
UCDP	Uppsala Conflict Data Program
UKBA	United Kingdom Border Agency
UKCIP	United Kingdom Climate Impacts Programme
UKCS	United Kingdom Continental Shelf
UN	United Nations
UNAIDS	United Nations Programme on HIV/AIDS
UNCTAD	United Nations Conference on Trade and Development
UNDESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Programme
UN HABITAT	United Nations Human Settlements Programme
UNHCR	United Nations High Commission for Refugees
UNHDI	United Nations Human Development Index
UNICEF	United Nations Children's Fund
UNODC	United Nations Office on Drugs and Crime
UNSC	United Nations Security Council
WHO	World Health Organisation
WMD	Weapon of Mass Destruction
WTO	World Trade Organisation