MICHAEL MAYER

# Forecasting Crisis

## Climate Change and US Security

**OSLO FILES**

**Michael Mayer**

# Forecasting Crisis

## Climate Change and
## US Security

-------------------------------------------------

# MICHAEL MAYER

(b. 1973) has a Masters in Political Science from the University of Oslo (2006). He is currently a research fellow at the Norwegian Institute for Defence Studies focusing on US foreign and security policy.

# ABSTRACT

The regions projected to be most adversely affected by climate change are among those deemed of increasing strategic importance to the United States: Africa, the Middle East, and Central and South Asia. The added stress of climate change will likely exacerbate existing societal and structural stresses in these areas, reducing living standards and individual well-being and thereby contributing to instability, conflict, mass migrations and failing states. Such outcomes present fertile ground for terrorist groups, increases the likelihood of humanitarian crises and can disrupt the flow of energy exports. In this way, the impact of climate change on individuals (human security) directly affects the national security of the US.

The growing US focus on stabilization and reconstruction missions, along with an increased emphasis on integrated operations comprising both military and civilian components, are capabilities directed primarily at improving human security as a means of ensuring national security. While the US has not made the direct conceptual linkage between climate change and national security as some of its European allies have done, US strategic posture and doctrinal shifts are not only aimed towards those regions climate change will most negatively affect, but will also address those strategic threats most likely worsened by climate change impacts. As this study will show, it is increasingly apparent that economic and political development efforts in these regions are inseparable from international security concerns, and it seems therefore unlikely that the US and its allies will remain insulated from the consequences of climate change in developing countries.

# CONTENTS

------------------------------------------------------------

## Part II: Integrating traditional and human security 39

# INTRODUCTION[1]

Imagine a stack of clear plastic overhead transparencies – those of you who remember a time before PowerPoint presentations – on each printed a world map of exactly the same size. Suppose that each world map used some colorful pattern to depict the geographical preponderance of a particular demographic, environmental or political trend. One might begin with a map showing the most impoverished regions of the world, then those regions with the highest rate of population growth, then those most threatened by disease. The stack of maps showing each trend gets higher: areas with water scarcity, food shortages, weak or corrupt governments, failing states. One would quickly see clear overlaps between the maps, geographically concentrated on Africa, the Middle East, and Central and South Asia. New maps can be added to the pile showing regions of Islamic fundamentalist activity, the location of oil and gas reserves, instances of US military activity since the end of the Cold War, the strategic focus in the *war on terror*, and the current reorganization of US overseas military basing.[2] And then, placed carefully over the others, one final map: the regions of the world most vulnerable to the effects of climate change. While the composite image projected onto the wall by the overhead machine reveals some colors in all regions of the world, those four regions mentioned above are completely black with overlapping trends.

Not coincidently, military planners in the United States view these regions collectively as an area of the utmost strategic importance. In an era when international terrorism, failed states, transnational criminal organizations, and concerns over continued access to energy resources have become national security priorities, America's strategic focus has undergone a substantial geographic shift. The Pentagon has identified an area in which weak and failing states combine with a number of destabilizing demographic and societal trends that first and foremost affect human security; they call this area the *Arc of Instability*.

2    It must be noted that the term "war on terror" is not a conceptually precise term, and its use (or refusal to use) may be construed as support (or protest) for a set of policies. The United States demonstrably follows a strategy of actively seeking out and destroying Islamic fundamentalist groups such as al Qaeda and its affiliates, supporting the efforts of countries battling such groups, and crafting political and economic policies designed to weaken terrorist networks. These actions will be termed "the war on terror", the most recognized name for this strategy despite the launching of a new name "the long war" to cover these actions. Use of this term acknowledges these actions as an important component of US strategy, just as other components of US strategy will be discussed without rendering judgement on their effectiveness.

Stretching from the northern tip of South America, across Africa and the Middle East, to Central and South Asia, the threats emanating from this Arc constitute the principle threats to US national security.

These threats are not ones easily countered in a traditional manner through the application of military force. At their most fundamental level, those factors exerting the greatest influence over the threats found in the Arc are related to human security. How people are affected by their immediate living standards, trends in their societies, and the individual impacts of political processes can have serious consequences far beyond the borders of any particular country. This obscure and ambiguous security concept becomes a national security priority when failed states harbor terrorist groups, when social unrest threatens a major supplier of US oil, when a coup places the nuclear weapons of a state at the disposal of radical groups, or when humanitarian disaster or genocide threatens to destabilize an entire region. The September 2001 terrorist attacks simply underscored in dramatic fashion a trend that was already well underway: the world has become so interconnected and interdependent, and technology so advanced and deadly, that traditional conceptions of security are no longer sufficient to protect America's national interests.

Climate change will have its most severe effects in precisely those regions where states are least prepared – financially and organizationally – to adapt. The negative consequences for human security in those areas will aggravate existing destabilizing trends and present complex threats to US interests there. Ironically, while Americans may feel less threatened by the direct local impacts of climate change, US national security will be increasingly eroded. While climate change will undoubtedly have serious consequences for the wealthiest and most developed nations, these countries will likely be among the least affected by the direct impacts of the altered environment. Such countries, with substantial finances and efficient governmental structures at their disposal, are also reasonably well-equipped to cope with most of the negative effects. Sadly, this is not the case in the developing world.

At its core, this study is an overview of the trends. As such, it glosses over a rich and substantial body of academic literature covering many fields of study. Its main goal is to show how even the most conservative projected impacts of climate change will threaten human security in the Arc of Instability and consequently the national security of developed countries like the United States. It focuses on the strategic aspects of the problem and omits important aspects of the current debate, such as international efforts to reduce greenhouse gas emissions. The study assumes, as the Intergovernmental Panel on Climate Change (IPCC) does, that some increase in global temperature is unavoidable. By showing how climate change threatens human security and therefore presents a real threat to state security, the study also emphasizes the role of the military, even as it must be acknowledged that such capabilities are only a part of the solution.

An unfortunate gap exists between researchers of environmental security (studying links between the environment, scarcity and conflict) and military strategists (focusing on terrorism, *rogue* states and threats to energy supplies). A similar gap in strategic thinking separates the US and Europe. While there appears to be broad agreement on the size and scope of the problems, substantial disagreements arise over the proper responses. While the Europeans and the Americans share a common threat analysis – terrorism, failed states, weapons of mass destruction, organized crime, energy insecurity – the Europeans take a bottom-up approach that focuses on human security, while the Americans take a top-down approach that prioritizes state security. Despite this difference, the military and diplomatic tools being adopted by both are becoming remarkably similar. While the US government does not explicitly connect human security to national security, the strategic documents make the linkage indirectly. Furthermore, both the Pentagon and the State Department are adopting measures that address human security in an integrated, sustainable fashion similar to Europe's. This study will illustrate why this has occurred and show how it represents more than a passing trend.

How then might it be demonstrated that US national security is threatened by climate change? Part I begins with a discussion of the concept of security, revealing two distinct categories: traditional (state) and human security. Many of the trends that pose the greatest risks to human security will then be presented to show why, regardless of the effects of climate change, certain regions are vulnerable to instability. Then the IPCC's projected impacts of climate change will be summarized. These impacts alone present serious risks to human security, but they will also exacerbate existing destabilizing trends and place incredible stresses on humans and states alike. Such risks would be even worse if conflicts were to break out as a result of climate change impact. The controversial connection between environment and conflict will therefore be explored to see how exactly climate change may worsen these underlying trends and lead to conflicts that can have a devastating effect on both state and human security.

In Part II, current US strategy will be presented, explaining its focus on the Arc of Instability and highlighting three important national security threats in the Arc: terrorism, energy insecurity and humanitarian crises. Then the study will show how human security and national security have merged in these regions, how climate change affects existing threats to US national security and what measures are currently being designed to address this development. As this study is purely descriptive in nature, it will focus solely on US strategic thinking and responses rather than offering judgments on their effectiveness. Finally, the US approach will be compared to both the Norwegian security concept and that of the European Union, before some conclusions can be drawn and the results summarized.

# PART I: CLIMATE CHANGE AND HUMAN SECURITY

------------------------------------------------------------

## The expanding concept of security

The concept of security has been subjected to a comprehensive re-evaluation in the past few decades. The traditional discussion of security has the state as its referent object, or the focus of security. In this perspective, the continued survival of the state is of primary importance. Viewing national security as concerned principally with military defense and the accumulation of power is strongly linked to the *realist* school of international relations theory. Political issues relating to national security – *high politics* – have been traditionally seen as of fundamental importance, and therefore "trumping" other political concerns. This creates a motivation to expand the scope of what may be considered a legitimate focus of security policy, in order to take advantage of the privileged position enjoyed by security policy. The concept of *securitization* (i.e. determining the focus of security) has become relativist in nature and rests mainly on the discourse surrounding a security issue.[3] This study will not focus on the term *security* as a tool of political discourse or reflect on the use or misuse of the concept applied to environmental issues. The use of the term *security* here will be much more pedestrian, and divided into two well-known categories: traditional and human security.

### TRADITIONAL SECURITY

The most recognizable use of "security" equates the term with the continued survival of the nation-state. One of the pre-eminent scholars of foreign policy, Hans Morganthau, argued that the international system was an anarchical one and that states sought to survive by seeking power. In this way, securing the material sources of state power – territory, natural resources, economic goods, military capabilities, political stability and diplomatic competence – becomes the state's primary national interest.[4] National security has traditionally been associated with these types of interests and threats, with an emphasis on military capabilities.

According to scholar Richard Matthews, a traditional state-centered security approach "considers the relationship between new forms of environmental change and the objectives and practices of traditional national security communities," and is therefore "concerned with how to protect the sovereignty, territory, culture and citizens of the two hundred sovereign states in the interna-

------------------------------------------------------------

3    Barry Buzan and Ole Wæver, *Regions and Powers: The structure of international security* (Cambridge: Cambridge University Press, 2003), p. 71.
4    Hans Morganthau, *Politics among Nations, 4th edition* (New York: Alfred A. Knopf, 1968).

tional system from environmental threat."[5] Among the typical concerns for this approach to environmental security would be ensuring access to environmental goods outside the state's borders, border-crossing problems such as air pollution or mass migration, and environmental change that causes social instability or conflict. Another approach described by Matthews is a *humanist* perspective, where the focus is on the "welfare of mankind. Instead of two hundred entities to protect, it assumes six billion individuals in need of security."[6]

## HUMAN SECURITY

In 1994, the authors of the United Nations Human Development Report (HDR) argued that the concept of security was too narrow and that for ordinary people "security symbolized protection from the threat of disease, hunger, unemployment, crime, social conflict, political repression and environmental hazards."[7] The HDR then proposed a new conceptual framework based on human security. The authors predicted that the human security concept would "revolutionize society in the 21st century" and must encompass four characteristics. First, human security is a *universal* concern, focusing on real and growing threats relevant to all people. Second, the components of human security are *interdependent*; threats will not be confined to national borders, and threats to human security will eventually involve all nations. Third, human security can be *best ensured through prevention* rather than intervention, by meeting challenges before they become unwieldy. Fourth, human security is *people-centered*, "concerned with how people live and breathe in a society, how freely they exercise their many choices, how much access they have to markets and social opportunities – and whether they live in conflict or in peace."[8]

The 1994 HDR proposed a two-part definition: safety from chronic threats (hunger, disease, repression) and protection from sudden, harmful disruptions to the pattern of daily life. The document went on to list seven main categories of threats to human security:

- *Economic security*: an assured basic income from employment or a public safety net.
- *Food security*: physical and economic access to basic food. The availability of food is less of a problem than poor distribution and lack of purchasing power.

---

5    Richard Matthews, "Environmental Change and Human Security: Concepts and Definitions" in *Global Environmental Change and Human Security: Conceptual and Theoretical Issues* (University of California Irvine: Global Environmental Change and Human Security Program Office, 2002) [online 21 Nov 2007], pp. 7–14.
6    Ibid., p. 9.
7    United Nations Development Programme, *Human Development Report 1994* [online 1 Nov 2007], p. 22.
8    Ibid., p. 23.

- *Health security*: in both developing and developed countries, disease is the leading cause of death, where the threat is greatest among the poor.
- *Environmental security*: threats from the degradation of the local and global ecosystem, water scarcity, desertification of land, air pollution.
- *Personal security*: threats from physical violence, including threats from the state (torture), other states (war), groups of people (ethnic tensions), individuals or gangs (crime), threats against women or children (rape, domestic violence, child abuse), threats to self (suicide, drug use).
- *Community security*: while membership in groups provides cultural identity, values and practical support, they can threaten communities due to repressive practices or be threatened by mass media or other ethnic groups.
- *Political security*: threats from human rights violations and efforts to control information or ideas.

The concept of human security has been utilized and promoted throughout the United Nations' many agencies, as well as by an informal network of countries through the Human Security Network. This group emerged from the anti-landmines campaign in the 1990s and was formally launched in conjunction with a 1999 ministerial meeting in Bergen, Norway. Member states include Austria, Canada, Chile, Costa Rica, Greece, Ireland, Jordan, Mali, the Netherlands, Norway, Switzerland, Slovenia, Thailand and South Africa as an observer. According to its Internet site, the Human Security Network "identifies concrete areas for collective action. It pursues security policies that focus on the protection and security requirements of the individual and society through promoting freedom from fear and freedom from want."[9] The idea of human security has also been increasingly utilized by academic studies, replacing the state-centered conception of security. In this regard, *threats* to the state (the focus of traditional security) are increasingly being viewed as *risks* to human security. The following section will attempt to broadly outline some trends that pose substantial risks to human security.

---

9    Human Security Network, website, 30 October 2006 [online 15 Nov 2007].

# Underlying risks to human security

## POVERTY

Poverty is an underlying factor from which many other risks to human security originate. As one UN report stated, "it is in the deprivation of the lives people lead that poverty manifests itself. Poverty can mean more than a lack of what is necessary for material well-being. It can also mean the denial of opportunities and choice most basic to human development – to lead a long, healthy, creative life and to enjoy a decent standard of living, freedom, dignity, self-esteem and the respect of others."[10] A useful index for gauging economic insecurity on a global basis is the Human Development Index (HDI) from the United Nations. Appraising human welfare in terms other than material wealth, the HDI combines life expectancy, education and purchasing power parity to arrive at a composite measure of human development. The 2006 HDI revealed some progress in most regions, but a fall in the scores for countries in sub-Saharan Africa.[11] Not coincidently, the regions most susceptible to instability and conflict are those less developed regions, as measured by the HDI. A report by Project Ploughshares found that less than two percent of states scoring highest on the Index were involved in an armed conflict from 1997 to 2006, while nearly 39 percent of those states scoring lowest experienced at least one conflict.[12]

## POPULATION TRENDS: GROWTH, YOUTH BULGES AND URBANIZATION

The United Nations predicts that by 2050 the world population will increase from the current 6.7 billion to 9.2 billion, with the bulk of the population growth occurring in the less developed regions of the globe.[13] While slowly declining fertility rates and increased mortality rates from diseases in the developing world have dampened the huge population explosion once predicted, the populations there will rise from 5.4 billion (2007) to 7.9 billion (2050). As a report from the UK-based Development, Concepts and Doctrine Centre (DCDC) observes, "the greatest growth will take place in regions likely to face continuing material and economic risks."[14] Along with population increases, demographic pattern such as age distribution can have an important influence on violence and armed conflict. In countries with disproportionately young populations, so-called "youth

10   United Nations Development Programme, *Human Development Report 1997*, p. 5 [online 10 Nov 2007].

11   United Nations Development Programme, "Statistics of the human development report 2006" [online 4 Nov 2007].

12   From Project Ploughshares, "Human Development and Armed Conflicts 1997–2006", fact sheet [online 12 Nov 2007].

13   United Nations Department of Economic and Social Affairs, *World Population Prospects: The 2006 Revision*, 2007 [online 29 Oct 2007].

14   Development, Concepts and Doctrine Centre (DCDC), *The DCDC Global Strategic Trends Programme 2007–2036 Third Edition*, December 2006 [online 10 May 2007], p. 7.

bulges", high unemployment, low education levels and poverty can cause frustration, outbreaks of violence and increased recruitment by armed groups.[15]

A closely related demographic trend to population growth is that of urbanization: 49 percent of the world's population lived in urban areas in 2005, a figure expected to top 60 percent by 2030. While the more developed countries currently have a higher rate of urbanization, the population growth in less developed regions means that the total number of urban dwellers is much greater in these countries, a trend compounded by the fact that cities in the developing world are also growing almost twice as fast as those in developed regions.[16]

The UN report also highlighted the growth of mega-cities, defined as urban areas with a population of 10 million or more residents. As the report noted, "In 2005, among the 20 mega-cities in the world, 15 were located in the less developed regions and by 2015, 17 of the 22 mega-cities projected to exist will be in today's developing countries."[17] The UN report questioned the tendency to view urbanization trends as entirely negative, with urban dwellers enjoying better access to services such as drinking water, sanitation, electricity, health care or education. Urbanization may in fact be an indicator of development, as cities are "engines of economic, social, political and cultural change."[18] This optimistic view of urbanization may be misleading, however. Governments in less developed countries often express concern over their continued ability to provide these basic services, and have attempted to craft policies to control internal migration and stem the influx of people to cities.[19]

Given the findings of another UN study, this concern may be justified. The *State of the World's Cities Report 2006/7* revealed the dual nature of the world's urban areas: "there are two cities within one city – one part of the urban population that has all the benefits of urban living, and the other part, the slums and squatter settlements, where the poor often live under worse conditions that their rural relatives."[20] In many regions, slums are growing at the same rate as urban populations, and in sub-Saharan Africa slums account for 70 percent of the urban population. According to the report, "the world's one billion slum dwellers are more likely to die earlier, experience more hunger and disease, attain less education and have fewer chances of employment than those urban residents

15  See for example Henrik Urdal, "A Clash of Generations? Youth Bulges and Political Violence", *International Studies Quarterly* 50(3): 607–629.

16  United Nations Department of Economic and Social Affairs, *World Urbanization Prospects: The 2005 Revision Executive Summary* [online 29 Oct 2007]. In 2005, the proportion of the population living in urban areas was 74 percent in more developed regions and 43 percent in less developed ones. By 2030, the rates are projected to be 81 and 56 percent, respectively.

17  Ibid.

18  Ibid., p. 2

19  Ibid., p. 4.

20  United Nations Human Settlement Programme, "New UN-Habitat report says urban dwellers badly off", 19 June 2006 [online 29 Oct 2007].

that do not reside in a slum."[21] In addition, a 2007 *Small Arms Survey* report found that large-scale and uncontrolled urbanization seems to be linked to increased levels of armed violence, and that "urban armed violence is intimately connected to the structural dynamics of urbanization."[22]

## THE SPREAD OF DISEASE

The increasingly urbanized populations in less developed regions allow for the rapid and efficient spread of disease among tightly populated areas. The *State of the World's Cities* report found that HIV is higher in urban areas of sub-Saharan Africa, in some cases twice that of rural areas.[23] The DCDC report predicts the re-emergence "in strength" of some diseases, including tuberculosis, malaria and cholera. Along with HIV-AIDS, "the social, economic and human costs of contagious and communicable diseases will remain high and are likely to slow economic growth drastically in the worst affected regions for at least the first half of the period."[24] The United Nations reports that HIV-AIDS "poses a greater threat to development prospects in poor countries than any other disease. The impact is hardest among the poor, who have no economic cushion and the weakest social support of any group."[25] By killing young adults in their most productive economic period, the disease will not only create about 40 million orphans by 2010, but also cause extended families to lose their primary breadwinners and thus perpetuate the cycle of poverty.[26]

## EXISTING RESOURCE SCARCITY

Swelling populations in less developed regions place a greater strain on the most basic resources needed to sustain human life, including food and water. While some progress has certainly been made in increasing agricultural productivity, and some projections show an increase in the amount of arable land available for agriculture in developing countries, it remains a serious challenge to feed an increasing number of people. Ten years after the 1996 World Food Summit in Rome, which established the ambitious goal of reducing hunger to half the 1990 levels by 2015, the total number of people in the developing world suffering from hunger has actually increased to 820 million.[27] According to the UN's Food

---

21   Ibid.
22   Small Arms Survey, "Chapter 5 Summary: Guns in the City", in *Small Arms Survey 2007* [online 29 Oct 2007].
23   Ibid.
24   DCDC, *Global Strategic Trends*, p. 7.
25   United Nations Population Fund, *State of the World Population 2002: People, Poverty and Possibilities,* p. 43 [online 29 Oct 2007].
26   Ibid.
27   Food and Agriculture Organization of the United Nations, "World Hunger Increasing", *FAO Newsroom*, 30 October 2006 [online 29 Oct 2007]. Due to an even greater increase in population, however, the proportion of hungry people has decreased to 17 percent.

and Agriculture Organization (FAO), efforts to alleviate hunger should focus on agriculture and rural development.[28] While global food supplies are sufficient to provide everyone with the minimum caloric requirements, there are political, social and economic challenges that prevent the access and distribution of food.[29] In some regions, overuse of the land itself is an issue, with erosion and salinization limiting agricultural productivity.[30] Consumption patterns can contribute to added pressure on agricultural production; the increased consumption of meat is one example, as livestock are mostly grain-fed.[31]

In particular, the FAO highlighted the use of irrigation as "essential to increasing productivity," stating that "without investment in irrigation, it will be difficult to increase food production, reduce the financial burden of agricultural imports and increase food security."[32] In this way, food security is closely tied to the availability of water. In the Near East and North Africa, for example, access to water resources act as a constraint to development and is a source of tension between the various groups of users.[33] The 2006 Human Development Report highlighted water scarcity, noting that over one billion people have inadequate access to water, but it argued, as with hunger, that while "the availability of water is a concern for some countries … the scarcity at the heart of the global water crisis is rooted in power, poverty and inequality, not in physical availability."[34] Some regions, however, including North Africa, the Middle East and Central Asia, do in fact exhibit physical water scarcity, and a distinction must be made between physical scarcity and poor management regimes. It should also be noted that water supplies are affected by other trends, since increased population growth leads to increased demand for basic consumption as well as expanded irrigation to meet increased demands on food supplies.

## STRONG RELIGIOUS AND ETHNIC IDENTITIES

In 1994, a provocative essay appeared in the pages of *Atlantic Monthly*. A collection of observations by traveling journalist Robert D. Kaplan, "The Coming Anarchy" outlined a disturbing set of trends in the developing world. Kaplan intended to "remap the political earth the way it will be a few decades hence,"

28   Ibid.
29   See Marc J. Cohen, *Food Security: Vulnerability despite Abundance*, Coping with Crisis Working Paper Series (New York: International Peace Academy, July 2007 [online 29 Oct 2007]).
30   German Advisory Council on Global Change (WBGU), *Climate Change as a Security Threat* (London: Earthscan, 2008) [online 15 Oct 2007], p. 95.
31   Ibid.
32   Food and Agriculture Organization of the United Nations, "Water and Food Security", fact sheet, *FAO Newsroom*, 17 January 2001 [online 29 Oct 2007].
33   Ibid.
34   United Nations, *Human Development Report 2006: Summary* [online 21 Nov 2007], p. 10.

and saw a host of destabilizing elements, including "the increasing erosion of the nation-states and international borders."[35] Kaplan wrote:

> Everywhere in the developing world at the turn of the twenty-first century these new men and women, rushing into the cities, are remaking civilizations and redefining their identities in terms of religion and tribal ethnicity which do not coincide with the borders of existing states … Whereas rural poverty is age-old and almost a "normal" part of the social fabric, urban poverty is socially destabilizing.[36]

The DCDC *Global Strategic Trends* report predicts an increased emphasis on personal identity and self-interest, and "nationhood and ethnicity, especially in ethnically homogenous and ideologically nationalistic states communities, will continue to exert a powerful emotional influence."[37] Conversely, "individual loyalty to the state and state institutions will become increasingly conditional."[38] The National Intelligence Council's 2020 Project, *Mapping the Global Future*, predicts that "over the next 15 years, religious identity is likely to become an increasingly important factor in how people define themselves. The trend toward identity politics is linked to increased mobility, growing diversity of hostile groups within states, and the diffusion of modern communications technologies."[39]

According to the NIC report, religious adherents of all faiths have begun to demonstrate a deeper commitment to their beliefs, and many are becoming activists that advocate change in society. While the report acknowledges that "religious-based movements have been common in times of social and political turmoil in the past and have oftentimes been a force for positive change … the desire by activists groups to change society often leads to more social and political turmoil, some of it violent."[40] The spread of radical Islam will be particularly important, according to NIC, tapping into a sense of alienation from the globalized world among populations in Muslim countries, and a similar cultural estrangement among Muslims living in the West.[41]

---

35  Robert D. Kaplan, "The Coming Anarchy", *Atlantic Monthly*, February 1994 [online 15 May 2007].
36  Ibid.
37  DCDC, *Global Strategic Trends*, p. 10.
38  Ibid.
39  National Intelligence Council (NIC), *Mapping the Global Future* (Pittsburg: Government Printing Office, 2004) [online 10 May 2007], p. 79.
40  Ibid., p. 81.
41  Ibid.

## NON-STATE GROUPS AND THE FUTURE OF WAR

While the asymmetrical threat posed by Islamist terrorist groups such as al-Qaeda remains the focus of some countries, most notably the United States, armed groups have long been a destabilizing factor in some regions of the world. A report issued by the *Small Arms Survey* in 2004 provides an example of this development. The small and politically unstable Central African Republic suffered from a series of coups d'état after its independence from France in 1960. After a failed coup attempt in 1982, significant amounts of small arms began flowing to non-state groups inside the country and, along with the involvement of neighboring governments, contributed to increased levels of violence and political instability. Currently, non-state groups "seriously outgun government forces" and "the state's ability to regulate weapons among civilians is essentially non-existent."[42] Somalia, Iraq and Afghanistan are other prominent examples of weak central governments clashing with powerful armed groups operating outside the authority of the state.

The DCDC report warns that "armed forces will operate alongside, in competition with, and against, a variety of paramilitary groups and armed criminal gangs."[43] This meshes quite well with the writings of military theoreticians such as Martin van Creveld and Herfried Münkler, who describe a transformational process underway that has resulted in new types of war. In a recent article, Münkler outlined three general characteristics of these *new wars*. First, wars are being gradually privatized and states no longer hold a monopoly on waging war, and non-state and sub-state actors are increasingly the initiators. Second, a militarily asymmetrical form of fighting by "militarily inferior actors otherwise hardly fit for battle" has developed, or more correctly stated, has re-emerged after the historical anomaly of the industrial warfare that marked the 20th century. Third, Münkler argues that war has become demilitarized: regular armed forces have ceded their control and monopoly on warfare to irregular forces in such a way that dissolves the distinction between combatants and non-combatants. He notes that each of these characteristics was observable previously, but that "the new feature of the new wars lies in the simultaneous coincidence of all of the three main features described above."[44]

## FAILING STATES AND POOR GOVERNANCE

Münkler's third characteristic relates closely to the threat of failed states. While he argues that states have ceded their monopoly on waging war, a common

---

42  Small Arms Survey, "The Central African Republic: A case study of small arms and conflict", in *Small Arms Survey 2004: Rights at Risk* [online 20 Oct 2007], p. 11.
43  Ibid., p. 72.
44  Herfried Münkler, "What is really new about the new wars – a reply to the critics", in John Andreas Olsen, ed., *On New Wars*, Oslo Files on Defence and Security no. 4 (Oslo: Norwegian Institute for Defence Studies, 2007).

definition of failed states is the loss of a state's monopoly on the use of violence within its own territory.[45] In measuring the degree of state failure, the US-based periodical *Foreign Policy* has created a ranking system to gauge failed states, which it characterizes as a state that has "lost physical control of its territory or monopoly on the legitimate use of force, … the erosion of a legitimate authority to make collective decisions, an inability to provide reasonable public services, and the inability to interact with other states as a full member of the international community."[46] The Failed State Index utilizes 12 "indicators of instability" that measure demographic pressures, corruption, large-scale voluntary and involuntary migration, extent of citizen support, economic inequality, and institutionalized discrimination or persecution. The resulting list of weak governments considered to be susceptible to state failure contains mostly developing countries in the Caribbean, Africa, the Middle East, and Central and South Asia. Of the first 40 states listed on the 2007 Failed States Index as "critical" or "in danger", only North Korea is located outside of these regions.[47]

Another characteristic worthy of concern is the distinct lack of good governance among countries in the regions mentioned above. According to the World Bank's *Worldwide Governance Indicators*, which chart key factors such as rule of law, levels of corruption, government effectiveness and political stability, there has been very little progress since 1996.[48] The overall governance scores for developing countries in the African Sahel or Central Asia, for example, are consistently in the bottom third globally and have shown no real signs of improvement over the past decade. This lack of governance capacity reduces these countries' ability to handle crises, avert violence associated with dissatisfied populations, and ensure overall human security.

In 1994, Vice President Al Gore set up the State Failure Task Force that examined the regional, religious, ethnic, environmental and economic factors leading to state failure. For the study group, instances of state failure included revolutionary wars, ethnic wars, adverse regime changes or genocides and politicides. Its main findings, delivered in a report from 2000, concluded that "the strongest influence on the risk of state failure was regime type. All other things being equal, we found the odds of failure to be seven times as high for partial

---

45   Such states may also be defined as "failed" or "failing", though such binary terminology (failed versus successful) may not necessarily reflect the scope and degree of state control seen in countries. For a good conceptual and theoretical discussion of failed states, see Stein Sundstøl Eriksen, "The Theory of Failure and the Failure of Theory: 'State Failure' in Theory and Practice" (Peace Research Institute, Oslo [online 5 Nov 2007]).

46   "The Failed State Index 2007", *Foreign Policy*, July/August 2007 [online 30 Oct 2007].

47   Ibid.

48   World Bank, "Worldwide Governance Indicators 1996–2006", *Governance Matters 2007* [online 10 Nov 2007].

democracies as they were for full democracies and autocracies."[49] Other important factors included poverty ("low levels of material well-being"), low levels of international trade and the presence of conflicts in several bordering states.

## CONNECTING THE TRENDS: HUMAN SECURITY IN THE "ARC OF INSTABILITY"

These interrelated trends (poverty, population growth, urbanization, disease, resource stresses, strong religious or ethnic identity, armed groups, new warfare trends, weak governments and poor governance) are generally characteristics of the less developed regions of the world. Each of these factors might be more manageable in isolation, but the synergy created by multiple insecurity-producing factors leads to an exceptionally destabilizing and violent situation. If one compares the regions most affected by each of these trends, as mentioned in the introduction, the geographic overlap is substantial. Instability may therefore spill over from one state to the next. Some of these factors need not be inherently destabilizing – for example, urbanization or strong ethnic ties could be beneficial trends – but their co-existence with other pressures increases the likelihood of these factors exerting a negative influence.

It soon becomes abundantly clear that the cumulative destabilizing effect of these social, economic and environmental factors are most prevalent in exactly the regions least prepared to deal with their negative consequences. Growing populations and urbanization require long-term planning and regulations, food production and water distribution are dependent on institutions recognized as legitimate and authoritative, administrative efficacy requires transparent and equitable transactions, and improvements in the general security within a state relies on that state having a monopoly on the use of force within its borders. Without basic tools of governance, the combined effect of these factors becomes one of general instability throughout the developing world. As the NIC report states:

> Lagging economies, ethnic affiliations, intense religious convictions and youth bulges will align to create a perfect storm, creating conditions likely to spawn internal conflict. The governing capacity of states, however, will determine whether and to what extent conflicts actually occur. Those states unable both to satisfy the expectations of their peoples and to resolve or quell conflicting demands among them are likely to encounter the most severe and most frequent outbreaks of violence. For the most part, those states most susceptible to violence are in a great arc of instability from Sub-Saharan Africa, through North Africa, into the Middle East, the Balkans, the Caucasus and South and Central Asia and

---

49    State Failure Task Force, *State Failure Task Force Report: Phase III Findings*, Center for Global Policy (George Mason University [online 21 Nov 2007]), p. vi.

through parts of Southeast Asia. Countries in these regions are generally those "behind" the globalization curve.[50]

The DCDC *Global Strategic Trends* report also highlighted the risk of political instability in these regions, noting that the Middle East shows signs of tension with high birth rates, weak economic prospects and region-wide political instability. The report also viewed Africa as particularly worrisome: "environmental stress, demographic pressure and political instability will continue to threaten major upheaval, the effects of which will include mass migration, humanitarian crises, international crime and potentially, international terrorism."[51]

The common theme emerging from the preceding discussion of destabilizing trends is that of the threat or risk to human security. The negative consequences relating to each of the factors listed above threatens the health, safety and well-being of the individual at a more basic level than they do the state. While many of the factors do have ramifications for state survival, as the Failed State Index demonstrates, these may be seen mainly as a consequence of internal crisis or volatility – of decreasing personal security. While interstate conflict may arise from growing competition over resources or mass migration, the primary risks emanating from these destabilizing trends are to individuals.

The concept of human security reflects more accurately the risks inherent in these trends in a way that the traditional concept of security cannot. Before the effects of climate change upon these underlying risks to human security are analyzed, a summary of the actual direct impacts of climate change upon the environment will be presented. The IPCC report represents the most widely agreed upon source for such a discussion, and it should be noted that while climate change will have ramifications for the entire planet, only those areas included in the Arc of Instability will be highlighted here.

---

50   NIC, *Mapping the Global Future*, p. 97.
51   DCDC, *Global Strategic Trends*, p. 53.

## The direct effects of climate change: IPCC panel report

In 1896, a Swedish chemist named Svante August Arrhenius published "On the Influence of Carbonic Acid in the Air upon the Temperature of the Ground". In this paper, he explained how carbon dioxide and water together in the atmosphere create a "hothouse" effect by trapping the sun's heat. Arrhenius, winner of the 1903 Nobel Prize for chemistry, also understood that the burning of fossil fuels added to this effect by adding carbon dioxide to the atmosphere, though he predicted it would be thousands of years before any noticeable effects were seen. In a darkly comic twist, Arrhenius suggested a positive aspect of global warming: "We may hope to enjoy ages with more equable and better climates, especially as regards to the colder regions of the Earth."[52]

One hundred and eleven years later, the United Nations' Intergovernmental Panel on Climate Change (IPCC) published a 1,572-page report on the subject, prepared by over 200 scientists and including a 21-page summary endorsed by officials from over 120 countries. In its fourth report, the panel concluded that the earth's climate has already been irreversibly altered by the build-up of greenhouse gases, and that humans have been the main cause of warming over the past fifty years.[53] Three studies were released in 2007, covering the basic science of climate change, the effects of the warming, and possible options for reducing emissions. As the panel releases such reports about every six years, these three comprehensive reports will become the reference points for policy creation for some time.[54] As the IPCC report can be said to represent the latest and most broadly accepted data on the subject, the 21-page summary will serve here as the principle reference point regarding the likely direct effects of climate change.

Since its last report in 2001, the IPCC panel has been able to utilize a greater number of studies providing observations of the environment and changes related to climate change, as well as an improvement in data quality. The panel notes, however, a distinct lack of observed data from developing countries. Nevertheless, the substantial amount of data has allowed scientists to more confidently evaluate both the observed changes and their impacts than was previously possible.

---

52   "Global Warming: From Theory to Fact", *National Public Radio*, 21 May 2007 [online 23 October 2007].
53   James Kanter and Andrew C. Revkin, "Scientists Detail Climate Changes, Poles to Tropics", *New York Times*, 7 April 2007 [online 23 October 2007].
54   Ibid.

**OBSERVED CLIMATE CHANGES AND IPCC CONCLUSIONS[55]**

The evidence shows that all continents and oceans are clearly being affected by regional climate changes, more specifically by temperature increases. From over 29,000 observational data series taken from 75 studies showing significant change in physical and biological systems, "more than 89% of them are consistent with the direction of change expected as a response to warming."[56] The panel concluded that the increase in global temperature since 1950 is "very likely" caused by the increase of greenhouse gas concentrations, and that it was "very unlikely" to be a result of natural temperature variations.

Evidence of climate change has appeared in numerous regions and ecosystems. The number and size of glacial lakes are expanding, and permafrost regions are increasingly unstable, with increased rock avalanches in mountainous regions. Glacier- and snow-fed rivers have increased run-off and their maximum flows occur earlier in the spring, while lakes and rivers in many regions are becoming warmer. Spring arrives earlier along with its associated events: leaf-unfolding, bird migration and egg-laying. The geographic range of plant and animal species has shifted towards the poles, and there are similar shifts in sea-life such as plankton and fish species. The rising temperatures are beginning to have an effect on the earth's ecosystems. Agricultural and forestry patterns in the Northern Hemisphere are already changing, along with some aspects relating to human health, including altered disease patterns and heat-related mortality rates in Europe. In parts of Africa, the growing season has been shortened due to warmer, drier conditions and uncertain rainfall. Sea-level rise, combined with human development, threatens coastal wetlands and mangroves, thereby increasing the damage from coastal flooding.

**PROJECTED IMPACTS OF UNMITIGATED CLIMATE CHANGE**

The management of freshwater resources will become increasingly challenging as water availability increases by 10–40 percent at high latitudes and some wet tropical areas, while decreasing 10–30 percent in mid-latitude dry areas and the dry tropics. The panel predicts an increase in drought-affected areas, while heavy precipitation will increase flood risk. Declining glacial mass and snow cover will reduce water availability to those dependent on the melt-water from mountainous regions. Higher temperatures will lead to higher evapo-transpiration rates and therefore further water loss, and the higher water temperatures will likely cause water quality problems such as increased algae growth. Increased rainfall

---

55    IPCC, "Summary for Policymakers" in *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, eds M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson (Cambridge, UK: Cambridge University Press [online 5 Oct 2007]), p. 7–22. This overview closely follows the text and structure of the IPCC summary.

56    Ibid., p. 9.

in some areas will likely cause soil erosion and "water logging" of the soil, along with the risk of groundwater contamination. On the other hand, increased rainfall will reduce water shortages in some areas.

On balance, crop productivity will decline due to climate change. While productivity will likely increase in higher latitudes with a rise in mean temperature of one to three degrees Celsius, it will eventually decrease. In seasonally dry and tropic regions, productivity will decrease even with less dramatic temperature increases of one to two degrees Celsius. Droughts and floods in these regions will adversely affect agricultural production, especially that of subsistence farming. The lower crop yields will likely lead to increased livestock deaths. At higher latitudes, cereal production will increase along with commercial timber productivity.

Climate change and the associated rise in sea level will negatively impact coastal areas. Risks to coastal regions from sea-level rise, including coastal erosion, will be exacerbated by human-related activity. The panel predicts "many millions more people" will be affected by flooding due to sea-level rise before the turn of the century, especially in densely populated and low-lying areas. The mega-deltas of Asia and Africa will account for the largest numbers affected, and adaptation will be most difficult for developing countries. The sea-level rise will likely increase the salinization of irrigation water and freshwater systems, thereby reducing the amount of usable water available.

Societal costs will be substantial as well and, although impacts will vary, the net "effects will tend to be more negative the larger the change in climate."[57] Settlements in coastal and river flood plains, especially those with climate-sensitive economies, will be at risk. Due to complex economic and social linkages, less affected areas will also feel the effects of extreme weather and flooding. The panel suggests that climate change will likely lead to increases in malnutrition, disease and deaths relating to natural phenomena such as heat waves, floods, storms, fires and droughts.

## PROJECTED IMPACTS IN AFRICA AND ASIA[58]

According to the IPCC, "Africa is one of the most vulnerable continents to climate variability and change because of multiple stresses and low adaptive capacity."[59] Stress on water supplies will affect between 75 and 250 million people by the year 2020, especially if reduced water supplies coincide with increased demand. Agricultural production and access to food will be negatively affected by climate change due to reduced arable land, shorter growing seasons and lower

---

57   Ibid., p.12.
58   As the focus in this study is on the convergence of climate change impacts, human security and US national security, only those regions most relevant to that focus will be summarized from the IPCC report.
59   Ibid., p. 13.

yields. The report warns that "in some countries, yields from rain-fed agriculture could be reduced by up to 50 percent by 2020."[60] Rising temperatures in large lakes will negatively impact fisheries there, while the loss of mangroves and coral reefs will threaten fisheries in coastal areas.

In Asia, water resources will be substantially affected as the Himalayan glaciers melt. The immediate consequence of this will be increased flooding and rock avalanches over the next few decades, followed by decreased freshwater availability in Central, South, East, and Southeast Asia as the glaciers recede. Coupled with population growth and increased demand, more than one billion people may be affected by the 2050s. As in Africa, coastal areas in Asia will be at risk, especially the mega-deltas of South, East, and Southeast Asia. Crop yields are projected to rise up to 20 percent in East and Southeast Asia, while falling up to 30 percent in Central and South Asia by the mid 21st century. Deaths from disease related to droughts and floods will rise, including an increased risk of cholera.

## RESPONDING TO CLIMATE CHANGE

The warnings from the IPCC report are clear: the impacts from climate change are likely to increase as the global mean temperature increases. According to the panel, "although many early impacts of climate change can be effectively addressed through adaptation, the options for successful adaptation diminish and the associated costs increase with increasing climate change."[61] Several types of adaptation are mentioned in the report: technological (sea defenses), behavioral (changing food and recreational choices), managerial (changing farming practices) and policy (regulations). Regardless, "adaptation alone is not expected to cope with all the projected effects of climate change, and especially not over the long run as most impacts increase in magnitude."[62]

The IPCC report expresses concern over the increased vulnerability of some regions to the impacts of climate change due to other stress factors. It notes that "vulnerable regions face multiple stresses that affect their exposure and sensitivity as well as their capacity to adapt. These stresses arise from, for example, current climate hazards, poverty and unequal access to resources, food insecurity, trends in economic globalization, conflict and incidence of disease such as HIV/AIDS."[63] Near the end of the IPCC's summary comes the panel's warning against inaction:

Even the most stringent mitigation efforts cannot avoid further impacts of climate change in the next few decades, which makes adaptation essential, particularly in addressing the near-term impacts. Unmitigated climate change

---

60    Ibid.
61    Ibid., p. 19.
62    Ibid.
63    Ibid., p. 20.

would, in the long term, be likely to exceed the capacity of natural, managed and human systems to adapt.

## Climate change, conflict and security

How will climate change affect human security? The academic research aimed at identifying the root causes of armed conflict covers a broad swath of the international relations literature, to which the exploration of linkages between environmental factors and conflict belongs. The academic literature on environment, conflict and cooperation (EEC) is highly charged with controversy: disagreements seem to abound on nearly all aspects of research, including the conceptualization of "security", methodology and initial assumptions regarding scarcity, just to name a few. Any overview of the field will necessarily oversimplify and lack the proper nuances, and any comprehensive study of current trends would constitute a lengthy piece of writing on its own. The intention here is simply to outline the contours in order to make some observations about the connectedness of certain trends[64]

At its core, environmental security deals with the problem of scarcity, especially shortages in food or access to water. There appear to be at least five distinct views regarding scarcity and conflict.[65] The *neo-Malthusian* view, taking its name from the 18th century scholar Thomas R. Malthus who suggested that populations would eventually outgrow their food supply, begins with the initial assumption that resource scarcity will lead to conflict. *Cornucopians* take the opposite view, assuming that advancements in technology and market mechanisms will overcome any impending shortages. A related position, the *political ecology* view, argues that the key to resource management lies in the social, economic and political aspects of resource distribution. An *institutionalist* viewpoint relies on cooperation through agreements and institutions to avoid conflicts, while those examining the *resource curse* point to resource abundance (diamonds, timber), rather than scarcity, as a source of conflict.

Perhaps the most pervasive of these various approaches to environmental security has been the work of Thomas Homer-Dixon, whose work most closely resembles the neo-Malthusian view. In a 1991 article, Homer-Dixon proposed three "ideal" types of conflicts that might arise from environmental degradation.[66] *Simple scarcity* conflicts can arise when state actors perceive resource scarcity, especially renewable resources such as river water, fish, or agriculturally productive land, in a zero-sum manner and seek to gain physical control over them. Such conflicts may also be self-perpetuating, in that conflicts over farmland may lead to reduced food production and therefore increased food scarcity. Mass-migrations of populations due to environmental change may lead to

---

64   This task is approached with the utmost humility and with apologies to those researchers specializing in the various fields that are perhaps somewhat clumsily summarized here.

65   This typology is taken from a lecture by Nils Petter Gleditsch, "Environmental security and conflict", lecture 13 March 2007 (GWSP [online 2 Nov 2007]).

66   Thomas Homer-Dixon, "On the Threshold: Environmental Changes as Causes of Acute Conflict", *International Security*, vol. 16, no. 2 (Fall 1991): 76–116.

*group-identity conflicts* when, wrote Homer-Dixon, "ethnic and cultural groups are propelled together under circumstances of deprivation and stress, we should expect inter-group hostility."[67] A third type of conflict can occur as a result of inequitable distribution of economic goods among a society's citizens, or a "widening gap between their actual level of economic achievement and the level they feel they deserve."[68] This causes what Homer-Dixon refers to as *relative-deprivation conflicts*; this phenomenon may be most affected by the rate of economic deterioration – the quicker the downturn, the greater the discontent.

The effects of climate change may be seen as an accelerant to the processes discussed by Homer-Dixon and others. Whether one adopts a neo-Malthusian view or one of institutionalized cooperation, the fact remains that changing weather patterns and global warming will likely create new stresses on the environment and therefore on those populations that are most vulnerable to such variations. While environmental conflicts have and will continue to occur, climate change has increased the odds of such conflicts simply by negatively impacting the underlying factors that cause them. In the next section, four types of possible conflict "constellations" resulting from climate change will be examined.

The following section relies primarily on the impressively thorough analysis conducted by the German Advisory Council on Global Change (WBGU), which released its findings in the report *Climate Change as a Security Risk*.[69] It must be mentioned that this report includes many possible avenues for cooperation between states in dealing with the adverse affects of climate change. This study will make use only of the possible conflict constellations directly relevant to the discussion at hand. The stresses of climate change are not necessarily destined to provoke conflict. This section merely presents the possible sources of violence and notes the disturbing confluence of negative trends in the regions under discussion.

## WATER SCARCITY AND CONFLICT

There is little documentation showing that water scarcity alone leads to conflict, but it does suggest that scarcity can combine with other factors to create violence. It must also be noted that disagreements over water usage have led to international water resource benefit-sharing agreements and regulatory regimes. However, if climate change leads to substantially less rainfall and reduced reserve capacity in the form of mountain snow and glaciers, water availability may fall to unseen levels for which there are no historical data. Upstream countries may feel obliged to depart from their obligations under existing treaties, and retain greater amounts of water for crop production and other uses. Downstream

67    Ibid.: 108.
68    Ibid.: 109.
69    WGBU, *Climate Change as a Security Threat*.

countries may be forced to either accept the agreement-breaking actions of up-stream countries or take action to secure water access for their own citizens. As the WBGU study observed, "few agreements have so far been made to promote adaptive responses to increasing regional water scarcity, in other words agreements in the sense of burden-sharing instead of benefit-sharing."[70]

On the whole, intrastate conflicts over water are seen to be more likely than conflicts between states. As temperatures rise and changing weather patterns cause drier conditions, farmers will be forced to make greater use of irrigation techniques and therefore increase water demand. Potential conflicts may arise from either an insufficient supply of water or supplies of insufficient quality, especially as water quality may decrease as scarcity rises. Conflicts can occur between user groups, herders and farmers being the best-known example. There are those who argue that the current violence in Darfur, while containing tribal or ethnic factors, also can be seen as a land-use conflict exacerbated by climate change.[71] In addition, shortages in water supply may aggravate existing social strife and accentuate societal inequalities as certain groups retain access to water while others are denied it.

## FOOD SHORTAGES AND CONFLICT

Closely related to water scarcity is the risk of food shortages. As the IPCC report projects, changing weather patterns will likely cause drier conditions, shorter growing seasons, and lower crop yields. A paper by the International Peace Academy warned that "climate change poses an ominous threat to food security over the medium- and long-term ... it will likely create greater emergency food aid needs in the future. It poses a serious threat to the livelihoods of small farmers, who are already vulnerable to food insecurity, as it may reduce tropical farm yields substantially."[72] As sea levels rise and possibly contaminate water tables with salt water, less freshwater may then available for irrigation. Similar to water use, the possible conflicts over land use loom large. Profitable land-use forms, such as growing bio-fuel sources or timber, may challenge agricultural land use and create conflict, just as conflicts may arise between farmers and nomadic herders. Rising seawater temperatures may contribute to vanishing fish stocks, and coral bleaching will destroy the habitat of other fish species, both effects resulting in less fish stocks available for consumption. As fish provide good sources of nourishment requiring neither grazing land nor grain production, disappearing fisheries place increased pressure on higher-impact sources of food.

Demographic trends, urbanization in particular, have a role to play in the link between food shortages and conflict. Studies have shown a higher frequency

---

70   Ibid., p. 84.
71   "Sudan: Climate change only one cause among many for Darfur conflict", *Reuters AlertNet*, 28 June 2007 [online 10 Nov 2007].
72   Marc Cohen, *Food Security*, p. 11.

of violent riots due to food shortages in urban areas than in rural ones. As with water scarcity, an inequitable distribution of food may also lead to violence and conflict. As the WBGU report noted, one study revealed that "if the majority of the population is hungry while a small minority remains almost unaffected by food shortages, outbreaks of violence are more likely than if the entire population is negatively affected."[73] Those societies already experiencing destabilizing trends are among those most vulnerable to outbreaks of violence that "'boil over' or that relatively localized violence might expand on an uncontrollable scale. Furthermore, the pre-existence of (violent) conflicts increases the probability that environmental changes will result in declining food production and, subsequently, food crises."[74]

## NATURAL DISASTERS AND CONFLICT

The IPCC report projects some increase in the frequency and intensity of extreme weather events, especially with regard to tropical storms in the Atlantic, Pacific and Indian Oceans. These storms contain powerful winds that can damage or destroy structures, heavy precipitation that may result in swollen rivers that flood their banks, and an associated storm surge that can send seawater over low-lying areas adjacent to the coast. Approximately two-thirds of the world's population lives in coastal areas, noted one study, "where critically important facilities and infrastructure, such as transportation routes, industrial facilities, port facilities and energy production and distribution facilities are located."[75] It is also common to find cities located on river estuaries, which serve to connect marine transport network with inland waterways. As these settlements serve as logistics centers for transporting goods further inland, the potential loss of this economic link can have far-reaching consequences beyond the areas directly impacted by severe weather. As the IPCC report suggested, these important economic centers are extremely vulnerable to the effects of severe weather.

On a purely practical level, severe weather can cause substantial loss of human life, destroy dwellings and overwhelm sanitation infrastructure. The devastation from such storms may render portions of a city completely uninhabitable due to structural damage, flooding, or the threat of rapidly spreading waterborne disease. Disasters can be said to cause disruption and instability at a most fundamental level. Storm surges can cause contaminated groundwater and ruin croplands due to the high saline content in sea water.[76]

---

73  German Advisory Council on Global Change, *Climate Change as a Security Risk* (London: Earthscan, 2008) [online 15 Oct 2007], p. 98.
74  Ibid., p. 99.
75  The Center for Naval Analysis (CNA) Corporation, *National Security and the Threat of Climate Change* (Alexandria, VA: The CNA Corporation, 2007) [online 1 Nov 2007], p. 16.
76  Ibid.

As the WBGU study pointed out, natural disasters can cause state functions to be temporarily suspended when the resources of local and national authorities are overwhelmed. Significantly, the state's inability to respond properly and assist its citizens in a disaster situation comes at precisely the time when they are most dependent upon governmental support. Frustration and resentment with the ruling government may arise when relief efforts are inadequate or ineffective.[77] After a disaster strikes, communities are at their most vulnerable. Even in highly developed countries, natural disasters such as Hurricane Katrina (2005) demonstrated how quickly these situations can lead to a breakdown in governmental response as well as an acute loss of security.[78]

Under these stressful circumstances, existing social or political tensions may be aggravated and escalate into intrastate conflicts. Such violence will likely be perpetuated by smaller groups rather than an organized resistance or rebel group, as the organizational challenges facing governmental agencies following a disaster will likely hinder the organizational capabilities of opposition groups as well.[79] Haiti may be seen as one example of how pre-existing weak state structures and social tensions can lead to longer-term state instability after a natural disaster.[80]

## MIGRATION AND CONFLICT

Both the likely and possible consequences of climate change mentioned above will result in the movement of people away from affected areas. These migrations may be stimulated either by direct environmental impacts that cause some regions to be rendered uninhabitable or by social developments resulting from these environmental changes. Regardless of the cause, the movement of people en masse creates an inherently unstable situation, presenting risks to the migrants themselves, the regions they travel through, and the areas receiving large numbers of migrants. The most likely causes for such movements will be briefly examined as well as the potential for instability, violence and conflict.

Sea levels rose an unprecedented 15–20 cm during the 20th century, and scientists have concluded that global warming is the reason behind this phenomenon. Increasing temperatures are causing substantial flows of melt water from ice sheets and glaciers. The effects of the additional flows are compounded by the warming of the oceans, as the thermal expansion of the water itself causes a sea-level increase. The IPCC projects a global rise of 50 cm by the end of the century while other studies warn of even greater increases; in the next two centuries

---

77   German Advisory Council on Global Change, *Climate Change as a Security Risk*, p. 105.
78   Ibid.
79   Ibid., p. 106.
80   Ibid., p. 107.
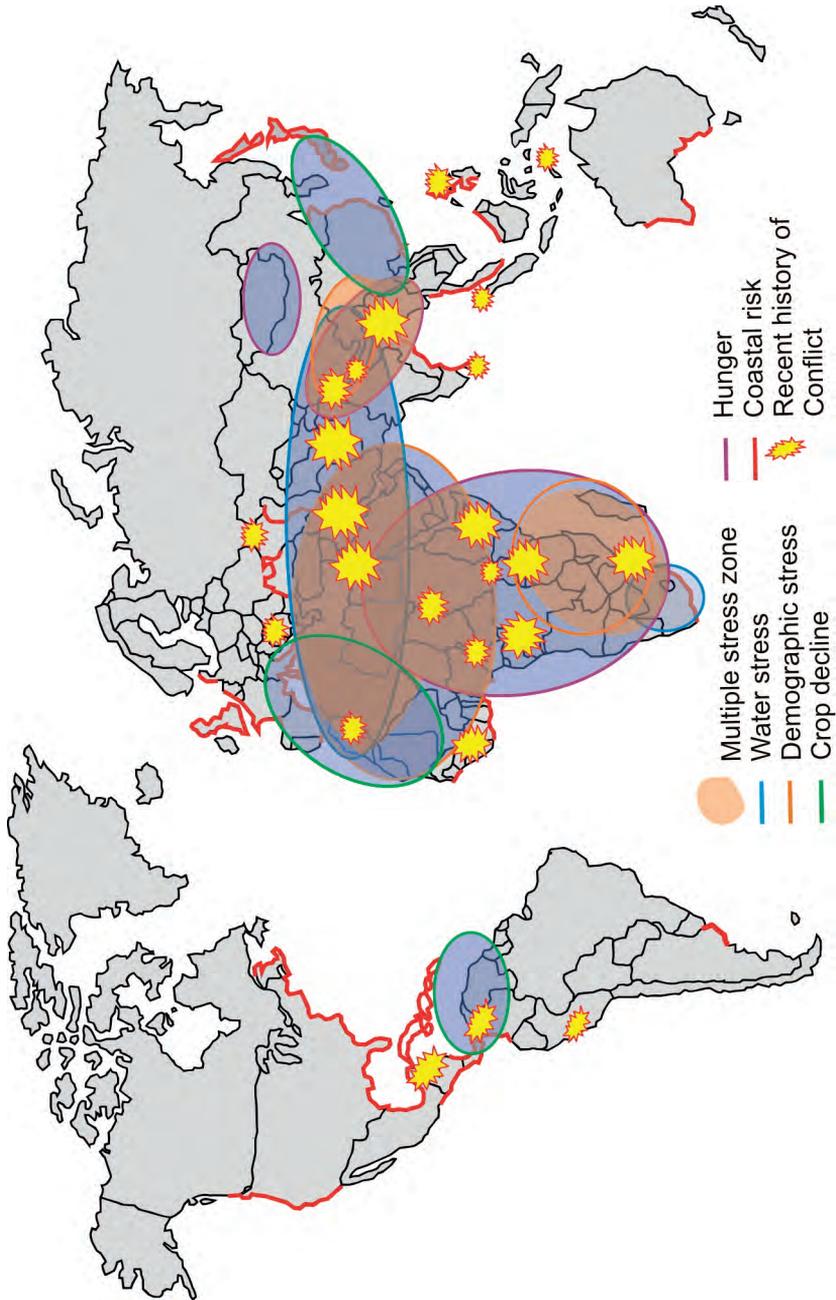
Fig. 1: Multiple environmental and societal stress zones (ill.: Development, Concepts and Doctrine Centre (DCDC), UK).

a rise of several meters is likely.[81] Rising sea levels are expected to permanently flood low-lying coastal regions, covering residential areas, economic centers and agricultural land. As mentioned in the previous section, a substantial portion of the world's population resides near the coast, and coastal cities are major economic and political centers. The loss of these population centers will necessarily lead to mass migrations to other population centers located inland.

There are other direct effects of climate change that may cause migration. The increased frequency and intensity of tropical storms will bring with it an increased risk of storm surge. The damage caused by the storm itself may be compounded by flooding due to the temporary localized rise in sea levels. Low-lying residential areas will be affected, and salt water will harm agricultural land. Some of the expected impacts of climate change – desertification, increased stress on water resources and reduced agricultural production – may also cause large-scale migration as populations abandon regions that are less able to sustain human settlements. People may escape to nearby urban areas in search of basic necessities as well as employment. Each of these eventualities can lead to mass migration; their combined effect makes the possibility of such migrations even more likely. In addition to these direct causes of mass migration, the increased risk of violence and instability in regions adversely affected by the factors listed above may also create new waves of migration as populations flee conflict-filled areas.

There exists the risk of violence linked to the influx of migrants escaping from environmentally related situations. Some researchers point to conflicts resulting from sizeable movements of people that occur in a disorderly fashion, or if these immigrants must compete with the resident populations for basic goods such as food, water, shelter, employment or social services.[82] Migrants escaping environmental disasters may present less of a destabilizing element than refugees from conflict areas, as they most likely lack clear political objectives or a personal interest in political developments in their homeland, and cannot be described as aggrieved parties seeking justice or retribution.[83] States with the resources at their disposal to accommodate large numbers of immigrants will be best able to avoid destabilizing effects, and states with organizational capabilities at the local governmental level are better able to respond to the increased demand for immediate and basic needs such as electricity, housing, water and sanitation.[84]

---

81    Ibid., p. 61.
82    Ibid., p. 121; Nils Petter Gleditsch, Ragnhild Nordås and Idean Salehyan, *Climate Change and Conflict: The Migration Link*, Coping with Crisis Working Paper Series (New York: International Peace Academy, May 2007 [online 17 Nov 2007]).
83    Gleditsch et.al, *Climate Change and Conflict: The Migration Link*.
84    Ibid., p. 7.

## SYNERGY: CLIMATE CHANGE AND UNDERLYING RISKS

Just as the underlying risks to human security highlighted earlier are interconnected in ways that compound and exacerbate the trends, a similar synergy is found between those underlying risks and the challenges posed by climate change outlined above. Were the most dramatic effects of global climate change to fall on the most developed countries in the world, the risks might be substantial but controllable. Tragically, the projections show the worst-affected areas to be precisely those regions least capable of coping with the consequences in terms of governance or financial resources.

As the above overview of climate change impacts has shown, violence and conflicts are most likely to erupt in areas with pre-existing social or political tensions, or in countries where governmental functions are unable to cope with the challenges presented by climate change. This pattern of adding additional stresses to those regions already under stress makes the risks of climate change particularly worrisome. That destabilization in one country can spread across an entire region also becomes a very real possibility, considering such interlocking trends in close proximity to one another. The DCDC *Global Strategic Trends* report has presented these interconnected trends in map format; notably, those areas seen as *multiple stress zones* are consistent with the NIC report's description of an "arc of instability".

The projected effects of climate change represent a substantial degradation of those environmental conditions usually linked to the potential for conflict. Previous research has examined occurrences of both interstate and intrastate conflict stemming from factors such as resource scarcity or migration. While these provide valuable insight, the likely effects of climate change present steadily negative trends that will not be reversible, in contrast to cyclical droughts, temporary flooding, or conflict-induced migration that eventually experience a pendulum swing toward conditions more suitable to human survivability. The scale and severity of the environmental conditions associated with such climate change impacts as rising sea levels, persistent drought, disappearing glaciers, and decreased growing seasons cannot be properly evaluated as no precedent exists for these extreme developments.

Mass migration represents one likely outcome of climate change impacts, and is a factor that interacts negatively with the underlying urbanization trends. These migrants will most likely relocate from their now uninhabitable or undesirable homelands to urban areas where the chances of securing basic daily needs will be greatest. In doing so, they will increase the strain on already strained urbanized areas. With little financial wealth, these new immigrants will likely end up in urban slums where human security is at its lowest and competition for limited resources is highest. As mentioned earlier, outbreaks of violence and riots over food scarcity are more common in urban areas than rural ones, both reinforcing and aggravating the risk to human security.

Food and water scarcity, along with the potential risk of competition and conflict over shortages in these fundamental resources, place much greater pressures on governmental structures to distribute limited resources in an equitable manner, especially considering that inequitable distribution has been shown to cause violence. Potential increases in population due to climate-change-induced migration will compound both the size and scope of the problem, further straining governmental agencies. In many countries located in the most susceptible regions, efficient governmental structures are sorely lacking. While it is possible that these countries might suddenly find ways to become more effective in the event of a crisis, a more plausible outcome may be that such agencies would become overwhelmed. As one study on migration and conflict notes, "changes in current policies are likely to be costly in the short-term – particularly for economic actors who have an interest in maintaining the status quo – and political leaders may not be willing to make the necessary changes now in order to avert future dilemmas."[85]

The Failed State Index presented earlier pinpoints those countries most at risk of internal collapse. The added strains on governmental agencies due to migration, urbanization, and food and water scarcity may push states to the point of collapse. The inability of the state to provide for the equitable distribution of basic resources may combine with other underlying trends. Without the state providing adequate resources or security, sub-state militant groups, perhaps formed along ethnic or religious lines, may act to secure access to food and water for their followers through the use of force. The development of warlords in states with weak central power structures is not new, and such groups have easy access to small arms. This trend in turn may be reinforced by yet another trend: the development of privatized *new wars*, asymmetrical and blurring the boundaries between warriors and organized criminals. Such developments pose a substantial threat to the internal stability of a state and its ability to retain a monopoly on violence inside its borders – the lack of which is the very definition of a failed state.

### COUNTERPOINT: CHALLENGING THE CLIMATE CHANGE–CONFLICT LINK

While the arguments above seem both logical and plausible, a number of researchers are disturbed by the increasing tendency to assume a causal link between climate change and conflict. Some point to inconclusive research data or faulty methodology, while at the same time pointing out some trends toward resource-sharing cooperation rather than conflict.[86] Researcher Idean Salehyan warned of the "new myth about climate change" in a 2007 *Foreign Policy* piece,

---

85 Ibid., p. 10.
86 See, for example Ben Buckland, "A Climate of War? Stopping the Securitization of Global Climate Change", June 2007 (Geneva: International Peace Bureau [online 16 Nov 2007]).

railing against "dire scenarios" similar those presented here as "... misleading. Even worse, they are irresponsible, for they shift liability for wars and human rights abuses away from oppressive corrupt governments."[87]

Classifying these dangers as human security risks is not simply an academic debate over terminology, because identifying the type of security threat has real implications for drafting policy responses. The debate surrounding the concept of "security" therefore becomes highly relevant. Many researchers focusing on the links between the environment and conflict are loath to apply the traditional understanding of security to the risks connected to climate change. As Jon Barnett wrote, "understanding climate change as a security issue risks making it a military rather than a foreign policy problem, and a sovereignty rather than a global commons problem."[88] Salehyan echoed this argument, writing that "focusing on climate change as a security threat that requires a military response diverts attention away from prudent adaptation mechanisms and new technologies that can prevent the worst catastrophes."[89]

The WBGU report struck a similarly cautious tone, arguing that one risk in taking a broad comprehensive approach to security makes it "possible for new military interventions, including so-called pre-emptive wars, to be justified under the guise of comprehensive security. Such a trend may even lead ultimately to greater insecurity."[90] Finally, a United Nations paper argued that

> while human security enables the consideration of multiple threats, distortions can arise through securitizing threats that do not apply to the target population. This may include making overwhelming military force the main mechanism for achieving human security – an approach unlikely to fall within the norms of a human development approach.[91]

Some scholars maintain that only cooperative efforts and institutions should be considered as options for coping with the effects of climate change.[92]

87  Idean Salehyan, "The New Myth about Climate Change" *Foreign Policy* August 2007 [online 14 Nov 2007].

88  Jon Barnett, *Security and Climate Change*, Tyndal Centre Working Paper No. 7, October 2001, p. 11 [online 3 Nov 2007].

89  Salehyan, "The New Myth about Climate Change".

90  German Advisory Council on Global Change, *Climate Change as a Security Risk*, p. 20.

91  Richard Jolly and Deepayan Basu Ray, *The Human Security Framework and National Human Development Reports*, NHDR Occasional Paper 5 (New York: United Nations Development Programme, May 2006 [online 22 Nov 2007]), p. 11.

92  For one example, see Ben Buckland, "A Climate of War: Stopping the securitisation of Global Climate Change", International Peace Bureau, Geneva, June 2007 [online 19 Nov 2007].

### COMPLEX RISKS TO HUMAN SECURITY

The impacts projected from climate change pose some serious traditional security threats to some states. The possibility of interstate conflict is a real one – disagreements over the distribution of scarce resources may lead to violence and internal conflicts. This study suggests that while climate change by itself may not directly cause outbreaks of violence, it certainly exacerbates existing political and societal tensions and increases the possibility for inter- or intra-state conflicts. Many of the studies mentioned above note that while environmental factors were not the main conflict trigger, they combined with or worsened other existing factors. The State Failure Task Force came to this conclusion, stating that while no direct relationship was found between instances of state failure and environmental factors, it was one of the possible contributing factors.[93]

Nonetheless, the greatest risks posed by climate change are those impacting human security. Existing trends that pose substantial risks to human security are compounded by the effects of climate change, and will make it increasingly difficult to secure access to the most basic of needs. In general, the risks described in the preceding sections combine to directly impact all seven sub-sections of the original 1994 human security concept: food, health, economic, environmental, personal, community and political security.

Through a discussion of United States security policy, the next section will demonstrate that those regions most vulnerable to the effects of climate change have also been identified as of increasing strategic relevance to US policymakers and strategists. While the US has not explicitly stated its intention to focus on human security in these regions, it is clear that a shift in strategic thinking has been underway and is consistent with previous US policies. Historically, the US has taken a broad approach to its national interests, incorporating idealistic elements for both altruistic and instrumental purposes. The basic components of US strategy will now be presented, elements that are fundamental in nature and have relevance regardless of the occupant of the White House.

---

93    State Failure Task Force, *State Failure Task Force Report*, p. vi.

# PART II: INTEGRATING TRADITIONAL AND HUMAN SECURITY

## US strategy: a broad security concept

For observers of United States strategic thinking, an expanded concept of security is a familiar concept. US policy formation has continuously struggled to reconcile normative goals, upon which the United States was founded, with the demands of political pragmatism. Henry Kissinger recognized the difficulties of weaving together these elements, writing that "the ultimate dilemma of the statesman is to strike a balance between values and interests and, occasionally, between peace and justice. The dichotomy postulated by many between morality and interest, between idealism and realism, is one of the standard clichés of the ongoing debate over international affairs. No such stark choice is, in fact, available."[94] In July 2007, Secretary of State Condoleezza Rice acknowledged this dichotomy as being at the core of what she called *American Realism*. According to Rice, America's moral ideas and principles should dictate the nation's foreign policy as much as material interests: "American Realism deals with the world as it is, but strives to make the world better than it is. More free. More just. More peaceful. More prosperous. And ultimately safer. Not perfect. Just better."[95]

Continuity can be seen in expressions of US interests in various strategic documents since 1991, and in many regards these core national interests have not changed substantially since at least 1945. First, and most basic, is the protection of the US and its citizens from physical threats of aggression from other states and non-state entities such as terrorist groups. Second, the US must ensure the country's continued economic strength by promoting international trade and US access to global markets as well as strategic resources. Third, relations with allies and other friendly nations must be maintained. Finally, the US has an enduring interest in spreading democracy and liberal ideals.[96]

Just as the set of core US interests has remained relatively constant; the set of perceived threats to those interests has followed a predictable pattern since the end of the Cold War. In a recent analysis of US strategy, Stephen Biddle com-

---

94  Henry Kissinger, *Does America Need a Foreign Policy* (New York: Simon and Schuster, 2001), p. 286.

95  Condoleezza Rice, "The Power and Promise of American Realism", address to the Economic Club of New York, 7 June 2007 [online 18 Oct 2007].

96  See George H.W, Bush, *National Security Strategy of the United States*, August 1991 (GlobalSecurity.org [online 17 Nov 2007]); William Jefferson Clinton, *A National Security Strategy of Engagement and Enlargement*, The White House, February 1995 (GlobalSecurity.org [online 10 Nov 2007]); George W. Bush, *The National Security Strategy of the United States of America*, The White House, September 2002 (GlobalSecurity.org [online 10 Nov 2007]). After the initial citation, all national security strategies will be referred to as NSS (year).

pared the threat perceptions contained in security documents from both the Clinton and George W. Bush administrations. The lists were remarkably similar – including potential peer competitors, rogue states, proliferation, terrorism, transnational crime, and regional crises or state failure – and Biddle found that "few truly new threats … have appeared in the last decade, and few have disappeared. Their relative severity has changed … but the list has not."[97] The question became that of how best to address these threats and thereby secure US national interests.

## IDEALISM AND THE NATIONAL INTEREST

While the administration of George W. Bush will be remembered for its heavily idealistic approach to national security, his was but an extreme example of the idealism mentioned above. The United States has long incorporated idealism into the formulation of its national interest. The 1991 collapse of the Soviet Union during the presidency of George H.W. Bush marked the end of the Cold War's strategy of containment, though its premises and ideological foundations continue to reverberate in the present. The patterns of American foreign policy during the Cold War were marked by a combined emphasis on geopolitical and ideological considerations that shaped the perspectives of US policymakers. While their influence on policymakers varied considerably from one administration to the next, the "loss" of the Soviet Union as a framework for policy formulation represented a huge challenge to the United States to fill the conceptual and organizational gap left by Cold War policy planning.

The first new strategic framework to be published in the post-Cold War period was "Defense Strategy for the 1990s: The Regional Defense Strategy", released in January 1993 by outgoing Defense Secretary Richard Cheney. The strategy stated clearly its intention of instituting a new strategic concept: "Our national strategy has shifted from a focus on a global threat to one on regional challenges and opportunities. We have moved from Containment to the new Regional Defense Strategy."[98] The alliance of democratic nations developed during the Cold War, referred to repeatedly in the document as the "democratic zone of peace," provided the US with strategic depth and would play a key role in US strategy.[99] According to the strategy, the zone should be extended to include the countries of Eastern Europe and the former Soviet Union.

Within this regional security framework, hostile non-democratic nations must be prevented from dominating regions deemed critical to US interests and

97    Stephen Biddle, *American Grand Strategy after 9/11: An Assessment* (Carlisle, PA: US Army War College Strategic Studies Institute, 2004) [online 10 May 2007], p. 4.

98    Dick Cheney, "Defense Strategy for the 1990s: The Regional Defense Strategy", January 1993 (US Department of Defense [online 12 Feb 2007]).

99    The document defined this "democratic zone of peace" as "a community of democratic nations bound together by a web of political, economic, and security ties".

the US must establish a clear military presence in some regions to accomplish this goal. The Regional Defense proposal expressed hope that collective action might solve future security issues, but recognized that a "collective effort will not always be timely and, in the absence of US leadership, may not gel. Where the stakes so merit, we must have forces ready to protect our critical interests."[100]

President Clinton released "A National Security Strategy of Engagement and Enlargement" in February 1995, which divided US strategy into three interconnected components: enhancing US military readiness, encouraging US economic prosperity and promoting democracy. This structure remained constant in the Clinton administration's successive security strategies even as the documents varied in their specific achievements, proposals, and detailed threat evaluations.[101] Notably, the document emphasized economic issues and argued that external threats to national security were increasingly linked to those from within the US, that "domestic and foreign policies are increasingly blurred."[102] Within this framework, economic issues and democracy promotion were elevated to a level on par with the more "traditional" areas of security policy encompassing mainly military issues. The expanded conceptualization of US national security provides the foundation for the active promotion of democracy and humanitarian efforts abroad.

The related theme of American *exceptionalism* also strongly influences this less tangible aspect of US policy, a concept exemplified by the belief that US power will only be used for the benefit of the international system. As the 2006 Quadrennial Defense Review (QDR) states, the US military is a "force for good" in the world, echoing Colin Powell's 1991 testimony before Congress where he argued that allies would not fear US military power because it was "power that could be trusted."[103] Robert Jervis has commented that

> ... in the Bush doctrine, there are no universal norms or rules governing all states. On the contrary, order can be maintained only if the dominant power behaves quite differently from the others ... American security, world stability, and the spread of liberalism require the United States to act in ways others cannot and must not. This is not a double standard, but is what world order requires.[104]

---

100   Cheney, "Defense Strategy for the 1990s".

101   William Jefferson Clinton, *A National Security Strategy of Engagement and Enlargement*, February 1995; William Jefferson Clinton, *A National Security Strategy for a New Century*, October 1998; William Jefferson Clinton, *A National Security Strategy for a Global Age*, The White House, December 2000 (GlobalSecurity.org [online 10 Nov 2007]).

102   William Jefferson Clinton, *NSS 1998*, p. 7.

103   Donald Rumsfeld, *Quadrennial Defense Review 2006*, Department of Defense, February 2006 [online 5 Feb 2007], p. 9 and henceforth referred to as QDR 2006; quoted in David Armstrong, "Dick Cheney's Song of America", *Harpers Magazine*, October 2002 [online 5 Feb 2007].

104   Robert Jervis, "Understanding the Bush Doctrine", *Political Science Quarterly*, vol. 118, no. 3 (Fall 2003) [online 12 Nov 2007]: 276.

This attitude necessarily affects diplomatic policy positions as well as US attitudes toward international laws and institutions. US officials, along with a sizeable portion of the American public, are convinced that the US has a special role to play in the world. Coupled with the idealistic element embedded in the national security concept, this exceptionalist view encourages a proactive foreign policy and inspires domestic audiences to support actions justified in the exceptionalist spirit.

## CURRENT US STRATEGY: GLOBAL PRIMACY, COUNTERTERRORISM AND DEMOCRACY

The most fundamental aspect of current US strategy is the George W. Bush administration's clear intention to pursue a strategy of global primacy, defined as "acting aggressively to maintain America's political and military predominance in the world, while pre-empting any conceivable challenges to a US-led international order."[105] The 2002 and 2006 national security strategies (NSS) use nearly identical language in claiming that "our forces will be strong enough to dissuade potential adversaries from pursuing a military build-up in hopes of surpassing, or equaling, the power of the United States."[106] The 2004 National Military Strategy (NMS) stated, "the goal is full spectrum dominance (FSD) – the ability to control any situation or defeat any adversary across the range of military operations."[107] The Bush White House represents a substantial course correction from previous administrations, though the undercurrents of primacy were evident prior to 2001. An analysis of Clinton's security strategy by Barry Posen and Andrew Ross revealed conflicting pressures. The administration's agenda was ambitious and activist, but could not be achieved without exercising US leadership and power. The administration's strategy was categorized as selective (but cooperative) primacy; Clinton's activist agenda necessitated active US leadership to achieve its goals, but encountered resistance among its democratic allies.[108]

The 2006 QDR confirmed the continued relevance of this strategy of primacy, proclaiming that the US will "seek to ensure that no foreign power can dictate the terms of regional or global security. It will attempt to dissuade any military competitor from developing disruptive or other capabilities that could enable regional hegemony or hostile action against the United States or other friendly countries."[109] Both the rise of China as a possible peer competitor and the threat of Iranian domination in the Persian Gulf region can be seen in this

---

105  Colin Dueck, "Ideas and Alternatives in American Grand. Strategy, 2000–2004", *Review of International Studies*, no. 30 (2004): 515.

106  NSS 2002, p. 30.

107  Richard B. Myers, *The National Military Strategy of the United States of America*, Defense Department, 2004 [online 18 Nov 2007].

108  Barry Posen and Andrew Ross, "Competing Visions for US Grand Strategy" in Michael E. Brown et al., ed *America's Strategic Choices* (Cambridge, MA: MIT Press, 1998), p. 47.

109  QDR 2006, p. 30.

light. As noted in the 2004 NDS, the US military "must work to secure strategic access to key regions, lines of communication and the "global commons" of international waters, airspace, space and cyberspace."[110] The US seeks not only to pursue its objectives in important strategic regions such as the Middle East, but also to retain the freedom to pursue US interests in every region. The 2006 QDR stated: "The United States will continue to adapt its global posture to promote constructive bilateral relations, mitigate anti-access threats and offset potential political coercion designed to limit US access to any region."[111]

In the 2002 NSS, Bush acknowledged the country's "unparalleled military strength and great economic and political influence" and announced that the US will seek to "create a balance of power that favors human freedom … we will defend the peace by fighting terrorists and tyrants. We will preserve the peace by building good relations among the great powers. We will extend the peace by encouraging free and open societies on every continent."[112] The document is punctuated by the threat from international terrorism and the rogue states that support it; combating these threats is recognized as the primary security challenge facing the United States. The 2006 QDR also recognized "irregular warfare as the dominant form of warfare confronting the United States."[113]

The 2001 terrorist attacks erased any lingering perceptions about the safety of geographic distance and the relative isolation and protection provided by two oceans. The modernization and democratization of violence had combined with the interconnectedness of globalization to erase the natural buffers previously enjoyed by the United States. The Bush administration has therefore emphasized an offensive posture in the war on terror, choosing to fight the threat abroad in order to avoid attacks on the homeland. In this context, the US military has continued a transformational process begun under the Clinton administration that prioritizes mobility and rapid response in its overseas deployments to areas where terror organizations have become prevalent. In addition, the US has engaged in active military operations against countries with links to terrorism as well as suspected camps and terror cells, most notably Iraq and Afghanistan.

As another means of addressing the threat of global terrorism, the Bush administration has demonstrated an active rhetorical and diplomatic commitment to the recurring theme in US strategic thinking already mentioned: expanding the zone of democracy. In the US conceptualization of the global war on terror, the ideological component that has consistently accompanied US strategic thinking continues to play an active role in addressing the root causes of terrorism.[114]

---

110 Ibid., p. 1.
111 QDR 2006, p. 30.
112 NSS 2002, introductory letter.
113 QDR 2006, p. 48.
114 The conclusions of the State Failure Task Force mentioned earlier, which found that transitional democracies posed the greatest risk for state failure, may be at odds with the notion of spreading democracy as part of a counterterrorism policy.

While the prevalence of democracy-laden rhetoric emanating from Washington varies, it never completely disappears and remains a fundamental component of American identity.

## Strategic focus: the Arc of Instability

The combination of counterterrorism and global primacy suggests an expansive strategic focus. In practice, the Pentagon has identified a broad area from which the most immediate threats will come. According to the 2001 Quadrennial Defense Review:

> Although the United States will not face a peer competitor in the near future, the potential exists for regional powers to develop sufficient capabilities to threaten stability in regions critical to US interests. In particular, Asia is gradually emerging as a region susceptible to large-scale military competition. Along a broad arc of instability that stretches from the Middle East to Northeast Asia, the region contains a volatile mix of rising and declining regional powers. The governments of some of these states are vulnerable to overthrow by radical or extremist internal political forces or movements. Many of these states field large militaries and possess the potential to develop or acquire weapons of mass destruction.[115]

Defense Secretary Donald Rumsfeld broadened the term in his 2002 annual report to Congress as stretching from "the Middle East to Northeast Asia." The term resurfaced in the 2004 NMS, having expanded in geographical range to its current usage: "There exists an 'arc of instability' stretching from the Western Hemisphere, through Africa and the Middle East and extending to Asia. There are areas in this arc that serve as breeding grounds for threats to our interests. Within these areas rogue states provide sanctuary to terrorists, protecting them from surveillance and attack."[116] An August 2005 report observed that:

> The threats we face have changed and broadened along several dimensions. They have shifted geographically, so that threats that are emanating from the "arc of instability"—an arc stretching from West Africa, across Southwest, South, and Southeast Asia and across the Pacific into the Andes—have become paramount. Yet, our traditional national security interests in Europe and East Asia remain key, as do our allies there. The threats to our interests have shifted from conventional to asymmetric ones, especially terrorism and weapons of mass destruction (WMD). We no longer have the convenience of focusing on one dominant threat and assuming that if we are postured to meet that threat, we can handle any lesser threats that might simultaneously emerge.[117]

115  Donald Rumsfeld, *Quadrennial Defense Review Report 2001*, Department of Defense, 30 September 2001 (The Commonwealth Institute [online 15 Nov 2007]), p. 4.

116  Richard B. Myers, *The National Military Strategy of the United States 2004* [online 18 Nov 2007], p. 5.

117  Commission on Review of Overseas Military Facility Structure of the United States, *Report to the President and the Congress*, 9 May (Federation of American Scientists [online 9 Nov 2007]), p. 3.

### TERRORISM IN THE ARC

While the term itself may eventually fall out of favor with strategists, the Arc of Instability captures the increasing emphasis placed on non-traditional threats from regions with growing strategic significance – US military planners clearly anticipate the most pressing threats to US national security to emanate from these regions. Failing states or rogue states in these regions are more likely to harbor fundamentalist or extremist groups, and such groups are more likely to have access to weaponry that could inflict catastrophic damage to the US or its allies. As the NIC report shows, these types of states are located in areas in which radical Islamic groups have been most active – in the heart of the Arc of Instability.[118]
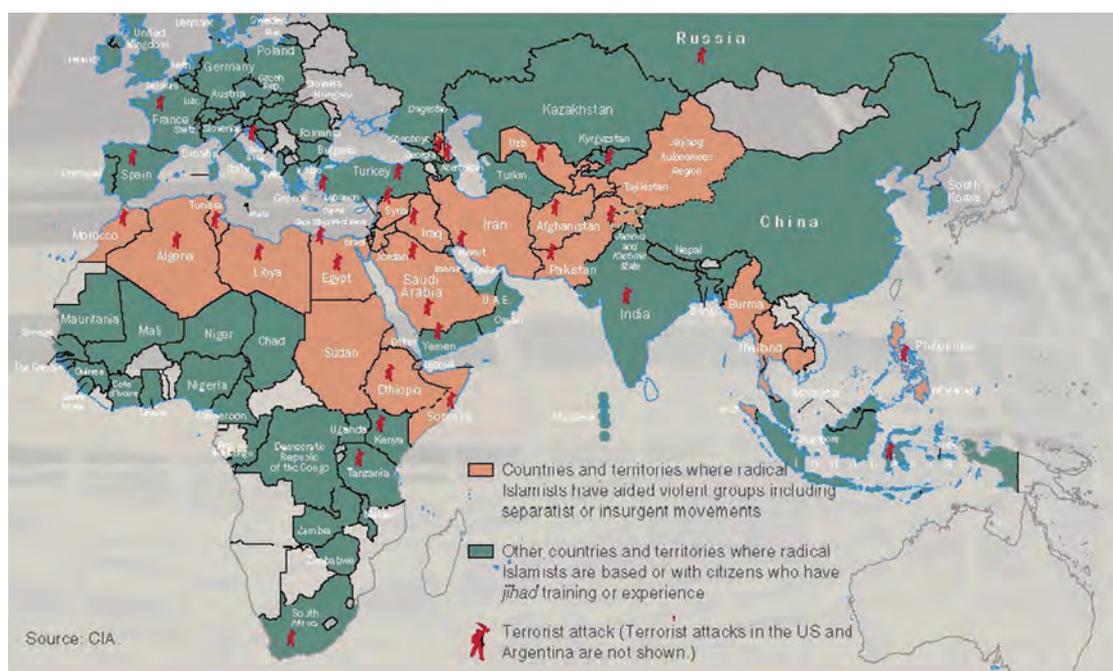


Fig. 2: Key areas of radical Islamic activities since 1992 (ill.: Central Intelligence Agency).

US actions in Iraq and Afghanistan linked to the global war on terror are well known, while less focus is placed on counterterrorism activities conducted by the US military in places such as the Philippines and on the African continent. Small numbers of American forces, acting primarily in an advisory role and supported by US intelligence efforts, since 2002 have assisted the Philippine military

118   NIC, *Mapping the Global Future*, p. 82.

in weakening the Islamic guerrilla groups in that country.[119] In 2002 the United States established a military presence in the Horn of Africa, the Combined Joint Task Force–Horn of Africa (CJTF–HOA), for the purpose of "detecting, disrupting and ultimately defeating transnational terrorist groups operating in the region – denying safe havens, external support, and material assistance for terrorist activity."[120] The Task Force is headquartered at Camp Lemonier in Djibouti. According to the US military, its 1800 military personnel conduct "unified action in the combined joint operations area of the Horn of Africa to prevent conflict, promote regional stability, and protect Coalition interests in order to prevail against extremism."[121] The Pentagon has also adjusted its operational capabilities for counterterrorism in the Arc. In terms of force structures, the Defense Department has prioritized a modular approach that features self-sufficient military units capable of "long-duration irregular operations." The US Army is reorganizing into brigade-based units, with brigade combat teams (BCT) and support brigades; these brigades will assume many of the roles now performed by Special Operations Forces (SOF) units, which will then be free to undertake more complex and specialized tasks.[122]

The US has formed new bilateral relationships with countries inside and adjacent to the Arc since the end of the Cold War, and especially since 2001. In addition, the US has since 2002 incorporated so-called Article 98 agreements with 100 countries (mostly in the Arc) into Status of Forces Agreements (SOFA) whereby they pledge not to surrender American citizens to the International Criminal Court.[123] The 2006 QDR also argues for increased legal maneuvering room for relationships with countries in the Arc that may not meet current US legal standards in terms of human rights and democratic institutions. The 2006 QDR recommends that "Congress provide considerably greater flexibility in the US Government's ability to partner directly with nations in fighting terrorists," which may include "training, equipping and advising their security force" or "logistics support, equipment, training and transport to allow them to participate as members of coalitions with the United States or its allies."[124] The legislation pertaining to foreign assistance, military aid and IMET contains provisions restricting their use in countries with poor human rights records or other normative concerns. US actions will require partners in regions where democratic institutions and respect for human rights are less prevalent. This exemplifies just

---

119 Paul Wiseman, "In Philippines, US making progress in war on terror", *USA Today*, 13 February 2007 [online 14 November 2007].

120 "Combined Joint Task Force – Horn of Africa", *GlobalSecurity.org*, [online 14 Nov 2007].

121 US Central Command, "Combined Joint Task Force – Horn of Africa", Fact Sheet, October 2007 [online 14 November 2007].

122 QDR 2006, p. 42.

123 See "International Criminal Court – Article 98 Agreements Research Guide" Georgetown Law Library, Revised May 2007 [online 28 Oct 2007].

124 QDR 2006, p. 89.

one of many difficult choices facing US policymakers in conducting the war on terror or providing security to the Arc: to prioritize security interests or human rights concerns.[125]

### ENERGY IN THE ARC

In addition to the military focus on counterterrorism, one other aspect of the Arc of Instability is of particular strategic interest. A substantial portion of the world's energy resource is found there: approximately 80 percent of global oil reserves and 60 percent of global natural gas reserves. If one excludes North America and Russia from the global totals, the share of remaining available resources located in the Arc jumps to over 90 percent of both oil and natural gas reserves.[126] Also located in the Arc are the major choke points for transport of these raw materials, including pipelines across Central Asia and Africa as well as maritime routes in the Persian Gulf, the Red Sea and Suez Canal, the Panama Canal in Central America, and the Malacca Straits in Southeast Asia.

Economic and strategic interests converge with regard to China in the Arc as well. Securing access to energy resources is vital to the US economy as well as its military. Petroleum-based fuels power not only US economic growth but also many of the ships, tanks, aircraft, and other military vehicles needed to project US power. Increased market prices and new technologies allow access to reserves that were previously economically unfeasible and new reserves are constantly being developed, though at increased costs. Ultimately, however, these resources are fundamentally finite and energy demands will only increase over the next 25 years. According to the DCDC *Global Strategic Trends* report, Chinese imports in 2030 will represent a 100 percent increase over 2004 levels to 52 million oil-equivalent barrels per day, India's needs will increase 164 percent to 29 million barrels per day, and North America will see a 25 percent increase to 69 million barrels per day.[127]

As a result, "Competition for energy supplies will dominate the economic landscape during the next 30 years … the prospect, apparent or real, of the peak production of oil during the timeframe out to 2035 and progressive diminution of output thereafter will intensify competition for remaining resources."[128] China has begun a global campaign to secure access to these resources to fuel its

---

125  For more on this, see Michael Mayer, "Security or Human Rights: US Foreign Policy Dilemma in Uzbekistan", *Forsvarsstudier*, no. 2 (Oslo: Norwegian Institute for Defence Studies, 2006).

126  BP, *BP Statistical Review of World Energy 2006* [online 19 Nov 2007], Relevant countries classified as in the Arc include: Columbia, Venezuela, Azerbaijan, Kazakhstan, Uzbekistan, Indonesia, Malaysia, Pakistan, Thailand, Vietnam, and all countries in Africa and the Middle East. These BP calculations exclude the tar-sands of Canada, which represent a growing source of petroleum for the United States, but only after highly energy-intensive processing that generates substantial greenhouse gases.

127  DCDC, *Global Strategic Trends*, p. 32.

128  Ibid., p. 31.

growing economy, entering into bilateral agreements with countries in regions such as South America, Africa, the Middle East, and Central Asia. In the first half of 2006, Africa constituted 32 percent of China's oil imports and Beijing is actively seeking new agreements.[129]

According to the 2006 NSS, "the key to ensuring our energy security is *diversity* in the regions from which energy resources come and in the types of energy resources on which we rely."[130] Unhindered energy exports to the US, rather than direct control over the resources themselves, seem to be the strategic goal. Economic strength in no small part translates to strategic influence and military power, and the raw materials needed to fuel both military machinery and economic growth represent strategic goods. In regions lacking liberal institutions – and where energy resources may be nationalized and under the control of oligarchies – political and military influence may be the tools necessary to secure export agreements. A study by the Council on Foreign Relations found that US dependence on foreign oil affects US policy in a variety of ways: large oil revenues give oil exporters flexibility to adopt policies that may conflict with US interests, oil dependency leads to political alliances that can prevent US partnerships and reduce US influence, seeming oil scarcity can lead to commercial deals with political implications, and possible disruptions in supplies can have serious economic consequences.[131] Chinese economic activities in Africa also represent a challenge to the US strategy of global primacy, in instances when close relations between African governments and Chinese authorities may hinder strategic access to the region.[132]

## MILITARY BASING IN THE ARC

The US military's overseas presence, a holdover from its Cold War posture, plays a crucial role in US strategy. Not only do the hundreds of military installations located in nearly every region of the world allow the US to respond quickly to threats, their presence also assists in shaping the strategic environment in those regions deemed especially vital to US interests. As a 2005 review of the Pentagon's basing strategy noted, "We cannot hope for much influence without presence – the degree of influence often correlates to the level of permanent presence that we maintain forward."[133] The 2002 NSS recognized that "to contend

129 Energy Information Administration, *China Country Analysis*, last updated August 2006 [online 9 Nov 2007].

130 NSS 2006, p. 28.

131 Council on Foreign Relations, *National Consequences of US Oil Dependency* (Washington, DC:CFR, 2006 [online 21 Nov 2007]), p. 26–29.

132 While not the subject of this study, it may be noted that the projected impacts of climate change in China may create internal disruptions that may lessen the intensity of Chinese foreign policy and the military threat it poses. At the same time, instability in that country presents a substantial risk in and of itself.

133 Commission on Review of Overseas Military Facility Structures of the United States, Final report ..., p. 9.

with uncertainty and to meet the many security challenges we face, the United States will require bases and stations within and beyond Western Europe and Northeast Asia, as well as temporary access arrangements for the long-distance deployment of U.S. forces."[134]

These global strategic adjustments entail a shift in worldwide US military posture. "We are living in a revolution, and hardly anyone has noticed," wrote Charles Krauthammer in July 2003 about the repositioning of US bases around the globe.[135] As Douglas Feith, then Undersecretary of Defense for Policy, stated in 2003: "everything is going to move everywhere … There is not going to be a place in the world where it's going to be the same as it used to be."[136] A strategic adjustment from the Cold War posture to one focused on the Arc of Instability is underway, though at the creeping bureaucratic pace of the Defense Department.

According to Ryan Henry, Principal Deputy Undersecretary of Defense for Policy, the new global defense posture shifts away from "legacy Cold War structures" in Europe, reforms US posture in the Pacific "to assure allies … dissuade potential competitors, deter aggressors, and defeat adversaries if called upon to do so," and develops "the operational flexibility and diversity in options needed to contend with uncertainty in the "arc of instability"."[137] On a practical level, the global redeployment of US forces entails closing almost 200 facilities in Europe and shifting to smaller installations in Eastern European countries such as Bulgaria and Romania, which "offer ports and airfields on the Black Sea, closer to potential instability in the Caucasus, Central Asia, and the Middle East."[138] As overseas basing facilities require substantial investments both economically and politically, such adjustments are not taken lightly and can be said to reflect the long-term strategic thinking of the United States.

134  NSS 2002, p. 29.
135  Charles Krauthammer, "The Sleepy Superpower Awakes", *Time Magazine*, 27 July 2003 [online 12 March 2007].
136  "US To Realign Troops in Asia", *LA Times*, 29 May 2003 (Taiwan Security Research [online 17 Nov 2007]).
137  Ryan Henry, "Transforming the US Global Defense Posture", in *Reposturing the Force: US Overseas Presence in the Twenty-First Century* (Newport: Naval War College Press, 2006 [online 15 June 2007]), p. 38.
138  Kurt M. Campbell and Celeste Johnson Ward, "New Battle Stations?" *Foreign Affairs*, September/October 2003 [online 20 June 2007].

## Climate change in the Arc: fusing state and human security

The preceding analysis of US strategic interests clearly relies on a traditional concept of security. It focuses on threats to US national security and access to the raw materials upon which its economic and military security depend. What has become increasingly clear in the post-Cold War world, however, is that the sources of these traditional security threats are not primarily military in nature. American foreign policy has often utilized military force as a political tool to further its strategic aims, both in classic interstate conflicts (the 1991 Gulf War), unconventional (the Somalia-Ethiopia conflict in December 2006, counterinsurgency assistance to the Philippines and Colombia), or conflicts that evolved from interstate to unconventional (Afghanistan, Iraq). Regardless of the stated aims at the outset of each conflict, the set of solutions leading to a successful outcome for the United States in many of these cases rests not with decisive military victory, but with improved human security.

In Colombia and Afghanistan, US objectives are served by finding alternate sources of income for farmers growing narcotics that contribute to drug abuse, increased criminal activity, and funding for armed sub-state groups in both countries. In Afghanistan, Provincial Reconstruction Teams (PRTs) that rebuild the country's infrastructure are a crucial pillar in NATO's strategy for a successful outcome, along with "maintaining security" in the country. In Iraq, the 2007 "surge" strategy of the Bush administration had as its main goal to increase security among the residents of Baghdad in order to allow Iraqi politicians the "breathing space" necessary to reach political compromises. In each of these examples, improving human security is the decisive part of the overall strategy for success, well beyond the "hearts and minds" approach. By the same token, US military actions in each of these cases have also threatened human security either through initiating armed conflict or supporting it indirectly. In addition, structural damages and civilian casualties as a result of "collateral damage" in military operations directly affect human security. Whether the chosen policy enhanced or threatened it, human security was and remains the crucial component for addressing many of the traditional security threats facing the United States.

### CLIMATE CHANGE AND US INTERESTS

In general, the effects of climate change pose the greatest risk to human security. This in turn threatens traditional US security interests such as terrorism and energy supplies. In terms of the global war on terror, weak states are attractive locations for terrorist bases and training centers. These ungoverned areas are perfect for conducting shadowy arms deals and transfers of dangerous materials. This study has demonstrated the risks to weak states posed by climate change. Environmental pressures that threaten the survivability of states within

the Arc should be of great concern to the United States. Indeed, retired CENT-COM Commander-in-Chief Anthony Zinni made this very argument:

> You may also have a population that is traumatized by an event or a change in conditions triggered by climate change. If the government there is not able to cope with the effects, and if other institutions are unable to cope, then you can be faced with a collapsing state. And these end up as breeding grounds for instability, for insurgencies, for warlords. You start to see real extremism. These places act like Petri dishes for extremism and for terrorist networks.[139]

The increased likelihood of violence and instability as a result of climate change impacts US counterterrorism efforts in a fundamental way, as another retired military leader argued in the same report. The former commander of NATO forces in Bosnia, Admiral T. Joseph Lopez, noted that "in the long term, we want to address the underlying conditions that terrorists seek to exploit … But climate change prolongs those conditions. It makes them worse."[140]

The United States will remain dependent on fossil fuels for the foreseeable future, and continued domestic economic growth is dependent on access to oil and natural gas. As the vast majority of these reserves are located in countries within the Arc, the United States retains a strategic interest in the uninterrupted flow of energy exports to the international market. Nigeria supplies 10–12 percent of US oil imports and its importance is growing. By 2020, oil from Nigeria and its neighbors in the Gulf of Guinea will account for 20–25 percent of all US imports.[141] Social and political unrest can threaten exports through open conflict, sabotage of oil industry infrastructure or abductions of oil workers, or internal clashes over physical and administrative control over national resources. In addition, uncontrolled crime and piracy can also threaten the security of energy exports. In October 2007 the United States Navy dispatched a vessel to the Gulf of Guinea under the Africa Partnership Station Initiative, aimed at working "cooperatively with US and international partners in promoting maritime security in Western Africa."[142]

Western Africa has a significant portion of another of the world's strategic resources: uranium. Nearly 20 percent of the known recoverable uranium resources are located there, and current top producers include Niger, Namibia and South Africa. Production has greatly expanded in recent years, explained by increased demand for nuclear power as a result of high oil and gas prices, and

---

139 CNA Corp, *National Security and the Threat of Climate Change*, p. 31.
140 Ibid., p. 17.
141 Alex Perry, "Africa's Oil Dreams", *Time*, 11 June 2007 [online 15 June 2007].
142 US State Department, "Ship's Mission to Boost US-Africa Maritime Security Partnership", 16 October 2007 [online 9 November 2007].

the lack of regulations and weak governments in the region.[143] Obviously this development is of great concern to the United States and its allies due to the possibility of proliferation to terrorist organizations or rogue states. The political instability associated with climate change impacts could easily affect the security of this material.

Terrorism, access to energy, and the US strategy of primacy merge completely in Central Asia. Emerging as newly independent states after the collapse of the Soviet Union, Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan and Turkmenistan slowly caught the strategic interest of the United States. Washington initially focused its efforts on non-proliferation, promotion of democracy, and diversification of the region's energy export routes. After the 1998 terrorist attacks on the US embassies in Africa and even more so after the 2001 attacks, Central Asia became central to the war on terror with its potential as a hotbed of Islamic radicalism simmering under the yoke of authoritarian regimes. In addition, a geopolitical contest over energy exports and political influence between the US, Russia and China has resulted in a highly dynamic political landscape in the region, made even more complex by developments in Afghanistan and Pakistan. Overlying these strategic trends, political tensions exist over the region's water distribution – upstream nations will use their mountain-fed water reserves to generate power, while downstream nations depend on regular flows for agricultural production.[144]

As in other regions, climate change in Central Asia promises to shrink glacial mass, reduce snowfalls, and negatively affect the availability of water. With reduced growing seasons and increased desertification, exemplified by the shrinking of the Aral Sea and its subsequent environmental and social consequences, downstream countries will be increasingly dependent on greater access to water. Increasing tensions and disagreements over water rights may impact another crucial trans-border effort in the region, namely pipelines for energy export. For example, Uzbekistan and Turkmenistan have had previous disagreements over water supplies, once resulting in Uzbekistan seizing the Karshinskiy Canal in 2003 to ensure water access.[145] A proposed Turkmen pipeline to China crossing Uzbek territory might fall victim to rising diplomatic tensions over water rights.

In addition, societal stresses caused by decreased food production and economic hardship will serve to exacerbate the existing perception among citizens in this region that their governments are more interested in retaining power than in an equitable distribution of resources. Radical Islam currently serves as an

---

143  Igor Khripunov, "Exploiting Africa", *Jane's Intelligence Review*, September (2007): 51–3.
144  See Mayer, *Security or Human Rights*.
145  Jim Nichol, "Central Asia's Security: Issues and Implications for U.S. Interests" *CRS Report for Congress*, updated January 2005 [online 5 Feb 2007], p. 16.

outlet for such frustrations, and will likely benefit from increased hardships and societal pressures. Increasing urbanization and youth bulges also exacerbate the threat by providing fertile recruiting grounds. In a region with sizable energy reserves and populations vulnerable to fundamentalism, the US may find that climate change presents real threats to its interests.

## US IDEALISM AND HUMANITARIAN MISSIONS

Apart from the threats to purely strategic interests that the negative effects of climate change may cause, one must also consider the US desire to provide humanitarian assistance out of moral obligations, idealistic motivations or a sense of American exceptionalism. When George H. W. Bush announced Operation Restore Hope, which sent military forces to Somalia in 1992 as lawlessness in the country hindered UN humanitarian relief efforts, he said:

> The people of Somalia, especially the children of Somalia, need our help. We're able to ease their suffering. We must help them live. We must give them hope. America must act. In taking this action, I want to emphasize that I understand the United States alone cannot right the world's wrongs. But we also know that some crises in the world cannot be resolved without American involvement, that American action is often necessary as a catalyst for broader involvement of the community of nations. Only the United States has the global reach to place a large security force on the ground in such a distant place quickly and efficiently and thus save thousands of innocents from death.[146]

The United States has often pursued projects that satisfied not only the idealistic sentiment among Americans, but also served a strategic purpose. When President John F. Kennedy founded the Peace Corps in 1961, its intention was not only to channel American idealism into improving the living standards in developing countries, but also to counter communist influence. As one scholar has argued,

> the Peace Corps represented, in part, an attempt to reorient US foreign policy in the Third World toward economic development ... US political leaders at the time recognized that underdeveloped, newly independent, and highly nationalistic nations were more susceptible to communist influence than were more prosperous nations."[147]

---

146  "Mission to Somalia: Transcript of President's address on Somalia", *New York Times*, 5 December 1992 [online 19 Nov 2007].

147  Michael R. Hall, "Impact of the US Peace Corps at Home and Abroad", *Journal of Third World Studies*, Spring 2007 (BNET Research Center [online 1 Nov 2007]).

In much the same way, responding to the risks posed by climate change and promoting human security in the Arc appeals to the idealistic nature of US policy while at the same time complementing pragmatic security objectives. The projected impacts of climate change only increase the likelihood and complexity of possible US involvement in preventing or responding to humanitarian crises in the Arc. The increased risk of conflicts resulting from impacts of climate change will also make US participation in stabilization or peacekeeping missions more likely.

## Emerging US tools for managing human security risks

The United States will remain involved in the Arc for both strategic and humanitarian reasons, and will therefore be affected by the climate change impacts previously discussed. Not only will US strategic interests be threatened, but the effects of climate change will increase the challenges and hazards of operations that will likely occur in the most affected regions. In this way, the United States cannot hope to avoid the negative effects of climate change, even if the country itself remains able to cope with the environmental challenges directly facing the US homeland. Its strategic focus lies in the Arc, and this is where future military and humanitarian operations will occur. The primary objective of the US will most likely not be military conquest, especially after developments in Iraq have led both the American public and the Pentagon to view negatively the idea of unilateral nation-building. Nor does the US have the financial wherewithal to fund another nation-building project even if it might desire to initiate a regime shift in the Arc.

However, the military will be more active in this region than anywhere else in the world, as it has been since the Cold War. While the international political system was framed by the political and ideological stand-off between the United States and the Soviet Union, the actual use of military force took place in the Arc: Vietnam, Afghanistan, Angola, the Arab-Israeli conflicts, El Salvador and Nicaragua. After the Cold War ended, this pattern continued. Thomas Barnett surveyed a database of 140 named US military operations from 1990 to 2003 and found that most of the Pentagon's activity lay in an area stretching from northern South America, across Africa, the Middle East, Central Asia, and most of Southeast Asia: in other words, the Arc of Instability.[148] This demonstrates a durable pattern of strategic interest that preceded the Bush administration and will likely continue in the foreseeable future.

Barnett argued in his book that the US, as the hegemonic leader of a *functioning core* of countries integrated through political and economic liberalization, should seek to provide security and order in those regions that are disconnected from the liberalizing effects of globalization, an area he called the *non-integrated gap*, and strive to integrate these countries into the *core*. In his view, the overarching strategy of the United States should be to "shrink the gap" by exporting security to those regions by way of a combat-oriented component (the Leviathan) and a civil-affairs-oriented component (the System Administrator). Coincidence or not, Barnett's concept is consistent with several aspects of US strategic planning.

---

148   Thomas Barnett, *The Pentagon's New Map* (New York: Berkley Books, 2004), pp. 144–150.
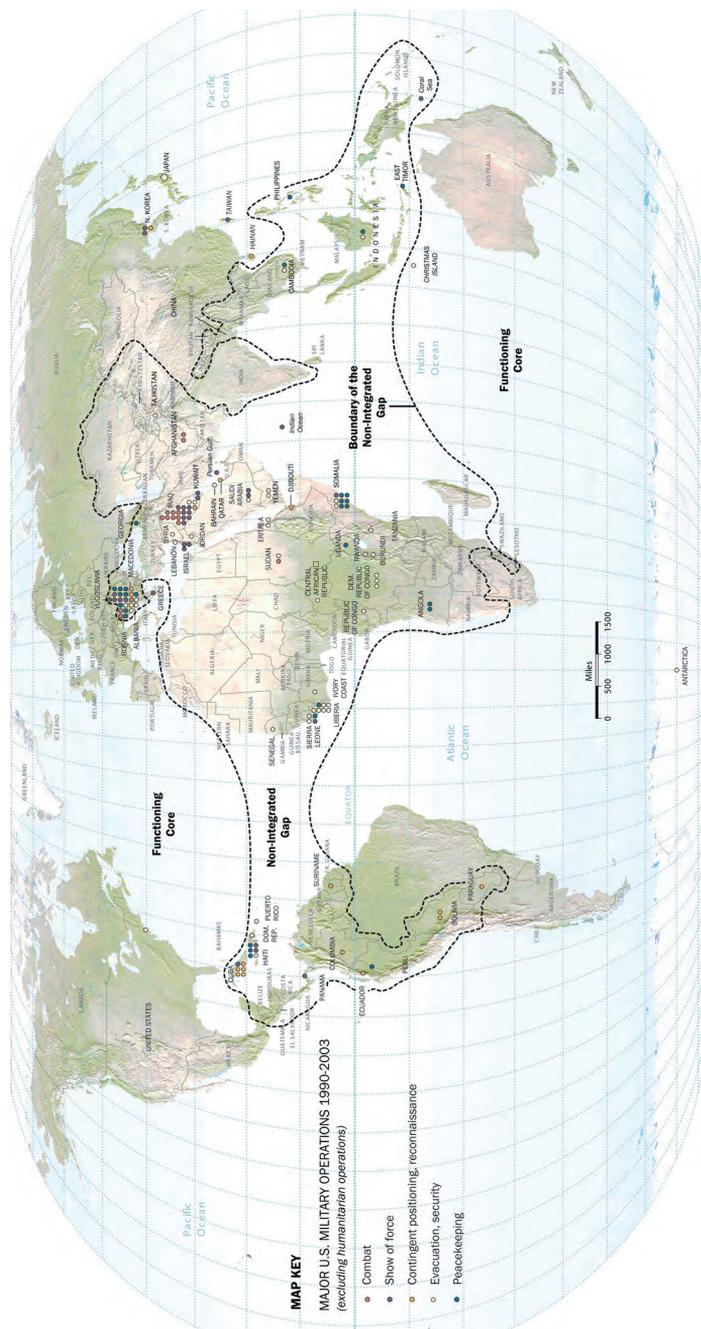
Fig. 3: Major US military operations 1990 to 2003 and Barnett's non-integrated gap (from the Pentagon's New Map: War and Peace in the Twenty First Century, ill.: thomaspmbarnett.com).

In the following section, some key aspects of US military planning will be discussed – planning that reflects shifting attitudes toward the type of operations likely to be required in the Arc as climate change impacts are increasingly felt. These new capacities, both military and civilian, focus directly on alleviating the risks to and improving human security. It should be noted that this study does not argue that the military directly acknowledges the threat of climate change to US national security, merely that the capabilities being developed are consistent with those likely to be needed in the Arc, both to prevent existing instability and to prevent crises linked to the projected impacts of climate change.

## REDESIGNED ASSISTANCE PROGRAMS TO THE ARC

Despite the Bush administration's preoccupation with the war in Iraq, the US has also invested substantial funding to improve human security in Africa. The US nearly tripled the amount of official development assistance to sub-Saharan Africa, from $1.1 billion in 2000 to $3.2 billion in 2004. Further, the US has provided $150 million to the African Union's peacekeeping efforts in Darfur, in addition to over $638 million in humanitarian assistance to Darfur. The US has plans to provide training for 40,000 African peacekeepers through various programs.[149] Programs such as the Millennium Challenge Account are designed to encourage good governance and economic policies in developing countries. This initiative, being administered by the government-run Millennium Challenge Corporation, had by the end of 2006 "contracts" with 11 countries worth nearly $3 billion, and awarded $286 million worth of aid to 11 other "threshold" countries not yet qualified to enter into full partnerships.[150] While the effects of these efforts may be debated or criticized, these assistance programs are clearly directed at improving human security, and will become increasingly valuable to minimize the effects of climate change.

## STATE DEPARTMENT RECONSTRUCTION CAPABILITY

In 2004 the US State Department, at the direction of the National Security Council and with congressional support, created the Office of the Coordinator for Reconstruction and Stabilization (S/CRS). According to the State Department, the mission of the S/CRS is to "lead, coordinate, and institutionalize US Government civilian capacity to prevent or prepare for post-conflict situations, and to help stabilize and reconstruct societies in transition from conflict or civil

---

149 US State Department, "Key US Government Assistance Programs for Africa", fact sheet, 15 June 2005 [online 10 Nov 2007].
150 Millennium Challenge Corporation, *Annual Report 2006*, p. 23 [online 10 Nov 2007].

strife so they can reach a sustainable path toward peace, democracy and a market economy."[151]

One related aspect that bears mentioning is a proposal to establish a civilian-based reserve corps.[152] This idea was tucked away in the 2006 QDR, when the authors charged that the US military had become the "default responder during many contingencies," and recommended increased support for the State Department's Coordinator for Reconstruction and Stability and that department's "proposal to establish a deployable Civilian Reserve Corps and a Conflict Response Fund."[153] In the 2007 State of the Union address, President Bush called for "a volunteer civilian reserve corps. Such a corps would function much like our military reserve. It would ease the burden on the armed forces by allowing us to hire civilians with critical skills to serve on missions abroad when America needs them."[154]

## DOCTRINAL SHIFTS IN THE ARMED FORCES

The branch of the US military most heavily relied upon in Iraq, and generally in the war on terror, is the US Army. The Army has historically focused on fighting conventional conflicts against other states, remaining skeptical about other types of operations. Since the end of the Cold War, the Army has undergone a doctrinal shift that places an increasing importance on stabilization and reconstruction operations. As Olof Kronvall writes, "the big war paradigm no longer pervades US Army doctrine as completely as it once did, but it is still predominant," though "attention is increasingly directed to post-conflict stability and support operations."[155] The Defense Department defines stabilization missions as establishing physical security and providing for basic human needs, and reconstruction as the creation of sustainable economic, social, and political conditions.

One visible sign that the US military recognizes the inevitability of future operations in developing countries is the concept of the three-block war. In a

---

151 US State Department, "Office of the Coordinator for Reconstruction and Stabilization (S/CRS)", fact sheet, [online 10 Nov 2007].

152 Once again, parallels to Barnett's Pentagon's New Map can be seen. Barnett proposed a "Leviathan" force responsible for power projection, regime change and winning the wars, while a "System Administrator" force would be civilian-oriented, constabulary in focus and responsible for winning the peace, see Barnett, *The Pentagon's New Map*, p. 315–327.

153 QDR 2006, p. 86.

154 George W. Bush, State of the Union address, 23 January 2007 (White House [online 16 Nov 2007]).

155 Olof Kronvall, "The Big War Paradigm Challenged?, in *Säkerhetspolitik och historia*: *Stormaktspolitiken och Norden under sjuttio år. Vänbok till Krister Wahlbäck*, eds Mats Bergquist & Alf W. Johansson [Security Policy and History: Great Power Politics and the Nordic Countries during Seventy Years. A *Festschrift* for Krister Wahlbäck] (Stockholm: Hjalmarson & Högberg bokförlag, 2007), p. 191.

1999 article, then-commandant of the US Marine Corps General Charles C. Krulak described the future operational environment of the Marines:

> The rapid diffusion of technology, the growth of a multitude of transnational factors, and the consequences of increasing globalization and economic interdependence, have coalesced to create national security challenges remarkable for their complexity. By 2020, eighty-five percent of the world's inhabitants will be crowded into coastal cities – cities generally lacking the infrastructure required to support their burgeoning populations. Under these conditions, long simmering ethnic, nationalist, and economic tensions will explode and create the potential for crises requiring US intervention. Compounding the challenges posed by this growing global instability will be the emergence of an increasingly complex and lethal battlefield. The widespread availability of sophisticated weapons and equipment will "level the playing field" and negate our traditional technological superiority. The lines separating the levels of war, and distinguishing combatants from "non-combatants" will blur, and adversaries, confounded by our "conventional" superiority, will resort to asymmetrical means to redress the imbalance.[156]

Contained in Krulak's description are a number of the underlying trends, referred to earlier in this study, that will contribute to complex conflicts where the military "may be confronted by the entire spectrum of tactical challenges in the span of a few hours and within the space of three contiguous city blocks," including humanitarian assistance, peace-keeping or traditional warfighting.[157] Krulak argues that this type of conflict places a much greater responsibility upon the "small unit leaders, and by actions taken at the lowest levels … success or failure will rest, increasingly, with the rifleman and with his ability to make the *right* decision at the *right* time at the point of contact," what Krulak calls the "strategic corporal."[158] The three-block war concept exemplifies the type of situations the US military is likely to encounter in the Arc, increasingly so with the projected impacts of climate change.

Since 2004, several Pentagon directives "decreed that stability and reconstruction operations were henceforth to be assigned the same importance and priority as Major Combat Operations in the activities of the Armed Forces."[159] This trend has been confirmed in other strategic documents and by Pentagon officials, including Defense Secretary Robert Gates. In a 2007 speech to the Association of the United States Army, Gates said that in addition to retain-

---

156  Charles C. Krulak, "The Strategic Corporal: Leadership in the Three Block War", *Marines Magazine*, January 1999 (US Air Force Air University [online 19 Nov 2007]).
157  Ibid.
158  Ibid., emphasis in original.
159  Ibid., p. 190.

ing their conventional warfighting capabilities, "Army soldiers can expect to be tasked with reviving public services, rebuilding infrastructure, and promoting good governance. All these so-called "non-traditional" capabilities have moved into the mainstream of military thinking, planning and strategy – where they must stay."[160] Additional signs confirming this doctrinal shift include the 2006 publication of both a new US Army counterinsurgency doctrine, Field Manual 3-24, and an updated urban operations manual; the US Air Force followed suit in 2007 with an updated manual detailing the use of air power in counterinsurgency operations.[161] The US Army urban operations manual states that "Army forces will likely conduct operations in, around and over urban areas – not as a matter of fate, but as a deliberate choice linked to national security objectives and strategy."[162]

The combination of counterterrorism operations and stabilization capabilities with combat operations in Iraq and Afghanistan culminated in the admission by General John Abizaid to Congress in November 2006 that the US Army was unable to increase its troop levels in Iraq. The Iraq Study Group report, released a month later, also concluded that US forces were stretched thin.[163] President Bush in the 2007 State of the Union address announced his intention to increase the size of the Army and Marine Corps by 92,000 troops over a five-year period, a plan endorsed by most of the leading 2008 presidential candidates.[164] There is tension among military planners concerning this point, illustrated by the 2006 QDR, where according to some experts the difficult budgetary choices between conventional warfighting and counterterrorism and stability operations capabilities have not yet been made.[165] This debate perhaps reflects the changing perceptions within the US military establishment from a traditional security approach to one of human security. One recent addition to the Pentagon's bureaucracy, the new Africa Command, appears to be an attempt to reconcile these two security approaches.

---

160  Robert Gates, *Remarks to the Association of the United States Army*, Washington DC, 10 October 2007. [online 10 Nov 2007].

161  Headquarters, Department of the Army, *FM 3-24 Counterinsurgency* (Washington, DC, 2006) (Federation of American Scientists [online 20 Nov 2007]); Headquarters, Department of the Army, *FM 3-06 Urban Operations* (Washington, DC, 2006) (FAS [online 20 Nov 2007]); Headquarters, US Air Force, *Air Force Doctrine Document 2-3 Irregular Warfare* (Washington, DC, 2007) (FAS [online 20 Nov 2007]).

162  Headquarters, Department of the Army, *FM 3-06 Urban Operations*, p. 1-1.

163  Kevin Ryan, "Stretched Too Thin: We Don't Have Enough Troops to Meet Defense Demands", *Washington Post*, 18 December 2006 [online 19 Nov 2007].

164  George W. Bush, *State of the Union Address*, 23 January 2007, (White House [online 16 Nov 2007]).

165  See, for example, Andrew Krepinevich, "The Quadrennial Defense Review", Center for Strategic and Budgetary Assessments, 14 March 2006 [online 17 Nov 2007], p. 9.

### AFRICA COMMAND (AFRICOM)

The newest regional military command, Africa Command (AFRICOM) has been designed to integrate several types of missions under one agency. Its main objectives are to "provide support to Africans as they continue to build democratic institutions and establish good governance. It will focus on tasks such as peacekeeping, security, counterterrorism, humanitarian assistance and disaster relief."[166] The command structure is experimental and integrates State Department officials and members of the US Agency for International Development (USAID) together with a focus on energy issues and intelligence-gathering. AFRICOM's activities will focus largely on humanitarian relief, disaster response and small unit military training and exercises, building schools, wells and bridges along with officer training.[167] AFRICOM's "primary mission will be "shaping" activities, designed to ameliorate troubling trends in the region by helping to eliminate the roots of extremism, terrorism and violent conflict before they reach a crisis, rather than the traditional operations involving the use of force."[168]

The new command is not without its critics. While some inside the US question the wisdom or necessity of linking humanitarian efforts with military ones, African leaders are concerned about the flow of arms "overwhelming" the flow of aid. South Africa's Defense Minister Mosiuoa Lekota has encouraged other African nations to reject AFRICOM's presence.[169] The US has seemingly struggled to balance its expanded war on terror with humanitarian and sustainable development needs in Africa. In Somalia, for example, the US accused the fundamentalist Islamic Courts Union (ICU) of links to al Qaeda, and initially supported local warlords against the government before finally backing an Ethiopian invasion of Somalia in 2006. US special operations forces in Somalia hunted down suspected terrorists while AC-130 gunships targeted them in multiple airstrikes.[170] Fighting has continued around Somalia's capital Mogadishu throughout 2007, noted *Newsweek*, "killing hundreds of innocent civilians and forcing some 400,000 from their homes, without decisively toppling the Islamists."[171]

AFRICOM's attempts to integrate civilian and military foreign policy components can also be problematic. A 2006 report by the Republican staff of the

---

166  "New US Command to Take Broad, Inclusive Approach to Africa", US State Department, 12 October 2007, [online 10 Nov 2007].

167  Scott Johnson, "The Next Battlefront", *Newsweek*, 17 September 2007 [online 10 Nov 2007].

168  Stewart Patrick and Kaysie Brown, The Pentagon and Global Development: Making Sense of the DoD's Expanding Role, Working Paper no. 131, Center for Global Development, November 2007 [online 27 Nov 2007].

169  Johnson, "The Next Battlefront".

170  Ibid.; Pauline Jelinek, "US Special Forces in Somalia", *Washington Post,* 10 January 2007 [online 17 Nov 2007]; Karen DeYoung and Stephanie McCrummen, "US Stages 2nd Airstrkie in Somalia, Ethiopians Leaving Capital", *Washington Post*, 24 January 2007 [online 17 Nov 2007].

171  Johnson, "The Next Battlefield".

Senate Foreign Relations Committee revealed growing friction within US embassies over the expanding role of the military, in some cases overshadowing State Department diplomats in conducting US foreign policy. The growing numbers of military personnel stationed in embassies since 2001 has been seen as another sign of the militarization of foreign policy, a trend considered counterproductive by many.[172] In a similar vein, a 2007 *Washington Post* opinion piece by Hans Binnendijk argued that an under-funded diplomatic corps has been progressively weakened while the Pentagon has seen substantial budgetary increases.[173]

The Defense Department has substantially increased its role in development assistance programs, especially in Iraq and Afghanistan, and accounted for more than 20 percent of all US development assistance funding in 2005.[174] This increased role in development projects raises questions about whether the military has undertaken roles best suited for development professionals in the US Agency for International Development (USAID) or the State Department. In addition, the Pentagon may emphasize short-term strategic goals over sustainable development in its development. While AFRICOM strives to integrate these elements, the US appears to be struggling to find the proper balance between civilian and military components. As one study pointed out, "ironically, perhaps the biggest champion of more robust civilian capacities for engaging fragile states is the Pentagon itself, which increasingly recognizes the limits of what soldiers can do to build enduring institutions in unstable environments."[175]

## SUMMARY: US STRATEGIC INTERESTS AND CLIMATE CHANGE

The United States currently pursues a strategy of primacy, which entails a worldwide military presence designed to ensure strategic access to all regions of the globe and to hinder the rise of any regional power that might threaten that access. In addition, the US has been engaged in broad counterterrorism operations against Islamic fundamentalist groups, and military planners view these types of asymmetrical threats to be the primary focus of US security policy in the near future. To that end, US military basing has undergone a reorganization to adjust its focus toward a region that planners refer to as the Arc of Instability. Located in the Arc are Islamist terrorist groups, weak states in which they can operate freely, and energy resources upon which the US increasingly depends. Along with a traditional humanitarian interest in the developing world, these US national interests will ensure engagement in the Arc.

172  Mark Mazzetti, "Military Role in US Embassies Creates Strains, Report Says", *New York Times* 20 December 2006 [online 21 Nov 2007].
173  Hans Binnendijk, "At War but not War-ready", *Washington Post* 3 November 2007 [online 21 Nov 2007].
174  Stewart Patrick and Kaysie Brown, *The Pentagon and Global Development*.
175  Ibid, p. 14.

These interests will undoubtedly be affected by outbreaks of violence and conflict, where instability and decreasing human security contribute to increased radicalism, threaten energy exports, and present a growing humanitarian crisis that may draw in the US. It should be noted, however, that conflict is not necessary for US interests in these regions to be threatened. Social unrest, economic inequality, rampant criminal activity and lawlessness, poor governance, and humanitarian disasters represent conflict-free risks to human security that may threaten US interests as much as open conflict. The academic debate among researchers over whether conflicts will result from the effects of climate change, and whether these environmental factors should be securitized becomes therefore less relevant in this regard. As US interests are linked directly to human security, and most researchers agree that human security is most affected by climate change, the environment becomes a security concern whether it is consciously securitized or not.

Reviewing US strategic planning and the adaptations made by both military and civilian agencies, it becomes clear that the US has adapted its capacities so as to further its national security interests through a focus on human security. While the case of Somalia illustrates the continuous balancing act between pragmatic and normative goals, the overall set of US policies has been increasingly directed toward non-kinetic preventative operations, stabilization missions, and reconstruction efforts. Taking into account the likely consequences of climate change, which will threaten US interests by negatively impacting human security in the Arc, the recent capability adaptations by the United States appear to be directed at countering exactly the types of eventualities outlined earlier in section four. While the effectiveness of these new policy tools has yet to be ascertained, the US will certainly have use for these tools as environmental pressures lead to greater and more complex risks to security. While the US has not abandoned small-scale direct military counterterrorism operations, it has begun to apply a broader, more integrated approach that increasingly resembles that of some European nations. The next section will briefly examine one European ally to compare how that country incorporates human security into its strategic concept.

# Norway: security risks and integrated solutions

In the 2004 document *Relevant Force*, the Norwegian Defense Department outlined its overarching strategic concept.[176] The military conceptualized security as comprising three parts: state, societal and human security. The document described *state security* as a foundational security interest, which had at its core the survival of the state and its territorial defense. S*ocietal security* – protection of civil society and its infrastructure against attack or harm – has grown in importance as a result of the emergence of new challenges and new types of conflicts since the end of the Cold War. A final component, *human security*, deals with the protection of individuals and their fundamental human rights. The recent instances of human security-based military interventions to halt serious violations of human rights have security implications for Norway, according to the document.[177]

## NORWAY'S GLOBAL SECURITY ASSESSMENT

The document noted that "in general, globalization has reduced the ability of state authorities to exercise control over its own societal development."[178] These trends have also reduced the relevance of geographic distance when determining the country's security interests:

> Norwegian security interests were previously primarily defined within the Euro-Atlantic region. However, globalization has reduced the relevance of such a narrow perspective. The diminishing importance of geographic distance from potential or actual threats also reduces the relevance of a geographic perspective as a key criterion in our security thinking. Keywords like international terrorism, cyber warfare, the spreading of weapons of mass destruction and long-range weapons systems, and international crime, illustrate the need for a global perspective.[179]

Due to the close link between international security and that of Norway, a security framework for addressing global challenges through the United Nations remains key. As the UN does not retain sufficient capacities to conduct all operations necessary to peace and international security, regional organizations such as the North Atlantic Treaty Organization (NATO), the European Union (EU), and the African Union (AU) are given a mandate to conduct various missions. Norway has as a primary goal to contribute actively to NATO missions;

---

176  This document was issued under the previous ruling coalition.
177   Norwegian Ministry of Defence: *Relevant Force*, October 2004, *Government.no* [online 15 Nov 2007]. This overview is extremely selective and covers only those topics most relevant to the discussion at hand.
178  Ibid., p. 27.
179  Ibid., p. 18.

NATO's use of military force is understood to be associated mainly with crisis management, stabilization, and conflict-prevention operations. As there is no immediate conventional threat to NATO's immediate area, threats such as international terrorism and weapons of mass destruction are central.[180]

Norway's approach to energy security, as a significant oil and gas producing nation, acknowledges both its own risks as well as those of its neighbors. In a recent speech discussing energy security, NATO, and High North energy development, State Secretary for the Defense Department Espen Barth Eide stated that:

> Future energy crises will most likely also have political overtones. Now, however, we are facing a new situation due to the growing discrepancy between supply and demand, which will probably become a major structural problem in the not too distant future … The fact that future oil and gas supplies are becoming more geographically concentrated only adds to the general concern. By 2025 approximately one third of the world's oil production will come from what is considered as potentially volatile regions.[181]

Norway's European neighbors have become increasingly aware of the risks associated with economic dependence on energy imports. The willingness of Russia to use gas shipments as a tool of political coercion and the intense political maneuvering in Central Asia for expanded energy export routes to Europe (that avoid Russian territory) has made the issue of energy security all the more pressing.

## NORWAY AND CLIMATE CHANGE RISKS

The 2004 strategic concept noted the existence of regions where conflicts over water or other limited resources, uncontrolled population growth, disease, deforestation and other environmental problems lead to instability. In these regions, states with weak central governments contribute to international terrorism, an increased risk of armed conflict, regional destabilization, refugees and humanitarian disasters. Climate change will, in some regions, result in extreme environmental conditions that threaten societal, human, and even state security in some instances. Demographic trends, including population growth, urbanization, and increased pressures on agricultural resources will reduce the living standards of large populations. These trends, according to the document, will be aggravated by the effects of climate change.[182]

---

180  Ibid., p. 32–33.
181  Espen Barth Eide, "Energy security: A common concern", speech 25 October 2007 [online 11 Nov 2007].
182  Ibid., p. 28.

The Norwegian government clearly sees climate change as a security threat. In October 2007, Foreign Minister Jonas Gahr Støre noted that "climate change is rapidly becoming a social, economic and geopolitical issue. It is a threat to health and food supply – and ultimately a threat to security and peace."[183] In a 2007 speech, Defense Minister Anne-Grete Strøm-Erichsen deftly summarized the arguments presented above that connect unstable regions of the world with the dramatic consequences of climate change that can:

> in some parts of the world lead to drought, in others to strong precipitation and floods … more extreme weather with powerful storms, increased soil erosion, ice melting and sea-level rises can in varying degree lead to catastrophes or threaten the security of various societies in a number of places in the world. This will have just as direct consequences for human security as for societal security and state security in the countries most affected.[184]

The Defense Minister concluded that "in this picture, there is not one dominant threat, but many possible threats. Therefore we must have a military that is prepared so that it can meet the security challenges … so that we are capable of sending reaction forces that can be inserted into unstable areas. We can send special forces and intelligence operatives that can discover and disarm illegal weapons stores."

From this short summary, it appears that Norway's evaluation of global strategic threats parallels closely that of the United States. However, the Norwegian concept outlines much more explicit connections between human security, international terrorism, and the negative effects of climate change. While Norway certainly has ample reason to remain cautious regarding the defense of its territory and off-shore interests – especially in light of Russia's increasingly re-assertive foreign policy – the country's interest in addressing threats to global security outlined in the strategic concept continue to resonate strongly. While one eye remains focused on the immediate European neighborhood, the other focuses its attention on threats farther afield in places like Afghanistan and the Sudan.

### MANAGING RISKS: DIPLOMACY, PEACE-BUILDING AND INTEGRATED OPERATIONS

Norway's historic role as a peacemaker and conflict mediator is well known, from the country's engagement in the Middle East to its attempts to broker an agreement in Sri Lanka. In addition to these diplomatic efforts to resolve ex-

---

183   Johas Gahr Støre, "Nansen's Compass: A global view on human security challenges", speech at UN House, Tokyo, Japan 25 October 2007 [online 12 Nov 2007]

184   Anne-Grete Strøm-Erichsen, "Dialog om klimaendringer og tverrfaglige utfordringer [Dialogue on climate change and interdisciplinary challenges", speech 20 June 2007, *Regjeringen.no* [online 12 Nov 2007]

isting conflicts, the Norwegian Minister of the Environment and International Development Eric Solheim has partnered with US Senator Richard Lugar to address a range of issues discussed in this study. The Lugar-Solheim Development Initiative on Energy and Transparency, launched in March 2007, aims to reduce the threat of conflict over energy resources in the developing world, promote renewable energy resources, encourage transparency and fight corruption. Focusing directly on the link between climate change and conflict, Lugar and Solheim said:

> Ending conflict in the world, and reducing the threats that cause conflict have been our missions in our public service. The demand for energy resources has become a cause of conflict in many developing countries. The production and use of fossil fuels continue to cause wide-spread environmental damage, and is changing climate patterns through the release of greenhouse gases. This poses the risk of even more conflict in the world as changing weather patterns will cause droughts and floods, disease and population dislocations. In addition, the vast riches derived from the development of energy resources are destabilizing many developing countries. Corruption and the lack of transparency undermine civil society in developing countries and fuels poverty and the threat and tragedy of failed states.

In addition to diplomatic initiatives, Norway has emphasized peace-building capacities. The policy takes as its point of departure the realization that a symbiotic relationship exists between development and peace – "peace is an important pre-condition for development and conversely: development is an important pre-condition for lasting and stable peace."[185] Peace-building involves simultaneously addressing the three dimensions of the concept: security, political development, and social and economic development. As former Development Minister Hilde Frafjord Johnson wrote in 2004, "it is necessary to place increased emphasis on peace-building, on preventing violent conflict where such conflicts threaten, create the conditions for – and support to – peace-creating processes in countries where violent conflicts occur, and to build up the society after conflict so that violence does not reoccur."[186] Another Norwegian politician, State Secretary Raymond Johansen, alluded to this type of approach in a 2007 speech, saying "we need a holistic approach to the peace and security agenda. The root

185  Norwegian Ministry of Foreign Affairs, *Utviklingspolitikkens bidrag til fredsbygging: Norges rolle* [Development Policy's contribution to peace-building: Norway's role], August 2004 [online 10 Nov 2007], p. 10.
186  Ibid., p. 3.

causes for conflict – poverty, human rights abuses, and lack of democracy – must be tackled."[187]

A third means of addressing security risks associated with conflict and instability is through participation in military operations under a NATO or United Nations mandate. In one of the country's largest newspapers, *Dagbladet*, Norwegian Defense Minister Anne-Grete Strøm-Erichsen outlined in March 2007 the rationale for sending its soldiers to participate in operations such as the International Security Assistance Force (ISAF) in Afghanistan.[188] The minister's main argument was humanitarian in nature: the government wished to contribute to conflict resolution and peace in order to help those in need. A second reason combined the normative with the pragmatic: regional conflicts can spread, states can fail, terrorists can operate freely and present a global threat through the acquisition of weapons of mass destruction, and mass migrations of refugees can destabilize entire regions. A final reason was purely pragmatic in nature. Norway has a strong interest in international organizations and an UN-led world based on international cooperation and international law, as well as an interest in a strong NATO alliance. Small nations such as Norway are dependent on such alliances to come to their aid when threatened, and therefore must contribute to alliance operations to ensure both the survival of the alliance and of its smaller member states.

These operations have increasingly become multidimensional in nature, encompassing stabilization operations and protection of civilians, humanitarian efforts, disarmament and demobilizing armed groups, and assisting in developing political structures. This has led many to press for operations that integrate military, political, and humanitarian expertise and leadership. One proponent for such integrated operations is State Secretary Eide, who argues that for UN operations, "military power is not the only means, but works together with political, economic, and humanitarian efforts. At the same time, military power is completely necessary to create security, and security is a pre-condition for development and lasting peace. It is important that we coordinate these different means even better than today."[189]

The Norwegian government has made the conceptual linkage between human security, state security, and the risks associated with climate change. As a small state relying on international institutions for its overall security, Norway

---

187 Raymond Johansen, "Peace and security challenges in Africa", address to the Norwegian Institute of International Affairs, 4 October 2007, *Regjeringen.no* [online 10 Nov 2007].

188 Anne-Grete Strøm-Erichsen, "Hvorfor vi sender soldater utenlands" [Why we send soldiers abroad], opinion piece, *Dagbladet*, 19 March 2007 (Norwegian Ministry of Defence [online 11 Nov 2007]).

189 Espen Barth Eide, "Integrerte operasjoner er fremtiden" [Integrated operations are the future], speech at the conference "Multidimensional and Integrated Peace Operations – Trends and challenges", *Regjeringen.no* [online 10 Nov 2007].

has a national interest in remaining relevant in addressing threats to international security in addition to its image as a peace-maker. Norwegians have therefore identified and begun implementation of capabilities that will be useful in addressing such challenges through their emphasis on diplomatic efforts to build preventative capacities, their focus on peace-building capabilities, and the recognition that integrated operations will become increasingly important.

## REFLECTING NATO AND EU APPROACHES TO SECURITY

Not surprisingly, Norway's strategic concept parallels closely that of NATO. The Comprehensive Political Guidance (CPG), endorsed by NATO leaders at the summit in Riga, Latvia in November 2006, reflects many of the same threat perceptions. The document pointed to terrorism and weapons of mass destruction as the principle threats to the Alliance over the next 10 to 15 years, along with "instability due to failed or failing states, regional crises and conflicts, and their causes and effects; the growing availability of sophisticated conventional weaponry; the misuse of emerging technologies; and the disruption of the flow of vital resources are likely to be the main risks or challenges for the Alliance in that period."[190] Observing that "peace, security and development are more interconnected than ever," NATO leaders agreed that cooperation and coordination among organizations will be crucial to crisis prevention and management; stabilization and post-conflict reconstruction efforts have also become increasingly significant.[191]

NATO clearly intends to focus on addressing threats to the alliance located far from its member countries. As the CPG states: "the evolving security environment and the need to deal with conventional and especially asymmetric threats and risks, wherever they arise" will "put a premium" on the ability to "conduct and support multinational joint expeditionary operations far from home territory."[192] Another important task will be bringing "military support to stabilization operations and reconstruction efforts across all phases of an operation."[193] Reflecting on the Alliance's list of threats and the capabilities deemed necessary to address them, it becomes clear that NATO sees its future military operations as occurring in much the same geographic area as the United States: the Arc of Instability.

The European Union, in its 2003 European Security Strategy (ESS), had a similar strategic outlook that encompassed many of the same threats, including terrorism, weapons of mass destruction, regional conflicts, state failure, and organized crime. Notably, the document highlighted the links between poverty, conflict, and insecurity. Further, it argued that "competition for natural resourc-

---

190  NATO, Comprehensive Political Guidance, paragraph 2-3.
191  Ibid., paragraph 6.
192  Ibid., paragraph 16.
193  Ibid.

es – notably water – which will be aggravated by global warming over the next decades, is likely to create further turbulence and migratory movements in various regions." The strategy acknowledged the EU's energy dependence as a "special concern," noting that energy imports are set to rise to 70 percent of Europe's energy consumption by 2030, and originate from the Persian Gulf, Russia, and North Africa.[194]

An EU study group created a proposal to implement the ESS, and the resulting Barcelona Report was issued in September 2004. It proposed a "human security doctrine" for Europe, with three main conclusions. First, it devised a set of seven "principles for operations in situations of severe insecurity," including the primacy of human rights, clear political authority, multilateralism, a bottom-up approach, regional focus, the use of legal instruments, and the appropriate use of force. Second, the Barcelona Report proposed a Human Security Response Force of 15,000 people, a third of them civilians (police, human rights monitors, humanitarian and development specialists, and administrators). Finally, the report recommended the enactment of a "new legal framework to govern both the decision to intervene and operations on the ground."[195] The most recent report by the Human Security Study Group was released in November 2007 and further developed the human security framework for the EU.[196]

---

194 The European Union Institute for Security Studies, *A secure Europe in a better world: European Security Strategy*, adopted in Brussels 12 December 2003 [online 8 Nov 2007].
195 Mary Kaldor, et.al., *A Human Security Doctrine for Europe*, The Barcelona Report of the Study Group on Europe's Security Capabilities, 15 September 2004 (LSE [online 10 Nov 2007]), introduction.
196 Mary Kaldor, et.al., *A European Way of Security*, The Madrid Report of the Human Security Study Group comprising a Proposal and Background Report, 8 November 2007 (LSE [online 12 Nov 2007]).

## Conclusions

A convergence of strategic, political, economic, and climatic trends will likely result in US engagement in exactly those regions most vulnerable to climate change impacts. The United States strategy of global primacy ensures its continued interest in regional political and military affairs. The international fight against terrorist groups espousing a radical Islamist ideology will continue to engage the US and its allies in less developed and less stable regions. As the US economy and the US military are dependent on fossil fuels, the US also has a fundamental interest in securing uninterrupted flows of those and other raw materials. Finally, the US has always retained an ideological component in its foreign policy that encourages humanitarian operations provided the costs to the US in blood and treasure are acceptable. The projected effects of climate change in those regions deemed of strategic interest for the US and its allies will worsen the underlying conditions that make these regions threatening in the first place and will increase the likelihood of those risks escalating into even more serious situations such as uncontrolled migrations, failed states, resource scarcity tensions, or region-wide conflicts. These are primarily risks to human security in regions collectively referred to by US military planners as the Arc of Instability.

Most of the current threats facing the United States as well as Europe are untraditional in the sense that conventional military force alone cannot be applied to eliminate or contain the threats. It has become clear that the US, Norway and its European neighbors have begun to adopt measures that go beyond the traditional conceptualizations of security. Without explicitly declaring it, the US increasingly focuses its attention on improving human security and reducing the risks to it. Examples of this can be seen in State Department programs directed toward good governance, capability building for stabilization and reconstruction efforts, an emerging recognition within the military that unconventional war-fighting, humanitarian and stabilization operations are becoming more necessary, and the emergence of an integrated civilian–military entity within the Defense Department.

The US does not act consistently in its endeavors and often chooses short-term successes at the expense of long-term gains. Recent foreign policy challenges in Uzbekistan, Somalia and Pakistan illustrate the difficult (and often impossible) choices to be made concerning strategic access, tactical victories against terrorists, the promotion of democracy, and human rights. The Pentagon's increasing role in development projects also raises concerns over which actors are best suited for these activities. The main priority for the US remains that of traditional state security, and addressing human security concerns are an important, though secondary, consideration. What is striking, however, is how the borders between these two security concepts have blurred to the point of being indistinguishable. By improving human security in the Arc of Instability, the US also improves its national security. As the effects of climate change negatively af-

fect the former, the threats to the latter will likely grow. The military, economic and diplomatic tools mentioned here will increasingly be needed as the US reacts to the impacts of climate change in the Arc.

The European approach to security follows a course more closely associated with that of human security. Less focused on possible traditional state-centered threats, European countries have turned their attention to more normative concerns such as human rights and development assistance. Despite this focus, entities such as the EU still view the international security system in much the same manner as the United States, identifying terrorism, weapons of mass destruction, failed states, international crime and energy insecurity as threats. While primarily focused on the more normative human security aspects, the EU does this in a way that addresses its traditional state-centered security threats as well. While the US takes a top-down approach to security by focusing on state and then human security, Europe prioritizes human security as a means by which state security can be ensured.

The differing approaches "meet in the middle" with increasingly similar capabilities. While the Europeans speak of integrated operations, the US has launched an interagency effort under AFRICOM leadership. As Europe increases its peacekeeping and stabilization capabilities, the US Army has restructured its forces and doctrine to meet the same type of need. As Europe focuses on diplomacy and preventive steps to reduce the vulnerability of developing countries, the US State Department has taken many of the same steps. While the ends – and increasingly the means – may be similar, the initial priority differences force the US and Europe to part ways on two fundamental points: authority and legitimacy. While both entities may be working toward the same strategic ends, they seem to disagree over who should be in control and how such missions are legitimized, questions that are fundamental in resolving policy dilemmas regarding prioritization. Future US administrations may find more support for multilateral operations among a war-weary American public demanding increased burden-sharing, drawing Washington even closer to the European view. At this point, there is little evidence to show whether or not such capabilities will even be effective in addressing the challenges at hand.

Many researchers of the environment, conflict and cooperation resist the idea of a military role in planning reactive responses to the effects of climate change. As mentioned earlier, the human security focus in American and European security strategies implies some type of military role in the set of climate change responses in the Arc. As these regions are characterized by inefficient institutions, autocratic leaders and weak states, the institutional and cooperative measures advocated by some academics may not always be viable options. US and NATO operations under a UN mandate, especially those exhibiting the characteristics of integrated operations, represent both a military and an institutional solution.

There is also reason to question future levels of engagement by developed countries when humanitarian crises or regional conflicts affect Africa or South Asia. The recent history of multinational operations in Afghanistan give little cause for optimism, as European governments have been reluctant to contribute the resources requested by military commanders. Despite its many challenges, Afghanistan might be seen as a "best case" scenario due to the strategic (counterterrorism, avoiding a failed state) and humanitarian interests involved. It may be more difficult for developed countries to contribute personnel for operations in areas where the strategic relevance is less clear. In addition, the developed world may be pre-occupied with its own climate change concerns. While not the subject of this study, climate change will affect the entire globe, and even the developed world will be forced to channel energy and financial resources into adaptive measures. Whether these efforts will cause the wealthier nations to lose interest in the developing world remains to be seen.

In a broader sense, the military capabilities being implemented can only address the symptoms of the problem rather than the root causes. Demonstrating that the developed world recognizes the severity of the challenges and has begun to create methods for tackling them does not in any way begin to solve the underlying cause – greenhouse gas emissions from human activities. Choosing long-term benefits over short-term gains, and choosing cooperation despite the risks of uneven cost–benefit distributions, are difficult policy decisions made more challenging by the fact that when climate change impacts are clearly seen it will then be too late for meaningful preventative action. Others have approached these problems in a more thorough manner; this study can only amplify the call for a solution based on the findings presented here. The shared threat assessment and the strategic adaptations underway provide some foundation for diplomatic and military cooperation. It remains to be seen whether the United States will make the direct linkage, as Norway has done, between climate change and national security. Without preventative measures by the international community, however, such capabilities may well be completely inadequate in dealing with the impacts of climate change over the long term.

# BIBLIOGRAPHY

**ARMSTRONG, DAVID:**
"Dick Cheney's Song of America", *Harpers Magazine*, October 2002 [online 5 Feb 2007], URL: http://www.harpers.org/archive/2002/10/0079354.

**BARNETT, JON:**
*Security and Climate Change*, *Tyndal Centre Working Paper*, no. 7, October 2001 [online 3 Nov 2007], URL: http://www.tyndall.ac.uk/publications/working_papers/wp7.pdf.

**BARNETT, THOMAS P.M.:**
*The Pentagon's New Map* (New York: Berkley Books, 2004).

**BIDDLE, STEPHEN:**
American Grand Strategy after 9/11: An Assessment (Carslile, PA: US Army War College Strategic Studies Institute, 2004). [online 10 May 2007], URL: http://www.strategicstudiesinstitute.army.mil/pdffiles/PUB603.pdf.

**BINNENDIJK, HANS:**
"At War but not War-ready", *Washington Post* 3 November 2007 [online 21 Nov 2007], URL: http://www.washingtonpost.com/wp-dyn/content/article/2007/11/02/AR2007110201725.html.

**BP:**
BP Statistical Review of World Energy 2006 [online 19 Nov 2007], URL: http://www.bp.com.

**BUCKLAND, BEN:**
"A Climate of War? Stopping the Securitization of Global Climate Change", June 2007 (Geneva: International Peace Bureau [online 16 Nov 2007]), URL: http://www.ipb.org/disarmdevelop/environment/A%20Climate%20of%20War%20-%20Stopping%20the%20Securitisation%20of%20Climate%20Change.pdf.

**BUSH, GEORGE H.W.:**
*National Security Strategy of the United States*, August 1991 (GlobalSecurity.org [online 17 Nov 2007]), URL: http://www.globalsecurity.org/military/library/policy/national/nss-918015.htm.

**BUSH, GEORGE W.:**
*State of the Union address*, 23 January 2007 (White House [online 16 Nov 2007]), URL: http://www.whitehouse.gov/stateoftheunion/2007/.
—— *The National Security Strategy of the United States of America*, The White House, September 2002 (GlobalSecurity.org [online 10 Nov 2007]), URL: http://www.globalsecurity.org/military/library/policy/national/nss-020920.pdf.

**BUZAN, BARRY AND OLE WÆVER:**
*Regions and Powers: The structure of international security* (Cambridge: Cambridge University Press, 2003), p. 71.

**CAMPBELL , KURT M. AND CELESTE JOHNSON WARD:**
"New Battle Stations?" *Foreign Affairs*, September/October 2003, [online 20 Jun 2007], URL: http://www.foreignaffairs.org/20030901faessay82507/kurt-m-campbell-celeste-johnson-ward/new-battle-stations.html?mode=print.

**CENTER FOR NAVAL ANALYSIS (CNA) CORPORATION:**
*National Security and the Threat of Climate Change* (Alexandria, VA: The CNA Corporation, 2007) [online 1 Nov 2007], URL: http://securityandclimate.cna.org/.

**CHENEY, RICHARD:**
"Defense Strategy for the 1990s: The Regional Defense Strategy", January 1993 (US Department of Defense. [online 12 Feb 2007]), URL: http://www.informationclearinghouse.info/pdf/naarpr_Defense.pdf.

**CLINTON, WILLIAM JEFFERSON:**
*A National Security Strategy for a Global Age*, The White House, December 2000 (GlobalSecurity.org [online 10 Nov 2007]), URL: http://www.globalsecurity.org/military/library/policy/national/nss-0012.pdf.
—— *A National Security Strategy for a New Century*, The White House, October 1998 (GlobalSecurity.org [online 10 Nov 2007]), URL: http://www.globalsecurity.org/military/library/policy/national/nss-9810.pdf.
—— *A National Security Strategy of Engagement and Enlargement*, The White House, February 1995 (GlobalSecurity.org [online 10 Nov 2007]), URL: http://www.globalsecurity.org/military/library/policy/national/nss-9502.pdf.

**COHEN, MARC J.:**
*Food Security: Vulnerability Despite Abundance*, Coping with Crisis Working Paper Series (New York: International Peace Academy, July 2007 [online 27 Oct 2007]), URL: http://www.ipacademy.org/our-work/coping-with-crisis/working-papers.

"Combined Joint Task Force – Horn of Africa", *GlobalSecurity.org* [online 14 Nov 2007], URL: http://www.globalsecurity.org/military/agency/dod/cjtf-hoa.htm.

**COMMISSION ON REVIEW OF OVERSEAS MILITARY FACILITY STRUCTURES OF THE UNITED STATES:**
*Final Report to Congress*, 9 May 2005 (Federation of American Scientists [online 5 Nov 2007]), URL: http://www.fas.org/irp/agency/dod/obc.pdf.

**COUNCIL ON FOREIGN RELATIONS:**
*National Consequences of US Oil Dependency* (Washington, DC:CFR, 2006 [online 21 Nov 2007]), URL: http://www.cfr.org/content/publications/attachments/EnergyTFR.pdf.

**DEVELOPMENT, CONCEPTS AND DOCTRINE CENTRE (DCDC):**
*The DCDC Global Strategic Trends Programme 2007–2036 Third Edition*, December 2006 [online 10 May 2007], URL: http://www.dcdc-strategictrends.org.uk/home.aspx.

**DEYOUNG, KAREN AND STEPHANIE MCCRUMMEN:**
"US Stages 2nd Air strike in Somalia, Ethiopians Leaving Capital", *Washington Post*, 24 January 2007 [online 17 Nov 2007], URL: http://www.washingtonpost.com/wp-dyn/content/article/2007/01/23/AR2007012300210.html?nav=emailpage.

**DUECK, COLIN:**
"Ideas and Alternatives in American Grand Strategy, 2000–2004", *Review of International Studies*, no. 30 (2004).

**EIDE, ESPEN BARTH:**
"Energy security: A common concern", speech 25 October 2007. [online 11 Nov 2007], URL: http://www.regjeringen.no/en/dep/fd/The-Ministry/Other-political-staff/State-Secretary-Espen-Barth-Eide/Speeches-and-articles/2007/Energy-security-A-common-concern.html?id=486901.
—— "Integrerte operasjoner er fremtiden [Integrated operations are the future], speech at the conference "Multidimensional and Integrated Peace Operations – Trends and challenges", Norwegian Defense Department website [online 10 Nov 2007], URL: http://www.regjeringen.no/nb/dep/fd/aktuelt/nyheter/2007/--Integrerte-operasjoner-er-fremtiden.html?id=462177.

**ENERGY INFORMATION ADMINISTRATION:**
*China Country Analysis*, last updated August 2006. [online 9 Nov 2007], URL: http://www.eia.doe.gov/emeu/cabs/China/Oil.html.

**ERIKSEN, STEIN SUNDSTØL:**
"The Theory of Failure and the Failure of Theory: 'State Failure' in Theory and Practice" (Peace Research Institute, Oslo [online 5 Nov 2007]), URL: http://www.prio.no/files/file48992_stein_sundstol_eriksen_sip_wg_nov30_des1.pdf.

**EUROPEAN UNION INSTITUTE FOR SECURITY STUDIES:**
*A secure Europe in a better world: European Security Strategy*, adopted in Brussels 12 December 2003 [online 8 Nov 2007], URL: http://www.iss-eu.org/solana/solanae.pdf.

**FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS:** "Water and Food Security", factsheet, *FAO Newsroom*, 17 January 2001 [online 29 Oct 2007], URL: http://www.fao.org/newsroom/en/facts/index.html.

—— "World Hunger Increasing", *FAO Newsroom*, 30 October 2006, [online 29 Oct 2007], URL: http://www.fao.org/newsroom/en/news/2006/1000433/index. html.

**GATES, ROBERT:**
*Remarks to the Association of the United States Army*, Washington DC, 10 October 2007 (US Department of Defense [online 10 Nov 2007]), URL: http:// www.defenselink.mil/speeches/speech.aspx?speechid=1181.

**GERMAN ADVISORY COUNCIL ON GLOBAL CHANGE:**
*Climate Change as a Security Threat* (London: Earthscan, 2008) [online 15 Oct 2007], URL: http://www.wbgu.de/wbgu_jg2007_engl.html.

**GLEDITSCH, NILS PETTER:**
"Environmental security and conflict", lecture 13 March 2007, (GWSP [online 2 Nov 2007]), URL: http://www.gwsp.org/downloads/Open%20lecture/GWSP_ Governance_J20_Gleditsch_Open%20Lecture.pdf.

**GLEDITSCH, NILS PETTER, RAGNHILD NORDÅS AND IDEAN SALEHYAN:**
*Climate Change and Conflict: The Migration Link*, Coping with Crisis Working Paper Series (New York: International Peace Academy, May 2007 [online 17 Nov 2007]), URL: http://www.ipacademy.org/asset/file/169/CWC_Working_Pa- per_Climate_Change.pdf.

"Global Warming: From Theory to Fact", *National Public Radio*, 21 May 2007 [online 23 October 2007], URL: http://www.npr.org/templates/story/story. php?storyId=10307560.

**HALL, MICHAEL R.:**
"Impact of the US Peace Corps at Home and Abroad", *Journal of Third World Studies*, Spring 2007 (BNET Research Center [online 1 Nov 2007]), URL: http://findarticles.com/p/articles/mi_qa3821/is_200704/ai_n19431907/print.

**HEADQUARTERS, DEPARTMENT OF THE ARMY:**
*FM 3-06 Urban Operations* (Washington, DC, 2006) (Federation of American Scientists [online 20 Nov 2007]), URL: http://www.fas.org/irp/doddir/army/ fm3-06.pdf.
—— *FM 3-24 Counterinsurgency* (Washington, DC, 2006) (Federation of Ameri- can Scientists [online 20 Nov 2007]), URL: http://www.fas.org/irp/doddir/army/ fm3-24.pdf.

**HEADQUARTERS, US AIR FORCE:**
*Air Force Doctrine Document 2-3 Irregular Warfare* (Washington, DC, 2007) (Federation of American Scientists [online 20 Nov 2007]), URL: http://www.fas. org/irp/doddir/usaf/afdd2-3.pdf.

**HENRY, RYAN:**
"Transforming the US Global Defense Posture", in *Reposturing the Force: US Overseas Presence in the Twenty-First Century* (Newport: Naval War College

Press, 2006 [online 15 June 2007]), URL: http://www.nwc.navy.mil/press/new-portpapers/documents/26.pdf.

**HOMER-DIXON, THOMAS:**
"On the Threshold: Environmental Changes as Causes of Acute Conflict", *International Security*, vol. 16, no. 2 (Fall 1991).

**HUMAN SECURITY NETWORK:**
30 October 2006 [online 15 Nov 2007], URL:http://www.humansecuritynet-work.org/network-e.php.

"International Criminal Court – Article 98 Agreements Research Guide", Georgetown Law Library, revised May 2007 [online 28 Oct 2007], URL: http://www.ll.georgetown.edu/intl/guides/article_98.cfm.

**IPCC:**
"Summary for Policymakers" in *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change,* eds M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson (Cambridge, UK: Cambridge University Press [online 5 Oct 2007]), URL: http://www.ipcc.ch/pdf/assessment-report/ar4/wg2/ar4-wg2-spm.pdf.

**JELINEK, PAULINE:**
"US Special Forces in Somalia", *Washington Post*, 10 January 2007 [online 17 Nov 2007], URL: http://www.washingtonpost.com/wp-dyn/content/article/2007/01/10/AR2007011000438.html.

**JERVIS, ROBERT:**
"Understanding the Bush Doctrine", *Political Science Quarterly*, vol. 118, no. 3 (Fall 2003) [online 12 Nov 2007], URL: http://www.psqonline.org/cgi-bin/99_article.cgi?byear=2003&bmonth=fall&a=01free&format=view.

**JOHANSEN, RAYMOND:**
"Peace and security challenges in Africa", address to the Norwegian Institute of International Affairs, 4 October 2007, *Regjeringen.no* [online 10 Nov 2007], URL: http://www.regjeringen.no/upload/UD/Vedlegg/RAJO%20Peace%20and%20security%20challenges%20in%20Africa%20_NUPI%204%20oct%2007_.pdf.

**JOHNSON, SCOTT:**
"The Next Battlefront", *Newsweek*, 17 September 2007 [online 10 Nov 2007], URL: http://www.newsweek.com/id/40797/output/print.

**JOLLY, RICHARD AND DEEPAYAN BASU RAY:**
*The Human Security Framework and National Human Development Reports,* NHDR Occasional Paper 5 (New York: United Nations Development Pro-

gramme, May 2006 [online 22 Nov 2007], URL: http://hdr.undp.org/en/media/human_security_gn.pdf.

**KALDOR, MARY, ET AL.:**
*A Human Security Doctrine for Europe*, The Barcelona Report of the Study Group on Europe's Security Capabilities, 15 September 2004 (London School of Economics [online 10 Nov 2007]), URL: http://www.lse.ac.uk/Depts/global/Publications/HumanSecurityDoctrine.pdf.

**KALDOR, MARY, ET. AL.:**
*A European Way of Security*, The Madrid Report of the Human Security Study Group comprising a Proposal and Background Report, 8 November 2007 (London School of Economics [online 12 Nov 2007]), URL: http://www.lse.ac.uk/Depts/global/PDFs/Madrid%20Report%20Final%20for%20distribution.pdf.

**KANTER, JAMES AND ANDREW C. REVKIN:**
"Scientists Detail Climate Changes, Poles to Tropics", *New York Times*, 7 April 2007. [Online 15 Oct 2007], URL: http://www.nytimes.com/2007/04/07/science/earth/07climate.html?_r=1&oref=slogin.

**KAPLAN, ROBERT D.:**
"The Coming Anarchy", *Atlantic Monthly*, February 1994 [online 15 May 2007], URL: http://www.theatlantic.com/ideastour/archive/kaplan.mhtml.

**KHRIPUNOV, IGOR:**
"Exploiting Africa", *Jane's Intelligence Review*, September (2007).

**KISSINGER, HENRY:**
*Does America Need a Foreign Policy* (New York: Simon and Schuster, 2001).

**KRAUTHAMMER, CHARLES:**
"The Sleepy Superpower Awakes", *Time Magazine*, 27 July 2003 [online 12 March 2007], URL: http://www.time.com/time/columnist/krauthammer/article/0,9565,557669,00.html.

**KREPINEVICH, ANDREW:**
"The Quadrennial Defense Review", Center for Strategic and Budgetary Assessments, 14 March 2006 [online 17 Nov 2007], URL: http://csbaonline.org/4Publications/PubLibrary/T.20060314.QDRTestimony/T.20060314.QDRTestimony.pdf.

**KRONVALL, OLOF:**
"The Big War Paradigm Challenged?" in *Säkerhetspolitik och historia*: *Stormaktspolitiken och Norden under sjuttio år. Vänbok till Krister Wahlbäck* [Security Policy and History: Great Power Politics and the Nordic Countries during Seventy Years. A *Festschrift* for Krister Wahlbäck], eds Mats Bergquist and Alf W. Johansson (Stockholm: Hjalmarson & Högberg bokförlag, 2007).

**KRULAK, CHARLES C.:**
"The Strategic Corporal: Leadership in the Three Block War", *Marines Magazine*, January 1999, (US Air Force Air University [online 19 Nov 2007]), URL: http://www.au.af.mil/au/awc/awcgate/usmc/strategic_corporal.htm.

**MATTHEWS, RICHARD:**
"Environmental Change and Human Security: Concepts and Definitions" in *Global Environmental Change and Human Security: Conceptual and Theoretical Issues* (University of California Irvine: Global Environmental Change and Human Security Program Office, 2002) [online 21 Nov 2007], URL: http://www.gechs.uci.edu/gechsprdraffinal.pdf.

**MAYER, MICHAEL:**
*Security or Human Rights: US Foreign Policy Dilemma in Uzbekistan*, Forsvarsstudier, no. 2 (Oslo: Norwegian Institute for Defence Studies, 2006).

**MAZZETTI, MARK:**
"Military Role in US Embassies Creates Strains, Report Says", *New York Times*, 20 December 2006 [online 21 Nov 2007], URL; http://www.nytimes.com/2006/12/20/washington/20embassy.html?_r=1&oref=slogin&pagewanted=print.

**MILLENNIUM CHALLENGE CORPORATION:**
*Annual Report 2006* [online 10 Nov 2007], URL: http://www.mcc.gov/about/reports/annual/mcc-annualreport-2006.pdf.

"Mission to Somalia: Transcript of President's address on Somalia", *New York Times*, 5 December 1992, [online 19 Nov 2007], URL: http://query.nytimes.com/gst/fullpage.html?res=9E0CE3DC1631F936A35751C1A964958260&sec=&spon=&pagewanted=print.

**MORGANTHAU, HANS:**
*Politics among Nations, 4th edition* (New York: Alfred A. Knopf, 1968).

**MÜNKLER, HERFRIED:**
"What is really new about the new wars – a reply to the critics", in *On New Wars*, Oslo Files on Defence and Security, no. 4, ed. John Andreas Olsen (Oslo: Norwegian Institute for Defence Studies, 2007).

**MYERS, RICHARD B.:**
*The National Military Strategy of the United States of America*, Defense Department, 2004 (GlobalSecurity.org [online 18 Nov 2007]), URL: http://www.globalsecurity.org/military/library/policy/dod/d20050318nms.pdf.

**NATIONAL INTELLIGENCE COUNCIL:**
*Mapping the Global Future* (Pittsburg: Government Printing Office, 2004), *FOIA Reading Room* (CIA [online 10 May 2007]), URL: http://www.foia.cia.gov/2020/2020.pdf.

**NATO:**
"Comprehensive Political Guidance*", NATO Online Library* [online 19 Nov 2007], URL: http://www.nato.int/docu/basictxt/b061129e.htm.

**NICHOL, JIM:**
"Central Asia's Security: Issues and Implications for U.S. Interests", *CRS Report for Congress*, updated January 2005 (US State Department [online 5 Feb 2007]), URL: http://fpc.state.gov/documents/organization/43392.pdf.

**NORGES OFFENTLIGE UTREDNINGER [NORWEGIAN OFFICIAL REPORTS]:**
Et styrket forsvar. Innstilling fra Forsvarspolitisk utvalg [A strengthened defense. Report from the parliamentary special committee of defense], *Regjeringen.no* (English: Government.no) [online 22 Nov 2007], URL: http://www.regjeringen.no/pages/1936685/Et_styrket_forsvar_forelopig_versjon_NOU_2007_15.pdf.

**NORWEGIAN MINISTRY OF DEFENCE:**
*Relevant Force*, October 2004, *Government.no* [online 15 Nov 2007], URL: http://www.regjeringen.no/upload/FD/Dokumenter/Relevant_force.pdf.

**NORWEGIAN MINISTRY OF FOREIGN AFFAIRS:**
*Utviklingspolitikkens bidrag til fredsbygging: Norges rolle* [Development Policy's contribution to peace-building: Norway's role], August 2004 [online 10 Nov 2007], URL: http://www.regjeringen.no/upload/kilde/ud/pla/2004/0002/ddd/pdfv/218421-fredsbygging.pdf.

**PERRY, ALEX:**
"Africa's Oil Dreams", *Time*, 11 June 2007 [online 15 June 2007], URL: http://www.time.com/time/magazine/article/0,9171,1626751,00.html.

**POSEN, BARRY AND ANDREW ROSS:**
"Competing Visions for US Grand Strategy" in *America's Strategic Choices*, Michael E. Brown et al. (Cambridge, MA: MIT Press, 1998).

**PROJECT PLOUGHSHARES:**
"Human Development and Armed Conflicts 1997–2006", fact sheet [online 12 Nov 2007], URL: http://www.ploughshares.ca/imagesarticles/ACR07/humdev06.pdf.
—— "Armed Conflicts in 2006", map [online 30 Oct 2007], URL: http://www.ploughshares.ca/imagesarticles/ACR07/poster2007.pdf.

**RICE, CONDOLEEZZA:**
"The Power and Promise of American Realism", address to the Economic Club of New York, 7 June 2007 (US State Department, [online 18 Oct 2007]), URL: http://www.state.gov/secretary/rm/2007/06/86200.htm.

**RUMSFELD, DONALD:**
*Quadrennial Defense Review 2006*, Department of Defense, February 2006, (GlobalSecurity.org [online 5 Feb 2007]), URL: http://www.globalsecurity.org/military/library/policy/dod/qdr-2006-report.pdf.

—— *Quadrennial Defense Review Report 2001*, Department of Defense, 30 September 2001 (The Commonwealth Institute [online 15 Nov 2007]), URL: http://www.comw.org/qdr/qdr2001.pdf.

**RYAN, KEVIN:**
"Stretched Too Thin: We Don't Have Enough Troops to Meet Defense Demands", *Washington Post*, 18 December 2006 [online 19 Nov 2007], URL: http://www.washingtonpost.com/wp-dyn/content/article/2006/12/17/AR2006121700952.html.

**SALEHYAN, IDEAN:**
"The New Myth about Climate Change", *Foreign Policy*, August 2007 [online 14 Nov 2007], URL: http://www.foreignpolicy.com/story/cms.php?story_id=3922.

**SMALL ARMS SURVEY:**
"The Central African Republic: A case study of small arms and conflict" in *Small Arms Survey 2004: Rights at Risk* [online 20 Oct 2007], URL: http://www.smallarmssurvey.org/files/sas/publications/yearb2004.html.
—— *Small Arms Survey 2007*, "Chapter 5 Summary: Guns in the City", [online 29 Oct 2007], URL: http://www.smallarmssurvey.org/files/sas/publications/year_b_pdf/2007/2007SAS_English_press_kit/2007SASCh5_summary_en.pdf.

**STATE FAILURE TASK FORCE:**
*State Failure Task Force Report: Phase III Findings*, Center for Global Policy (George Mason University [online 21 Nov 2007]), URL: http://globalpolicy.gmu.edu/pitf/SFTF%20Phase%20III%20Report%20Final.pdf.

**STOCKHOLM INTERNATIONAL PEACE RESEARCH INSTITUTE:**
*SIPRI Yearbook 2007: armaments, disarmament and international security* (Oxford University Press: Oxford, 2007) [online 30 Oct 2007], URL: http://www.sipri.org/contents/conflict/SIPRI%20Yearbook%202007/document_view.

**STØRE, JOHAS GAHR:**
"Nansen's Compass: A global view on human security challenges", speech at UN House, Tokyo, Japan 25 October 2007, *Regjeringen.no* [online 12 Nov 2007], URL: http://www.regjeringen.no/nb/dep/ud/dep/Utenriksminister_Jonas_Gahr_Store/taler_artikler/2007/nansen_tokyo.html?id=489035.

**STRØM-ERICHSEN, ANNE-GRETE:**
"Dialog om klimaendringer og tverrfaglige utfordringer [Dialogue on climate change and interdisciplinary challenges", speech 20 June 2007, *Regjeringen.no* [online 12 Nov 2007], URL: http://www.regjeringen.no/nb/dep/fd/dep/Forsvarsminister_Anne-Grete_Strom-Erichs/taler_artikler/2007/Dialog-om-klimaendringer-og-tverrfaglige.html?id=473269.
—— "Hvorfor vi sender soldater utenlands" [Why we send soldiers abroad], opinion piece, *Dagbladet*, 19 March 2007 (Norwegian Ministry of Defence [online 11 Nov 2007]), URL: http://www.regjeringen.no/nb/dep/fd/dep/Fors-

varsminister_Anne-Grete_Strom-Erichs/taler_artikler/2007/Hvorfor-vi-sender-soldater-utenlands.html?id=458196.

"Sudan: Climate change only one cause among many for Darfur conflict", *Reuters AlertNet*, 28 June 2007 [online 10 Nov 2007], URL: http://www.alertnet.org/thenews/newsdesk/IRIN/6ed11d1edbf6b097d7f32940ae1a5126.htm.

"The Failed State Index 2007", *Foreign Policy*, July/August 2007 [online 30 Oct 2007], URL: http://www.foreignpolicy.com/story/cms.php?story_id=3865&page=8.

**UNITED NATIONS DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS:**
*World Population Prospects: The 2006 Revision*, 2007 [online 29 Oct 2007], URL: http://www.un.org/esa/population/publications/wpp2006/English.pdf.
—— *World Urbanization Prospects: The 2005 Revision Executive Summary* [online 29 Oct 2007], URL: http://www.un.org/esa/population/publications/WUP2005/2005WUPHighlights_Exec_Sum.pdf.
**UNITED NATIONS DEVELOPMENT PROGRAMME:**
*Human Development Report 1994* [online 1 Nov 2007], URL: http://hdr.undp.org/en/reports/global/hdr1994/.
—— *Human Development Report 1997* [online 10 Nov 2007], URL: http://hdr.undp.org/en/media/hdr_1997_en.pdf.
—— *Human Development Report 2006* [online 21 Nov 2007], URL: http://hdr.undp.org/en/media/hdr2006_english_summary.pdf.
—— "Statistics of the human development report 2006" [online 4 Nov 2007], URL: http://hdr.undp.org/en/statistics/.
**UNITED NATIONS HUMAN SETTLEMENT PROGRAMME:**
"New UN-Habitat report says urban dwellers badly off", 19 June 2006 [online 29 Oct 2007], URL: http://www.unhabitat.org/content.asp?cid=3177&catid=5&typeid=6&subMenuId=0.
**UNITED NATIONS POPULATION FUND:**
*State of the World Population 2002* [online 29 Oct 2007], URL: http://www.unfpa.org/upload/lib_pub_file/25_filename_swp2002eng.pdf.
**URDAL, HENRIK:**
"A Clash of Generations? Youth Bulges and Political Violence", *International Studies Quarterly*, vol. 50, no. 3.

"US To Realign Troops in Asia", *LA Times*, 29 May 2003 (Taiwan Security Research [online 17 Nov 2007]), URL: http://taiwansecurity.org/News/2003/LAT-052903.htm.

**US CENTRAL COMMAND:**

"Combined Joint Task Force – Horn of Africa", Fact Sheet October 2007. [online 14 November 2007], URL: http://www.hoa.centcom.mil/factsheet.asp.

**US STATE DEPARTMENT:**

"Key US Government Assistance Programs for Africa", fact sheet, 15 June 2005 [online 10 November 2007], URL: http://www.state.gov/documents/organization/48103.pdf.

—— "New US Command to Take Broad, Inclusive Approach to Africa", 12 October 2007, State Department International Information Programs, [online 10 Nov 2007], URL: http://usinfo.state.gov/xarchives/display.html?p=washfile-english&y=2007&m=October&x=20071012121656saikceinawz3.557986e-02.

—— "Office of the Coordinator for Reconstruction and Stabilization (S/CRS)", fact sheet, [online 10 Nov 2007], URL: http://www.state.gov/documents/organization/43429.pdf.

—— "Ship's Mission to Boost US–Africa Maritime Security Partnership", State Department International Information Programs, 16 October 2007, [online 9 November 2007], URL: http://usinfo.state.gov/xarchives/display.html?p=washfile-english&y=2007&m=October&x=20071016181657bpuh0.1464197.

**WISEMAN, PAUL:**

"In Philippines, US making progress in war on terror", *USA Today*, 13 February 2007 [online 14 Nov 2007], URL: http://www.usatoday.com/news/world/2007-02-13-philippines-terror_x.htm.

**WORLD BANK:**

"Worldwide Governance Indicators 1996–2006", *Governance Matters 2007* [online 10 Nov 2007], URL: http://info.worldbank.org/governance/wgi2007/sc_country.asp.

# TIDLIGERE UTGITTE PUBLIKASJONER I SERIEN

# OSLO FILES ON DEFENCE AND SECURITY

---

## 2007

**1. T. SÆVERAAS OG K. HENRIKSEN**
Et militært universalmiddel? Amerikansk "Maneuver Warfare" og norsk doktrineutvikling.

**2. T. KRISTIANSEN OG J.A. OLSEN (red.)**
War Studies. Perspectives from the Baltic and Nordic War Colleges.

**3. VIDAR HELGESEN**
How Peace Diplomacy Lost Post 9/11. What Implications are there for Norway?

**4. JOHN ANDREAS OLSEN (ed.)**
On New Wars.

**5. OLOF KRONVALL**
Finally Eating Soup with a Knife? A Historical Perspective on the US Army's 2006 Counterinsurgency Doctrine.


# TIDLIGERE UTGITTE PUBLIKASJONER I IFS INFO-SERIEN

---

## 2006

**1. E. SHAHALA**
Peace and security in Africa. Basic structural changes in the governace of peace and security on the African continent.

**2. S. HOLTAN**
Den standhaftige militærmusikken. Forsvarets musikk og den lange debatten om nedleggelse.

**3. K. ØSTBERG**
Duksenes republikk. Fransk elitisme og dens samfunnsmessige konsekvenser.

**4. J. RØ**
Hva er rettferdig krig i et asymmetrisk trusselbilde? En normativ diskusjon av USAs forkjøpspolitikk.

**5. L. KRISTOFFERSEN**
Soldiers or Saints? Norwegian Civil-Military Cooperation in Afghanistan.

**6. S. MELBY, J. RØ, O. KRONVALL OG A.G. ROMARHEIM**
Supermaktens begrensning. Perspektiver på Bush-doktrinens utvikling.

**7. M. EPKENHANS**
The Long and Winding Road to *Weserübung*. Naval Theory, Naval Historiography and Aggression.

**8. J. BLACK**
The RMA Examined.


## 2005
**1. H.M. SYNTSNES**
Presse og krig. Amerikansk fjernsyn og opptrappingen til krigen mot Irak 2003.

**2. A. COHEN OG T. WALTER**
Why do States Want Nuclear Weapons? The Cases of Israel and South Africa.

**3. D. WALTER**
Symmetry and Asymmetry in Colonial Warfare ca. 1500–2000.

**4. T. HEIER**
Forsvarsreformene 2000–2004: Gir Forsvaret politisk uttelling?

**5. M. HERMAN**
Problems for Western Intelligence in the New Century.

**6. Y.N. KRISTENSEN**
Torsk, "pirater", og kalde granater. Striden mellom Norge og Island om Fiskevernsonen ved Svalbard 1993.


## 2004
**1. CHR. COKER**
Is there a Western Way of Warfare?

**2. T. HEIER**
The American Effort to Transform Europe's Armed Forces.

**3. T.L. HAALAND OG E. GULDHAV**
Bruk av norske styrker i kampen mot internasjonal terrorisme.

**4. T.J. MELIEN**
US Navy i norske farvann under første verdenskrig.

**5. B.B. STEINLAND**
Flere kvinner ute og hjemme?


## 2003
**1. P.FR.I. PHARO**
New Knowledge Structures, or Just Common Ground? Breakthroughs in International Negotiations.

**2. D. LYNCH**
Post-Imperial Peacekeeping. Russia in the CIS.

**3. B. MÆLAND**
"At alle behandles likeverdig og med respekt, uansett bakgrunn?" Forsvarets verdigrunnlag og norske offiserer i KFOR.

**4. M. BERDAL**
The UN Security Council. Ineffective but Indispensible.

**5. O. RISTE**
War and Peace in Scaninavian Political Culture in the 20th Century.

**6. T. KRISTIANSEN**
De europeiske småstatene på vei mot storkrigen, 1938–40.


## 2002
**1. E. MÄNNIK**
Estonian Defence. Ten Years of Development.

**2. B. SCHÄFER**
Stasi Files and GDR Espionage against the West.

**3. P.K. BAEV**
Russia in 2015.

**4. K. SKOGRAND**
Luftforsvaret og atomalderen 1950–1970.

**5. M. PETERSSON**
"Break Glass Only in Case of War".

**6. H. FRANTZEN**
"Proper War" and "War in Reality".


## 2001
**1. CHR. COKER**
Asymmetrical War.

**2. O. BOSCH**
The Year 2000 Issue and Information Infrastructure Security.

**3. K. KLEVE (RED.)**
Kilder til norsk luftmilitær historie.

**4. R. TAMNES (RED)**
Kommandospørsmålet på nordflanken. Utviklingen i to formative perioder.


## 2000
**1. P. FR. I. PHARO**
Necessary, Not Perfect: NATO's War in Kosovo.

**2. A. BROOKES**
Hard European Lessons from the Kosovo Air Campaign.

**3. P. FR. I. PHARO**
Norge på Balkan 1990–1999. "Lessons learned".

**4. J. KIDD OG P. MITCHELL**
European Defence Challenges.

**5. M. PETERSSON**
Vapenbröder. Svensk-norska säkerhetspolitiska relationer under det kalla kriget.

**6. A. BROOKES**
The Prospects for Unmanned Aerial Vehicles.


## 1999

**1. I. JOHNSTONE**
The UN's Role in Transitions from War to Peace: Sovereignty, Consent and the Evolving Normative Climate.

**2. S.G. HOLTSMARK**
Gullet fra Moskva. Sovjetisk pengestøtte til norske kommunister, 1917–1990.

**3. T. FARER**
Shaping Agendas in Civil Wars. Can International Criminal Law Help?

**4. V. HELGESEN**
Kosovo og folkeretten.

**5. W.P.S. SIDHU**
New Challenges for the Non-Proliferation Regime.

**6. R. BERG**
Den svenske "generalguvernörtiden" i Norge, 1814–1829.


## 1998

**1. L.M. RAMBERG**
Luftforsvaret en læringsorganisasjon? Logistiske utfordringer ved NORAIRs deployering til Bosnia 1993.

**2. K. SKOGRAND**
Cash and Cannons. Norway, Denmark and the US Aid Programmes 1947–1952.

**3. T. HUITFELDT**
Striden om landminer. Ottawa-konvensjonens muligheter og begrensninger.

**4. R. BERG**
Nasjon – union – profesjon. Forsvaret på 1800-tallet.

**5. K. SKOGRAND, O. NJØLSTAD OG R. TAMNES**
Brennpunkt. Kald krig, nordområder og storstrategi.


## 1997

**1. P.V. WIKER**
Amerikansk våpenhjelp til Norge 1949–1953.

**2. H. KROMBACH**
The Meaning of Hiroshima and Nagasaki.

**3. T. HUITFELDT**
De norske partisanene i Finnmark 1941–44 – i skyggen av den kalde krigen.

**4. R. BERG**
Nordisk samarbeid 1914–1918.

**5. H.O. SANDNES**
"Olav Tryggvason-affæren".

**6. R.G. PATMAN**
Securing Somalia : A Comparison of US and Australian Peacekeeping during the UNITAF Operation.


## 1996

**1. S.G. HOLTSMARK**
Great Power Guarantees or Small State Cooperation? Atlanticism and European Regionalism in Norwegian Foreign Policy, 1940–1945.

**2. O. RISTE OG R. BERG**
Isolasjonisme, atlantisk samarbeid og nordpolitikk.

**3. F. LILAND**
Moral og realpolitikk. Norges forhold til Kina etter 1966.

**4. K.O. SUNDNES**
A Balkan Sideshow. The Medical Support System and United Nations Peacekeeping in the Former Yugoslavia.

**5. CHR. COKER**
The Future is History.

**6. H. MACDONALD**
National Separatisms and the Disintegration of Yugoslavia.


## 1995

**1. F.O. NILSEN**
Sovjetisk ubåtvirksomhet i nord – behov og tradisjoner.

**2. J. HAMMERSTAD OG K. JAHR**
Telemark bataljon. NATOs nye styrkestruktur og Norges deltakelse i IRF.

**3. M.R. BREDAL**
The United Nations at Fifty: Its role in Global Security.

**4. O.K. GRIMNES, J. RØNNEBERG OG B. GOLDSCHMIDT**
The Race for Norwegian Heavy Water, 1940–1945.

**5. T. ITO**
UN Authorized Use of Force: Recent Changes in UN Practice.

**6. R. HOBSON OG T. KRISTIANSEN**

Militærmakt, krig og historie. En innføring i militære studier fra Clausewitz til våre dager.

## 1994

**1. S.R. RADER**
Strengthening the Management of UN Peacekeeping Operations. An Agenda for Reform.

**2. J.M. VAN SPLUNTER**
Love at First Sight. Co-operation Between the Netherlands and Norway on the Peaceful Use of Atomic Energy, 1950–60.

**3. N.A. RØHNE**
Norway between Great Britain and Germany.

**4. F. MOLVIG**
Norsk forsvarspolitikk i 1970- og 80-årene.

**5. K.E. HAUG**
Den tysk-norske spenningen under første verdenskrig.

**6. S.G. HOLTSMARK**
Om Den røde hær rykker inn i Norge... Spørsmålet om sovjetisk deltagelse i frigjøringen av Norge 1941–1944.

**7. S.G. HOLTSMARK**
The Limits to Soviet Influence: Soviet Strategic Interests in Norway and Denmark 1944–47.

**8. O. NJØLSTAD**
Fissionable Consensus: Scandinavia and the US Quest for International Atomic Energy Control, 1946–1950.

## 1993

**1. F. LILAND**
Culture and Foreign Policy. An introduction to Approaches and Theory.

**2. R. TAMNES**
Penetrasjon og polarisering. Nordområdene i et historisk perspektiv.

**3. H. SJURSEN**
Gamle problemer i ny klesdrakt? EFs utvidelsesproblemer i 1990-årene.

**4. W. WLADYKA**
Fortidens skygger i polsk politikk. Reformprosessens utfordringer etter valget.

**5. K.E. ERIKSEN OG H. PHARO**
Norway and the Early Cold War: Conditional Atlantic Cooperation.

**6. E. LØCHEN**
Norges møte med Europa, 1950–1964.

**7. M. BERDAL**
United Nations Peacekeeping at a Crossroads. The Challenges of Management and Institutional Reform.

## 1992

**1. O. RISTE**
Postwar Security: Universal or Regional?

**2. R. TAMNES**
Norges hemmelige tjenester under den kalde krigen. Et sammenlignende i internasjonalt perspektiv.

**3. L. SHEVTSOVA**
August 1991. The Attempted Coup and its Consequences.

**4. T. KRISTIANSEN**
Det fjerne og farlige Baltikum. Norge og det baltiske spørsmål 1918–1922.

**5. O. RISTE**
Eit "minimumsforsvar" for Norge? FK90 og spørsmålet om alliert assistanse.

**6. O. WICKEN**
Kald krig i norsk forskning.

**7. K. HIRSCH**
Den norske klagesaken mot Tyrkia i 1982.

## 1991

**1. DIV. FORFATTERE**
Perspektiver på Norges sikkerhet.

**2. C. ARCHER**
Security Options for Denmark.

**3. DIV. FORFATTERE**
Perspektiver på Sveriges sikkerhet.

**4. O. RISTE**
De Gaulle, Alliances, and Minor Powers.

**5. T. HUITFELDT, T. RIES OG J.K. SKOGAN**
Sovjet i nord etter CFE.

**6. R. KRISTIANSEN**
Norsk forsvarsindustri ved en skillevei?

**7. T. RIES**
Consequences of START for the Nordic Region.

**8. N.A. RØHNE**
Norwegian Attitudes Towards the Briand Plan.