

Climate change, threat multiplier and internal conflicts in Northeast Asia and Southeast Asia

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Introduction

The proposition that environmental degradation is or should be a security concern is no longer a novelty in the non-traditional security agenda. Put broadly, environmental security falls within two sometimes competing approaches to non-traditional security (other terms include new security, transnational security, comprehensive security, and non-conventional security). The first of these, which is the focus of this paper, looks for non-traditional threats to traditional 'referent objects' (that is, states) and worries about the potential for conflict and political violence as a result.² Other speakers at this conference will explore the impacts of climate change on the region, and the vulnerability of a range of social groups within those countries. The issue examined in this paper is whether the social and economic impacts of climate change could result in or exacerbate conflict in the region, with particular attention to the likelihood of intra-state conflict and unrest in Northeast and Southeast Asia. As the discussion below indicates, these are difficult questions to answer with any certainty. At best, one can identify potential

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² The second, which is the focus of another paper at this conference, broadens the 'referent' of security to include non-traditional threats to non-traditional referents including individuals, communities, societies, economies and, where environmental issues are concerned, possibly even species and ecosystems. The literature on environmental security is now extensive. For useful explorations of the various interpretations and contestations surrounding the term and its policy implications see: Simon Dalby, *Environmental security* (Minneapolis: University of Minnesota Press, 2002), Jon Barnett, *The meaning of environmental security* (London: Zed Books, 2001), Lorraine Elliott, *The global politics of the environment* (New York: New York University Press, 2004), chapter 9; 'Environment and security: what's the connection?', *Australian Defence Force Journal*, no. 174 (2007): 37-50.

climate-change related triggers of internal conflict. However even where those triggers exist, other factors will influence whether conflict or unrest will actually occur.

Climate security/climate conflict in public debate

In August this year, the UN Secretary-General Ban Ki-moon told a Global Environment Forum in Korea (at the same time that governments were meeting in Bonn for five days of informal climate negotiations) that failure to act quickly on climate change could lead to a worsening of tensions, social unrest and even violence. This is only the latest warning about climate-induced conflict in what has become a burgeoning climate security ‘industry’ as scholars and policy-makers attempt to better understand the possible security threats associated with climate change. Few reports are quite as alarmist or dystopian as the 2004 report commissioned for (and then suppressed by) the Pentagon which warned that in the face of catastrophic climate change, ‘nuclear conflict, mega-droughts, famine and widespread rioting’ would erupt across the world as a result of climate change and competition for food, water and energy. Disruption and conflict, it predicted, would become ‘endemic features of life’.³ Yet while most reject this dystopia, all assume that some form of disruption and conflict – ranging from civil unrest through intercommunal violence to political radicalisation and, in extreme situations, state collapse – is likely.

The 2006 Stern report on the economics of climate change, prepared for the UK government by a former Chief Economist of the World Bank, suggested that climate change could ‘create risks of major disruption to economic and social activity ... on a scale similar to those associated with the great wars and economic depression of the first half of the 20th century’.⁴ In a widely reported move in January 2007, the Board of the Bulletin of Atomic Scientists moved the hands of the Doomsday Clock from seven to five minutes to midnight, concluding that ‘global warming poses a dire threat to human

³ Cited at (<http://observer.guardian.co.uk> ...). Admittedly, the report was explicitly intended to assess likely outcomes in the face of abrupt climate change. See Peter Schwartz and Doug Randall, *An abrupt climate change scenario and its implications for United States National Security*, October 2003, for a public version of the report.

⁴ Sir Nicholas Stern, *The economics of climate change* (London: HM Treasury, 2006).

civilization that is second only to nuclear weapons'.⁵ At the same time, the UK's Ministry of Defence released the latest in its strategic trends series which identified climate change, a shifting environment, and increased demand for natural resources especially food, water and energy as challenges to stability that would create new sources of insecurity and tension.⁶ In March 2007, UN Secretary General Ban Ki-moon, who has made climate change a touchstone issue of his incumbency, argued that 'in coming decades' climate-related 'changes in our environment and the resulting upheavals—from droughts to inundated coastal areas to loss of arable lands—are likely to become a major driver of war and conflict'.⁷ In April 2007, a panel of retired US admirals and generals released a report arguing that climate change constituted a significant threat to US national security interests.⁸ In the same month, under the presidency of the UK, the UN Security Council held its first debate on global warming. British Foreign Secretary Margaret Beckett told the Council that the threat from climate change has 'grown larger in scale and sharper in outline' with consequences that 'reach to the very heart of the security agenda'.⁹

In September 2007, the London-based International Institute for Strategic Studies (IISS), which styles itself the world's leading authority on political military conflict, included a long discussion of climate change in its annual Strategic Survey publication, identifying climate change as a potential 'existential security threat'.¹⁰ The climate-insecurity link was reinforced further in October with the awarding of the 2007 Nobel Peace Prize jointly to former US Vice President Al Gore and the Intergovernmental Panel on Climate Change for their work on climate change. In announcing the prize, the Norwegian Nobel

⁵ See <http://www.thebulletin.org/minutes-to-midnight/board-statements.html>

⁶ *Global Strategic Trends 2007-2036*, 3rd edition (Swindon: Ministry of Defence, Development Concepts and Doctrine Centre, 2007).

⁷ http://www.un.org/apps/news/infocus/speeches/search_full.asp?statID=70

⁸ The CNA Corporation, *National security and the threat of climate change* (Alexandria, VA: The CNA Corporation, 2007)

⁹ <http://www.fco.gov.uk/servlet/Front?pagename=OpenMarket/Xcelerate/ShowPage&c=Page&cid=1007029391629&a=KArticle&aid=1176454354972>

¹⁰ 'Strategic Policy Issues', *Strategic Survey*, 107:1 (2007), pp. 33-84 at p. 47. Also in September, the UK Ministry of Defence announced a £12 million contract with the UK Met Office Hadley Centre to support research that would focus on the relationship between climate change and conflict, identify countries where conflict over food and water scarcity and examine the related conditions in which British troops might be deployed in the future.

Committee said that climate change presented a threat to the security of humankind which could bring with it ‘increased dangers of violent conflicts and wars within and between states’.¹¹

Threat multipliers and internal conflicts

In its 2007 Strategic Survey, IISS suggested that ‘the security dimension [of climate change] will come increasingly to the forefront as countries begin to see falls in available resources and economic vitality, increased stress on their armed forces, greater instability in regions of strategic import, increases in ethnic rivalries, and a widening gap between rich and poor. Climate change is at the heart of both national and collective security’.¹² This is an updated version of predictions made by scholars in the late 1980s and early 1990s that environmental degradation could contribute to instability, the ‘disruption of legitimised and authoritative social relations’¹³ and ‘civil turmoil and outright violence’.¹⁴ In this more orthodox version of climate security, climate change is usually presented as a threat multiplier, overstressing societies’ adaptive capacities, weakening the ‘institutional capacity of states to resolve conflict through peaceful and democratic means’,¹⁵ and creating or exacerbating political instability and violence. This is particularly so in conditions where state capacity to manage the ecological, social and economic impacts of climate change is limited.

¹¹ See http://nobelpeaceprize.org/eng_lau_announce2007.html

¹² ‘Strategic Policy Issues’, *Strategic Survey*, 107:1 (2007): 68

¹³ Thomas F. Homer-Dixon ‘On the threshold: environmental changes as causes of acute conflict’, *International Security*, vol. 16, no. 2 (1991), pp. 76-116 at p. 9.

¹⁴ Norman Myers, ‘Environment and security’, *Foreign Policy*, no. 74 (1989), p. 24.

¹⁵ UN Secretary-General Ban Ki-moon cited in ‘Security Council holds first ever debate on impact of climate change on peace, security’, Security Council, 5663rd meeting, 17 April 2007, SC/9000, available at <<http://www.un.org/News/Press/docs/2007/sc9000.doc.htm>

Table 1: causal pathway of conflict over natural resources¹⁶



The expectation is that in the case of climate change the sources of national and societal insecurity will be as much internally- as externally-generated. The main triggers for intra-state social unrest and inter-communal violence are thought to be competition for scarce resources (including water and energy), food insecurity, and pressures that result from internal migration where climate-change reduces local habitability. Other factors that are often argued to be caught up in this relationship include contraction of livelihood choices, risks to critical infrastructure, the overstretch of societies' adaptive capacities, and a politics of resentment where access to resources is politicised or where resource scarcities feed into other tensions between ethnic, religious or other identity-groups. The IPCC reports that climate change is also likely to exacerbate 'existing pressures on natural resources and the environment associated with rapid urbanisation, industrialisation and economic development'.¹⁷ Where pressures such as these invoke resource competition

¹⁶ Causal pathway of conflict over resources." UNEP/GRID-Arendal Maps and Graphics Library. 2005. UNEP/GRID-Arendal. 22 Sep 2008

<http://maps.grida.no/go/graphic/causal_pathway_of_conflict_over_resources>

¹⁷ See chapter 10 of IPCC, *Climate change 2007: impacts, adaptation and vulnerability – contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*

between countries, or where climate refugees seek to move into border zones or across borders, or where climate change result in loss of or configuration of territory, there is some concern that conflict between states could result.¹⁸

Those countries that are anticipated to be more vulnerable to climate conflict (or, to put it another way, those countries in which climate-related conflict is thought more likely to occur) are those in a process of political transition, those with a low level of economic development and wide social disparities, those with large populations or a high population density, those border on a neighbouring country in which a violent conflict is being waged, and those that have experienced violent conflict in recent past on their own territory. The question, then, is what might this mean for the Asia Pacific, particularly Northeast and Southeast Asia.

Northeast and Southeast Asia

No part of the world will be unaffected by climate change.¹⁹ The specific impacts of climate change in the region will be explored in other presentations at this conference. Suffice it to say here that the Intergovernmental Panel on Climate Change (IPCC) reports a worrying litany of likely climate change impacts for the Asia Pacific region: a decline in crop yield, an increase in climate-induced disease, an increased risk of hunger and water resource scarcity, an increase in the number and severity of glacier melt-related floods, significant loss of coastal ecosystems, many millions of people in coastal communities at high risk from flooding, and an increased risk of extinction for many species of fauna and flora.

(Cambridge: Cambridge University Press, 2007). The economic costs will be high: a doubling of atmospheric carbon dioxide is estimated to cost the ASEAN countries between 2.1 percent and 8.6 percent of GDP, much higher than the world estimates of 1.4 percent to 1.9 percent; ASEAN Secretariat, *ASEAN Report to the World Summit on Sustainable Development* (Jakarta: ASEAN Secretariat, 2002) p.40.

¹⁸ The 'fear factor' comes also from the unpredictable dimensions of climate change, such as the potential for abrupt and irreversible large scale impacts on the climate system, atmospheric circulations, collapse of southern and northern ice-sheets [get from Stern report].

¹⁹ See, for example, IPCC, Summary for policy-makers: Contribution of working group II, pp. 13-15.

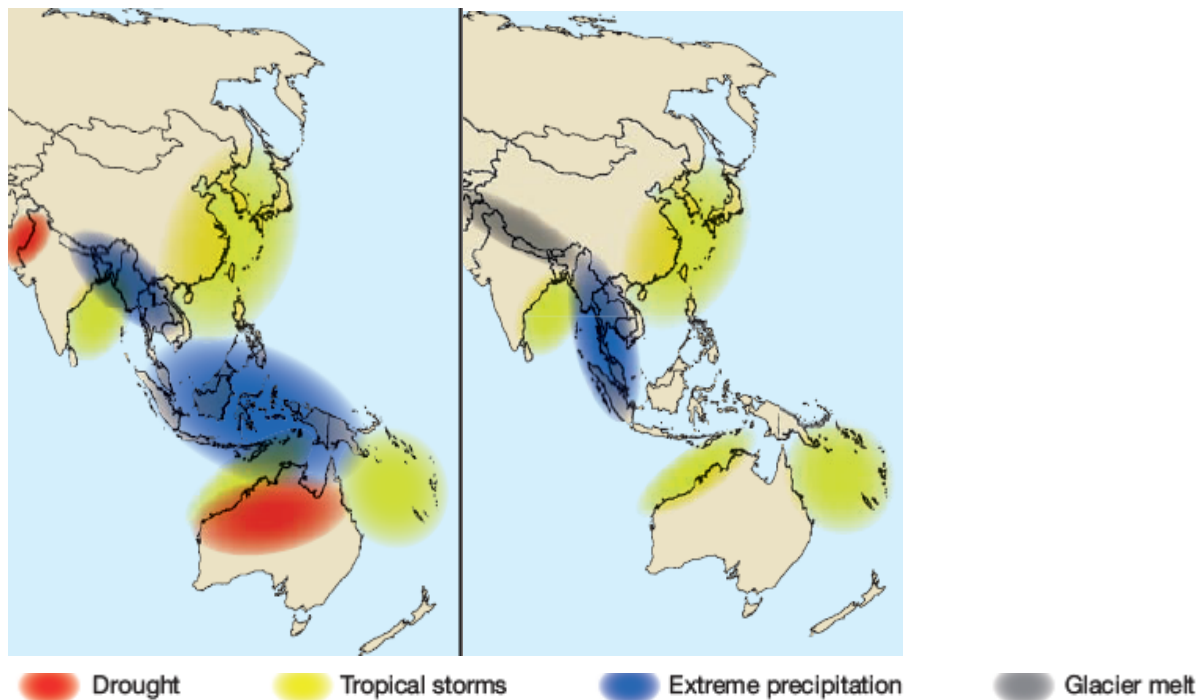


Table 2: Climate status Asia Pacific²⁰

As noted above, the expectation is that climate triggers are more likely to lead to conflict and instability in those parts of the world that are already ecologically stressed, economically vulnerable and characterised by weak or stretched state capacity. Many countries in the region fit this ‘profile’ that allegedly makes them more vulnerable to internal conflict and unrest sparked by the environmental, economic and social impacts of climate change – low levels of economic development, social disparities of various kinds, and an existing history of internal conflict and dispute between identity-groups or between competing users of resources. International Alert suggests that there are 46 countries – home to 2.7 billion people – in which ‘the effects of climate change interacting with economic, social and political problems will create a high risk of violent conflict’ and another 56 countries (home to 1.2 billion people) where ‘the institutions of government will have great difficulty taking the strain of climate change on top of all their other current challenges’. In this latter group, they argue, ‘the risk of armed conflict

²⁰ German Advisory Council on Global Change (WGBU), *World in transition: climate change as a security risk – Summary for Policy-makers* (Berlin: WGBU Secretariat, 2007). On the left, Regions in which extreme climatic conditions already prevail today; on the right, regions which could be put at risk in future by unabated climate change.

may not be so immediate' but 'the interaction of climate change and other factors creates a high risk of political instability, with potential violent conflict a distinct risk in the longer term'.²¹

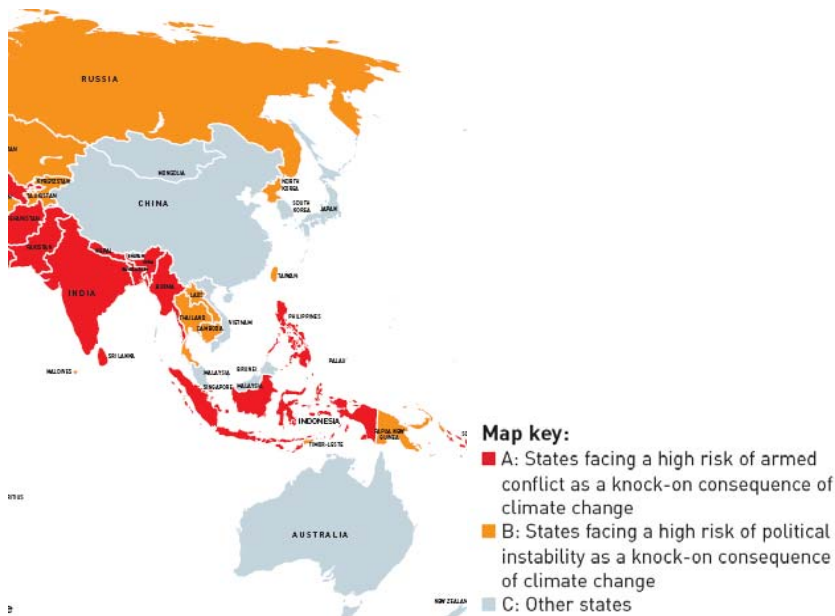


Table 3: climate change, conflict and political instability in the Asia Pacific²²

As shown in Figure 3, a significant number of countries in the region are thought to fall into these vulnerabilities categories. The first category – those countries within which there is a high risk of armed conflict – includes Burma, Indonesia and the Philippines. Those with a high risk of political instability include Cambodia, Laos, North Korea, Thailand and Timor-Leste. Even then, there are some quite notable differences of opinion. While China, for example, is not identified in this particular report by International Alert as a country in which climate-related conflict is likely, the UK Department of Defence suggested in its 2007 Strategic Trends that along with a range of other social and economic factors, 'changing patterns of land use, the failure to deliver per capita prosperity and environmental stresses caused by climate change and pollution,

²¹ Smith and Vivekananda, *A climate of conflict*, p. 3.

²² Source: Smith and Vivekananda, *A climate of conflict: the links between climate change, peace and war* (International Alert, 2007).

could reduce China's traditional resilience to natural disaster. A future large-scale disaster might therefore cause China's progress towards strategic power status to stall and might even result in it becoming a failed state, prone to civil conflict and separatism.

In a region which is reported as having an already higher than average number of internal armed conflicts and struggles of various kinds,²³ the multiplier effect of climate induced resources scarcities and stresses should not be discounted. The Asia Pacific has already seen a range of localised tensions over resource and environmental issues although few of these are likely to result directly in the kind of instability and fragility that the more alarmist versions of the environmental conflict models might anticipate. The UN Economic and Social Commission for Asia and the Pacific reports, for example, that large-scale electricity generation projects have become a source of social conflict in countries such as China and Thailand (though this is often directed against governments or corporations rather than other communities).²⁴ Environmental degradation and pollution have motivated social unrest in China, a problem made more complicated by disputes over land tenure and rural poverty.²⁵ Strategic analysts have suggested that Indonesia and the Philippines are countries in which unsustainable resource use, mismanagement, and environmental degradation, as well as the more direct impacts of climate change, could drive instability and insurgency 'on a par with ethnic and religious issues'.²⁶

Climate change will also create further economic uncertainties and not just for the region's poorest countries although they are likely to be the economies that are least resilient, at least in the short-term. Indeed, a recent report suggests that 'the net effect of

²³ Benjamin Reilly, 'Internal conflict and regional security in the Asia Pacific', *Pacifica Review*, 14(1) (2002) pp. 7-21 at p. 8.

²⁴ ESCAP, *State of the Environment in Asia and the Pacific, 2005* (Bangkok: ESCAP, 2006) p. 52.

²⁵ See Kenneth Lieberthal, 'How domestic forces shape the PRC's grand strategy and international impact' in Ashley J. Tellis and Michael Willis (eds) *Strategic Asia 2007-08: Domestic politics, internal change and grand strategy* (Seattle: National Bureau of Asian Research, 2007); and Thomas Lum, "Social Unrest in China," Congressional Research Service, CRS Report for Congress, RL33416, May 8, 2006, <http://www.fas.org/sgp/crs/row/RL33416.pdf>

²⁶ See the executive summary of the conference "Environment and Security in the Asia-Pacific 2002" organized by the Asia-Pacific Center for Security Studies, November 19-21, 2002, http://www.apcss.org/core/Conference/CR_ES/021119-21ES.htm

climate change on regional and national economies [in the Asia Pacific] is projected to be largely negative'.²⁷ If, as Mely Caballero-Anthony has argued, economic development is seen in the region as a 'major means or instrument to bring about domestic [as well as regional] stability' then climate change will make that much more difficult.²⁸

Climate change is also projected to increase the likelihood of state failure in the region if governments are unable to respond effectively to the social and economic challenges of climate change or the kinds of civil unrest and communal violence that might result. The impacts of climate change will create demands for resources, food, water, health infrastructure, and social and economic assistance that may be difficult for governments to meet, potentially undermining confidence in those governments and calling their authority and perhaps even legitimacy into question. The concern is that 'under conditions of severe global climate change, environmental factors may push already failed states deeper into the abyss of ungovernability, while driving other states toward the brink'.²⁹ In extreme cases, climate-related state failures are feared to provide an avenue for extremist ideologies and 'create breeding grounds and safe havens for terrorist networks' and create the conditions for terrorism'.³⁰

As noted in the introduction, climate conflict analyses can do little more than rely on an assessment of likely climate triggers. Three are explored briefly here: food scarcity, water stress, and climate migration.

Food insecurity:

Food insecurity refers to both a shortage of food and to vulnerability to high food prices which puts staples out of reach of the poorest. It is a product of land degradation and loss of soil fertility caused by deforestation, overuse of chemicals, inefficient irrigation and waterlogging as well as drought and desertification; diversion of food crops into biofuels;

²⁷ Benjamin L. Preston et al., *Climate change in the Asia /Pacific region: a consultancy report prepared for the Climate Change and Development Roundtable*, Melbourne, VIC: CSIRO Marine and Atmospheric Research, 2006, p. 4.

²⁸ Mely Caballero-Anthony, 'Revisioning human security in Southeast Asia', *Asian Perspective*, 28 (3) (2004) pp. 155-89 at p. 161.

²⁹ IISS, *Strategic Survey*, p. 55; Campbell et al (eds), *The age of consequences*, p. 107.

³⁰ CNA Corporation, *National security and the threat of climate change*, p. 13.

market failure manifest in rising food prices and an ineffective and unfair distribution of food; over-capitalisation of the global fishing industry and the over-exploitation of many of the world's fish stocks; coastal and river pollution from development that destroys breeding grounds. Food insecurities can turn food exporting countries in the region into net food importers, increasing their vulnerability to global markets and their reliance on the security of trade routes, heightening poverty, and potentially intensifying domestic grievances and social disruptions. Up to an extra 130 million people are anticipated to be at risk of hunger in the Asia Pacific as a result of climate change. The State Meteorological Administration in China has calculated that global warming could cause that country's grain harvest to fall by 5 to 10 percent, with a food shortfall of 100 million metric tons by 2030, a serious problem in a country which is already losing farmland to deserts and which has little capacity to increase arable land.³¹ The unpredictability of wet and dry seasons is already having an impact on agriculture in Southeast Asia, with harvests being disrupted, rural incomes dropping, and hunger and malnutrition increasing, especially among children.

Water stress:

Most parts of the Asia Pacific are also projected to experience increased water resource stress. ESCAP estimates that up to 650 million people in Asia and the Pacific do not have sustainable access to safe water supplies.³² Vulnerability to water stress and increased drought is anticipated to trigger distributional conflicts and 'fuel existing conflicts over depleting resources, especially where access to those resources is politicised'³³ and where there are limited or weak institutional frameworks for the 'adaptation of water and crisis management systems'.³⁴ International Alert identifies China as a country already affected by conflict over water rights.³⁵ Other reports point to the Mekong River as one area

³¹ 'Climate change to strain China food supply by 2030', http://www.enn.com/top_stories/article/22194

³² ESCAP, *State of the Environment in Asia and the Pacific* (Bangkok: ESCAP, 2006), p. 2.

³³ Climate change and international security, Paper from the High Representative and the European Commission to the European Council, S113/08, 14 March 2008, p. 3.

³⁴ German Advisory Council on Global Change (WGBU), *World in transition: climate change as a security risk – Summary for Policy-makers* (Berlin: WGBU Secretariat, 2007), p. 2.

³⁵ Smith and Vivekananda, *A climate of conflict: the links between climate change, peace and war* (International Alert, 2007), p. 13.

where water shortages already create tension.³⁶ The UK Department of Defence anticipates that ‘large-scale farmers [will] ... benefit at the expense of smaller [farmers], and there will be disruption of fisheries in river delta regions, particularly the Mekong, where there is also likely to be increased tension over water resources’.³⁷

Climate migration and climate refugees

The potential for large-scale migrations of people – both within countries and across borders – has been described as ‘perhaps the most worrisome problems associated with rising temperatures and sea levels ... [which could] could easily trigger major security concerns and spike regional tension.’³⁸ The Report of IPCC Working Group II suggests that as well as disruptions of human populations within states and across national borders in the region, sudden sharp spikes in rural to urban migration is likely in some countries, and the exacerbation of shortfalls in food production, rural poverty and urban unrest in others.³⁹

The numbers of climate refugees should nevertheless be questioned. Preston et al suggest, for example, that ‘although it is likely that climate change will ultimately force the displacement of some populations within the Asia/Pacific region, considerable uncertainty persists regarding the number of individuals that will be displaced, whether those displacements will drive internal or external migration, the extent to which human adaptation can reduce displacement’.⁴⁰ Northeast Asia and Southeast Asia were *not* among the regions singled out as being of most concern in terms of the geopolitical challenges of climate-induced migration by the CSIS report.⁴¹ On the other hand, IISS reports that ‘the Chinese military expects to have to ... face refugee flows from Indonesia

³⁶ See Chris Abbott, *An uncertain future: law enforcement, national security and climate change* (London: ORG, 2008).

³⁷ IISS, ‘Strategic Policy Issues’, *Strategic Survey*, 107:1 (2007), p. 63.

³⁸ Campbell et al (eds) *The age of consequences*, p. 8.

³⁹ IPCC, *Climate change 2007: impacts, adaptation and vulnerability* (Cambridge: Cambridge University Press, 2007) p. 488.

⁴⁰ Benjamin L. Preston et al., *Climate change in the Asia /Pacific region: a consultancy report prepared for the Climate Change and Development Roundtable*, Melbourne, VIC: CSIRO Marine and Atmospheric Research, 2006, p. 49.

⁴¹ Kurt M Campbell et al, *The age of consequences: the foreign policy and national security implications of global climate change* (Washington DC: Centre for Strategic and International Studies/Centre for a New American Security, 2007), p. 56.

and the rest of Southeast Asia'.⁴² And the UK Department of Defence indicated, in its 2007 Strategic Trends analysis, that climate-related population displacement was a distinct possibility in the major East Asian archipelagos.⁴³

Is climate conflict inevitable?

The way that governments, societies and communities respond to the 'threats' of climate change will have an impact on managing climate conflict. The important factors here include strategies for adaptation and social resilience, issues that are addressed in more detail by other speakers at this conference. Nevertheless, it is clear that violent conflict is not a pre-determined outcome of climate triggers. Appropriate governance structures, including openness to the views and voices of affected communities, and planning for adaptation means that societies are likely to be more rather than less resilient to the challenges of climate change. More resilient societies are defined also as those in which structures are in place to manage competition for resources which, in turn, can reduce the risk of unrest and social violence in the face of the impacts of climate change. Indeed, the message in many of the recent reports that have sought to expose the relationship between climate change and conflict is that 'early steps to limit or mitigate climate change are essential because longer-term efforts to adapt or anticipate may not be possible'.⁴⁴ There is a call for more effective monitoring, early warning of climate-related stressors and continued research to develop a better understanding of the pathways and consequences is required. This speaks directly to the themes of this conference – the importance of adaptation and social resilience as conflict-prevention and as human security strategies.

⁴² IISS, 'Strategic Policy Issues', *Strategic Survey*, 107:1 (2007), p. 63.

⁴³ *Global Strategic Trends 2007-2036*, 3rd edition (Swindon: Ministry of Defence, Development Concepts and Doctrine Centre, 2007), p. 29.

⁴⁴ Campbell et al (eds) *The age of consequences*, p. 105. CNA Corporation, p.7.