UNDERSTANDING
GLOBAL SECURITY

Second Edition

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The securitization of issues

> ... only freedom can make security secure.
>
> Karl Popper (Popper 1966: 130)

Defining security

Security Studies

The study of security in the global context is a sub-discipline of the wider subject usually still referred to as *International Relations*. International Relations is the study of all political interactions between international 'actors', which include states (represented by governments), international organizations (either inter-governmental or non-governmental[1]) and, to a lesser extent, some wealthy, private individuals. Security Studies concerns itself with a sub-set of those political interactions marked by their particular importance in terms of maintaining the security of the actors and people. Where the line demarking International Relations' sub-discipline is to be drawn is increasingly contentious, as indeed is the demarcation of International Relations in relation to the wider realm of Political Science. Increased political interaction between actors, other than through the traditional state-to-state route, has served to blur the distinction between domestic and foreign policy and widened the scope of International Relations. The process commonly referred to as globalization has led to internal political issues increasingly externalized and external political issues becoming increasingly internalized. Traditionally domestic policy concerns, such as health and rights, are more prominent than ever on the global political agenda and events occurring in other states, such as disasters or massacres, are more often than ever deemed to be of political significance for people not personally affected. In light of these changes, and the reduced prevalence of inter-state war, it has become a matter of contention among theorists of International Relations whether Security Studies should maintain its traditional emphasis on military threats to the security of states or widen its focus. Alternative perspectives have argued increasingly that the discipline should either: (1) extend its reach to include non-military threats to states and, perhaps, other actors; or (2) go further and bring within its remit the security of all actors in relation to a range of threats, both military and non-military.

The main *paradigms* of International Relations offer alternative conceptual frameworks for comprehending the complexity that emerges from attempting to study the huge volume of interactions between actors that makes up the contemporary global system. These different 'lenses' for making sense of this political complexity focus in very different ways when it comes to thinking about issues of security in International Relations.

Realism

Realists are the traditionalists in International Relations and Security Studies and still the dominant paradigm, both academically and in terms of the 'real world' as the

approach favoured by governments in conducting their foreign policies. Classical Realism emerged in the 1940s and dominated the young discipline of International Relations with a straightforward and almost unchallenged view of how and why politics on the world stage was conducted. The 'actors' were states. Inter-governmental Organizations (IGOs) were merely alliances of convenience between states, while International Non-governmental Organizations (INGOs) were considered irrelevant (and indeed, by comparison with today, were so at the time). Hence the world, in political terms, was a state system. The interactions between the states in the system could be characterized as 'power politics'. A pessimistic view of human nature permeates Realism meaning that, on the world stage, it is assumed that states should not trust other states and therefore seek to 'look after number one' by extending their own power wherever possible in order to secure themselves.

This promotion of the self-interest of states is captured in the term 'national interest' (see Box 1.1). For Realists, governments making a clear distinction between 'high' and 'low' politics in their policy-making best serve the national interest. Individual concerns with health, welfare and other 'low politics' issues are the stuff of domestic politics and need to be kept separate from the 'high politics' of state security. This approach was justified on the premise that failing to deter or losing a war would undermine the satisfaction of low politics aspirations. Individual interests were inextricably tied up in the national interest. Hence in the UK in the late 1940s society tolerated food rationing while the government poured the country's shrunken exchequer into developing atomic weapons. Individual hardship was considered a price worth paying to avert the potentially catastrophic hardship of failing to deter invasion from the Soviet Union.

The conundrum that emerges from assuming that a state's security is achieved by it pursuing the maximization of its own power is that all states cannot simul-taneously follow this prescription. The security of one's own state is likely to be enhanced at the expense of another state in what has been termed the *security dilemma*. For Realists the security dilemma is averted by their faith in the *balance of power*. The balance of power keeps a sense of order to the 'anarchical society' (Bull 1977) of states as there is a mutual interest for the most powerful among them to work together and preserve the status quo. The security of the most powerful states rests on not allowing any one of them to tip the balance by becoming too powerful. For classical Realists, then, Security Studies was pretty much synonymous with International Relations.

The rise in significance of economic interactions between states in the 1960s and 1970s broadened the focus of International Relations beyond military power politics to incorporate economic power issues. Realist thought metamorphosed into 'Neo-realism', which maintained the focus on states and the pursuit of power but accepted that not everything that happens in the world is determined by military might. States could become powerful by concentrating on their economies (such as West Germany and Japan), being lucky enough to possess a key economic resource (such as the oil-producing states) or by exerting diplomatic influence in the world without the resort to arms or threat of armed action. In light of this a new sub-discipline of International Relations emerged considering such matters, *International Political Economy* (IPE). For (Neo) realists then, Security Studies became the military arm of International Relations and IPE its economic sister.

Box 1.1 The national interest

The idea of the national interest being pursued in foreign policy was central to the development of Realism in the post-Second World War years and continues to be very influential in both academic circles and in governments. The term seeks to encapsulate the point that governments need to act according to the interests of their own people even if this conflicts with the interests of other states and peoples. Hence the term tends to be employed by politicians when seeking to offer a justification for a policy considered by some to be immoral, such as a lucrative arms deal with a government known to oppress its population. Morgenthau brought the concept to prominence, stating that the fundamental aim of foreign policy must be to ensure: 'the integrity of the nation's territory, of its political institutions and of its culture' (Morgenthau 1982: 973). In a world of self-serving states this was best pursued by policies which seek to maintain or increase the power of the state.

The amorality of national interest is criticized by those who consider that morality can and should inform foreign policy just as it does domestic policy. In addition, the concept presupposes that sovereignty is the ultimate of all political goals which does not accord with the European experience, where it has been concluded by a number of governments that the voluntary 'pooling of sovereignty' is in the best interests of their administrations and their peoples. Defining what is and is not in the best interests of a state is also far from straightforward given the range of options open to governments in conducting their foreign affairs. Morgenthau and fellow arch Realist the US Foreign Minister Henry Kissinger famously argued over whether the war in Vietnam was in the US national interest.

In defence of the concept of national interest, for all its analytical shortcomings, it cannot be denied that many governments today do continue to use it as a basis for the conduct of their foreign policy. The Foreign Minister of Australia, in a 2002 speech in advance of the publication of a government paper 'Advancing the National Interest' states that: 'The Government has ensured that Australia's national interest is advanced in an ambitious yet pragmatic and clear-minded fashion. Because if we don't . . . no one else will' (Downer 2002).

Pluralism

Pluralism emerged as a paradigm of International Relations from the 1960s, made up of scholars unconvinced that Neo-realism had evolved far enough from Realism to take account of the changes that had occurred in the world since the 1940s. It began to be argued that adding the pursuit of economic power to the pursuit of military power by states was still too simplistic an understanding of world politics. Pluralists, as the term implies, consider that a plurality of actors, rather than just states, exert influence on the world stage. State dominance of International Relations was being eroded from above and below, the Pluralists contended. IGOs (such as the European Community and organizations of the United Nations) had become more

than expedient alliances and come to mould state policies together into common interests which sometimes redefined or contradicted 'national' interests. INGOs, such as pressure groups and Multi-national Corporations (MNCs), were becoming significant players on the world stage in their own right and were not necessarily acting in accord with their 'home' government. In addition, Pluralists built on the political philosophy of Liberalism to argue that the amorality of the national interest was not an appropriate guide to foreign policy. Individual people prosper from the mutual benefits inherent in cooperation and would find their interests better served in a world in which states and their interests, as defined by their governments, ceased to dictate their lives.

For Pluralists these developments were making the interactions of politics in the world more complex and varied. 'Low' politics issues, such as environmental change or economic development, were becoming international as well as domestic political issues. International Relations could no longer assume that all that happens in the world was related to a military or even an economic balance of power between states. This aspect of international affairs was important but not all-subsuming and an issue-based approach was necessary. This approach accepts that many non-military issues are legitimate concerns of International Relations and that they might be contended over without reference to military power on an increasingly busy world stage.

For Pluralists then, Security Studies was but a small sub-set of the broad subject that is International Relations.

Marxism

The Marxist paradigm of International Relations is related to but not synonymous with Marxist political thought. Proponents of the Marxist paradigm of International Relations are usually also *ideological* Marxists, but not necessarily so and, in political practice, Marxist governments have usually pursued foreign policies that are broadly Realist in character. For such Marxist, or *Structuralist*, thinkers the Neo-realist and Pluralist conversion to appreciating the importance of economic factors in the conduct of politics in the world was both belated and insufficient. Economic concerns, rather than military or issue-specific power, determine the fate of the world's peoples and always have done. In this view globalization is nothing new, it is merely the latest phase of the world's 'haves' exploiting the 'have nots'. Imperialism is not a relic of a bygone age but a persistent feature of a global system built on the capitalist logic of ever-increasing profit. From a Marxist perspective inter-state competition is a side-show to the 'competition' between the wealthy peoples of the world (most of the developed world and a small fraction of elites in the less-developed world) and the poor, in which there is consistently only one winner.

Marxists thus see International Relations as largely synonymous with IPE. Security Studies, as it has evolved, is superfluous since human and global security can only ever come through global, structural change. Military strategy serves global economic interests rather than national security interests. Wars are fought to preserve or maintain exploitative economic systems (i.e. over colonies or over the economic mastery of the whole system, such as in the Cold War). In this view the

fates of individuals are determined not so much by their states but by the wider global system, and only world socialist revolution could improve their prospects.

Social Constructivism

In the 1990s dissatisfaction with the three main paradigms of International Relations, and their myriad offshoots and hybrid theories, produced a range of theoretical challenges which coalesced into a fourth paradigm known as Social Constructivism. The way in which the Cold War ended and the panning out of the 'new world order' which followed, prompted a number of scholars to challenge many of the assumptions of the discipline across the paradigms. In particular Social Constructivism argued that understanding political events in the world necessitated more introspection and less grand abstract theorizing. The paradigm favours a more sociological approach and advocates a greater appreciation of the cultural dimension of policy-making. It began to be argued that perhaps the actors on the world stage do not really follow any kind of rational script, be it written in the language of self-interest or, mutual interest or dictated by economic circumstance. Perhaps, at least some of the time, foreign policy reflects parochial ideological or moral guidelines rather than objective gains. By the 1990s Ruggie, a lifelong Pluralist, contended that that paradigm and Neo-realism had come to share so much common ground, in assuming states to be rational gain-driven actors (only differing in *how* they gain) that they should henceforth be considered as a single paradigm of 'neo-utilitarianism' (Ruggie 1998: 1–39).

The USSR's voluntary 'defeat' in the Cold War, when Gorbachev negotiated a 'surrender' with the enemy for what he considered to be the good of his country, appeared to defy the logic of Realism and the national interest.[2] In the proceeding years the reluctance of the newly reunified Germany to use its enhanced physique to exert greater power in Europe, favouring instead throwing its weight behind European integration, appeared to offer greater evidence of a government acting according to ideas rather than interests. Constructivists consider that the three established paradigms all downplay the normative element of politics in attempting to build 'value-free' 'scientific' models to explain the actions of international actors.

Whereas Pluralists and Marxists tended to focus on other aspects of International Relations, leaving Security Studies to the Realists, Social Constructivists mounted the first concerted attack on the logic of Security Studies as it had developed during the Cold War years. Ontological questions largely ignored between 1940 and 1990 began to be asked. Who are being secured? Who are doing the securing? What is it to be secure?

Wide and narrow conceptions of security

This book adopts a broad and deep interpretation of security encompassing a varied range of perceived threats to humankind, which takes the subject area well beyond the framework of traditional treatments of international security politics that have tended to focus on military threats emanating from other states. This

broader approach to conceptualizing global security gained ground in the 1990s when the ending of the Cold War seemed, to many statesmen, academics and members of the general public, to herald a new era of international politics. In this 'new world order' the threat of global nuclear Armageddon had subsided, allowing previously marginalized issues to emerge from the shadow of superpower rivalry and register on the international political agenda. Such an approach to the subject was, however, articulated as far back as 1983 when Ullman defined a threat to security as:

> an action or sequence of events that (1) threatens drastically and over a relatively brief span of time to degrade the quality of life for the inhabitants of a state or (2) threatens significantly to narrow the range of policy choices available to a government of a state, or to private, nongovernmental entities (persons, groups, corporations) within the state.
>
> (Ullman 1983: 133)

Such an expansive interpretation of security found many critics among Realists, who were not shaken from their belief in maintaining a narrower focus on what constitutes Security Studies by the ending of the Cold War. Walt has forcefully argued this case: 'security studies may be defined as the study of the threat, use and control of military force' (Walt 1991: 212). Walt and the traditionalists fear that widening the definition of security risks rendering the concept redundant by making it too all-encompassing, and diluting the important task of analysing military threats and inter-state conflict. Underlying this fear is the belief of many Realists that military threats are actually more apparent in a post-Cold War world devoid of that traditional guarantor of state security, the military balance of power. This 'anti-new world order' thesis was epitomized by Mearsheimer's lament in 1990 that 'we will soon miss' the Cold War (Mearsheimer 1990). Some traditionalists consider the demise of the Cold War to signal a need for Security Studies to go 'back to basics' rather than broaden its base, since international politics shorn of the nuclear balance of power imposed by the two superpowers would find the need to rediscover lost arts of multilateral diplomacy, conflict resolution, fighting limited wars and conventional defence (Chapman 1992).

Although there is a case to be made that military threats in the twenty-first century are as apparent as ever, and perhaps even greater than during the Cold War, wideners and deepeners of security contend that they are not the only threats that face states, people and the world as a whole. Indeed, they never have been. Throughout history people have been killed by things other than soldiers and weapons, and states have been weakened or destroyed by things other than military conflict. Ullman argued that the security implications for states of demographic pressures and resource depletion needed to be taken on board alongside military threats from other states (Ullman 1983). This logic was developed further in a seminal article by Mathews towards the end of the Cold War which highlighted the need for states to give proper concern to the newly apparent threats posed by environmental problems such as ozone depletion and global warming (Mathews 1989). With the shadow of the Cold War lifted, many other 'wideners' emerged in Security Studies literature in the 1990s. Ayoob highlighted that internal rather than external threats were the principal security concern of most Less Developed Countries (LDCs) (Ayoob 1997). Peterson and Sebenius made the same point with

reference to that most developed and powerful state, the USA, positing that a crisis in education and a growing economic 'underclass' should be understood as security threats (Peterson and Sebenius 1992). Lynn-Jones and Miller addressed the need to give attention to a range of previously neglected internal and external threats such as virulent nationalism and the social impact of migration (Lynn-Jones and Miller 1995). Although viewed as unwelcome by traditionalists, such as Walt and Mearsheimer, this widening of security did not undermine the Realist logic of conventional Security Studies. The focus was still on the state system and seeing relationships between states governed by power. Widening was simply a case of extending the range of factors which affect state power beyond the confines of military and trade affairs.

An argument for a more profound widening of security than tacking on some non-military issues to the range of threats to states emerged through the 1990s in a new approach that came to be characterized as the 'Copenhagen School'. Buzan trailblazed this approach in the early 1990s (Buzan 1991) but it crystallized later in the decade, when he teamed up with Waever and de Wilde in producing the groundbreaking work *On Security*.

> Threats and vulnerabilities can arise in many different areas, military and non-military, but to count as security issues they have to meet strictly defined criteria that distinguish them from the normal run of the merely political. They have to be staged as existential threats to a referent object by a securitizing actor who thereby generates endorsement of emergency measures beyond rules that would otherwise bind.
>
> (Buzan *et al.* 1998: 5)

Hence the Copenhagen School went further than the 'wideners' in two ways. First, they facilitated the consideration of non-military issues, even if they had no military dimension, so long as they represented 'existential threats'. Second, the approach also partially deepened the meaning of security by arguing that issues can be considered matters of security even if they are not threatening states (see Table 1.1). A key influence on this was the largely unforeseen revival in nationalism in Europe being played out in the post-Cold War landscape of Eastern Europe, particularly in Yugoslavia. The fact that conflict and the disintegration of a state occurred not as a result of a state security dilemma but because of internal 'societal security' dilemmas prompted an attempt to incorporate sub-state groups into security analysis.

The deepening of security

Going beyond the Copenhagen School in extending the domain of Security Studies is the 'deepening' approach led by Pluralists and Social Constructivists. Deepeners embrace the concept of 'human security' and argue that the chief *referent object* of security should not be the state or certain sub-state groups, such as stateless nations, but the individual people of which these institutions/groups are comprised. Falk, for example, considers that security ought to be defined as 'the negation of

insecurity as it is *specifically* experienced by individuals and groups in concrete situations' (Falk 1995: 147). This is a significant leap from widening which, as Falk describes, 'still conceives of security largely from the heights of elite assessment, at best allowing the select advisor to deliver a more enlightened message to the ear of the prince' (Falk 1995: 146). The origins of the Social Constructivist challenges to the Security Studies orthodoxy can be traced to the *Critical Theory* movement that rose to prominence in the early 1990s by challenging established concepts of both the Realist and Pluralist approaches on the grounds that ideas like sovereignty and security are not objective and have been constructed to reflect Western interests. Ken Booth, a self-styled 'fallen Realist', led this challenge, arguing in contradiction to the assumptions he once shared that 'Security and emancipation are in fact two sides of the same coin. It is emancipation, not power and order, in both theory and practise, that leads to stable security' (Booth 1991: 539).

The root of the problem with the traditional approaches to security politics is what Wyn-Jones, like Booth a critical theorist, describes as the 'fetishization of the state' (Wyn-Jones 1999: ch. 4). This tendency in International Relations is not resolved by the Copenhagen School approach. The Copenhagen School approach accepts the idea that non-military issues can be securitized and that the referent object of this can be something other than a state but maintains the logic that only the state can be the *securitizing actor* (i.e. decide whether the issue is acted upon as a mater of urgency). Hence statecentricism is maintained, if in a subtler form. The practical limitation with this is that not only are the traditional security agents of the state (i.e. the army, externally, and police, internally) often inadequate for dealing with security problems affecting the people of that state, they are often a chief cause of those problems. Buzan accepts that states can be the source of threats rather than protection for individual people but considers that this is a property of only certain types of states. 'Strong states' co-existing in 'mature anarchy', which have increasingly become the norm through democratization and the development of international human rights law, can be relied upon to secure individuals (Buzan 1991: 98–111). Hence Buzan and the Copenhagen School are Neo-realist wideners, albeit of a much more refined form than those who had preceded them.

While the practical concern that widening the focus of Security Studies should not distract attention from military threats has some validity, the intellectual rationale for maintaining a narrower focus is weak. In a book taking a wider approach to security (though not as wide as the Copenhagen School), Wirtz contends that 'if the threat of force, the use of force or even the logistical or technical assistance that can be supplied by military units does little to respond to a given problem, it probably is best not to treat the specific issue as a security threat' (Wirtz 2002: 312). He also scoffs at the idea that global warming should be construed as a security issue, stating: 'It is not exactly clear . . . how military forces can help reduce the build-up of greenhouse gases in the atmosphere' (Wirtz 2002: 311). This view gives an indication of how blinkered the mainstream study of security remains. Defining an issue as one of security on the basis of whether it involves military forces strips the term of any real meaning. Security is a human condition. To define it purely in terms of state bodies whose aim it is to help secure their state and people in a certain dimension, rather than the people whose security is at stake, is both odd and nonsensical. This way of framing what is and what is not a security issue is akin to

Table 1.1(a) Single biggest fears in the world (%)[a]

1	Crime	27
2	Terrorism	15
3	Health/economic insecurity	13
4	Accidents/natural disasters	12
5	War	8

Note

[a] Based on a survey of 6043 people in 11 countries: Brazil, Canada, France, India, Japan, Russia, South Africa, Thailand, Turkey, UK, US. They were asked to name the single greatest threat to their life.

Source: Human Security Centre (2005: 50–53).

Table 1.1(b) Single biggest fears for Africans (%)[a]

1	Economic insecurity[b]	37
2	Disease[c]	21
3	Corruption	7
4	Illiteracy	6
5	War	6
6	Political conflict	5
7	Environmental destruction	3

Notes

[a] BBC World Service poll of 7671 people from Kenya, Tanzania, Mozambique, Ghana, Nigeria, Cameroon, Malawi, Zambia, Rwanda and Ivory Coast.

[b] 'Economic insecurity' conflated from the poll's categories of 'poverty' (24%), 'unemployment' (10%) and 'poor economic development' (3%).

[c] This category collates 'HIV/AIDS' (14%) and 'poor health' (7%).

Source: BBC (2004).

saying that children being taught to read by their parents are not being educated or that happiness does not exist unless it is induced by the performances of state-sponsored clowns. A security issue, surely, is an issue which threatens (or appears to threaten) one's security. Defining a security issue in behavioural terms rather than excluding certain categories of threats because they do not fit conventional notions of what defines the subject area gives the term some objective meaning. If people, be they government ministers or private individuals, perceive an issue to threaten their lives in some way and respond politically to this, then that issue should be deemed to be a *security* issue.

Hence, by adopting the human security framework, the notion of security is recast as a social construct stripping away the need for analysts to speculate on what *they think* is the most threatening of the myriad issues on the contemporary international political agenda and concentrate instead on analysing how and why certain issues are actually perceived of as vital and responded to in an extraordinary way by decision-makers. This approach is appropriate since it is demonstrable, through opinion polls, that people do think of their security in different terms today

than they did during the Cold War (see Table 1.1). It is also observable in various ways that the international political agenda has become far more diverse since 1990 with governments giving greater priority to issues such as environmental threats, drugs and public health. Even explicitly military organizations, such as NATO, are focusing increasingly on non-military activities.

Who's securing whom?

The preoccupation of Security Studies with the state is very much a relic of the Cold War. In some ways this is understandable since the discipline of International Relations, and its sub-discipline Security Studies, only emerged in the 1930s and was thus very much forged in an era of unprecedented military threats. Realism was in the ascendancy at the close of the Second World War since the application of force had proved its worth in curbing aggression and restoring order in Europe and Asia. Pre-Second World War international cooperation, in the form of the League of Nations, and 'softly-softly' appeasement diplomacy *vis-à-vis* aggressors failed comprehensively to keep the peace. In addition, the total war of the Second World War and the 'total phoney war' of the Cold War, whereby whole populations were threatened by state quarrels in a way not seen before, bound individuals to the fates of their governments as never before.

Hence in the 1940s the twin concepts of 'national interest' and 'national security' took centre stage in International Relations and Security Studies. Walter Lippmann, an American journalist who popularized the term 'Cold War', also defined the nature of security that would characterize that era. 'A nation has security when it does not have to sacrifice its legitimate interests to avoid war and is able, if challenged, to maintain them by war' (Lippmann 1943: 32). The US's new pre-eminence and preparedness to act on the world stage in 1945 was an additional key factor in promoting this approach. The government of the US found itself in a position of unprecedented dominance and compelled to utilize its power in a way that it had shown little inclination to do in the past. Using the precursor 'national' in a government's political rhetoric is always a device to convince society to rally behind the government and garner legitimacy for a potentially controversial policy. The US government was embarking on a radical new direction in its foreign policy and needed its society united and on board for the journey (McSweeney 1999: 20–21). US academic and godfather of Realism in the 1940s and 1950s Hans Morgenthau summarized this new dynamic.

> The nation state is to a higher degree than ever before the predominant source of the individual's moral and legal valuations and the ultimate point of reference for his secular loyalties. Consequently, its power among the other nations and the preservation of its sovereignty are the individual's foremost concerns in international affairs.
>
> (Morgenthau 1972: 32)

The scale of the threat posed by nuclear war in the second half of the twentieth century served to weld the security of individual people in the US and elsewhere to

that of their governments. The state would assume the responsibility for protecting its citizens and demand their loyalty in return in a strengthened version of the 'Social Contract' relationship articulated by political philosophers such as Hobbes and Locke from the seventeenth century. Hobbes' advocacy of the need for the *Leviathan* (meaning a strong state) to save individuals from the dangerous anarchy that would otherwise result from the pursuit of their own selfish interests was a major influence on Morgenthau and the Realists. In the late twentieth century the anarchy was the international state system and the dangers came, to a greater extent than ever before, from other states.
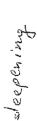
Hence the Realist approach to International Relations represented a revival of the understanding that the state was crucial to securing the lives of its citizens in a different guise. In between Hobbes and Morgenthau, however, political philosophy and state governance in Europe and North America was more influenced by Liberalism and a very different notion of security. Eighteenth-century Liberal philosophers were alarmed that the social contract had become overbalanced and that the Leviathan was endangering rather than protecting its individuals. Paine, Montesquieu, Mill and Smith all referred to 'security' in their notable works, and Bentham saw security and liberty as synonymous, declaring that 'without security equality could not last a day' (Bentham 1876: 96).

McSweeney observes that security over time had come to be defined in International Relations solely as an adjective rather than a noun, or as 'a commodity, rather than a relationship' (McSweeney 1999: 15). The human part of a human condition had been lost and the term had become synonymous with *realpolitik*, the interest of the state. Military might and the application of the 'national interest' can secure lives but it can also, of course, imperil them. In addition, human lives can be imperilled by a range of issues other than military ones. A thorough application of security in the study of global politics must surely recognize this or else admit that it is a more limited field of enquiry; 'War Studies' or 'Strategic Studies', for example. The conceptualization of International Relations, like the conduct of International Relations, was very much frozen in time between 1945 and 1990 (see Table 1.2).

Table 1.2 Narrow, wide and deep conceptions of security

Referent object of security	Types of issues		
	Military	Non-military	
		Using military means	Unsolvable by military
State	Narrow	Wide	Neorealists
Non-state actor			Copenhagen School
Individual			Human Security

[handwritten left margin: deepening]

[handwritten below table: The State is the "securitizing actor"]

The international political agenda

The meaning of 'security' is not just an arcane matter of academic semantics. The term carries significant weight in 'real world' political affairs since threats to the security of states have to be a priority for governments and threats to the lives of people are increasingly accepted as more important than other matters of contention. The need to widen the meaning of security in global politics was recognized by prominent statesmen long before it achieved a certain fashionability following the end of the Cold War. In the late 1970s the Independent Commission on International Development Issues (ICIDI), chaired by former West German chancellor Willy Brandt and including the former premiers of the UK and Sweden, Heath and Palme, concluded in their influential report that:

> An important task of constructive international policy will have to consist in [sic] providing a new, more comprehensive understanding of 'security' which would be less restricted to the purely military aspects. . . .
> Our survival depends not only on military balance, but on global cooperation to ensure a sustainable biological environment based on equitably shared resources.
>
> (ICIDI 1980: 124)

The Brandt Report helped raise the profile of poverty as an international issue (see Chapter 4) but global security politics continued to be focused on military matters in general, and the Cold War in particular, until the passing into history of that conflict at the end of the 1980s. As with the academic treatment of security, however, it is important to remember that the notion that the conduct of international security politics should be about non-military as well as military issues was not born of the 1990 peace dividend. Rather it first emerged in those two previous eras of Idealist optimism which followed the twentieth century's other two global conflicts. Although its chief historical legacy is a failure to keep the peace, the League of Nations first implemented the idea that some lateral thinking was required to avert war by incorporating within its system of organizations, alongside conflict resolution mechanisms, 'specialized agencies' focusing on health and welfare. The Second World War, which prompted the dissolution of the League, led the United Nations to change the military approach to security of its predecessor, more in line with Realist logic, but it still persisted with the lateral approach. The specialized agencies were retained and the UN Charter declares openly as an aim 'the creation of conditions of stability and well-being which are necessary for peaceful and friendly relations among nations' (Article 55). In addition, the Constitution of the World Health Organization (WHO), the largest in the widened roster of specialized agencies taken under the UN's wing, explicitly states that human well-being is a precondition for world peace (see Chapter 7). The UN also went further than the League of Nations in for the first time giving international expression to the idea of keeping the peace for individual people as well as states through the enshrinement of human rights, thus moving towards a deepened understanding of security.

In the 1990s the UN was able to revive and further develop this line of thinking within the concept of human security.

> The concept of security must change – from an exclusive stress on national security to a much greater stress on people's security, from security through armaments to security through human development, from territorial to food, employment and environmental security.
>
> (UNDP 1993: 2)

Probably the first articulation of human security in international politics came two years earlier at a Pan African conference co-sponsored by the UN and the Organization for African Unity.

> The concept of security goes beyond military considerations. [It] must be construed in terms of the security of the individual citizen to live in peace with access to basic necessities of life while fully participating in the affairs of his/her society in freedom and enjoying all fundamental human rights.
>
> (African Leadership Forum 1991)

The UNDP line has been endorsed by other UN agencies, in the General Assembly and by former Secretary General Kofi Annan. The more 'Realist' element of the UN system, the Security Council, has been less radical but has become a 'widener', if not a 'deepener'. In 2000 the Security Council passed a Resolution on a non-military issue for the first time when it debated the global HIV/AIDS pandemic (see Chapter 7).

Many states have come to take a widened approach to security since the 1990s. The US Clinton Administration made extensive use of academic advisers and a burgeoning literature on the 'national security' imperative of taking on board non-military concerns now that the Soviet threat had receded. The impact of this was made explicit in the 1994 'National Security Strategy', an annual foreign policy manifesto. 'Not all security risks are military in nature. Transnational phenomena such as terrorism, narcotics trafficking, environmental degradation, rapid population growth and refugee flows also have security implications for both present and long term American policy' (White House 1994: 1). Clinton's widening approach to security owed much to his special adviser Strobe Talbot who, in turn, was inspired by Joseph Nye's concept of 'soft power' (Nye 1990). Soft power for Nye denotes the non-military dimension of state power, particularly rooted in the world of information. For the US government being 'on top' of information on global issues was useful not only for better comprehending problems such as AIDS and transnational crime but also for advancing the USA's standing in the world. Explicit recognition that the protection of US citizens was a domestic as well as a foreign policy matter came in the aftermath of the September 11th 2001 terrorist strikes on New York and Washington with the launch of a new government department for 'Homeland Security'.

Fewer countries have taken the more radical step of deepening as well as widening in embracing human security. The Canadian government, like its southern neighbour, was influenced by Nye but has gone further and repeatedly expressed its support for human security in foreign policy statements. Canada's Foreign Minister from 1996 to 2000, Lloyd Axworthy, advanced the concept rhetorically in the UN General Assembly and other global fora and practically, by being a leading advocate

for the creation of the International Criminal Court. Cynics have suggested that this strategy was just a tactical move by the Canadian government to raise the diplomatic profile of a middle-ranking power in an exercise of populism (McDonald 2002: 282). Axworthy's advocacy of 'soft power' gives some credence to this since Nye's concept is ultimately concerned with the advancement of state interests rather than altruism or the global interest, but the Canadian government has done much to further global political responses for the common good. The Canadians, for example, have been at the forefront of campaigns to ban the use of land-mines and reform the UN Security Council so that it is less constrained by power politics.

Perhaps most significantly for the advancement of deepened security the Canadian government signed a declaration with its Norwegian counterpart at the 1998 Lysoen Conference launching the Human Security Network. This network advocates the development of global policies focused on human interests, whether or not these happen to coincide with state interests. By 2007 the network had expanded to include eleven other states, both geographically and politically diverse (Austria, Chile, Costa Rica, Greece, Republic of Ireland, Jordan, Mali, Netherlands, Slovenia, Switzerland and Thailand).

> Human security has become both a new measure of global security and a new agenda for global action. Safety is the hallmark of freedom from fear, while well-being is the target of freedom from want. Human security and human development are thus two sides of the same coin, mutually reinforcing and leading to a conducive environment for each other.
>
> (Human Security Network 1999)

The securitization of issues

It is clear that designating an issue as a matter of security is not just a theoretical question but carries 'real world' significance. The traditional, Realist way of framing security presupposes that military issues (and certain economic issues for Neo-realists) are security issues and as such must be prioritized by governments above other 'low politics' issues, important though these might be.

As stated earlier, governments do tend to be Realist in their foreign policies, and this high politics/low politics distinction is evident in the level of state expenditure typically allocated to the achievement of military security as opposed to other issue areas. The government of South Africa trebled its allocation of the state exchequer for fighting AIDS for 2002–03 to $1 billion from the previous financial year. This was a significant response by the government to criticism that it had not done enough to tackle this massive threat to life. However, the increased expenditure needs to be set in context. For the same financial year the slice of the budget set aside for military defence was $21 billion. However, there seems little doubt that few South African citizens would consider the prospect of armed invasion from Mozambique, Zimbabwe or any other state more of a threat to their lives than AIDS.[3] Around five million people in South Africa (11 per cent of the population) are infected with HIV, and AIDS is the country's biggest killer, claiming an estimated 40 per cent of all deaths in 2002 (Dorrington et al. 2002). In comparison, South Africa has no obvious external military threat. Straight comparisons between government

expenditure on different areas are problematic since different policy goals cost different amounts of money. Similarly, you could posit that South Africa's lack of military adversaries is a measure of the success of its defence policy. Even if this were to be accepted, however, the threat of AIDS remains acute in South Africa and there is little doubt that more could be done to alleviate the problem. The government of poorer Uganda, for instance, cut HIV prevalence by half in the late 1990s through a concerted public information campaign (Ammann and Nogueira 2002).

South Africa is by no means unusual in such a disparity of priorities and, indeed, has done more than most countries to shift priorities away from military defence if you bear in mind that, in the early 1990s, it became the only state in history to unilaterally disarm itself of nuclear weapons. The proportion of South Africa's Gross Domestic Product (GDP) spent on military defence is 1.5 per cent and the overall proportion spent on health is 3.3 per cent (UNDP 2002). This is pretty much in line with most governments not involved in major military operations. Military threats are, of course, more apparent to some countries than others; thus global figures give a better insight into the balance between health and defence expenditure. The scale of threats to the world as a whole is quantifiable and, as a result, the misprioritizing of expenditure becomes obvious. World military expenditure accounts for 2.5 per cent of global GDP (SIPRI 2006), while world health expenditure makes up 7.9 per cent of global GDP (WHO 2001b). Over one-third of the world's health expenditure is private and so cannot be considered as government prioritizing of health (except insofar as it is considered as an alternative to public health). Overall, then, governments allocate about twice as much money to health as to military security. Consider this in relation to the relative threat to people's lives posed by military and health threats (Table 1.3).

In considering the figures in Table 1.3 a few qualifications need to be taken into account. It is entirely natural to die of ill-health since we all die in the end, and 'old age' or 'natural causes' make up a proportion of the deaths by 'disease'. However, 32.5 per cent of all deaths are from communicable diseases which cannot be thought of as inevitable, and many of the people who die from non-communicable diseases die 'prematurely' from diseases such as cancer which are, at least partially, avoidable. In addition, 'disease' incorporates deaths from malnutrition which are most certainly politically avoidable (see Chapter 4). In addition, while some accidents may be unavoidable and, to a certain extent, 'natural', this is, in fact, quite a pretty small proportion, even for 'natural disasters' (see Chapter 9).

Table 1.3 Causes of death in the world in 2001 (%)

Disease	91
Miscellaneous accidents	4.1
Road traffic accidents	2.1
Suicide	1.5
Homicide	0.9
'Collective violence'	0.4
Natural disasters	0.05

Source: WHO (2002b).

'Collective violence' subsumes wars and all 'organized' killings including international war, civil war, political massacres (e.g. genocide), non-state violence (e.g. terrorism) and gang crime. Of these categories international war is by far the smallest cause of fatalities. It is an indication of how the study of security in International Relations has become skewed over time that the issue most associated with the discipline is a comparatively minor threat to most people in the world. Of all of the security threats considered in this book the average citizen of the world is least threatened by military action from another state or a foreign non-state actor. Threats are invariably close to home and familiar. This is exemplified by the fact that more people kill themselves each year than are killed in both homicides and 'collective violence' combined. Suicide is not considered in this study since it is a voluntary death, but this is an area in which the WHO has recently increased research since there are clearly underlying reasons why people, in increased numbers, take their own lives.

Security 'wideners', including some Realists, accept that non-military issues can become 'securitized' and hence be privileged with 'national security' status. The issues securitized in this way, however, are arbitrarily defined. The tendency has been, on the one hand, to select non-military issues which military forces can help deal with, such as fighting drugs barons abroad or assisting in civil emergency operations. On the other hand, 'securitization' has sometimes been granted to external non-military problems on the basis that they have domestic military repercussions. Issues such as AIDS or environmental degradation in distant countries may destabilize regional balances of power and trigger military conflict into which the onlooking government may be drawn or affected in some capacity. Hence, with widening, the logic of national interest and prioritizing high politics is not really challenged. It is more of a refinement of the way in which external threats are calculated and a case of allowing 'low politics' to rise to prominence in the absence of major 'high politics' threats. Military defence is still being prioritized and security is still being defined as a very specific noun rather than as an adjective.

The political practice of widening security has sometimes proved counter to the interests of the people affected by the issue due to a clumsy militarization of tasks previously performed by more appropriate personnel. Recent post-conflict 'nation-building' exercises in Afghanistan, Iraq and the former Yugoslavia have been notable for a militarization of development projects, with remaining armed forces being redeployed to reconstruction tasks and 'winning the hearts and minds' of the locals. Such 'humanitarian' roles may have some beneficial results for local populations but are, of course, ultimately driven by military expediency rather than by human security. The disillusionment of pressure groups with this phenomenon was made clear in 2004 when Médecins Sans Frontières pulled out of Afghanistan with its President, Dr Rowan Gillies, declaring: 'we refuse to accept a vision of a future where civilians trapped in the hell of war can only receive life-saving aid from the armies that wage it' (Gillies 2004). One consequence of this phenomenon has been a backlash against the concept of human security by development theorists as merely representing the militarization of development. Many academic applications of the concept have, indeed, taken the approach that it is a 'merging of development and [military] security' (Duffield 2001) but, for the concept to have real meaning, it is important not to conflate it with 'widened security' and to recognize that the human

securitization of development puts the security of the vulnerable centre stage, not the geopolitical interests of states.

The Copenhagen School approach takes a step forward from widening in using the methodology of the 'speech act' to define when an issue becomes a security issue. In this approach security issues can be military or non-military but are distinguishable by the urgency that is attached to them in political discourse. 'If by means of an argument about the priority and urgency of an existential threat the securitizing actor has managed to break free of procedures or rules he or she would otherwise be bound by, we are witnessing an act of securitization' (Buzan *et al.* 1998: 25). This methodology allows for a more behavioural definition of security than 'conventional widening' since issues given priority by people other than the government are included in the framework. However, this approach still leaves the act of securing threatened people to the state. This can result in life-threatening issues being excluded from consideration because the government still chooses not to prioritize them or because the voices speaking for securitization are insufficiently loud. Security threats particular to women, for example, tend to be marginalized because of difficulties in 'being heard' among the 'speakers of security' in society (see Chapter 5). Non-military issues are more easily accommodated by the speech act approach but there is still a large measure of subjectivity and relativism in leaving the demarkation to governments rather than objective analysis.

Security *is* subjective in that individual fears do not necessarily tally with the reality of threats but this is a better guide to the issues that matter than the priorities of governments. The security of governments does not equate with the security of the people they are meant to represent. This has already been acknowledged by governments in sanctioning the development of global human rights law and is still evident in the existence of global systemic failings such as the widespread persistence of hunger and treatable diseases in a world with sufficient food and medicine to counter them (Table 1.4).

Table 1.4 Security threats

Threats	The threatened			
	Individuals	Societal groups	Government	The world
Individuals	Crime, 'hate crimes'			
Societal groups	'Hate crimes'	Genocide	Civil war	
Government	Human rights abuses	Genocide, politicide	War, economic sanctions	Nuclear war
Global	Poverty, industrial accidents, pollution	Global warming	Global warming	
Non-human	Disease, natural disasters			Asteroid/ comet collision

Conclusions

If politics is about the 'authoritative allocation of values' (Easton 1965: 96), issues arise over contention regarding certain values. In International Relations the traditional assumption has been that the core value is the preservation of state sovereignty and that this automatically commands pride of place at the top of the domestic and international political agendas. However, it has become increasingly evident over the years that values other than this are becoming prioritized and that the pursuit of state security can often undermine human security. Political issues are myriad but can ultimately be distilled down to contention over the allocation of certain core values such as security, economic gain and altruism.

It is perfectly natural to give priority to security over the other values since it is a precondition for realizing their allocation. If security is considered from the perspective of individual people, however, issues are less easily compartmentalized. Most issues of state altruism, such as the granting of emergency foreign aid, are matters of life and death to the people affected. Many issues of state economic gain, such as altering the terms of international trade, are security matters for people in other states affected by the change. State altruism exists in the world, as do some limitations to the pursuit of economic gain, but not to the same prominence as in the domestic politics of states where individual people are empowered with votes and/or rights of citizenship. Individual security is recognized in democratic states as overriding other values (at least most of the time), as is evidenced by health and safety laws restricting business activities and 'social security' laws. In global politics issues of life and death frequently are not treated as priorities because they do not coincide with state gain or security. The blinkered pursuit of profit can enrich some but imperil others. If saving others from abuse or disaster is seen as an act of charity rather than political duty, it will only happen infrequently and selectively. Actual threats to people (Table 1.3) and perceived threats (Table 1.1) are so far removed from the way in which issues are conventionally ordered on the political agenda by states that International Relations theory and international political practice needs to find ways of accommodating them, or cease to be connected in any meaningful way with human behaviour and needs.

Human rights policies have developed significantly in recent decades but this has not yet come close to making *all* humans secure. Governments tend to prioritize the rights and lesser interests of their own citizens over the fundamental rights of others, and human rights are still routinely treated as secondary to 'national security' issues where the two are perceived to clash. The recent tightening up of migration laws and the increased surveillance of foreign citizens in the current 'war against terrorism' in the USA and Western Europe represent cases in point. The lives of far more people in today's world, however, are imperilled by human rights abuses than by terrorist and conventional military attacks. Throughout the total war era of the twentieth century a case could be made that the security of individuals was inextricably tied up with that of their states but that era has now passed into history. Today the issues that threaten people's lives bear such little relation to those issues which dominate the international political agenda that statecentricism is impeding both the study and the practice of that most fundamental of political concerns: securing people. The word *security* derives from the Latin *sine cura*, meaning 'without

care'. As such it is a fairly elastic term since the 'cares' may be major fears or minor frustrations. Complete freedom from care is both impractical and undesirable. Human life that does not have any everyday concerns is unimaginable and a complete absence of risk-taking in society would eliminate much beneficial scientific progress and entertainment from life. As such this inquiry into security in global politics focuses on the most meaningful fears there are: threats to the lives of people.

Key points

- The study of global security is a sub-set of the discipline of International Relations.
- The Realist paradigm of International Relations has traditionally dominated the study of security and focused enquiry on military security in inter-state relations.
- The end of the Cold War brought about a reappraisal of the Realist orthodoxy in Security Studies since the scale of military threats had receded and the logic of the balance of power as a necessary condition for peace had been undermined.
- Some Neo-realists contend that Security Studies should still be preoccupied with state security and military issues or risk becoming too diverse a subject to give proper treatment to these still vital concerns.
- 'Wideners' in Security Studies (including some Neo-realists) favour extending the subject to incorporate non-military issues which affect the security of the state.
- A 'deepening' approach to Security Studies, favoured by the Pluralists and Social Constructivists in International Relations, widens the range of issues to be considered but also shifts the focus of the discipline to the security of people rather than of states; that is, human security.

Notes

1 Non-governmental actors are taken to include all private organizations with political influence. Hence, alongside those groups conventionally thought of as 'NGOs', pressure groups, the term also covers multi-national corporations (MNCs), non-state 'terrorist' groups, organized crime groups and religions.

2 Although it may be argued that, unusual though this 'surrender' was, it was essentially a victory for the power politics approach of the USA in the 1980s which compelled the USSR to capitulate.

3 Four per cent of South Africans identified war as their biggest security threat in a 2005 opinion poll (Human Security Centre 2005).

Recommended reading

Buzan, B., Waever, O. and de Wilde, J. (1998) *Security. A New Framework for Analysis*, Boulder, CO, and London: Lynne Rienner.

Collins, A. (ed.) (2006) *Contemporary Security Studies*, Oxford: Oxford University Press.
Falk, R. (1995) *On Humane Governance. Toward a New Global Politics*, Cambridge: Polity Press.
Mathews, J. (1989) 'Redefining Security', *Foreign Affairs* 68(2): 162–177.
McSweeney, B. (1999) *Security, Identity and Interests. A Sociology of International Relations*, Cambridge: Cambridge University Press.
Morgenthau, H. (1972) *Politics Among Nations*, 5th edn, New York: A. Knopf.
Ullman, R. (1983) 'Redefining Security', *International Security* 8(1): 129–153.
Wyn-Jones, R. (1999) *Security, Strategy and Critical Theory*, Boulder, CO: Lynne Rienner.

Useful web links

Human Security Network: http://www.humansecuritynetwork.org/
Stockholm International Peace Research Institute (SIPRI): http://www.sipri.se/
United Nations Development Programme: http://www.undp.org/
World Health Organization's *World Health Report*: http://www.who.int/whr/en/

Chapter 6

Environmental threats to security

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> We want the islands of Tuvalu, our nation, to exist permanently forever and not to be submerged underwater merely due to the selfishness and greed of the industrialized world.
> Saufatu Sopoanga, Prime Minister of Tuvalu, at the 2002 World Summit on Sustainable Development (Sopoanga 2002)

Security threats emanating from the 'environment' present humanity with three key political dilemmas:

1   The threats are usually less clear-cut and direct than the other types of threat considered in this study. They are, as Prins describes, 'threats without enemies' (Prins 2002: 107). The threat posed by issues such as global warming and ozone depletion may be profound but they are, in the main, still perceived as longer-term creeping emergencies rather than imminent disasters.
2   Countering the threats is usually costly and requires a significant compromising of economic interests.
3   The threats can often only be countered by globally coordinated political action.

The scale of the human security threat posed by environmental change is difficult to quantify but it is undoubtedly significant and, to a large extent, avoidable given the political will. Probably the most 'securitized' issues of environmental change, at different times over the past 40 years, have been resource scarcity due to population growth, ozone depletion and global warming. The fact that the first of these 'crises' never really materialized and the second was partially averted by reasonably effective global political action has served to reinforce the notion that contemporary threats posed by environmental change, such as global warming, are potential rather than actual threats and perhaps exaggerated. As a result, despite gradually becoming more of a feature on the global political agenda, environmental issues have tended not to be placed towards the top of the international political 'intray' of most governments.

However, while it is true to suggest that the chief threats posed by global warming are potential ones which could yet be averted, it is also increasingly apparent that future threats can only be averted by immediate action and that some of the human security impacts are already being felt throughout the world. When UK government Chief Scientist David King announced in a 2004 guest editorial for the journal *The Scientist* that climate change represented a bigger threat than terrorism, he attracted considerable media attention and embarrassed his employers for mounting such a thinly veiled attack on their US allies (King 2004). Even allowing for the lack of certainty in ascribing any given death to global warming, there can be very little doubt that King was stating an obvious truth. The World Health Organization suggests that around 150,000 deaths a year since the early 1970s can be attributed to the gradual rise in temperatures across the world (McMichael *et al.* 2004). Even if this is taken to be a wild exaggeration, it must still dwarf the death-toll attributable to terrorism. Indeed, even if we take global warming out of the equation, it has been estimated that between a quarter and a third of all deaths in the world by disease have environmental causes, such as air and water pollution

(Smith *et al.* 1999: 573). Environmental threats, thus, are not just theoretical future scenarios of apocalypse, they are a 'clear and present danger'.

Some domestic political systems have evolved to a position where the first and second of the aforementioned dilemmas can be overcome. Pressure group advocacy and government learning have gradually led to long-termist policies being developed mitigating against threats to both human and non-human state residents. Environmental policies in Western Europe and North America have seen economic interests compromised to limit uncertain threats posed to human health and to wildlife. The third dilemma is, of course, beyond governments acting in isolation but is slowly coming to be addressed by an evolving global epistemic community and polity. Transnational pressure groups and scientific communities are simultaneously pushing governments to rethink the first and second dilemmas and to provide the means for achieving the third. Central to this process is the slow but inexorable realization by governments that environmental threats are 'real' and the 'national interest' may not always serve their citizens' interests. Political dilemmas can always be resolved when this is understood. The three dilemmas presented here are not, in fact, unique to environmental politics. For most states very similar compromises have been made in the name of military security, since military threats are usually not immediate and require great expense and international diplomatic cooperation to deter. Global, rather than state, political action is necessary for the enhancement of human security in all of the issues considered in this study but it is most crucial in the realm of environmental security.

The rise of environmental issues in global politics

Global environmental politics is a relatively 'new' dimension of International Relations, and of politics in general, but this is not to say that problems of environmental change are in any way new. The extinction of certain species of animals due to human recklessness (for example, the Dodo) and the diminution of woodland areas through over-exploitation are centuries-old phenomena. Ecologism emerged as a science in the nineteenth century, bringing recognition of natural systemic phenomena such as food chains, the carbon cycle and evolution, and an understanding of humanity's place within the environment. George Perkins Marsh's *Man and Nature* in 1864 is widely regarded as the first book to use empirical data to prove the effect of human activity on woodlands and waterways (Marsh 1965). Policies to conserve nature, and pressure groups campaigning for conservation, began to emerge in the USA and Western European states in the latter part of the nineteenth century. Yellowstone became the USA's first National Park in 1872 and the British Royal Society for the Protection of Birds (RSPB) became the world's first conservation pressure group (and later the first international pressure group when it extended its membership to countries of the British Empire).

The origins of international policy on an issue of environmental change can be traced back as far as 1889 and an international convention to prevent the spread of the disease *phylloxera* in grapes. This and other agreements such as the 1902 Convention on the Protection of Birds Useful to Agriculture (the first international instrument on animal conservation) were, however, motivated by economic rather

than environmental concerns. Wine and internationally traded food were at issue rather than the flora and fauna. At this stage the more abstract value of conservation for reasons of aesthetics or empathy with animals beginning to be witnessed in the politics of North America and Western Europe could not find its way on to the international political agenda, dominated by issues of military and economic security (and particularly the former).

The 1960s saw a significant rise in prominence of environmental issues in North America and Western Europe and the emergence of environmental politics, beyond purely economic concerns, on the international political agenda. A major factor in this was the publication of Rachel Carson's hugely influential pollution polemic *Silent Spring* in 1962 (see Box 6.1). *Silent Spring* most notably highlighted the effects of the insecticide dichlorodiphenyltrichloroethane (DDT) on wild animals, vegetation and rivers, and quickly influenced US insecticide policy on conservation grounds. The book also, however, considered the implications for human health of indiscriminate insecticide use and this aspect began the process of forcing environmental change on to the global political agenda and securitizing some of the many issues in this area. In the wake of *Silent Spring* new political concerns began to be voiced, such as the effects of *acid rain* (rainwater polluted by industrial emissions), and older issues such as oil pollution by tankers were given far more prominence.[1]

Heightened concern with the human health effects of pollution and other forms of environmental change at the global level was confirmed by the convening by the UN of the 1972 Conference on the Human Environment (UNCHE) at Stockholm. The Conference was boycotted by the USSR and its Eastern Bloc allies but attended by representatives of 113 states. The Stockholm Conference did not directly produce a new body of international law but had a catalytic effect in identifying some key principles which challenged the conventions of state sovereignty and in putting environmental change permanently on the agenda of international politics. 'Principle 21' confirmed that states retained full sovereign authority over resources located in their own territory but charged them with the responsibility to exploit them with regard to the effect of this on the environment of other states. The parties to the Conference also agreed to acknowledge the concept of a 'common heritage of mankind' whereby resources located outside of territorial borders (such as minerals on the deep-sea bed) should be considered as belonging to the international community collectively, rather than being subject to a 'finders keepers/losers weepers' approach to their ownership. Stockholm did have a direct institutional legacy, with the creation of the United Nations Environment Programme (UNEP) giving a degree of permanence to the policy area on the international stage. Overall, the Conference's most significant legacy was in putting environmental questions firmly on the political agenda by prompting many governments to create new ministers and departments of the environment, and greatly deepening and widening a global network of environmental pressure groups.

Although Stockholm did not securitize environmental change and put it at the top of an international political agenda still, in spite of détente, dominated by the Cold War and impending global recession, some 'high politics' was witnessed at the Conference. Swedish Prime Minister Olaf Palme used the event to denounce the use of herbicides in war as 'ecocide'. Palme made no explicit reference to the recent

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Box 6.1 Rachel Carson

Rachel Carson, correctly, is widely fêted as having launched environmentalism as a political ideology in the early 1960s with her hugely influential magnum opus *Silent Spring*. The title of the book forewarns of a future world without the songs of birds and is best remembered for highlighting the harmful effects of DDT on wildlife. The book also, however, pioneered awareness of the human health repercussions associated with the use of DDT and other chemicals.

   Born in Pennsylvania in 1907, Carson became a marine biologist in an age when women scientists were extremely rare. Her determination to succeed against the odds saw her publish *Silent Spring* in 1962 despite a long-standing fight with cancer and attempts to block its publication by a hostile chemical industry. The book had been serialized in the *New Yorker* magazine prior to its release and caused such interest that chemical companies began fearing a consumer backlash against their products and mounted vitriolic attacks on the scientific authenticity of the work. The attacks failed to prevent the book from becoming a major success commercially and politically, both in the USA and across the developed world. Carson succumbed to cancer just two years after the release of her book, a disease the causes of which she had done so much to increase the understanding. She was at least able to witness before her death the beginning of legislation being passed to curb the use of polluting chemicals and the birth of a new political era.

American use of the infamous jungle defoliant *Agent Orange* in Vietnam, but the implied criticism caused grave offence to the Nixon Administration, who responded by withdrawing the US ambassador from Stockholm. Full diplomatic relations between the two countries were suspended for over a year (January 1973 to May 1974).

   By the 1970s the appreciation by the international community of two key factors help explain the rise to prominence of an issue area which so challenged the traditional logic of international relations.

Pollution does not respect frontiers

Acid rain became a contentious issue in the 1960s not just because of the emergence of evidence that rainwater could become contaminated and that this could contaminate groundwater and threaten wildlife, but also because it was a problem in some states that could not be resolved by that state's government. Sulphur dioxide and other emissions from the burning of fossil fuels which accumulate in the Earth's atmosphere can return to the surface as precipitation, hundreds of miles from where they departed as fumes. Hence countries particularly faced with this problem, such as Sweden, Norway and Canada, which were at the forefront of the greening of

governments that was occurring at the time, found that they could not resolve the problem since the root of it lay in other sovereign states. This form of transboundary pollution most graphically demonstrated the need for international cooperation to resolve certain environmental issues, which was already obvious in the case of states sharing rivers and other forms of water.

In 1979 the Long Range Transboundary Air Pollution Agreement was signed up to by the USA, Canada and most Western European states, establishing cuts across the board in sulphur dioxide and other industrial emissions. That it took so long to reach what was a modest agreement between such friendly states is testimony to the challenges presented by environmental problems to those traditional determinants of government policy: sovereignty, self-sufficiency, the national interest and economic growth. The 1970s also saw the rise of international cooperation on curbing pollution between states sharing common stretches of water. UNEP oversaw the birth of a series of Regional Sea Programmes, such as the Mediterranean Action Plan and North Sea Convention, while many regimes already in operation for riparians, such as the world's oldest international organization, the Rhine Commission, began to take on environmental as well as navigational dimensions.

The idea of a global commons

More radical than the utilitarian notion that neighbouring states who shared a problem should work together to resolve it was the idea which emerged in the late 1960s that sovereign control over the common 'goods' of water, air and natural resources was unsustainable. In 1968 the ecologist Garret Hardin used as a parable a warning first aired in the nineteenth century by the economist William Foster-Lloyd on the finite quality of shared resources, known as the 'Tragedy of the Commons'. Foster-Lloyd described how the traditional English village green was endangered due to overgrazing by cattle conventionally open to all villagers. As the practice had gone on for centuries it was assumed that it always could but it had emerged that an increase in the number of cattle above an optimum level could erode the land and ruin the common resource for all. Hardin argued that the village green was analogous to global commons such as clean air, fresh water and high seas fish stocks, endangered by states continuing to exploit or pollute them while oblivious to the fact that the cumulative effect of this would eventually be their ruin or depletion (Hardin 1968).

The Tragedy of the Commons concept became influential in the early 1970s with concerns that the economic security of the developed world could be imperilled by the Earth as a whole exceeding its 'carrying capacity'. One manifestation of this was the rise of international political action on population control (see Chapter 4), and another was the popularization of the 'limits to growth' thesis which argued that increases in industrial production and economic growth in developed countries would have to be checked. Two very different solutions to the Tragedy of the Commons parable can be found. First, you could have informed collective management to regulate use of the village green for the benefit of all. Second, you could abandon the idea of common land and divide the green up into individual holdings in the expectation that each plot holder would graze sustainably, as it would be in their

own interests to do so since the costs could not be externalized as before. At the global level both types of solutions are evident in the development in the 1970s of international law for a 'commons' already subject to many centuries of contention, the high seas. The 'Common Heritage of Mankind' principle agreed to at Stockholm crystallized ten years later as part of the Third UN Conference on the Law of the Sea (UNCLOS III) with the agreement that deep seabed minerals would be the property of the International Seabed Authority. This form of collective management to sustain collective goods may be contrasted with the encroachment on the tradition of the 'freedom of the seas' by the huge growth of waters claimed by states in the legitimization at UNCLOS III of 200-mile 'Exclusive Economic Zones (EEZs)'. Although EEZs, on the one hand, could easily be accounted for by a conventional Realist analysis of coastal states maximizing their power, the rationale offered for their creation was that fish stocks and other resources would be utilized more sustainably if under sovereign jurisdiction rather than subject to a 'free-for-all'.

The gradual appreciation of three other challenges posed by environmental change questions to conventional state-to-state relations since the mid-1980s has elevated this realm of international politics to a higher diplomatic level and securitized some of the issues.

Localised environmental problems can become global problems

Although transboundary pollution and the management of the global commons were, by the 1980s, firmly on the international political agenda, the majority of the harmful effects of environmental change seemed only to be felt locally and as such were of little concern to the international community. Domestic legislation in the developed world had banned the use of notoriously polluting chemicals such as DDT and curbed the excesses of industrial emissions and waste disposal, leading to visible improvements in animal conservation and better standards of human health. However, the emergence of evidence that seemingly remote problems, experienced primarily in LDCs, had wider repercussions served to bring a number of new environmental issues to global political prominence.

Deforestation, seen for a number of years as a problem for forest-dwelling wildlife and humans, was cast in a new light by the discovery of the 'carbon-sink effect', the fact that trees absorb atmospheric carbon dioxide. Carbon dioxide in the atmosphere above a certain level is poisonous to man and at a lesser level contributes to global warming. It has been estimated that the loss of trees in the world contributes more to global warming than the much-trumpeted impact of transport (Stern 2006). The realization that the net loss of tropical rainforest could, ultimately, harm North American and European urban residents as well as Amazonian Amerindians helped bring this issue to the global political agenda. Similarly, seemingly localized 'Tragedy of the Commons' issues such as desertification have repercussions beyond the most directly affected peoples since the world food supply will be influenced by the removal of once-fertile land from production. The increased economic globalization of the world can bring external environmental problems into the domestic arena. Harmful organochlorine insecticides may have been virtually

eliminated in developed countries by the 1980s but their continued use, promoted by Northern MNCs deprived of a domestic market, was seeing them return to their places of origin in imported foodstuffs.

Some environmental problems are global in scale

The securitization of certain environmental issues on the global stage has tended to occur when full realization dawns among governments that the problem is genuinely global in scale. Deforestation and desertification have not been securitized because, ultimately, they are still perceived by many as localized problems with some wider implications. By contrast, it is widely accepted that ozone depletion and global warming are not problems that governments can protect their citizens from by domestic legislation or by regional political cooperation with like-minded neighbouring states. In addition, these are not problems caused by LDCs that are being exported northward. They are problems that are principally caused by northern democracies with potentially dire consequences for the whole world, or 'global security' in its full sense.

Environmental issues are inseparable from global economic issues

The vast majority of environmental problems are related in some way to the processes of economic development and growth, which have dominated how governments frame their policies both domestically and in the global marketplace. Industrialization and urbanization, the classic ingredients of development, put increased strain on a country's resources, while changing its pattern of land use and altering nature's own 'balance of power'. Increased industrial and agricultural production invariably brings more pollution as well as more raw materials, food and wealth. The fundamental paradox of how to reconcile economic security with environmental concerns was apparent at Stockholm but was shelved through the desire to demonstrate solidarity, but, by the 1980s, it could no longer be ignored. By then it had become clear that global environmental policy was being stymied because, although the developed world was coming to terms (albeit partially) with the need to embrace a 'limits to growth' approach, LDCs would not compromise economic security since the stakes were so much higher. As Indian Premier Indira Gandhi announced at Stockholm in 1972, the world should not forget that 'poverty is the worst pollution'.

In an effort to get around this problem, the UN General Assembly in 1987 set up a World Commission on Environment and Development, chaired by Norwegian Prime Minister Brundtland (see Box 7.1). The 'Brundtland Commission' produced a report entitled 'Our Common Future', which identified *sustainable development* as the solution to the economic–environmental paradox, and this soon became the guiding ethos for future global environmental policy. Sustainable development sought to win the backing of LDCs for environmental policy by reassuring them that this would not compromise their political priority of achieving economic

development. The Global North would have to take the lead in implementing costly anti-pollution measures and recognize that the South would need more time to follow suit. To the South this was only fair since the North was responsible for most global pollution and had been able to develop without constraints being put on their industrialization; to many in the North this was the only way to win support from LDCs who would eventually come to be major global polluters also.

Sustainable development is less pessimistic than the 'limits to growth' thesis, which dominated environmental policy thinking in the 1970s, in that it does not consider economic growth to be anathema to avoiding pollution and the depletion of the Earth's resources. Economic growth, even for wealthy states, is fine so long as it is at a level that can be sustained in the long run and not at the cost of degrading the environment. Hence sustainable development tries to speak the language of the 'rational actor' by calling upon governments to be more long-termist in their economic policy. Rapid economic growth today may enrich the present generation but risk impoverishing or endangering future generations if resources are not utilized in a sustainable and responsible manner. Sustainable development is also, however, less optimistic about the future than the approach to the Earth and its resources adopted by a number of thinkers and statesmen. The non-arrival of a demographic doomsday of the sort forecast by Malthus back in the eighteenth century or by the 'Neo-Malthusians' in the 1970s has prompted some 'Cornucopians' to suggest that economic growth need not be restrained at all since technological progress and human ingenuity can be relied upon to surmount future problems. Lomberg's (2001) work *The Sceptical Environmentalist*, for example, attracted great interest (and great derision from ecologists) for questioning whether implementing international policy on global warming made any rational sense. Lomberg did not deny that global warming was a human-caused problem but suggested that it is not as significant a threat as it had been painted and that the expenditure to be allocated to tackling the problem would be better spent on addressing global poverty (Lomberg 2001). Cornucopians and Neo-Mathusian 'limits to growth' advocates still occupy prominent positions in the dialogue on global environmental policy but sustainable development, holding the middle ground, has become the principal guiding ethos of the international regimes that have emerged in the past 20 years.

The Brundlandt Report prompted the UN General Assembly in 1989 to approve a 20-year follow-up conference to Stockholm to flesh out the concept of sustainable development. As the title indicates, the 1992 UN Conference on the Environment and Development (UNCED), held in Rio de Janeiro, recognized the need to couple together the two issue areas and was a much larger and more diverse gathering than in 1972. In all, 170 states were represented, most at some stage by their heads of government, and some 1400 pressure groups were also present at the myriad formal and informal meetings that characterized the Conference. In contrast at Stockholm, 20 years earlier, only two heads of government and 134 pressure groups had attended. Although decision-making authority was reserved for government delegates the pressure groups at Rio played a pivotal role in organizing the event and in the extensive lobbying of the decision-makers.

Among 27 general principles agreed to in the 'Rio Declaration' at the summit were two particularly important breakthroughs. Principle 7 identified the 'common but differentiated responsibilities' of developed and less developed states in

environmental protection, a key aspect of the sustainable development concept. The Global South was part of the process but the North would have to take the lead and incur most of the initial costs. Principle 15 acknowledged the legitimacy of the 'precautionary principle' in developing environmental policy. This strengthens the meaning of sustainable development by proposing that a lack of absolute scientific certainty over the harmful side-effects of some form of economic activity widely believed to be environmentally damaging should not be used as an excuse to continue with it. This was an important agreement because issues of environmental change tend to be complex and subject to some level of scientific disagreement. The danger then is that excuses can readily be found for ignoring environmental demands and the case for continuing to favour unhindered economic growth strategies appear stronger.

Like Stockholm, the Rio Summit did not create international law at a stroke but, unlike Stockholm, it did explicitly set the signatory governments on a legislatory path. 'Agenda 21' of UNCED set out a programme of action for implementing sustainable development across a range of environmental issues. Some 40 chapters, detailing the issues to be regulated and the means of effectively doing so, made up Agenda 21. Issues debated in recent years but not yet subject to conventions, such as deforestation and hazardous waste management, were formally given approval for action. A Commission for Sustainable Development was established to regularly review progress towards establishing and implementing the conventions that were to follow. In addition, a crucial tenet of sustainable development was realized in the creation of a fund subsidized by developed countries, the Global Environmental Facility, upon which LDCs could draw.

The ten-year follow-up to Rio, the World Summit on Sustainable Development (WSSD) in Johannesburg in 2002, represented the third environmental 'mega-conference' but was more low key than its predecessor. It was also noticeably more focused on development rather than the environment. Little progress was made in advancing the agenda on species conservation (biodiversity) established at Rio and, although global warming policy was kept alive, it was not developed in any significant way. New proposals to set a framework for phasing in the use of renewable energy sources and improving LDC access to developed world food markets were side-stepped but some new goals were set. The year 2015 was set as a target date for the realization of two new human security aims: halving the number of people who lack access to clean water and achieving sustainability in global fishing.

The environment and military security

From the 1990s environmental issues have also been given greater attention in foreign policy-making circles through the partially widened security notion that some issues of environmental change should be considered the stuff of high politics, because they can have knock-on military effects. The end of the Cold War, again, was significant in widening the focus of foreign policy-makers to see dangers other than that facing them at the other side of the balance of terror 'seesaw', but the roots of this idea can be traced back to the rise of concerns about securing key economic resources in the 1970s.

The oil crises of 1973–74 and 1979 shook International Relations both practically and academically. The academic dominance of classical Realism, which stressed the uppermost primacy of military power in calculating the 'national interest' by which state foreign policy should be guided, was toppled by a recognition of the importance of economic power in state relations. Neo-Realists, such as Waltz (1979), revamped the old paradigm to accommodate non-military components of power into its framework of analysis based on competitive state-to-state relations. At the same time Pluralists, such as Keohane and Nye (1977), felt vindicated that a more cooperative-based and multi-faceted model of how politics is conducted at the international level was shown to be needed by the rise to prominence of military dwarfs such as Saudi Arabia and Kuwait in the global arena. In the 'real' world of International Relations the 'Carter Doctrine', announced in 1980, made it plain that questions relating to the economic resources of distant states would enter into the calculations of the US national interest by stating that military action to secure oil imports and other economic interests was a possibility.

The rise to high politics of oil pricing prompted greater scrutiny of the importance of threats to the supply of key economic resources to states. The 1970s also saw the rise in concerns that global overpopulation could drain the world's resources (see Chapter 4) and greater recognition that resources could be threatened by environmental degradation as well as through political action. It was not until the 1990s, however, when the agenda of international politics was allowed to broaden, that environmental degradation as a potential state security threat began to achieve prominence in academia and to mould the thinking of foreign policymakers. Economic statecraft had been revived as an instrument of foreign policy by the oil crises but, interestingly, it was not until the strategic constraints of the Cold War had been lifted that a full manifestation of the Carter Doctrine was put into practice with the US-led action against Iraq in the Gulf War. A just war and long-awaited display of collective security it may have been, but few would dispute that securing oil supplies was a key motivation for the allied forces' action.

Whether one takes a positive (moral) or cynical (wealth maximization) view of the allied action, the Gulf War represented a use of military might to preserve stability rather than counter a direct military threat (apart from the perspective of the Gulf States). In this light a strand of IR enquiry emerged in the new world order era to consider if threats to stability due to environmental degradation were possible and hence something that should be of concern to Realist-minded foreign policymakers. American academic Homer-Dixon has been at the forefront of this area of study, leading teams of researchers throughout the 1990s in exploring the possibility of causal links between environmentally induced resource depletion and military conflict. His extensive research leads him to claim that links can be shown to exist. 'Environmental scarcities are already contributing to violent conflicts in many parts of the world. These conflicts are probably the early signs of an upsurge of violence in the coming decades that will be induced or aggravated by scarcity' (Homer-Dixon 1994: 6).

Homer-Dixon's research focused on LDCs since his belief was that such states were less likely to adapt to the social effects of environmental degradation than developed countries and thus are more prone to this form of conflict. Hence, Homer-Dixon does not postulate that environmental scarcity leads directly to conflict but that

it can be a root cause of social unrest that can spill over into violent unrest. In line with explanations of famine, environmental scarcity (of, for example, fish or fertile soil) occurs through the interplay of three factors: the supply of resources, the demand for resources, and changes in the distribution of resources. Two phenomena, emerging from changes in the three factors, are identified by Homer-Dixon as the key link between environmental scarcity and social unrest: 'resource capture' and 'ecological marginalization'. Resource capture occurs when elites within a state respond to falls in supply or rises in demand by appropriating more resources for themselves and leave the poorer sections of society to bear the brunt of scarcity. Ecological marginalization is said to occur when population growth and/or changes in access to resources for certain sections of the populus produce migrations which cause the over-exploitation of resources in certain areas (Homer-Dixon 1994: 10–11).

Case studies, undertaken by colleagues of Homer-Dixon to illustrate his thesis, included the Senegal River conflict of 1980 and the civil war in Peru between the government and Shining Path. The Senegal River conflict was considered to be an illustration of how 'resource capture' can lead to conflict. An ethnic conflict between the politically dominant Arabic Mauers and black Mauritanians followed the expropriation of black land by Mauers. This land grab was in response to scarcity resulting from a rise in land prices due to a damming project. Ethnic Senegalese number among the black Mauritanian population and Maures number among the population of neighbouring Senegal, causing the ethnic unrest to become internationalized. In Peru the rise of Shining Path may be attributed more to the 'ecological marginalization' of peasant farmers in the mountainous areas of the country than their ideological conversion to Maoism (Homer-Dixon and Percival 1996).

The spillover of conflict from Mauritania to Senegal led Homer-Dixon to consider that river water is the only renewable resource likely to precipitate inter-state conflict (Homer-Dixon 1994), but his research has generally concluded that environmentally inspired conflict is most likely to be civil rather than international. The weakening of states, however, contributes to regional instability and can still be construed as a security issue for other states, it is contended.

The work of Homer-Dixon, and other prominent US academics such as Kaplan (1994), certainly convinced the US government in the early 1990s that environmental degradation represented a potential source of military insecurity. In 1993 a new government position in the Defense Department was created, the Deputy Under Secretary for Environmental Security, and the Environmental Task Force was set up as part of Washington's intelligence network. The introduction to the 1994 National Security Strategy Document, an annual government statement of foreign policy aims, states that 'an emerging class of transnational environmental issues are increasingly affecting international stability and consequently present new challenges to U.S. strategy' (USA 1994: 1).

Despite its influence on US government thinking the approach of framing environmental scarcity as a military security has not been without its critics. The empirical evidence linking environmental degradation and political conflict is, by Homer-Dixon's own admission, not straightforward, prompting scepticism as to whether other variables are the real causes of conflicts in situations where

environmental scarcity can be demonstrated. Smith, for example, points out that the Senegal River conflict was more about ethnic and class conflict than access to river water (Smith 1994). Levy criticizes the Homer-Dixon-led research on the grounds that the fact that only LDCs are chosen as case studies is a tacit admission that general poverty, rather than environmental change, is the root cause of the conflicts analysed:

> it is difficult to imagine how conflict in any developing country could not involve renewable resources. Developing country elites fight over renewable resources for the same reason that Willy Sutton robbed banks – that's where the money is.
>
> (Levy 1995: 45)

The environmental scarcity literature focuses on the competition for non-renewable resources as a new, destabilizing trend in post-Cold War International Relations, referred to by Rogers as 'prologue wars' heralding a new era (Rogers 2000: 79). However, just as it can be shown that resource wars are nothing new, neither are conflicts with a non-renewable resources dimension. The 1969 'Football War' between El Salvador and Honduras, despite its linkage to a volatile World Cup qualifying match between the two national sides, echoed the River Senegal dispute in that its main cause was ethnic tension created by migration and its effects on land rights. Even two of the wealthiest and most democratically mature states, Iceland and the UK, had a major diplomatic dispute with a limited military dimension over fishing rights in the 1970s 'Cod Wars'. With regard to the much-vaunted advent of 'water wars', Gleick points out that such conflicts go back 5000 years and lists a number of them, including an ancient 'dambuster' raid by Alexander the Great of Greece against Persia between 355 and 323 BC (Gleick 1994). If the focus is narrowed to domestic upheaval then it is probably fair to suggest that most popular revolutions have had questions relating to access to productive land at their core. Equally, an abundance of resources can be as much a source of contention as much of scarcity. Iraqi oil has made it the foremost international military battleground of recent years and the geological fortune to possess rich diamond reserves has been the political misfortune of countries such as the Congo and Sierra Leone. Of course access to resources causes political upheaval. It was ever thus.

Not only are 'water wars' nothing new, they barely register in an analysis of modern military history. Despite a spate of publications warning of the likelihood of conflicts fought to secure freshwater supplies, particularly in the arid and volatile Middle East (Starr 1991, Bullock and Adel 1993), no war of this kind was fought in the twentieth century and it has played little part in Arab–Israeli hostilities (Libiszewski 1995). There is no evidence that fighting over depleting resources is in any way a distinguishing feature of the contemporary world.

Securing access to resources, it could be argued, is becoming more critical when parts of the world are depleting life-supporting non-renewable resources, such as in the process of desertification, but responsible management and cooperation is a more rational and fruitful political response than conflict. Again, as with problems of famine, the democratic peace thesis leaves room for optimism that we are not entering an era of resource wars. Democracies are forced to confront resource

allocation questions as a matter of course and, increasingly, act on environmental degradation even if no obvious human side-effect is apparent. In addition, democracies (and some non-democracies) long ago came to the conclusion that resources are more easily secured through trade and common management than conflict. Access to fishing beds on the high seas is an issue of great importance in many states and international competition to secure rights remains fierce, but the threat of the global depletion of certain species has prompted unilateral acts such as the Canadian suspension of cod fishing from the 1990s and the EU's unpopular but necessary conservation co-management strategy, the Common Fisheries Policy. There is scope for optimism that resources can be managed by most states in the present state system but the much increased likelihood of scarcity due to global warming could yet see the resource wars scenario become a reality.

Environmental issues themselves as threats to security

Whereas much of the 'environmental security' literature to emerge in the 1990s focused on adding environmental degradation to the list of conventional concerns used to discern the potential military threats emanating from other states, a more profound school of thought arose around the same time arguing for a deepening of the meaning of security to incorporate issues of environmental change. Ullman, in pioneering the re-evaluation of security in 1983, sought to cast the concept in a less statist light by including within its remit the security of individuals imperilled by resource scarcity rather than just tacking on a new category of threats to the security of states (Ullman 1983). By the end of the decade it was not only warming East–West Cold War relations but the apparent actual warming of the Earth that brought environmental threats to security to the fore of international political concern.

In a 1989 article for the conservative and influential journal *Foreign Affairs*, Jessica Mathews, a former member of the US government's National Security Council, followed Ullman's line of reasoning in a more state-centred analysis. In addition to calling for greater consideration of the effects of resource depletion on the political stability of poorer states, Mathews argued that environmental problems with global ramifications, such as ozone depletion, climate change and deforestation, should become issues of state security concern (Mathews 1989).

Environmental threats to human security

Ozone depletion

In 1985 the British Antarctic Survey was able to prove conclusively what had been suspected by scientists for at least a decade, that the Earth's ozone layer had a hole in it. The ozone layer is a protective gaseous shell in the upper atmosphere which absorbs ultraviolet rays from the sun before they reach the Earth's surface. This is a vital service for humanity (and other life forms) since ultraviolet radiation can claim lives in the form of skin cancer and other serious ailments.

The 'clear and present danger' posed by the loss of this defensive shield prompted an unusually rapid international response. Within a few months of the British Antarctic Survey discovery the Vienna Convention on Protection of the Ozone Layer established a framework treaty, fleshed out two years later in the 1987 Montreal Protocol on Substances That Deplete the Ozone Layer. The 1987 Montreal Protocol saw 24 industrialized states bind themselves to an agreement for major cuts in the future use and emission of chlorofluorocarbons (CFCs) and some other chemicals known to be agents of ozone depletion. In the years since 1987 the regime has been strengthened in a series of amendments deepening the cuts to be made by states and widening its application to most of the world. This was achieved by the application of key sustainable development principles agreed on at Rio with LDCs allowed to take a slower track towards phasing out CFCs than the developed states and a Multilateral Fund created to overcome the costs of implementing the agreements. The success of the regime can be witnessed by growing recent evidence that the ozone layer has begun to repair itself (WMO/UNEP 2006).

Global warming

Surely the clearest case of how environmental change can become an issue of security is in the threat posed by global warming. The Earth's average temperature has risen consistently over the past century and it is now almost universally accepted that this is more than a natural development and likely to accelerate if not responded to. The central cause of global warming is an exacerbation of the natural phenomenon of the 'greenhouse effect', caused by increased industrial emissions. Increased releases of carbon dioxide and methane over the years, principally through the burning of fossil fuels, served to exaggerate the natural tendency of the atmosphere to trap a certain amount of infrared sunlight after it is reflected from the Earth's surface. The implications of this are various but include increased desertification and a raising of sea-levels due to the polar ice-caps melting, both carrying significant threats to human life (see Table 6.1).

The Framework Convention on Climate Change emerged two years after Rio and was fleshed out in the Kyoto Protocol of 1997. Most of the world's states committed themselves to cuts in 'greenhouse gases', to be phased in over time and differentiating between developed and less developed states. The costs to developed states of implementing the cuts were significant enough to prompt a rebellion not seen in the ozone regime negotiations. The USA, most notably, broke ranks and failed to ratify the protocol despite signing the framework treaty. The US government has cited the lack of scientific certainty over global warming and concerns over the lesser constraints imposed on LDCs but also, crucially, admitted that the treaty is simply not in the USA's 'national interest' due to economic cost. Although scientific uncertainties inevitably still exist over an issue as complex as climate change a definitive epistemic consensus has emerged from the UN's Intergovernmental Panel on Climate Change since its establishment in 1988. By their fourth report in 2007 this substantial grouping of the world's top climatologists were able to pronounce, in the cautious words of science, that it was between 90 and 95 per cent certain that global warming was caused by human action (IPCC 2007). Despite the

Table 6.1 The ten major security threats posed by global warming

1	More frequent and lengthy heatwaves
2	More frequent droughts
3	Coastal flooding due to sea-level rises
4	Reduced crop yields due to reduced rainfall
5	Spread of tropical diseases North and South
6	Increased rate of water-borne diseases in flooded areas
7	Ocean acidification due to carbon dioxide affecting fish stocks
8	More frequent and stronger riverine flooding in wet seasons due to glaciers melting/reduced water supply in dry season
9	Increased incidences of wildfires
10	More frequent and stronger windstorms

undoubted costs to the US exchequer of implementing Kyoto, which would be far beyond those for any other state, this hard-headed economic calculation is increasingly questionable. The 2006 'Stern Review', compiled by a British economist on behalf of the UK government, calculated the cost of non-action on climate change as amounting to at the very least 5 per cent of global GDP for evermore. Set against this, the costs of effective action to curb climate change would amount to around 1 per cent of global GDP per year (Stern 2006).

Global warming is a global problem in both cause and effect, but the scale of human security threat is not equal across the globe. For low-lying island states the prospect of a rise in the level of the oceans is a human and state security threat of the utmost gravity. For other states the threat is seen as far more remote, both geographically and chronologically, and the urgency to act, which is generally needed for governments to ratify costly environmental agreements, is not there. Indeed, it should be noted that the Stern Review was very much a cost–benefit analysis and, while noting that globally the balance is undoubtedly weighted in favour of the former, it makes clear that some parts of the world could experience net gains from fewer cold-related deaths, and the increased revenue from tourism and improved agricultural fertility. It is also apparent that many of the threats identified in Table 6.1 could be averted by human adaptation to a changing landscape.

The threat posed by global warming, however, is not just a theoretical future scenario. The human cost is already significant and is not just confined to the developing world, where other factors can more easily be employed to explain mortality figures. Since the WHO estimated an annual death-toll of 150,000 due to global warming, the Global North has been rocked by events such as the 2004 heatwaves in Western Europe which killed up to 35,000 people, and Hurricane Katrina the following year, which claimed around 1200 lives and caused an estimated $200-billion-worth of damage in the USA. While proving categorically whether such single events are attributable to global warming is impossible, the changes noted in Table 6.1 are already occurring and this overall trend cannot be put down to chance.

Persistent organic pollutants (POPs)

The 1992 Rio Summit was also the catalyst for significant global political action in the area of human health-threatening atmospheric pollution. UNEP's Governing Council in 1997 endorsed the opinion of the UNCED-born Intergovernmental Forum on Chemical Safety that an international, binding treaty be set up to phase out the production and use of 12 POPs including eight organochlorine pesticides and polychlorinated biphenyl (PCB) (Decision No. 19/13c). The Treaty was signed by 127 governments at a Diplomatic Conference in Stockholm in May 2001, initiating a regime that will continue to consider adding new chemicals to the original 12 through a Review Committee. Born of UNCED, forged by UNEP and long promoted by environmental pressure groups, the POPs regime, on the face of it, appears to represent a triumph of environmentalism. There is little doubt, however, that the primary motivation of the signatories was the alleviation of the suffering of their own nationals by these chemicals rather than concerns for the fates of birds, fish or atmospheric quality. 'This new treaty will protect present and future generations from the cancers, birth defects, and other tragedies caused by POPs' (Buccini 2000).

The production and use of the 12 outlawed chemicals has long ceased in most developed countries but their properties ensure that they remain a domestic hazard to their populations. The listed chemicals are all highly persistent, have a propensity to travel globally in the atmosphere through a continual process of evaporation and deposition, and tend to bioaccumulate in human foodstuffs. Hence, sterility, neural disorders and cancer in peoples of the developed world can be attributed to the use of organochlorines in other parts of the planet. The political significance of this is such that even President George W. Bush, hot on the heels of his government's revocation of the Kyoto Protocol on Climate Change, declared the USA to be a firm supporter of international 'environmental' cooperation on POPs.

Deforestation

An appreciation of the role of forests as carbon sinks gave the problem of the over-exploitation of forests throughout the world a clearer human security dimension and prompted efforts, principally by Northern states, to set up a convention on forests at the Rio Summit. These negotiations failed, resulting only in a weak, non-legally-binding agreement known as *The Forest Principles* which proclaims the virtues of sustainable forestry management but, in effect, gives the green light to states to continue deforesting by asserting that forests are sovereign resources. Effectively regulating deforestation is too much of an economic burden for most prolific 'logging' states to countenance and is not seen as sufficiently threatening to human security to prompt other states to exercise greater leverage on them. Again, however, this attitude is a case of not being able to see the trees for the wood. Deforestation exacerbates global warming and may be seen as a causal factor behind natural disasters such as mudslides down once naturally secure hillsides (see Chapter 8) (Humphreys 2006: 1).

Desertification

Perhaps the clearest manifestation of the 'Tragedy of the Commons' effect in the world over recent years has been the process of desertification, whereby deserts have grown in size at the expense of the fertile lands surrounding them. Once land becomes arid in this way it is effectively lost forever in terms of its productive value and so can have food security implications for the local population and, to a limited extent, humanity at large. Recognition of this fact prompted the 1994 Convention to Combat Desertification which sets out a code of practice for the management of semi-arid lands. The convention was unusual in global environmental politics in that it was prompted by LDCs rather than the industrialized states. It was principally African states, affected by the spread of the Sahara and Kalahari deserts, which championed the inclusion of this issue in Article 21 of the Rio Summit (Chapter 12). The regime has evolved slowly since 1994 and, although it is now virtually global in scope, it lacks any of the legal rigour of its ozone depletion or global warming counterparts. The lack of a clear human security dimension for all states has stunted its development.

Evaluating environmental security

Deudney is a foremost challenger to the inclusion of environmental issues within the remit of security politics. He cites three key arguments for not extending the reach of Security Studies to incorporate issues he, none the less, considers as important political concerns.

1   It is analytically misleading to think of environmental degradation as a national security threat, because the traditional focus of national security – interstate violence – has little in common with either environmental problems or solutions.
2   The effort to harness the emotive power of nationalism to help mobilize environmental awareness and action may prove counterproductive by undermining globalist political stability.
3   Environmental degradation is not very likely to cause interstate wars.

(Deudney 1990: 461)

Deudney's reasoning, unlike that of many critics, is not that of the refusenik military strategist irritated by greens encroaching on his turf but comes from a sincere belief that securitizing the environment undermines rather than enhances the likelihood of finding appropriate political solutions to environmental problems. Point 3 is a direct rebuttal of the Homer-Dixon-led approach of coupling certain environmental issues with military security which, as discussed in the previous section, is open to challenge. Point 2 rightly implies that global problems require global responses rather than relying on individual state calculations of rationality, a standard challenge presented by environmental problems to the traditional statist national interest-based model of how foreign policies should be constructed. The weakness in Deudney's argument, however, comes from a statist bias in another way. Nationalism

is, indeed, an inappropriate political ideology to tackle most environmental problems but who has ever proposed this as a solution to global warming or pollution? Environmental problems are, indeed, fundamentally distinct from the problem of inter-state violence but why does this preclude them from being security concerns? Deudney, in common with most traditionalists, conflates 'security' with 'something that requires a military response by the state' rather than seeing it as a condition which relates to people's lives and which can be acted upon at various political levels. 'Both violence and environmental degradation may kill people and may reduce human well-being, but not all threats to life and property are threats to security' (Deudney 1990: 463). This represents an explicit admission that 'security' can have no meaning other than as a synonym for 'military defence against other states'. Real security needs of people and of the whole planet are excluded by such blinkered logic. The fact that a problem cannot be solved by conventional thinking and means does not indicate that the problem should be ignored but rather that the thinking should be improved and new types of solution sought.

Threats related to the environment confront the inadequacies of conventional state-centred thinking in International Relations most profoundly of all. Dyer argues that global environmental change represents the greatest security challenge to the world because it is 'seen as an externality to the international system, rather than an internal variable which can be addressed in terms of familiar political structures and their supporting social values' (Dyer 2000: 139). Global warming potentially threatens the security of all life on Earth (and the states they inhabit) and it is a threat which does not emanate from any particular state and which cannot be averted by any particular state, regardless of its economic or military capabilities. Dyer refers to this conundrum as a new type of *security dilemma* soluble only by new, global political structures (ibid.). In a similar vein, Myers has termed environmental security 'ultimate security' (Myers 1993).

The failings of individualistic, rather than collective rationality in decision-making in certain problem-solving situations is familiarly portrayed in game-theory analogies such as the 'Prisoner's Dilemma' (Box 6.2). The Prisoner's Dilemma can easily be re-cast as a 'polluter's dilemma' facing states operating in the international system when confronted with certain environmental issues. The question 'to pollute or not to pollute?', when applied to the atmosphere or waters, can yield different 'rational' answers. The economic costs incurred by curbing pollution, allied to the fact that the negative effects of the pollution might be slight or even borne elsewhere, could lead the rationally acting state to favour continuing to pollute, particularly if other states choose to curb pollution and lessen the collective problem. If all states were to take such a selfish stance, however, the results for the polluter may become negative, with 'environmental costs' exceeding the costs of political action. Recent political diplomacy on measures to combat global warming illustrate this dilemma neatly, particularly since the potential costs of failing to think and act collectively are catastrophic.

Box 6.2 The Prisoner's Dilemma

Two prisoners are arrested by police for a minor crime both have committed, but the police are more interested in securing a confession to convict for a more serious offence they are both implicated for but for which there is no proof. The two prisoners are offered a deal by the police while being held in separate cells. Each prisoner is told separately:

1 If they confess to the serious crime they can go free, while the other prisoner gets a three-year sentence.
2 If they both confess they each get a two-year sentence.
3 If they both fail to cooperate they will each be convicted of the minor crime and receive a one-year sentence.

Thus, each prisoner has two options yielding four possible outcomes: freedom and one, two or three years in prison.

The dilemma demonstrates the complexity of rational decision-making when other decision-makers are involved in the process. Simultaneously, the best and worst option is to cooperate with the police. The 'safe' option of staying silent depends on a level of trust in the other prisoner in order to avoid the heavier sentence. According to individual rationality the best choice might be to confess but, if collective rationality is employed, then the best outcome is for both to stay silent.

Conclusion: towards ecological security?

Global political action on environmental change has seen many issues politicized and put on the international agenda but few securitized at the top of that agenda. Myriad international regimes have emerged since the high watermark of environmental governance at Rio in 1992 but global policy today stands in stark contrast to the domestic environmental laws of Western European and North American states which are marked by precautionary consumer standards and non-human conservation measures. Where successful international environmental regimes have emerged it has been where a clear and unambiguous human health threat is apparent.

It is far rarer for the value of environmental protection to be prioritized at the global level than it is at the domestic level. Global politics is such that international agreements, to which governments remain the signatories in spite of the growing role of pressure groups, are still somewhat reliant on a perception of utilitarian gain. Although it is becoming ever more blurred, a 'high politics–low politics' distinction is still evident in international politics. Governments are still prone to taking blink-ered decisions informed by economic interest in the face of epistemic consensus and longer-term utilitarian calculations of 'national interest', as witnessed by the USA's stance on global warming.

There is a need for global environmental policy to go beyond knee-jerk reactions to disasters or imminent disasters if it is to properly enhance human (and indeed non-human) security. The evolution of global governance should eventually realize this. Only through the holistic management of environmental threats can the 'Prisoner's Dilemma' scenario be escaped and states be freed up to act in their and their people's real interests rather than being compelled by domestic political constraints to conserve harmful human practices. The European Union's Common Fisheries Policy is hated in its maritime member-states because it stops fishermen fishing as they have always done but is still a highly necessary system, since it prevents the exhaustion of fish stocks to everyone's detriment. Seeing the bigger picture is difficult in a politically compartmentalized world but it is gradually happening through the growth of a global civil society and epistemic communities persuading governments and citizens that it is in their own interests to think global.

Dalby argues that the key to safeguarding human security in issues such as climate change and resource depletion is to cease framing such problems in the context of 'environmental threats'. Considering human activity as an integral part of the Earth's biosphere, rather than something related to but distinct from 'the environment', is a central tenet of ecologism and its emphasis on giving greater value to non-human life forms, but may be understood also as a means of preserving the human species. Dalby defines security in terms of a referent object which is the global totality: 'the assurance of relatively undisturbed ecological systems in all parts of the biosphere' (Dalby 2002: 106). Thinking in terms of ecological rather than environmental change means that social and economic transformations are not treated as distinct from atmospheric or biological developments in terms of their consequences. Appreciating that human phenomena like urbanization or increasing consumption have effects in the natural world with implications for human security can improve the management of threats. Security threats can be more subtle than the rapid emergence of a hole in the ozone layer and the solutions more complex than switching from the use of CFCs to replacement chemicals. A better appreciation of this complexity could help alleviate these difficulties before they become imminent crises.

Ecologism may be a minority ideology in today's world but most democratic states have political systems that have evolved over time to act in the public interest even where this incurs some individual or commercial cost. US environmental policy is robust enough to restrain business interests for the good of the environment and society even though its government has not always behaved this way on the global stage. There is no reason to suppose that global environmental policy cannot evolve in a similar manner but it needs to do so soon before it is too late.

Key points

- The threat to human security posed by environmental change is mainly an indirect one, by heightening vulnerability to other threats such as disease, or a long-term potential one.
- This lack of imminent threat has limited the development of global

environmental policy much beyond acting against obvious threats such as global warming and ozone depletion.

- The notion that environmental scarcity can prompt military conflicts has attracted much attention in recent years but the case is not proven.
- Tackling many environmental problems necessitates international or global action, exposing the limitations of the sovereign state system as a means of enhancing human security.

Note

1 The 1967 *Torrey Canyon* disaster, when an oil tanker was wrecked and spilled its load off the coast of the Scilly Isles, UK, was particularly influential in stimulating awareness and an international political response to oil pollution.

Recommended reading

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Lomberg, B. (2001) *The Sceptical Environmentalist*, Cambridge: Cambridge University Press.

Useful web links

Stern Report: http://www.hm-treasury.gov.uk/independent_reviews/stern_review_eco nomics_climate_change/stern_review_report.cfm.

United Nations Environment Programme: http://www.unep.org/.

World Summit on Sustainable Development (Johannesburg 2002): http://www.johannesburg summit.org/.