Second World Conference on International Studies
Ljubljana, Slovenia, 23-26 July 2008

Hans Günter Brauch[1]

Adj. Professor, Free University of Berlin, Otto-Suhr Institute, Berlin
Fellow, Institute on Environment and Human Security of the
United Nations University (UNU-EHS) in Bonn;
Chairman, Peace Research and European Security Studies (AFES-PRESS)
Editor, Hexagon Series on Human, Environmental Security and Peace

© PD Dr. Hans Günter Brauch, Alte Bergsteige 47, 74821 Mosbach, Germany
☎ 49-6261-12912 ▤ 49-6261-15695 ▤ brauch@afes-press.de
❏ http://www.afes-press.de and ❏ http://www.afes-press-books.de/html/hexagon.htm

From a State Centred Security Dilemma Towards a Human Centred Survival Dilemma

Abstract

Globally the perception of *security dangers* (*concerns*) of nation states changed since 1989. The security concept has widened, deepened and sectorialized, and the 'peace and security' linkage turned to a conceptual quartet of peace, security, development, and environment. This paper discusses the manifold conceptual innovation on the classic 'security dilemma' that has been used for inter-state relations. It reflected a high degree of uncertainty on the military and economic potential, but also with regard to the intentions of the 'other'. In contrast to the state-centred 'security dilemma' a human-centred 'survival dilemma' has emerged:

- as a Grotian concept focusing on the need for cooperation in 'facing' and 'coping' with manifold environmental and societal challenges beyond state boundaries. This Grotian 'state-centred' concept reflects the disappearance of the 'Hobbesian fear' with the end of the Cold War, but also the increase of non-military soft security dangers that require primarily non-military, economic, societal, and environmental mitigation strategies.

- as a human-centred concept that focuses on causes of *global environmental change* (GEC) and its impacts on humankind, especially on the poor, the marginalized and the environmentally highly vulnerable people whose personal 'survival' and that of their families and communities is put at risk and who have been confronted with several unpleasant choices.

The 'survival dilemma' links a widened and deepened security concept with issues that are caused by unsustainable development and human-induced GEC. The following four parts of this paper review the use of the concept 'dilemma' in the social and political sciences and in four specialized research programmes, discuss the evolution, use, and controversy on the 'security dilemma', offers a systematic attempt to conceptualize the state- and human-centred concept of a 'survival dilemma', and concludes with ideas for coping with this dilemma through specific survival strategies.

---

1 Introduction: Shifting Perceptions of Security Dangers

The perception of *security dangers* – of multiple threats, challenges, vulnerabilities, and risks (Brauch 2005a, 2006) – and thus the *security concerns* of nation states and their people has significantly changed in many but not all parts of the world with the end of the East-West conflict. The security concept has widened, deepened and sectorialized, and the classic linkage between 'peace and security' – both in the Covenant (1919) and in the UN Charter (1945) – has turned to a conceptual quartet of peace, security, development, and environment (Brauch 2008, 2008a; Wæver 2008; Oswald 2008_10).

This paper will discuss the impact of the manifold conceptual innovation pertaining to security on the classic concept of a 'security dilemma' that has been widely used for inter-state relations in a bipolar world. It reflected a high degree of uncertainty on the military and economic potential, but also with regard to the intentions of the 'other'. It also discusses new concepts linking security with development and environment. This is the goal of the new concept of a 'survival dilemma' that has gradually emerged during the past decade:

- First, as a Grotian concept focusing on the need for cooperation in 'facing' (responding) and 'coping' (adapting, mitigating) with manifold new environmental and societal challenges that do not respect state boundaries. This Grotian 'state-centred' concept reflects the disappearance of bipolarity and the overcoming of the 'Hobbesian fear' (Butterfield 1950, 1950a, 1952) with the end of the Cold War, but also the increase of non-military soft security dangers that require primarily non-military, economic, societal, and environmental mitigation strategies.

- Second, as a human-centred concept that focuses on the causes of *global environmental change* (GEC) and its impacts on humankind and human beings, especially on the poor, the marginalized and the environmentally and socially highly vulnerable people whose personal 'survival' and that of their families and communities has been put at risk and who have been confronted with several unpleasant choices.

The 'survival dilemma' links a widened and deepened security concept with issues that are caused by unsustainable development and human-induced GEC. The other new concept of 'sustainable peace' requires efficient survival strategies for coping with this new challenge.

The following four parts of this paper review the use of the concept 'dilemma' in the social and political sciences and in four specialized research programmes, discuss the evolution, use, and controversy on the 'security dilemma', offer the first systematic attempt to conceptualize the state- and human-centred concept of a 'survival dilemma', and conclude with ideas for coping with this dilemma through specific survival strategies.

2 Dilemmas in the Social Sciences: Security vs. Survival

2.1 The Dilemma Concept: Origins and Applications

In a literal sense, the term 'dilemma' refers to "an argument which presents two or more alternatives; *di-*, two, and *lemma*, a proposition or assumption …; 1. in logic. An argument which presents an antagonist with a choice between equally unfavourable or disagreeable alternatives. 2. any situation necessitating a choice between unpleasant alternatives; a perplexing or awkward situation" (McKechnie 1983: 511). As a scientific concept, 'dilemma' is used in philosophy and logic and as a prisoner's dilemma in game theory in both political science and in economics (*Brockhaus Enzyklopädie* [21]2006, vol. 7: 29).

In political science and in international relations, the 'dilemma' concept has been used with regard to the security of states, "where the policy by a state to achieve security proves to be an unsatisfactory one". If all alternatives open to a state are unsatisfactory, "the state is in a paradox" (Collins 1997: 10):

By falling foul of the security dilemma, any solution the state chooses is unsatisfactory and is thus not a solution at all. The result of the security dilemma is that security cannot be realized. This has led Wheeler and Booth to assert that: 'in an ordinary sense, a security dilemma would seem simply to refer to situations which present governments, on matters affecting their security, with a choice between two equal and undesirable alternatives.' However, when the concept has been used by writers of international relations, this has not always been the meaning they have attributed to the security dilemma. 'In the literature on international politics', Wheeler and Booth (1992: 30) argue, 'the term has come to have a special meaning'.

Before the scientific debate on the security dilemma will be assessed, a review of the use of the dilemma concept for the other three concepts of peace, development, and the environment is appropriate.

2.2 Other Dilemmas in the Social Sciences

The term 'dilemma' has also been used as 'peace', 'development', and 'environmental dilemma' in the media and by NGOs, but it has hardly been conceptualized scientifically.

2.2.1 Peace and Peace-Enforcement Dilemma

The tern 'peace dilemma' has been used with regard to the nuclear debate on North Korea and the civil war in Sri Lanka, and as a 'peace-enforcement dilemma' for Somalia (Frank Crigler: at: <http://www.dtic.mil/doctrine/jel/jfq_pubs/jfq1002.pdf>), or as a 'justice-peace dilemma' for the implementation of human rights, or as a 'dilemma of peace-seekers' (Schuman 1945: 12-30) and as a dilemma of specific countries or political leaders with regard to peace. However, no concept of a 'peace dilemma' has been used in the social sciences.

2.2.2 Development Dilemma

Senghaas (1982, 2004: 188-191) referred to several dilemmas determined by the structure of the contemporary world, among them the classic 'security dilemma' and a 'development dilemma' that develops in a relatively open world economy between societies and economies that exchange goods and services where major gaps with regard to know-how, organizational capabilities, technological and organizational innovations of its partners exist. He argued that such a development dilemma exists not only between industrialized and developing economies, but also within each group of states, e.g. within the triad of OECD countries in North America, Europe, and in the Far East that leads in different stages to different coping strategies between protectionism and free trade. It is uncertain whether this 'development dilemma' will lead to a 'security dilemma' or even to violent conflicts within and between states. The term 'development dilemma' has been used in recent books titles (Ostergard 2002; Franke 1980; Behera 2004; Ndikumana 1998), but so far the term has not become a widely used scientific concept within a specific theoretical context.

2.2.3 Environmental Dilemma

The term 'environmental dilemma' has also been used in several publications but it has not yet become a specific scientific concept. For these three terms of a peace, development, and environmental dilemma it is unclear what poses the dilemma and what the unfavourable alternatives are for states or human beings. This is different for the 'security dilemma' that triggered a debate in political science, international relations, and in security and peace studies.

3   Security Dilemma: Genealogy, Use, Controversy

The idea of a 'security dilemma' has already been alluded to in Kant's treatise on eternal peace, 155 years before John H. Herz [8]1950) first referred to this concept.

3.1 Kant's Third Preliminary Article in Eternal Peace

With the emergence of the modern nation state and its system of rule, since the 18th century, the state bureaucracy expanded and standing armies were set up. In the third preliminary

article of his *Eternal Peace* Kant (1795) referred to linkages between armed forces and arms, and the relations among states that pointed to a 'security dilemma'. Kant concluded that "standing armies (*miles perpetuus*) shall be gradually abolished", because

> they constantly threaten other nations with war by giving the appearance that they are prepared for it, with goads nations into competing with one another in the number of men under arms, and this practice knows no bounds. And since the costs related to maintaining peace will in this way finally become greater than those of a short war, standing armies are the cause of wars of aggression that are intended to end burdensome expenditures (Kant, in: Humphrey 1992: 108).

He contrasted them with the role of militias "the voluntary, periodic military training of citizens so that they can secure their homeland against external aggression" (Kant, in: Humphrey 1992: 168). Different interpretations thereof were offered by contemporary philosophers.

According to Kersting (1996: 175) Kant's six preliminary articles outline the negative conditions of a peace among nations or of negative peace without war. Saner (1995: 49) interpreted them "not as analytic legal deductions but as interventions of reason against political practice". For Lutz-Bachmann (1997: 63) they also "criticize the politics of all absolutistic states, and especially those of Prussia".

With the third preliminary article, according to Saner (1995: 49), Kant describes the armament dynamics, the interaction between armament, its autodynamics, and war. Gerhardt (1995: 58) interpreted this article as an expression of a "strategy of political action". Lutz-Bachmann (1997: 63) stated that Kant "explicitly contradicts … the military doctrine prevailing since the time of Venetius – 'Si vis pacem, para bellum'".

Cavallar (1992: 116-123) argued that the mere existence of standing armies implies an element of threat that can cause a war, a *security dilemma*, Kant tries to escape by a gradual troop reduction in order not to undermine the military balance. Kant preferred a militia army with a defensive mission without obligatory service, as suggested in the American Bill of Rights (1776).

The interpretation of this preliminary article changed. While in the late 19th century several German writers (Rühl 1892, Pfleiderer 1895, Stein 1896) considered Kant's preference for militia armies as obsolete, during and after World War I several authors, such as Kobler (1917), argued that both standing armies and conscription should be abolished. In Germany, the interpretations of Kant's treatise in the late 20th century were influenced by the critiques of armament policies and dynamics by contemporary peace research (Senghaas 1972).

In the 1930's, the British meteorologist Lewis F. Richardson (1960) developed the theorem of an 'action-reaction process' of armaments where fear was referred to as a major motivating force for military build-up. This action-reaction theorem was later challenged by peace researchers in the 1970's (Senghaas 1972; Buzan 1983: 207-209) who argued that the arms process is to a large extent domestically driven, and that threat perceptions and the action-reaction theorem were used to legitimate decisions to develop and procure armaments that were driven by military interests, national economic interests in profits, and local economic interests to maintain jobs and a technological impulse (Brauch 1977, 1990).

3.2 Conceptualization of the Security Dilemma by Herz (1950)

Without any reference to Kant or Richardson, John Herz (1950, 1959) coined the term of a *security dilemma* with which he referred to the propensity of countries "to acquire more and more power to escape the impact of power of others", a tendency that has resulted in a vicious circle of mutual arms build-up. Herbert Butterfield (1950, 1950a, 1951, 1952) referred to it as a "predicament of Hobbesian fear" or as the "Hobbesian" dilemma.

Herz disagreed with the thesis that mutual suspicion and the security dilemma have resulted in a continual race for power and armaments, and in unending wars. Herz (1959, [2]1962, [3]1966: 12) saw the newness in the 'nuclear age' as a revolutionary process of weapons innovation (fission, fusion weapons, jet aircraft, rockets and missiles with nuclear warheads). Herz

(1966: 19) pointed to the "apparent absence of an effective defence against the new weapon", and to nuclear developments that make military superiority obsolete, that have resulted in a vicious circle where armed forces with ever more nuclear weapons produce less and less security. As a consequence of the progressing penetrability of the state, its vulnerability against nuclear attacks has increased. Herz (1996: 231) defined 'security dilemma' as

> a social constellation in which units of power (such as states or nations in international relations) find themselves whenever they exist side by side without higher authority that might impose standards of behaviour upon them and thus protect them from attacking each other. In such a condition, a feeling of insecurity, deriving from mutual suspicion and mutual fear, compels these units to compete for ever more power in order to find more security, an effort which proves self-defeating because complete security remains ultimately unobtainable. I believe that this dilemma, and not such (possibly additional) factors as 'aggressiveness', or desire to acquire the wealth of others, or general depravity of human nature, constitutes the basic cause of what is commonly referred to as the 'urge for power' and resulting 'power politics'.

Herz argued that this "fundamental social constellation" leads to "a mutual suspicion and a mutual dilemma of 'kill or perish', of attacking or running the risk of being destroyed". He refers to a social condition of men's "uncertainty and anxiety on his neighbours' intentions" that drives people in a situation of international anarchy to acquire more power to escape the superior power of others. Contrary to Butterfield (1950, 1952), Herz (1966: 235) argued that this situation did not lead to a permanent race for power, armaments and preventive wars due to different mitigation strategies, such as "commonly accepted standards of behaviour and 'law' [that] provide for mitigation of the fears and distrusts which the dilemma provoked", or security systems, like the balance of power (1815-1914) or systems of collective security of the League of Nations and the United nations. Herz' security dilemma concept refers to the subjective level of security, to fears and concerns about encirclement, imperialism, world conquest that often had tragic implications "that mutual fear of what initially may never have existed may subsequently bring about exactly that which is feared most: actual 'encirclement'. Thus bipolarity has given the security dilemma its utmost poignancy".

During the Cold War, the security dilemma became most compelling "in the sphere of armaments" where "no moral, religious, humanitarian, economic, or other considerations could prevail against the brutal impact of a 'they or us'" (Herz 1966: 242). As a preventive war to achieve world government in the nuclear age is not feasible, and the means (mutual annihilation in nuclear war) would destroy the end (survival), Herz concludes that the aim must be mutual accommodation in the Grotian tradition. Herz developed several mitigation options, some of which have become obsolete with the end of the Cold War. Herz's concept builds on Kant's third preliminary article. In a review of this concept Bruce Russett (1993: 822) states:

> The security dilemma operates only under particular conditions of international relations. It stems primarily from leaders' perceptions of the military circumstances, specifically whether the offence has substantial advantages over the defence and whether defensive capabilities can be distinguished from offensive ones.

Russett (1993: 822) argued that

> neither threats nor concessions are likely to ease a security dilemma. Threats will enhance the adversary's sense of insecurity; concessions will probably enhance one's own. Changes of strategic postures and weapons procurement in favour of the defence can help, as can better means to monitor the adversary's intentions and capabilities – if the adversary likewise has largely defensive aims.

Alan Collins (1995: 11-15) pointed to "four characteristics of a security dilemma: uncertainty of intentions, no appropriate policies, decrease in the security of others, and decrease on the security of all". Jervis (1976: 66) wrote that "the unintended and undesired consequences of actions meant to be defensive constitutes the 'security dilemma'," while Wheeler and Booth (1992) labelled them a "security paradox" and they considered "insecurity as the central characteristic of the security dilemma" (Ralph 2001: 17-19). In Jervis' view "the security dilemma cannot be abolished, it can only be ameliorated" (Jervis 1982: 361), while Wheeler and Booth (1992: 29) claim that "the theory of security communities and the practice of inter-

national politics among liberal-democratic states suggests that the security dilemma can be escaped, even in a setting of sovereign states."

Collins (1997: 1) referred to controversies on this concept whether it exists at all or is a pure academic construct; or whether the outcome was the result of an accurate assessment of the situation. For Collins (1997:1) "the security dilemma arises when states inadvertently create insecurity in one another as they seek to gain security." He further argues that the security dilemma is "part of the action-reaction explanation of an arms race" (Wheeler/Booth 1992: 55) but that both concepts are not synonymous. Collins stated (1997: 4) that the security dilemma has not disappeared with the end of the Cold War. For Alexander Wendt (1995: 77) "security dilemmas are not acts of God: they are effects of practice. This does not mean that once created they can necessarily be escaped (they are, after all, 'dilemmas'), but it puts the causal locus in the right place." Collins (1997: 11) distinguishes among five definitions of this dilemma:

decrease in the security of others; decrease in the security of all; uncertainty of intention; no appropriate policies; required insecurity. The first four relate to one another and form a coherent explanation of a traditional security dilemma.

After an extensive review of the first four definitions in the international relations literature, Collins (1997: 23) summarized three characteristic features of the concept: a) "the participants must have benign intent [where] neither actually intends to initiate an attack", b) "the unresolvable uncertainty that statesmen face when trying to determine the intentions of other states"; and c) "the options available to the statesmen while in the security dilemma". Thus, according to the traditional definition "the security dilemma should be seen as representing a process in which state actions, far from increasing security, actually fuel their own insecurity" (Collins 1997: 24). Jack Snyder (1985: 153) defined a security dilemma as "a situation in which each state believed that its security required the insecurity of others".

Collins discusses this fifth definition in light of his three criteria of "benign intent, irresolvable uncertainty, and self-defeating or paradoxical policies" for two types of state-induced security dilemmas: revisionist/revolutionary and militaristic status quo. In his interpretation, a security dilemma does not occur "where malign intent exists" (1997: 41), and he further concludes that "in addition to the anarchical system creating the security dilemma, a security dilemma can also arise from state action" (Collins 1997: 42). Within International Relations (IR) it has remained controversial whether the security dilemma can be escaped and whether it has so in Europe with the end of the Cold War.

3.3 Debate on Security Dilemma since End of Cold War

With the end of the Cold War the 'poignant bipolarity' disappeared, what eased the security dilemma in Europe as did other mitigation strategies during the East-West conflict, such as arms control and disarmament agreements, and confidence and security building measures.

With the global turn of 1989/1990 and the events of 11 September 2001, the perception of security threats, challenges, vulnerabilities, and risks has changed, as has the conceptualization of security and of the security dilemma that has differed among analysts and policy-makers in Europe and in the United States (Czempiel 2002), but also among governments and security elites in Arab countries (Selim 2003), in Turkey (Aydın 2003), and in Israel (Kam 2003).

Wheeler and Booth (1992: 54) argued that with the emerging post Cold War security community "peace is predictable; the security dilemma has been escaped." Collins (1997: 233-235) noted "that the process of mitigation begun by Gorbachev has slowed significantly, and the uncertainty of intent caused by suspicion and mistrust has grown steadily" with the Russian opposition to NATO enlargement.

Czempiel (2002: 21) argues that both structural realists (Waltz) and classical neo-realists have made the security dilemma the central theorem of their theory of international politics. For Czempiel (2002: 31) the security dilemma is no objective result of analysis but a societal and group determined phenomenon that is created by self, world, and enemy images in the

tradition of the political culture of the respective country that may reflect both ethnocentrism and ideological fundamentalism. In Czempiel's interpretation, the security dilemma is no exogenously existing factor in an anarchic international system, but the result of "deliberate choices of particular governments" (Wheeler/Booth 1992: 43). For the constructivists the security dilemma is a socially constructed concept and a phenomenon that is also influenced by respective domestic politics (Wendt 1992: 402, 1995: 71-81).

In his critical review, Jason Ralph (2001: vi) argues that "the concept of the security dilemma has been used by the discipline of Strategic Studies to explain why security competition is an inherent feature of the international system." He proposed to redefine the concept "to account for the social and political contingency of reality and thereby reveal the immanent possibility of mitigating uncertainty between states and even constructing security communities". While he does not deny the existence of security dilemmas, he challenges the realist view "that security dilemmas are a structural feature of anarchy".

In his conclusions, Ralph (2001: 176-195) argued that at the centre of the classical definition of the security dilemma "are unwarranted ontological and epistemological assumptions", and that the concept used by traditional security studies is "intrinsically conservative" and that it "can only be mitigated by cooperation by statist elites". To transcend this traditional concept of a security dilemma, Ralph suggested focusing on the societal level, and especially on the individual, but he failed to reconceptualize this dilemma from a human security perspective.

Both Czempiel's and Ralph's criticisms of the use of the security dilemma concept by realist schools challenges the concept as an ahistoric theorem derived from the uncertainty of international anarchy. Czempiel redefines the concept as the product of domestic politics, while Ralph argues that it should focus on the societal or human level. Their arguments reflect the horizontal widening and vertical deepening of the security concept since 1989.

The security dilemma focuses on inter-state relations in an anarchic world. Its major referent object has thus been the nation state or military alliances consisting of nation states. Thus, this concept has been used during and after the Cold War primarily for a narrow political and military state-centred security concept.

4 Survival Dilemma

The new concept of a 'survival dilemma' differs from the state-centred narrow 'security dilemma', it is wider in its focus by linking a widened and deepened security concept that includes the economic, societal, and environmental dimensions, and the human being and humankind as referent objects with the two new concepts of development and the environment or the linkage concept of sustainable development.

After a definition of the 'survival' concept, the question will be discussed with regard to survival for whom and against what?, before the survival dilemma will be introduced as a Grotian concept for dealing with non-military environmental challenges, vulnerabilities, and risks, and as a people-centred or human security concept.

4.1 Survival for Whom against What?

In contemporary general usage, the 'survival' concept implies: "1. the state of continuing to live or exist: … *Our disregard for the environment threatens the long-term survival of the planet.* [fight for survival = struggle or work in order to continue to exist] … 2. survival of the fittest: a situation in which only the strongest and most successful people or things continue to exist. 3. a survival from: *especially BrE* something that has continued to exist from a much earlier period, especially when similar things have disappeared; relic."

The New Encyclopaedia Britannica (Vol. 11: 1998: 414-415) refers to two concepts of 'survival' in cultural anthropology as "a cultural phenomenon that originates under one set of conditions and persists in a period when those conditions no longer obtain," and "survival training" as "teaching people to survive in the wilderness, using essentially Stone Age skills".

Influenced by Charles Darwin's (1859, 2006) 'natural selection' and Herbert Spencer (1864) the 'survival of the fittest' is used in biology "as a shorthand for a concept relating to competition for survival or predominance", that has become a metaphor that it is not generally used by biologists, who … prefer to use the phrase 'natural selection'. Thayer (2004) in his *Darwin and International Relations: On the Evolutionary Origins of War and Ethnic Conflict* linked theories of human social behaviour to evolutionary biology as a basis for "for both 'realist' theories of international relations and 'rational choice' approaches throughout the social sciences".

The German sociologist Hillmann (1994: 885-886, 1997) coined the concept of a 'survival society' as a "constructing task of a visionary sociology" (Hillmann 1993). Such a 'survival society' should be established as a new type of society with a global extension whose culture, structure, institutions, actions, and development processes are directed at the longer-term guarantee of the survival of humankind and of its living nature. The cultural basis of the survival society is determined by an ecologically based worldview, and a value system that gives highest priority to a guarantee for survival besides the protection of human dignity and of a free societal order. In Hillmann's view this requires overcoming the present *affluent* and *risk society* (Beck 1992, 1999, 2007), and its resulting environmental crises. This presupposes a global environmental movement that relies on all societal strata, a permanent elucidation and enlightenment with a high acceptance of environmental norms and policies.

Hillmann (1998: 125ff.) argues that the establishment of a survival society would require a fundamental shift (as fundamental as the emergence of the agricultural and industrial society). This presupposes a multi- and interdisciplinary cooperation of sociologists, social psychologists, ecologists, philosophers, political scientists, economists, and futurologists to analyse the preconditions and possibilities for protecting survival of humankind. This survival society would require a new value system consisting of terminal values (survival, human dignity, protection of nature, peace, health, tolerance, freedom, justice, solidarity, welfare, and responsibility for future generations), as well as instrumental values (readiness to learn, work and yearning for success, creativity, and readiness to take risks, flexibility, mobility, initiative, self discipline, reliability, exactness, efficiency, modesty, thriftiness, public spirit, cooperation, involvement, participation, and courage of one's convictions).

The *Interaction Council*, an organization of former heads of governments and states, has used the 'survival' concept in many official reports, e.g. by a High-level Expert Group on "*The interrelated problems of environment, population and development*" chaired by former Japanese Prime Minister Mr. Takeo Fukuda on 2 and 3 December 1985 in Tokyo who stated that the new global environmental challenges "cannot be dealt with through national action alone. Effective international cooperation is a prerequisite for *human survival*". In *The Search for Global Order* (D'Orville 1993) the InterAction Council pointed to the new dangers in the post Cold War era:

> Although the old order is gone; a coherently structured new order offering a predictable framework for international intercourse is not yet in place. ... The new era is inconceivable without a redefinition of the interrelationship between national and global interests, without new institutions, mechanisms and instruments.

The high-level group concluded that leaders must "realize that ultimately no facet of national security can be protected any longer without the assurance of global security in the widest sense". And in their "terms of reference" they noted: "The population explosion plus the greenhouse effect, coupled with other environmental degradation, are likely to cause massive migration flows, in the main from tropical and sub-tropical regions towards more moderate regions, or in other words towards highly developed countries. All these trends endanger the *survival of humankind* (D'Orville 1993: 39-40)." In June 1993, the Interaction Council (1993) called for collective action for sustainable development noting that

> 12. … a world in which some states are rich and growing in affluence, and others are marginalized, is unsustainable. The lure of wealthy countries to people of poor countries is irresistible and will continue unless the causes of poverty are addressed by richer nations. International economic refu-

gee movements lead to tensions among states and races. Global environmental degradation adds to the stress created by population pressure. Given the relationship in some developing countries between *environmental insecurity and political instability*, leaders of industrialized states should regard global environmental protection as essential on both moral and pragmatic grounds, and many environmental problems are insoluble without collective action.

In *Fighting for Survival*, Michael Renner (1997) analysed the transformation of security by focusing on "environmental decline, social conflict and the new age of insecurity", and he suggested for the security in the 21st century "a human security policy" that would require "enhancing international peace capacity", a "human security budget" and "a global partnership for human security", but he did not conceptualize 'survival', the key term of his analysis.

The focus of the 'survival dilemma' is neither the 'survival of the fittest' nor a 'survival society', but rather the dilemma that often confronts the poor, the environmentally and socially highly vulnerable people with several unpleasant choices in response to both war, hazards, disasters, and complex emergencies that fundamentally challenge the survival in their traditional livelihoods. The key question is who is to survive: states or human beings and against what: wars, hazards, and disasters as well as complex emergencies on the background of the changing perception of emerging new security concerns in the 'anthropocene' (Crutzen/Stoermer 2000; Crutzen 2002; Clark/Crutzen/Schelnhuber 2005, Oswald/Brauch/Dalby 2008). Next the two facets of a 'survival dilemma' of states in an anarchic international system and of human beings and humankind will be discussed.

4.2 Environmental and Climate Change and Security

Since the early 21st century climate change has increasingly been perceived as a threat to 'national', 'international', and 'human security'. Climate change has gradually been securitized in government reports and in statements of government officials in the United Kingdom, in Germany (BMU 2002; Brauch 2002, 2003b, 2004, 2006a, 2009; WBGU 2007, 2007a, 2008), and in the US (Schwartz/Randall 2003, 2004; O'Keefe 2005; CNA 2007).

On 9 January 2004, David King, the UK Government's chief scientific adviser was quoted as saying that climate change is a far greater threat to the world than international terrorism.[2] In February 2004, John Reid MP, then British Secretary of State for Defence and later Home Secretary, argued that climate change may spark conflict between nations. He claimed that violence and political conflict would become more likely in the next 20 to 30 years with climate change, which he listed among the major threats in future decades, including terrorism, demographic changes, and global energy demand.[3]

John Ashton, a Special Representative for Climate Change of UK Foreign Secretary Beckett, said on 24 January 2007: "Climate change is a security issue because if we don't deal with it, people will die and states will fail."[4] Most security threats in today's world are amenable to some extent to a "hard power" or conventional reaction, he said, and demand will rise for such responses to climate change-related security problems. "But there is no hard power solution to climate change – you cannot force your neighbour to change its carbon emissions at the barrel of a gun."[5]

Besides the UK, other nations have begun to assess the security implication of climate change. In 2002, the German Ministry for the Environment, Nature Conservation, and Nuclear Safety published a commissioned report on climate change and conflicts which raised the

[2] See: Goklany and King: "**Climate Change and Malaria", in:** *Science*, 1 October 2004: 55-57; BBC (2007) "Global Warming 'Biggest Threat'"; at: <http://news.bbc.co.uk/1/hi/sci/tech/3381425.stm >; see also BBC: "Scientist urges US climate help" on 10 March 2004; at: < http://news.bbc.co.uk/1/hi/sci/tech/ 3498830.stm> and on 31 March 2004; at: < http://news.bbc.co.uk/1/hi/uk_politics/3584679.stm >.

[3] See: Ben Russell and Nigel Morris: "Armed forces are put on standby to tackle threat of wars over water", in; *Independent*, 28 February 2006; at: <http://news.independent.co.uk/environment/article348196.ece >.

[4] Quoted in: Ben Vogel (2007) "Climate change creates security challenge 'more complex than Cold War',"in: *Janes.com*; at: <http://www.janes.com/security/international_security/news/misc/janes070130_1_n.shtml>.

[5] Quoted by Chris Littlecott (2007) "Climate Change: The Global Security Impact" 5 February; at: < http:// www.e3g.org/index.php/programmes/climate-articles/climate-change-the-global-security-impact />.

question whether climate change impacts can increase conflict potentials (BMU 2002; Brauch 2002). In June 2007, the German Advisory Council on Global Change (WBGU 2007, 2008) released a study on *World in Transition – Climate Change as a Security Risk*. The German Military Staff College (Führungsakademie) is including climate change issues in its longer-term security scenarios until 2040 (Jopp/Kaestner 2008; Brauch 2006a).

In spring 2004 an internal report by Randall and Schwartz (2004) for the US Department of Defense on the impact of abrupt climate change on US national security was leaked to the press. Gilman, Randall, and Schwartz (2007) discussed the Impacts of Climate Change on US national security as did a report by the US Center of Naval Analysis (CNA 2007). This study addressed three questions: a) on the conditions climate change is likely to produce globally that represent security risks for the US; b) how may they affect the US national security interests; and c) what actions should the US launch to address its national security consequences. The study concluded that the predicted consequences of climate change include: "extreme weather events, drought, flooding, sea level rise, retreating glaciers, habitat shifts, and the increased spread of life-threatening diseases," that may add "new hostile and stressing factors" and that have the potential "to create sustained natural and humanitarian disasters" whose consequences "will likely foster political instability where societal demands exceed the capacity of governments to cope" and it "will add to the tensions even in stable regions of the world".

On March 29-31, 2007, the Strategic Studies Institute and the Triangle Institute for Security Studies conducted a colloquium on "Global Climate Change: National Security Implications,"[6] that reached the following key insights that climate change is underway and that its national security implications "are proportional both to the speed of change and the extent", that "threats to national survival stemming from catastrophic change must be anticipated, evaluated, and neutralized to the greatest degree possible", and that this will "require multinational, multi-agency cooperation on a scale heretofore unimaginable and could provide no-fault ground for global co-operation". The first impact would come from displaced people and their malnutrition and disease that "could aggravate or spark displacement and border security issues".[7]

In November 2007, the *Center for Strategic and International Studies* (CSIS) and the *Center for a New American Security* (CNAS) released a report on: *The Age of Consequences: The Foreign Policy and National Security Implications of Global Climate Change* (Campbell/Lennon/Smith 2007) by a group of high-level US security experts and climate specialists that discussed three future worlds with climate change impacts during the next 30 and 100 years that

> are based on *expected, severe,* and *catastrophic* climate cases. The first scenario projects the effects in the next 30 years with the *expected* level of climate change. The *severe* scenario, which posits that the climate responds much more strongly to continued carbon loading over the next few decades than predicted by current scientific models, foresees profound and potentially destabilizing global effects over the course of the next generation or more. Finally, the *catastrophic* scenario is characterized by a devastating 'tipping point' in the climate system, perhaps 50 or 100 years hence. In this future world, global climate conditions have changed radically, including the rapid loss of the land-based polar ice sheets, an associated dramatic rise in global sea levels, and the destruction beyond repair of the existing natural order.

Also in November 2007, the *Council on Foreign Relations* (CFR) released a report on: *Climate Change and National Security* that proposed several policy options to reduce the vulnerability of the United States and other countries to the predictable effects of climate change. Bushby

---

[6] Other co-organizers included the Army Environmental Policy Institute, The Center for Global Change (Duke University), Creative Associates, The Nicholas Institute for Environmental Policy Solutions (Duke University), The Environmental Change and Security Program (The Woodrow Wilson International Center for Scholars), and the Department of Environmental Sciences at the University of North Carolina-Chapel Hill.

[7] U.S. Army War College and Triangle Institute for Security Studies, Strategic Studies Institute, Colloquium Brief, compiled by Douglas V. Johnson II; at: <http://www.strategicstudiesinstitute.army.mil/pdffiles/PUB779.pdf>.

(2007) argued that sharp GHG reductions in the long run are essential to avoid unmanageable security problems.

These studies were picked up by members of the US Congress. In March 2007, Senators Richard J. Durbin (D-IL) and Chuck Hagel (R-NE) introduced the "Global Climate Change Security Oversight Act" (S.1018) requesting a national intelligence estimate to assess whether and how climate change might pose a national security threat (Scheffran 2008: 22). A similar "Global Climate Change Security Oversight Act" (H.R.1961) was submitted in the House by Congressman Edward Markey (D-MA).[8] However, none has so far been adopted by both Houses of the US Congress.

Climate change also poses severe security impacts for human security and its referent objects: human beings and humankind. From a human security perspective, climate change has been addressed by the GECHS programme of IHDP in June 2005[9] and it was the focus of the Greek Presidency of the Human Security Network (2007-2008).[10] The *Friends of Human Security* (FHS) coordinated by Japan and Mexico also discussed issues of climate change and human security based on a symposium on 31 July 2007 reviewing the impact of climate change in developing countries, the challenges of disaster risk reduction, and the linkages between development and security.[11]

A 'Policy Memorandum' on '*Climate Change and Human Security*' (Wisner/Fordham/Kelman/Rose Johnston/Simon/Lavell/Brauch/Oswald Spring/Wilches-Chaux/Moench/Weiner 2007) pointed to many impacts for international, national, and human security for selected direct, indirect, and slow-onset linkages.

Some effects are already evident and will become very clear in the short run (up to 2020). They will increase and others will manifest themselves in the medium term (up to 2050); whilst in the long run (up to 2100), they will all be active and interacting strongly with other major trends. Africa is very likely to suffer very damaging impacts and has the least resources for coping and adapting to these stresses. Livelihood security and other aspects of human security interact with 'hard' security issues because of the national and regional upheavals that climate stress may put on livelihood systems already vulnerable and incapable of adapting. The rural and urban poor are already under stress, and for some groups such as women-headed households in Africa, adaptation to climate-induced stress will be very difficult indeed. Some major climate changes may actually occur rapidly.

On 17 April 2007, the UN Security Council for the first time addressed climate change as a security issue. The British initiative to put climate change on its agenda has been an attempt to

---

[8] See: Congressional Record: March 28, 2007 (Senate), p. S4059-S4061; at: <http://www.fas.org/irp/congress/2007_cr/s1018.html >; see also at: < GovTrack.us. H.R. 1961--110th Congress (2007): Global Climate Change Security Oversight Act, *GovTrack.us (database of federal legislation)*; at: <http://www.govtrack.us/ congress/bill.xpd?bill=h110-1961> (16 May 2008). For an overview of other bills on this issue submitted to the US Congress; see at: < http://www.pewclimate.org/federal/congressional-proposals/110/National%20Security%20and%20Climate%20Change >.

[9] On 21-23 June 2005, *The Global Environmental Change and Human Security* (GECHS) project of IHDP organized a workshop in Oslo on 'climate change and human security'; at. < http://www.cicero.uio.no/humsec/>; papers at: http://www.cicero.uio.no/humsec/list_participants.html.

[10] See Greek concept paper on: "Human Security and the Climate Change Impact on Vulnerable Groups" of 8 May 2007; at: < http://www.humansecuritynetwork.org/docs/2007-ministerial-meeting-04-greek%20paper. doc>.

[11] See: Workshop on "Climate Change from the Perspective of Human Security"; at: < http://ochaonline.un.org/WhatsNew/ClimateChangeandHumanSecurity/tabid/2106/Default.aspx>; see the presentation by Under-Secretary-General John Holmes' on: "Human security and disaster reduction". In the view of John Holmes, Under-Secretary-General for Humanitarian Affairs and Emergency Relief Coordinator, "It has become obvious that climate change is the biggest threat the planet faces, especially to the poorest and the most vulnerable among us. Climate change, and the natural hazards and extreme weather events that are associated with it, are not some distant, future threat. The threat to human security is here, it's real, and it's today." <

'securitize' climate change.[12] In her opening statement, then UK Foreign Secretary Margaret Beckett stressed that "what makes wars start – fights over water, changing patterns of rainfall, fights over food production, land use. There are few greater potential threats."[13] She argued that "an unstable climate will exacerbate some of the core drivers of conflict, such as migratory pressures and competition for resources." Japan's Ambassador Kenzo Oshima said that "it is clear that climate change can pose threats to national security … [and] in the foreseeable future climate change may well create conditions or induce circumstances that could precipitate or aggravate international conflicts."

Figure 1: Matrix of Possible Climate Change and Security Interactions over Time. **Source**: Policy Memorandum: *Climate Change and Human Security*, 15 April 2007.

	Direct impact	Indirect Consequences					Slow-onset
	Water	Food	Health	Mega-projects	Disasters	Biofuel	Sea level
Short term (2007-2020)	Local conflict over water	Failure to meet MDGs	Failure to meet MDGs	Long history of development-induced displacement from 1950's	Nation states begin to lose credibility due to inability to prevent large disasters	Isolated food – fuel competition and price spikes	Small number of displacements
Medium term (2021-2050)	Increased local & some international conflict over water	Significant displacement due to famine	Interacts with food production problems	Displacement of rural poor due to CDM & large scale dams & other state based mitigation & adaptation projects	Significant political unrest due to failure of DRR & inadequate recovery in many countries	Food-fuel competition increases & biodiversity erosion	Increasing displacement & national/ international tension
Long term (2051-2100)	Major international conflict over water	Major displacement & political upheaval	Major displacement due to epidemics	Major urban upheaval and other political fall out from mega-project displacement	Major upheaval with international implications due to unattended weather catastrophes	Major discontent due to food-fuel competition	Major international tensions due to population displacement
	All of these processes strongly interact with each other						

However, the representatives of China, Russia, Qatar, Indonesia, and South Africa argued that "the Security Council was not the place to take concrete action." Peru, Panama, Papua New Guinea, and small island states agreed with the UK. For UN Secretary General, Ban Ki-moon "projected changes in the earth's climate are thus not only an environmental concern. … Issues of energy and climate change can have implications for peace and security."[14]

---

[12] "Press Conference by Security Council President, 4 April 2007"; at: <http://www.un.org/News/briefings/ docs //2007/070404_Parry.doc.htm>;

[13] Bloomberg news: "UN attacks climate change as threat to peace", in: *International Herald Tribune,* 18 April 2007: 2;

[14] UN Security Council, SC/9000, 5663rd meeting, 17 April 2007: "Security Council holds first-ever debate on impact of Climate change on peace, security, hearing 50 speakers"; at: <http://un.org/news/press/ docs/2007/ sc9000.doc.htm>.

Figure 2: Security threats, challenges, vulnerabilities, and risks posed by climate change, specifically by temperature increase and sea level rise. **Source:** Brauch 2005a: 64; reprinted with permission by UNU-EHS.

Environmental causes, stressors, effects and natural hazards pose	Natural and economic factors		Societal impact factors (exposure)	
	Substantial threats for	**Challenges affecting**	**Vulnerabilities for**	**Risks for**
	Security objects (for what or whom?)			
Climate change - temperature increase (creeping, long-term)	- human health - agriculture (yield decline) - biodiversity - desertification	- tourism - food security - fisheries - government action - economic action	- infectious diseases - damage to crops - natural systems - water scarcity - forest fires	- human populations - the poor, old people and children due to heatwaves
Climate change - sea level rise (creeping, long-term)	- small island states - marine ecosystems, - indigenous communities, - industry, energy	- deltas - coastal zones - marine, freshwater ecosystems	- coastal cities, habitats, infrastructure, jobs - cities, homes, jobs	- livelihood - poor people, - insurance, - financial services
Abrupt climate change - e.g. cooling in Central and Northern Europe, in North America (USA)	- countries & people in Northern Europe, benefiting from Gulf Stream	- livelihood - survival	- agriculture - habitat - people	- human life & animals, property - forced migration of people
Climate change - extreme weather events: storms (hurricanes, cyclones, winter storms)	- habitat, technical infrastructure, transportation, etc	- forests (health of trees) - food security	- coastal ecosystems - forests, settlements - electricity transmission	- human life & property - insurance - financial services
Climate change - extreme weather events: floods	- habitat, technical infrastructure, and people	- vulnerable, flood-prone areas	- persons living in flood-prone areas	- human life & property
Climate change - extreme weather events: Drought	- availability of water and food, survival of people	- decreased crop yield and water quality & quantity	- arid and semi-arid zones, agriculture - forests (tree health)	- human life & animals, property
Soil erosion, desertification, drought	- water scarcity - agriculture - habitats	- food security - human livelihood (forced migration)	- livelihoods - rural areas - specific crops	- people & livestock in rural areas - people in slums
Deforestation	- landscape, cities, habitat	- water availability	- landslides	- informal housing (slums)
Water scarcity and degradation	- agriculture, food security, people	- econ. behaviour - human health	- poor in slums	- old people, children, poor
Forced Migration	- resident population, clash on water and food	- overgrazing on marginal soils, - environment	- fragile ecosystems - people on the move	- migrants and their animals

The climate change issue has been discussed at the G-8 meetings in August 2005 in Gleneagles[15] in the UK and in June 2007 in Heiligendamm in Germany where the heads of states and/or governments of the G 8 agreed … "in setting a global goal for emissions reductions" that they will "consider seriously the decisions made by the European Union, Canada and Japan which include at least a halving of global emission by 2050"[16]. In a joint statement of

---

[15] At the G8 meeting in Gleneagles the *Gleneagles Plan of Action* on "Climate Change, Clean Energy and Sustainable Development"; at: <http://www.fco.gov.uk/Files/kfile/PostG8_Gleneagles_CCChangePlanofAction.pdf >:

[16] For the documents of the G 8 Meeting in Heiligendamm, Germany on 8 June 2007; at: < http://www.g-8.de/ Webs/G8/ EN/G8Summit/SummitDocuments/summit-documents.html > and the chair's conclusions; at: <

the German G 8 presidency with the heads of states and/or governments of Brazil, China, India, Mexico and South Africa, the goal of fighting climate change was endorsed, including the "crucial role of economic incentives", investments in "climate friendly investments in large scale", and improved means of adaptation for developing countries "with enhanced technology cooperation and financing."

The G-8 meeting in Hokkaido Toyako (Japan) adopted on 8 July 2008 this commitment on greenhouse gas reductions until 2050:

> We seek to share with all Parties to the UNFCCC the vision of, and together with them to consider and adopt in the UNFCCC negotiations, *the goal of achieving at least 50% reduction of global emissions by 2050*, recognizing that this global challenge can only be met by a global response, in particular, by the contributions from all major economies, consistent with the principle of common but differentiated responsibilities and respective capabilities (emphasis added, HGB).[17]

Global environmental and climate change, as well as hydro-meteorological hazards, affect primarily the individual or humankind whose perception of 'insecurity' therefore change. Climate change has become a new objective security danger and – in many parts of the world – a new subjective security concern. Anthropogenic climate change and its two key features of temperature increase and sea level rise, as well as weather-induced hydro-meteorological hazards, pose manifold new threats, challenges, vulnerabilities, and risks for the security on the earth, for nation states, as well as for human beings and humankind (figure 2).

For many of the poor, marginalized, and highly environmentally and socially vulnerable people, climate change poses a new 'survival dilemma' that differs fundamentally from the state-centred 'security dilemma' in international relations and security studies.

4.3 The Survival Dilemma as a State-centred Concept

A key goal of the United Nations has been "to maintain international peace and security" and the security and survival of its member states, its territory, people, and system of rule. Thus, the referent object of security policy is both the state and its people, but also the international community and humankind. With the end of the Cold War the climate-induced threats, challenges, vulnerabilities, and risks that pose security dangers and concerns have changed.

While in Europe the 'security dilemma' has been largely escaped, in many other parts of the world it still prevails. While the Security Council was originally constrained to deal with inter-state conflicts as threats to the peace, its practice since 1990 has gradually changed (Bothe 2008) to include intra-state conflicts and genocide as 'threats to the peace, breaches of peace, or acts of aggression'. In February 1999, the UNSC for the first time took up human security and in April 2007 it addressed climate change. The UNGA asked Mexico and Switzerland to propose how environmental protection could be enhanced within the UN system.[18]

Thus, the survival of whom not any longer refers only to states or their peoples but increasingly also to human beings, societal and ethnic groups, as well as to international society and humankind. The survival against what refers not any longer only against the threats posed by other states, but also by the own state, by warlords, organized crime, and increasingly also by environmental factors triggered by global environmental change among them climate change, water scarcity, drought, and the impacts of increasingly human-induced natural hazards (figures 2, 3).

---

http://www.g-8.de/nsc_true/Content/EN/Artikel/__g8-summit/anlagen/chairs-summary,templateId=raw,property=publicationFile.pdf/chairs-summary>.

[17] See: G8 Hokkaido Toyako Summit: "Environment and climate Change"; at: <http://www.g8summit.go.jp/eng/doc/doc080709_02_en.html>.

[18] "UNO-Sicherheitsrat soll Umweltfragen beachten. Klimawandel birgt laut britischer Studie Sicherheitsrisiken", in: *Neue Zürcher Zeitung*, 18 April 2007: 4.

This author has argued that while the last three global orders (1815-1989) were primarily based on power categories legitimized in terms of the *security dilemma*, the emerging new global challenges of the 21st century (Renner 1997: 25-6) may require a new international order based on a Grotian *survival dilemma* (Brauch 1996, 2000) that may necessitate additional multilateral cooperation on international security (arms control, terrorism) and environmental regimes (climate, desertification, water), in international and supranational organizations. Thus, the zero-sum games of many realist approaches in the Hobbesian tradition of the 19th and 20th centuries must be replaced – from a Grotian or Kantian perspective – by non-zero-sum games where all major players should aim at the creation of conditions for the survival of humankind (Axelrod 1984).

Brauch (2000: 281-318) argued that the root causes of global environmental change could become "severe challenges for the survival of governments", and he stated that the environmental conditions for human life may be fundamentally challenged as a result of a complex process of incremental change caused by soil erosion and desertification leading to more frequent and intensive droughts and water scarcity and lack of food that will force people to migrate, what sometimes may lead to violent conflicts.

The severe droughts in the Sahel zone in the 1960's and 1980's put the survivability of this region at risk and have contributed to several failed states (e.g. Somalia). A complex interaction among environmental, societal, and political factors occurred that resulted in several Sahel countries engaging in violent conflicts (Mainguet 1994, 2003; Mensching 1990; Garenne 1994: 167-86; WBGU 2007a, 2008). The Mediterranean region will be extremely volatile to the interaction of long-term non-military challenges that cannot be solved by military means neither domestically (repression) nor internationally (intervention). The challenge of survivability will increase the pressure for migration while Northern efforts to contain it may intensify the problems of governability in the South (El-Hinnawi, 1985; Myers, 1993: 752-61, 1995; Brauch, 1997, 1998; 2003, 2006a, 2006b, 2007).

This and other new global challenges may require in the 21st century new forms of *global governance* (Commission on Global Governance 1995; Diehl 1997) and new international institutions (regimes and organizations) that may be influenced more by the intellectual traditions of Grotius and Kant. These new challenges require a new international order that necessitate additional multilateral cooperation in international regimes (climate, desertification), international (UN, OSCE) and supranational organizations (EU). Thus, the zero-sum games of the 19th and 20th centuries may be replaced by non-zero-sum games where all major players aim at the creation of conditions for the survival of humankind (Axelrod 1984).

If such a "*survival dilemma* is more than an idealist construct of good intentions effective mechanisms for an efficient implementation of adopted norms and goals and a comprehensive verification regime for effective sanctions against violators is needed" (Brauch 2000: 286). This poses for these non-military global challenges the question of a legitimate use of force. Thus, earth policy (*Erdpolitik*) requires an increase in the effectiveness of international organizations, which is a fundamental reform of the United Nations system (von Weizsäcker 1993; Brauch 1996; Rechkemmer 2005). However, with the many unresolved national, ethnic, and religious conflicts around the globe, distrust and arms competition still prevail in many regions. Thus, the *security dilemma* has not been overcome.

But in the 21st century simultaneously new global and regional challenges will grow in intensity beyond the coping capacity of most states that will be the first victims. Here *survivability* requires the gradual realization of "*sustainable development*", especially of an agricultural policy within environmental constraints. This *survival dilemma* implies for many ecologically sensitive and conflict-prone regions, as for example the Mediterranean (Brauch 2003), a mutual effort to define and to address present and future *root causes* that could lead to new conflicts and environmental victims (Williams 1998). Such policies require a widening of the scope and an increase in the competence and effectiveness of multilateral international organizations and regimes both in the security and environmental realm.

4.4 The Survival Dilemma as a Human-centred Concept

The most likely implication of the 'threats, challenges, vulnerabilities, and risks' posed by global environmental and climate change for small island states may be a 'survival dilemma' (Brauch 2000, 2004, 2005a: 69) confronting the poor and highly vulnerable population with unattractive alternatives: to stay at home and be exposed to an increasing number of and more intensive tropical hurricanes and cyclones, or to be forced to migrate from the Caribbean to North America, and from the small islands in the Indian and Pacific Ocean to countries that offer their families better prospects for survival and economic well-being. In other regions and circumstances the survival option may be further reduced:

- To stay at home, to suffer from hunger, and as the worst alternative to die;
- To wait for governmental help and to survive in bad conditions;
- To migrate and to face elsewhere conflicts for water, land, food and jobs; or
- To migrate from the villages to urban slums with a low quality of life in a dangerous environment with the lack of jobs;
- To separate, with the young and the men emigrating where there are jobs and prospects for a better life, and the women, children, and the old staying at home and living on the remittances of emigrated family members;
- Or to develop local resilience, adaptation, and coping mechanisms, as will as survival strategies (Oswald 1991, 2007).

In contemporary English the terms 'survival' and 'dilemma' are imprecise, and the concepts of a 'survival society' or a 'survival dilemma' have so far not rigorously been defined as a social science concept for the analysis of global environmental change, its extreme and fatal outcomes and potential violent societal repercussions. What is the *dilemma* about and what are the choices for whom? Whose *survival* is at stake: of humankind, the state, an own ethnic group, of the family or an individual? What is the *referent* of such a 'survival dilemma': international anarchy, the nation state, society, the own ethnic or religious group, clan, village, family or the individual? What are the *reasons* that necessitate a choice between *survival* or forced migration or even *death* (decline, disintegration)? Are they socially or environmentally driven, or both?

A dilemma requires a choice between two often unattractive options, e.g. between *survival* or death of an individual, or loss of his/her home and livelihood. Thus, first of all the *survival of the individual human being* is at stake, but also of the dwellers on marginal land or in vulnerable housing. Often the poor as well as minority ethnic or religious groups or clans with limited adaptive and mitigation capabilities are among the first victims of hazards and disasters partly caused by human- and nature-induced global environmental change. The 'survival dilemma'

But in ecologically sensitive arid and semi-arid regions, as in the Sahel and in other deserts in the global sunbelt, but also in earthquake-prone regions, the *survival* of individuals, tribes, regional or national governments in failed or disintegrated states is at stake (Somalia, Afghanistan). Global environmental change and especially climate change can also become an additional challenge to humankind, but its impacts will be unequal due to the different degrees of societal (poor vs. rich) and environmental (tropical, subtropical vs. moderate regions) vulnerability. Rapid population growth increases the demand for water, food and housing, and contributes to rapid urbanization that has negative repercussions on the environment (pollution of soil, water, air, figure 3).

A *survival dilemma* exists if the livelihood of human beings (individuals, families, clans, tribes or ethnic or religious groups) is severely challenged by the extreme or fatal outcomes of global environmental change (hydro-meteorological hazards due to extreme weather events) and by extreme poverty. The *survival dilemma* is the highest where poverty is high and the adaptive and mitigation capacity and resilience is low (*high societal vulnerability*), and where

the probability and impact of natural disasters is most severe (*high environmental vulnerability*).

Figure 3: Expanded Concepts of Survival and Security

Whose survival?	Referent (actor)	Dilemma or choices	Outcome	Cause	Security concept
Individual	family	Starve or leave the home to next city or humanitarian camp	Internal displacement, urbanization, migration. conflict	Poverty, natural hazards/disasters	Human security
Family				Societal and environmental vulnerability	
Village, tribe/clan	Ethnic and religious group	Protest or leave and fight for water			Societal security
Province	State	Assist or repress	State failure, rapid assistance or repression	Systems of rule and forms of governance, government decisions,	Economic and military
Government		Fall or stay in power			
Region (e.g. Sahel)	Regional organization (OAS, AU, ECOWAS)	Do nothing, ignore or respond and prepare (adaptation and mitigation)	Migration or forms of violence and conflict	Extreme weather events (drought and desertification)	Political. economic, military
Mankind	United Nations, states, NGOs etc.	Ignore or adapt, mitigate, enhance resilience	Major catastrophe	Climate change, desertification, hydrological cycle	Human and global security

Initially, the referent for the *survival dilemma* is the family and the ethnic and religious group (e.g. tribe or clan), but also the state. If the impact of a severe drought results in a major famine (as was the case in the Sahel during the 1980's), then the states and the sub-regional, regional, and global organizations, as well as nongovernmental aid organizations, become a major referent. The referent for major causes of global environmental change: climate change, desertification, and either water scarcity or flooding is the international community (states, regional and universal organizations, and regimes).

The *survival dilemma* confronts its victims with a vicious circle (stay and starve *or* leave and loose own identity) that requires fundamental and difficult choices by the people (individuals, families, tribes, clans) in the affected regions, primarily in the developing countries, that often imply to leave their home, tribe, clan, to loose their livelihood and identity, and to give up their inherited customs and culture. The *survival dilemma* poses a major challenge to the individual and the society in states and regions where there is a high personal and societal vulnerability due to poverty, and a high environmental vulnerability due to extreme weather events and natural hazards, where the impact is high, but the resilience is low.

Until recently, this *survival dilemma* has hardly been a concern for strategists in industrialized countries because in their countries the societal vulnerability is relatively low and even in case of a high environmental vulnerability the resources and coping capacities exist to reduce human fatalities. In 2002 the worst flood in Germany for more than a century caused 10 billion euros in damages but less than 100 fatalities, while a flash flood that hit Algiers in November 2001 caused economic damages of 300 million euros but more than 920 fatalities (Brauch 2003a). On 29 August 2005, Hurricane Katrina caused 1,833 reported deaths, affected about 500,000 people, and caused an estimated economic damage of 125 billion US dollars.[19] All three floods in the US, Algeria, and Germany confronted many victims with a survival dilemma, however the specific impact on persons and economic damage differed, as did the specific 'survival dilemma' the hazard victims had to face and cope with.

While the *security dilemma* confronts the state and its national security decision-makers with tough strategic choices, the *survival dilemma* initially confronts the individual victim and his

---

[19] See as the source: EM-DAT: The OFDA/CRED International Disaster Database, www.em-dat.net; Université catholique de Louvain - Brussels – Belgium; created on 6 July 2007.

family, community, ethnic or religious group with tough choices that affect the future of their community and society. While military considerations and means are crucial to cope with the *security dilemma*, they are in most cases irrelevant for coping with the *survival dilemma*.

While the *security dilemma* is closely linked with a narrow political and military security concept, and is often associated with Hobbesian or Grotian security perspectives, the *survival dilemma* is primarily linked with *human* and *environmental security* concepts, and with Grotian and Kantian security worldviews as well as with Neomalthusian and equity-oriented distributionist environmental standpoints, and less with optimistic Cornucopian perspectives. While the *security dilemma* has been in the centre of the *classical security agenda* since ancient times and since the modern territorial state emerged in the Westphalian order, the *survival dilemma* addresses the *new agenda* where solutions become more urgent during the 21st century and where the old and still dominant Machiavellian and Hobbesian mindset of strategists is bound to fail. The *survival dilemma* requires a combined mitigation strategy that aims at "peace with the environment" and "development with security", or a combination of sustainable peace with sustainable development (Brauch 2008_3; Oswald 2008_5).

5   From a Survival Dilemma to Survival Strategies

The political strategies for coping with the 'security' and the 'survival dilemma' differ in the post Cold War era, taking the specific geopolitical context and status of socio-economic development of states and regions into account.

Efforts to cope with the 'security dilemma' of states require national, regional or international multilateral diplomatic initiatives to deal with the perceived threats by other states through cooperative efforts to address the structural root causes that may cause, contribute to or trigger conflicts within and between states, to resolve conflicts and to prevent that they escalate into violence as well as to prevent that natural hazards turn into complex emergencies.

Initiatives to cope with the manifold political, societal, economic and environmental threats, challenges, vulnerabilities, and risks – most of a non-military nature – that cause, contribute to, intensify or trigger a 'survival dilemma' for states, e.g. drought-striken regions, and the human beings forced to leave their homes and livelihoods, require different coping strategies. Where the enemy is 'us', the consumers of fossil fuels, it is impossible to use the military to deter or to combat that threat, rather, the tools provided by international development and environment policies aiming at sustainable development and peace are needed. As these new security dangers are of a global or regional transboundary nature, only inter- and transnational coping strategies involving the states but also the societies and the national and transnational business communities will enable humankind to adapt to and mitigate against these security concerns.

While top-down initiatives to relieve or overcome the 'survival dilemma' of the most affected poor, marginalized, socially and environmentally vulnerable with the least capability to adapt and mitigate are necessary, they nevertheless have often failed. They must be complemented by bottom-up survival strategies that involve and empower these people in actively creating new livelihoods instead of waiting solely for relief aid in refugee camps. Such 'survival strategies' of individuals and of the marginalized poor in urban centres have been successfully developed. These initiatives that rely on the dignity and ingenuity of the affected victims need encouragement, national, trans- and international support (Oswald 1991, 2007)[20].

---

[20] Oswald (1991) analysed in detail the survival strategies of poor women in Mexico City during the late 1980's and early 1990's. Recently Oswald (2007) referred to list of survival strategies.