

# CLIMATE CHANGE AND SECURITY POLICY

The emerging changes in the global climate are also a challenge for security policy. While global warming is unlikely to be an immediate cause of conflicts, it threatens to accentuate a number of existing threats and risks in the developing world and in industrialized nations alike. Strengthening the governance capabilities of weak states will continue to gain importance in security-policy terms. The civil-military stabilization even of distant conflict zones is, more than ever, a matter of paramount importance for the domestic security of Europe and the US.



Road sign for hurricane evacuation route

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Climate change is a fact. The scientific data published periodically by the Intergovernmental Panel on Climate Change (IPCC) has established beyond doubt that the global climatic system is growing warmer. The extent of this warming, which has been observed in particular for the past 50 years, is unusual from a long-term perspective and is, in all probability, attributable to the human-induced increase of greenhouse gas levels in the Earth's atmosphere. The consequences include extensive melting of snow and ice, a rise of the median global sea level, and the thawing of permafrost soil.

At the regional level, mid- and long-term changes to the climate are expected, which

– in some cases – will be dramatic. These changes may be reflected in an increase of extreme precipitation events, a reduction of average precipitation levels, major heat waves, or hurricanes of severe intensity. It is difficult at this stage to predict which phenomena will manifest themselves and where; however, there can be no doubt that the challenge is a global one. Notably, the IPCC has stated that global warming is irreversible, at least for the time being. Climate politics must therefore deal in equal measure with the adaptation to unavoidable outcomes of climate change and with mitigating the rise in temperatures.

Security-policy experts are devoting increasing attention to climate change.

A broad consensus is emerging on the high relevance of the issue for security politics. In a study published in April 2007, a number of high-ranking former US generals stated that global warming will entail serious consequences for their country's national security. They demanded that climate change be included in the US national security and defense strategy. In the same month, the UN Security Council, acting on a motion by Britain, debated the security-relevant aspects of global warming for the first time. The decision of the Norwegian Nobel Prize Committee to award the IPCC and former US vice president Al Gore the Nobel Prize for Peace for their efforts to combat global warming was another strong, albeit controversial signal.

The concrete consequences of climate change for security policy are difficult to predict in view of the distant analytical horizon. Nevertheless, as far as the effects of global warming for the security-policy debate are concerned, three trends can be identified for the next 20 to 30 years. First of all, there is a danger that weak states and crisis regions outside of the OECD region will become further destabilized. Secondly, many developed countries in the Euro-Atlantic region will be confronted with greater challenges in the areas of crisis management, disaster relief, and domestic security due to the indirect effects of these regional destabilization processes as well as the increase

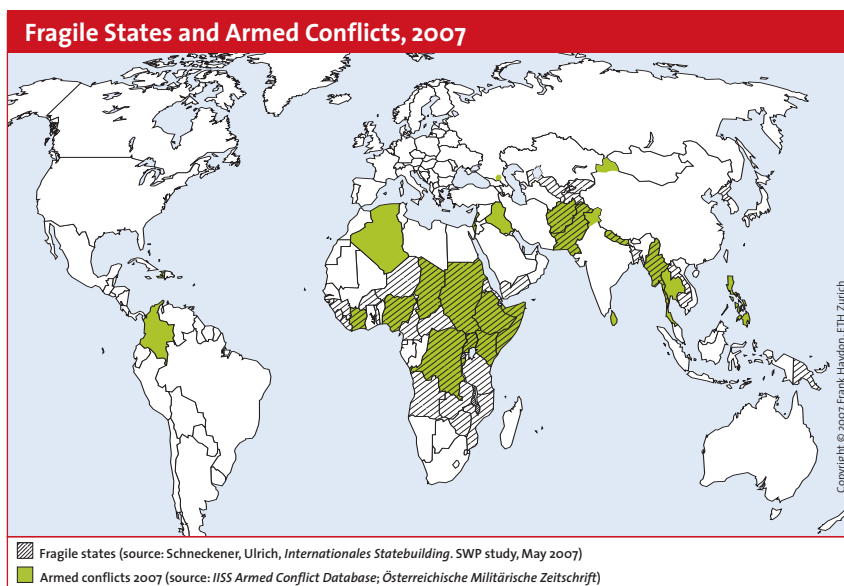
of extreme local weather patterns. Third, there is an emerging nexus between climate change and energy security that will affect developing countries and OECD states alike.

**Destabilization risks in developing countries**

Even though climate change is predominantly caused by the industrialized nations, its most serious effects will be felt in the developing countries. For example, Africa and Asia can expect to experience further shortages of potable water. In some African countries, the harvests of rain-dependent crops will diminish by up to 50 per cent. In the Himalaya and the Andes, changes in rainfall levels and the melting and disappearance of glaciers will substantially affect access to potable water, the production of foodstuffs, and energy generation.

The shortages of resources such as water and arable land will undermine human security and promote undernourishment and malnutrition, diseases, refugee problems, and poverty. These outcomes can be expected, for example, in countries that are unable to adapt their production of foodstuffs to a changing climatic environment or do not have the necessary economic resources for mitigating crises in agrarian production through imports.

In addition to their direct negative effects on human security, resource shortages can also promote conflict. While so-called environmental and resource conflicts can never be attributed exclusively to ecological factors, the example of Darfur shows how increasing competition for the use of environmental goods can interact with political, economic, and socio-cultural factors, causing measurable increases of the potential for escalation. Local governance capabilities are a decisive factor determining whether such conflicts can be resolved politically or whether they will give rise to destabilization processes. However, good governance and institutional stability are precisely what is lacking in many developing countries. The overwhelming majority of the more than 40 states that display noticeable deficits in terms of political legitimacy, the state monopoly on force, and basic social care, and which are therefore characterized as fragile or failed states, are in Sub-Saharan Africa and in Central and Southeast Asia.



Climate change may therefore result in the aggravation of existing conflicts in developing countries. On the other hand, the potential for destabilization can be expected to increase in fragile states that have so far not experienced violent conflicts. Conflicts over the distribution of resources, accentuated by global warming, and related effects such as regional migration, can diminish the functioning of fragile states in such a way that necessary adaptation processes can no longer be implemented peacefully. In Africa, in particular, there is the danger that such conflicts will spill over into neighboring states and destabilize entire regions.

**Security risks in the Euro-Atlantic zone**

In Europe and in the US, the *direct* security policy effects of climate change will remain limited for the time being. It is true that these areas can also expect to be affected by changing weather patterns, which will be felt in particular in the vegetation zones of Southern Europe. In the Alpine regions, parts of the permafrost soil are expected to thaw, which will increase the frequency of landslides and mudslides. In the US, an increase of hurricane formations can already be observed today. Although it is unclear to what extent climate change is to blame, Hurricane Katrina in 2005 showed that such catastrophes can also involve a huge damage potential even in highly developed states. However, the industrialized nations will probably be able to deal with the challenges to crisis management and disaster relief that such a development would entail. Unlike many

developing countries, they have sufficient governance capabilities to make the necessary adaptation efforts.

Challenges to security policy in the Euro-Atlantic industrialized nations will therefore consist primarily of the *indirect* consequences of climate change – the effects of violent conflicts in developing countries. Even today, the results of events in sometimes remote crisis regions constitute significant threats to the domestic security of these states. They include the trade in narcotics and organized crime, human smuggling and trafficking, illegal migration, the radicalization of ethnic groups, and terrorism. These threats may continue to increase if global warming causes an intensification and expansion of conflicts in developing countries. Against the background of increasing deterritorialization – caused by globalization – and the denationalization of threats, the international dimension of the domestic security of industrialized nations will continue to increase in importance.

**Climate change and energy security**

Another trend that must be taken into consideration is the close nexus between climate change and energy security. In this context, three aspects are particularly noteworthy. First of all, climate change can have a negative effect on the security of energy supplies. A number of oil and gas extracting countries are located in regions that will be particularly affected by global warming. There is a danger that the Middle East region, the main artery

of global energy supply, will be further destabilized by the consequences of global warming. Delivery failures in the extracting countries or disruptions in the strategically important maritime transport routes could also result from an increasing incidence of extreme weather patterns.

Secondly, however, global warming may also facilitate access to new (energy) resources. For example, the suspected oil and gas reserves in the Arctic regions will become more accessible through the melting of ice layers. It remains to be seen whether the exploitation of resources in those regions will someday become economically viable despite difficult conditions for extraction. German Foreign Minister Frank-Walter Steinmeier's warning of a "Cold War at the North Pole", in response to the spectacular Russian move to plant a flag on the floor of the Arctic Ocean, seems exaggerated from the point of view of security policy. Ultimately, all littoral states have an interest in the cooperative resolution of differences concerning national exploitation rights beyond the usual zone of 200 nautical miles.

Third, it should be borne in mind that measures to mitigate global warming may also have security-policy implications. This is true in particular for the emerging renaissance of nuclear energy. According to the International Energy Agency, energy consumption will increase by about 55 per cent between 2005 and 2030. If current trends in oil, gas, and coal consumption continue, noxious emissions are expected to rise during the same time by 57 per cent. The IPCC estimates that this would raise global temperatures in the long term by about 6 degrees Celsius. Against this background and in view of the limited availability and marked increase in the price of oil and gas, nuclear energy will probably make a comeback as an increasingly attractive option for energy supply – although the question of waste disposal remains largely unresolved.

Nuclear power generation will increase particularly in non-OECD states, according to a study by the US Energy Information Administration. Since this entails an increase of national nuclear programs, there is a danger that these may be exploited by certain states for military purposes. In

### Bali Roadmap 2007 – Framework for Negotiations on a Future Climate Regime

- ▮ Adopted at the UN Climate Change Conference in Bali in December 2007 by the state parties to the UN Framework Convention on Climate Change, including the US, India, and China
- ▮ Aim to produce an international convention by the end of 2009 which integrates emission reduction goals (not yet defined) into a more comprehensive regime
- ▮ Four key issues to be negotiated:
  - ▮ National and international action on mitigation of climate change, including consideration with regard to reducing emissions from deforestation and forest degradation in developing countries
  - ▮ Action on adaptation to the negative consequences of climate change
  - ▮ Action on climate-friendly technology development and transfer
  - ▮ Provision of financial resources
- ▮ Integration of both industrialized nations and developing countries into the negotiation framework:
  - ▮ Commitment of industrialized nations to aim for "measurable, reportable, and verifiable mitigation commitments or actions"
  - ▮ Commitment of developing nations to "nationally appropriate mitigation actions"

this context, the industrialized nations should make available their know-how for civilian use of nuclear energy in a way that minimizes the risk of proliferation of nuclear weapons and military expertise. The *Global Nuclear Energy Partnership*, which was initiated by the Bush administration in 2006 and now involves 17 states, is a step in this direction.

### Consequences for security policy

Climate change represents a security-policy challenge. It will have to be taken into account by policymakers in their threat and situation analyses in the future. However, it would be wrong to treat the factor of climate change as an immediate cause of conflicts. Its relevance for security policy consists in the aggravation of existing risks, both in the developing world and in OECD countries.

In the campaign to prevent and mitigate climate change, traditional security policy instruments only play a secondary role. Instead, the emerging requirement for action in national and international security policy is linked to the potential consequences of global warming for security policy, as outlined above. It is already becoming evident today that the strengthening of governance capabilities of weak states, as well as the reinforcement of peacebuilding in conflict regions, will become even more important in the context of climate change. More than ever, the comprehensive civil-military stabilization even of remote conflict regions will be in the interest of the domestic security

of industrialized nations. In the medium term, Europe and the US may also have to consider increasing their own capabilities and skills for crisis management and disaster relief. However, such measures will vary strongly from state to state and be determined primarily by the respective local manifestation of climate change.

Global warming not only entails the necessity of preventive measures, but also opens up new margins of action for security policy measures. Because climate change is a global challenge that concerns all countries, it can only be dealt with through multilateral cooperative approaches and solutions. This necessity of cooperation also brings up opportunities for consolidating existing security-policy structures and for creating new ones.

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