

# **The Impact of Climate Change on the Military and its Training Systems**

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Which impact has climate change for the military or is there no impact related to this issue? If so, what are the changes in the military especially for training purposes? What are the United Nations or the European Community doing for their people in training issues related to climate change?

In this essay you will get some personal remarks of a soldier (for more than 30 years) and disaster manager of the United Nations and the European Community with experience of eight disaster management missions in different regions of the world.

First of all – climate change is a fact. Nobody can say that it does not exist. A lot of small pieces put together in a puzzle show us now how dramatic it already is. And it does not only have an impact on civilians, it also has an impact on the military. But this means that we maybe have to change our planning and training according to consequences of climate change.

For Mr. John Ashton, a senior UK foreign policy official, climate change is creating the most difficult security problem since the Cold War. There is every reason to believe that, as the 21st century unfolds, the security story will be bound together with climate change. The last time the world faced a challenge this complex was during the Cold

War. Yet the stakes this time are even higher, because the enemy now „is ourselves, the choices we make“.

Recent climate change was a factor in the Darfur conflict’s „complex roots“. Rainfall in northern Darfur had declined by almost 40 per cent over the last century, creating increasing competition for water between previously co-existing peoples.

Environmental factors are often behind societal collapse. The genocidal inter-ethnic Rwandan conflict in 1994 stemmed partly from a population increase set against a background of land degradation and drought.

According to this three short flashlights it is clear that there is a relation between climate change and security and furthermore there will be a connection to military.

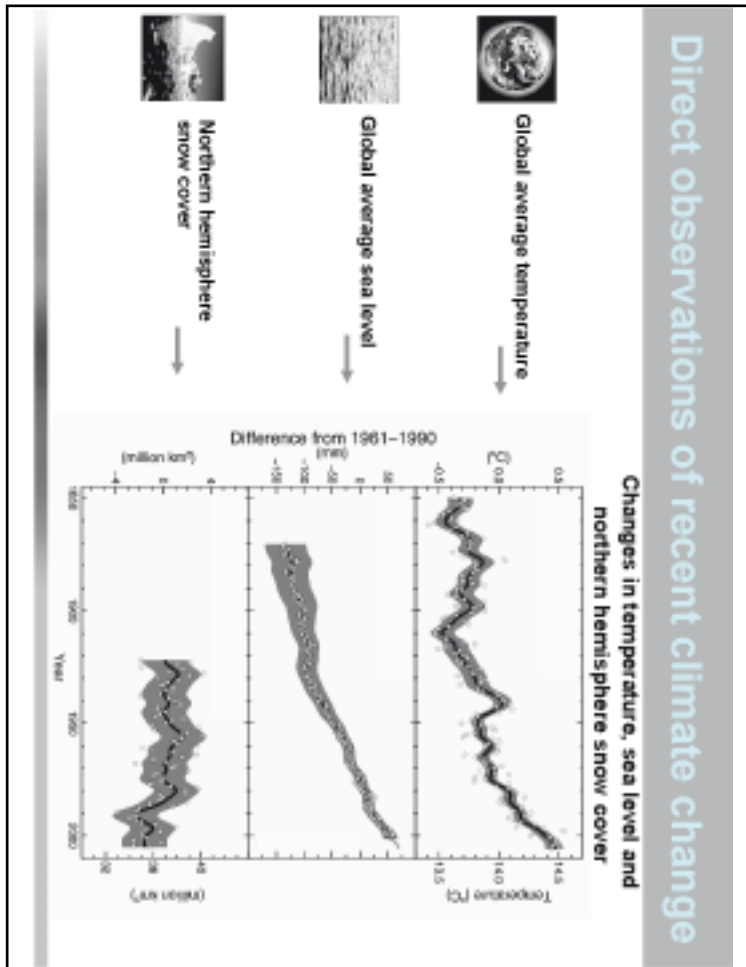
### **What is climate change and how does it impact on our military systems?**

The Fourth Assessment Report (AR4) of the United Nations International Panel on Climate Change (IPCC) of November 2007 says that the surface warming can not be stopped and in the best way the average temperature in 2090 to 2099 will be 1.1 to 6.4 degrees higher than between 1980 and 1999. About 20 – 30% of all types of animals and plants could disappear if the worldwide average of temperature increases by more than 1.5 to 2.5 degrees Celsius.

The sea level will rise up by 18 – 59 centimeters, which means a threat of flooding for millions of people till

2080.

Climate change is seriously and disproportionately affecting the lives and livelihoods of people in developing countries, increasing vulnerability to poverty and social deprivation. Its impact is magnified by the limited human, institutional and financial resources available in such nations for anticipating and responding to the direct and in-



direct effects of climate change.

More frequent and more severe droughts, heat waves, rising sea levels, more destructive tropical cyclones and changes in precipitation patterns are expected to have wide-ranging consequences for human health, food production and food security, access to drinking water and human habitat, particularly in coastal areas. The world's poorest areas of Sub-Saharan Africa, Asian river deltas, tropical areas of Latin America and some low-lying island nations face the greatest risk, both due to increased exposure to hazards and to underlying vulnerability and limited coping capacities.

Last year, drought posed a threat to more than ten million people in Kenya and Ethiopia alone. This year, devastating floods displaced over 20 million people in Bangladesh, India, Nepal and Pakistan. Tens of thousands of people in nine West African countries in the Sahel region lost their homes or livelihoods during unprecedented flooding in September 2007. There is a growing consensus among the scientific community that the increase in the severity and frequency of these extreme events is a direct result of global warming and changing climate.

Rising global temperatures will increase resource scarcity, particularly regarding water and arable land for food production. This is likely to lead to greater migratory movements, which in turn could combine with existing factors of tension to increasingly causing conflicts, both within and between countries. Demand for essential resources has already exacerbated underlying social, political and economic tensions, contributing to violent conflicts in

places such as Darfur, Chad, Somalia or the Central African Republic.

Environmental migration is the source of a new category of refugees or internally displaced persons (IDPs) leaving lands at risk, either voluntarily or because of government coercion. Rising sea levels that damage coastal regions through flooding and erosion, desertification and shrinking freshwater could create millions of environmental refugees according to some forecasts. The Institute for Environment and Human Security at the United Nations University forecasts up to 50 million environmental refugees by the end of the decade.

### Coastal settlements most at risk



As we already have seen, the effects of climate change are well known and we soon will find out that an increase of problems according to security and disasters - especially conflicts of migration and “resource wars” - will take place. For instance Africa, due to a 2-5°C temperature increase as the 21st century unfolds, will experience increased desertification, water stress and disease. In the unstable Middle East, in future there will be water stress, soil erosion

and the accelerated loss of arable land. The Indian government intends to build an eight feet high barbed wire fence for the length of its 2,500-mile frontier with Bangladesh. Delhi's intention is to prevent migration from Bangladesh as rising sea levels brought about by „catastrophic climate change“ are forecast to inundate the low-lying country.

So on the one hand we have massive potential dislocation that rising sea levels could bring to delta regions in Bangladesh, China, Egypt and Nigeria, on the other hand a drying out of continental interiors will lead to migration and tension too.

Therefore - if the consequences of climate change increase as shown before - we will have new and more acute humanitarian crises that can lead to regional instability, especially more conflicts not only between nations and states, but also inside states and regions between the different tribes as you can see already in one of the worst affected area - the Sahel, where tensions among competing nomads, subsistence farmers and other communities are increasing.

But also the retreat of glacial ice in the arctic zone may be cause for confrontation in the scramble for new resources as we already saw in the discussion about oil in the Arctic region between the different claiming nations.

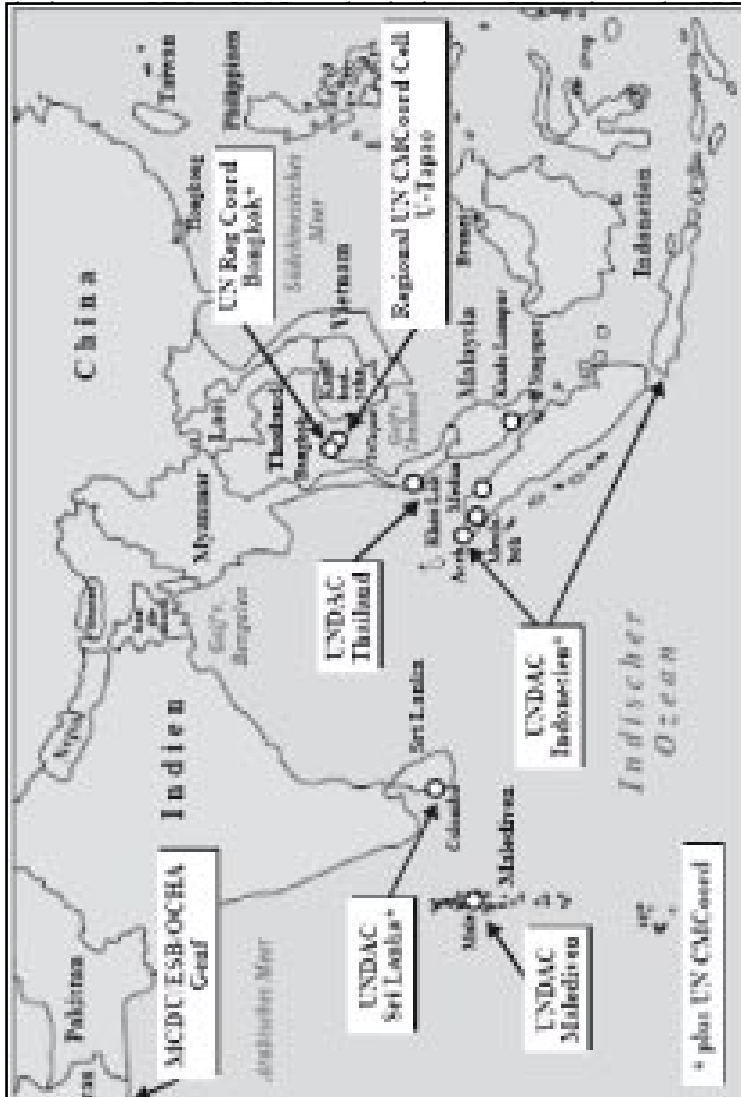
The UN Security Council will probably have to deploy more peacekeeping forces or delegate authority to regional organizations such as the African Union (AU) e.g. in the Darfur conflict. This means that Peace Support Operations are needed for stabilization in the world and in

special regions – but we will not only have Peace Keeping and Peace Enforcement but as a challenge to the consequences of climate change we also will have to fulfil more and more Humanitarian Operations. The European military will have to focus more on the Petersberg Tasks and on an increase of involvement in huge disaster relief operations.

While military forces have roles in disaster relief, the broader impact of serious climate change will require multinational, multi-agency cooperation on a scale heretofore unimaginable and could provide no-fault ground for global cooperation.

But it also means that there is a new role for military: New types of forces – dealing more with Civil Military Coordination (CIMIC), specialised training especially for disaster management operations, liaison and cooperation in international humanitarian operations like during the Tsunami in 2005 in SE-Asia, where more than 30,000 troops were operating for the affected people in the region. This was the first powerful sign of the Military and Civil Defence Assets (MCDA) project, showing that only military can provide special equipment and troops for the people on short term. But we should still keep in mind: Military is always the last resort and should not take over the civilian tasks. This is often the criticism of civilian NGOs that the military tries to fulfil “humanitarian tasks” which leads to a loss of trust in humanitarian organizations, because nobody is able to make a difference between civilian organizations and the military distributing relief goods.

See on the next page the MCDA structure, which I set up



Climate change is a security issue, but it is not a matter of national security in the narrow sense - security as we understand it today has a new dimension, this is about our



collective security in a fragile and increasingly interdependent world.

Therefore there is a need for a new definition of security especially in our military strategic concepts and tasks. The impact of climate change must be involved in military planning. Research about the impacts on security must be started and maybe it is also necessary for effective interagency actions which may require new legislation and better definition of security. Should global cooperative measures fail, the first impact will likely come from large numbers of displaced people who, by the very nature of their displacement, will become subject to malnutrition and disease; agricultural dislocation could aggravate or spark displacement and border security issues could arise as well.

The linkage of climate change and national security was and remains a very difficult target to hit directly. Further, at all points it is essential to differentiate between disaster relief and national security planning. The former is a reaction to immediate need with relatively certain requirements, the latter to planning for a problem the complete dimensions of which are, to a certain degree, unknowable and are complicated by an uncertain timeline.

In the United States several studies about climate change and security impact have been conducted and some of their recommendations were:

- The national security consequences of climate change should be fully integrated into national security and national defence strategies.

- The U.S. should commit to a stronger national and international role to help stabilize climate change at levels that will avoid significant disruption to global security and stability.
- The U.S. should commit to global partnerships that help less developed nations build the capacity and resiliency to better manage climate impacts.
- The Department of Defence should enhance its operational capability by accelerating the adoption of improved business processes and innovative technologies that result in improved U.S. combat power through energy efficiency.
- The Department of Defence should conduct an assessment of the impact on U.S. military installations worldwide of rising sea levels, extreme weather events, and other projected climate change impacts over the next 30 to 40 years.

These key findings and recommendations indicate that a lot of Armed Forces are already involved in research, findings and planning concerning with security issues caused by the impacts of climate change.

But besides these new challenges for the military we should compare the training systems which are related to Humanitarian Operations. How is this training organized in the UN and EU system? Can we adapt our training systems to this new challenge of more Humanitarian Operations, especially disaster relief operations – during the preparation of our troops for missions abroad?

In Austria, we have in general the following training system for our soldiers (see next page):



Besides that, the training for Peace Support Operations is structured into different steps and based on the general military training for the purpose of the Austrian Armed Forces according to Defence Law § 2 para 1, lit a – c. Nowadays we have a general PSO and disaster relief training followed by mission specific trainings and trainings in the future mission zone during the preparation phase for missions abroad.

To fulfil all necessary requirements for the different types of international missions and to become more interoperable, we also have to attend additional courses of international organizations, which will be discussed in the next pages.

There are a lot of courses in the NATO/PfP system, as Civil Military Coordination Courses, Civil Emergency Planning etc., but only the UN and EU training system for Civil Protection and disaster relief operations will be discussed here.

The new challenge for the military is clear: more humanitarian operations need more specialised trainings at all levels and for all ranks. To reach this high degree of interoperability, it is necessary to know about the different systems and their training opportunities.

Furthermore it would be good to be part of these training systems: for instance, the Styrian Government regularly hosts joint EU/UN On Site Operations Coordination (OSOCC) courses or the UN CMCoord course. This implicates not only training, but also the urgent needed networks worldwide which are to support good cooperation and relations.

### **The UN- Training System for Disaster Relief Operations**

According to the GA Resolution 46/182, December 1991 (“Strengthening the coordination of humanitarian emergency assistance of the United Nations”), a new office was created: the Department for Humanitarian Affairs (DHA), which was renamed in 2002 into Office for the Coordination of Humanitarian Affairs (OCHA). OCHA’s mission is to mobilize and coordinate effective and principled humanitarian action in partnership with national and international actors in order to:

- Alleviate human suffering in disasters and emergencies;
- Advocate for the rights of people in need;
- Promote preparedness and prevention;
- Facilitate sustainable solutions.

For these missions OCHA has a wide array of tools, as the United Nations Disaster Assessment and Coordination (UNDAC) stand-by teams, Military Civil Defence Assets (MCDA), OSOCC, Situation Reports, Appeals, Channeling of funds, Emergency Grants, Warehouse, Assistance Environmental Emergencies etc...

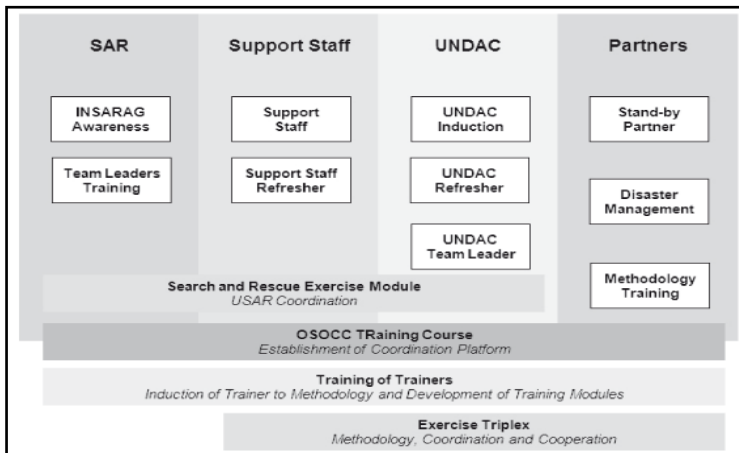


The UNDAC system, which operates on request by the affected country in all kinds of emergencies - floods, earthquakes, forest fires, hurricanes, mud slides, environmental problems, but also to complex emergencies (refugee problems like in Chad). Small teams are sent to the affected countries to assist them in overcoming of the emergency.

Inside OCHA, training is conducted by the Field Coordination Support Unit – FCSS (for UNDAC, International Search and Rescue Advisory Group - INSARAG), and in the Civil-Military Coordination Section (CMCS) for

CMCoord trainings.

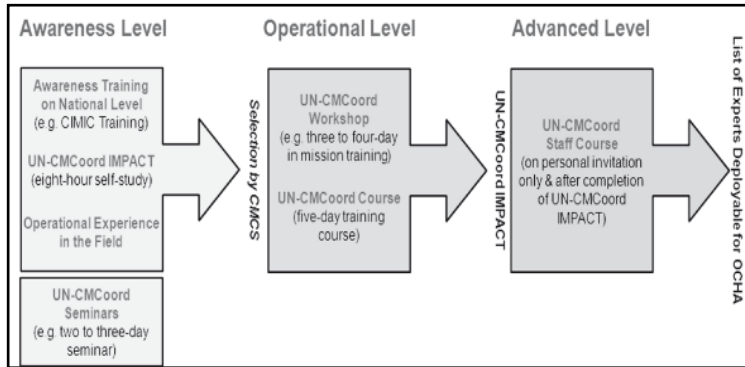
To fulfil OCHA's tasks - to develop and prepare stand-by capacities for an immediate mission after a sudden disaster to assist the Local Emergency Management Authorities (LEMA) for instance by carrying out an rapid assessment of the situation or coordinating international relief teams - the following training system consisting of courses and field exercises was created:



On the other hand, CMCS is the central partner to all questions related to Civil-Military Coordination. The UN Civil-Military Coordination (UN-CMCoord) training is one of the most effective tools to enhance the understanding between military and civilians for international humanitarian aid and to improve the efficiency and effectiveness of civil-military missions.

The courses, workshops and seminars deal with issues like coordination, civil-military cooperation, use of MCDA af-

ter disasters and complex emergencies.



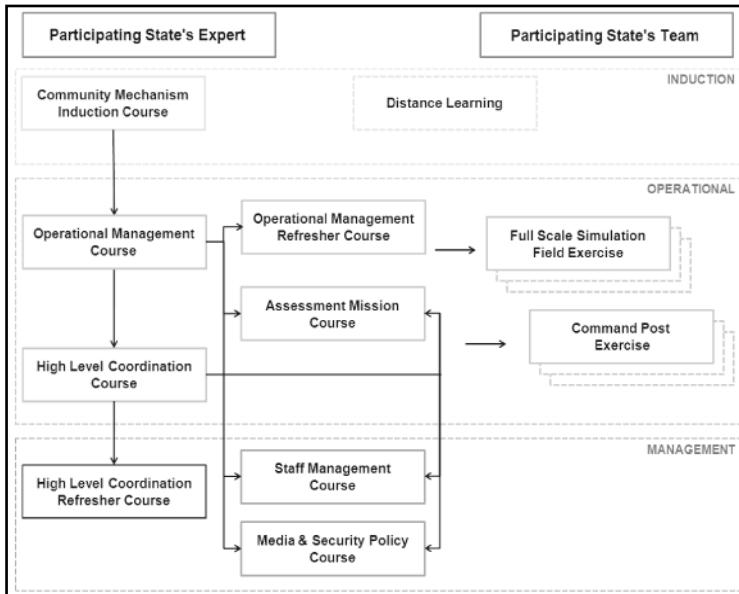
## **The European Community Mechanism training programme**

The main role of the Community Mechanism for Civil Protection (established by the Council Decision of 23 October 2001, a recast of this Council Decision was adopted on 8 November 2007) is to facilitate co-operation in civil protection assistance interventions in the event of major emergencies which may require urgent response actions.

The Community Mechanism for Civil Protection has a number of tools intended to facilitate both adequate preparedness as well as effective response to disasters at a community level:

- The Monitoring and Information Centre (MIC)
- The Common Emergency and Information System (CECIS)
- A training programme
- Civil protection modules

The Commission provides for seminars, expert exchange programmes, workshops and other training tools in co-operation with the highly developed civil protection training institutions or similar establishments. Information sharing and highlighting best practice ensures that civil protection teams are both compatible with each other as well as complementary:



These trainings are organized in different cycles and e.g. for the 6th cycle (24 months duration), there will be conducted 25 courses (2,3 Mio €): 5 CMI, 3 OPM, 2 HLC, 4 HLRCR, 3 AMC, 3 SMC, 2 MSC and 3 OPMR.

## Summary

Climate change is a fact and the effects are well known.



Problems in connection with security and disasters will increase – especially “resource wars”. There will be a new role for military - if climate change increases, more Peace Support Operations will be necessary (Peacekeeping, Peace Enforcement), but also more Humanitarian Operations, especially disaster management operations, and more tasks focused on the Petersberg Tasks.

New types of forces are needed – dealing with CIMIC, specialised training especially for disaster management operations, liaison, etc.

There is also a need for a new definition of security, especially in our military strategic concepts, and maybe additional military tasks – the impact of climate change must be involved in planning.

And last but not least – we have to implement issues related to climate change into our national training systems for all ranks and all levels. To reach more interoperability in these issues, we will have to conduct more international trainings, and also to prepare ourselves and our troops more on humanitarian operations during PSO missions.