Towards a smarter and greener defence

NATO and the green defence dimension - opportunities to be investigated

Background

For a gallon of fuel used in Afghanistan by ISAF it takes about seven gallons of fuel to deliver it!

Climate change and environmental sustainability are high on the international agenda. Reduction of the use of fossil fuels and more efficient use of energy is an important aspect of this. Consumption of large amounts of energy in peace support operations increases operational vulnerability and casualties for our forces. Therefore, over the past few years ambitious climate, energy and environmental policies have been formulated in many countries in Europe and North America. We have also seen substantial new opportunities and innovative thinking emerge when it comes to new sustainable and environmentally conscious technologies, such as wind power systems, solar panels and bio-fuels.

New thinking and the use of new technologies have also reached the defence sector. Ministries of Defence usually hold relatively large amounts of vehicles, planes/helicopters, ships and large infrastructure objects, such as buildings and exercise areas. A number of policies addressing climate and environmental issues (carbon emissions, energy, fuel consumption, waste management policies) have been formulated in the defence establishments.

It is clear that some nations have a broader experience than others in terms of formulating policies and action plans, as well as in implementing the necessary measures. It is also clear that there is a great potential for international cooperation in promoting the smart and green defence agenda.

Making defence greener and smarter is needed. The NATO summit in Chicago did address the issue of energy security, and it was decided (para 52) that reporting on progress in this regard should be made at the next summit. A proactive NATO approach to Green Defence would also show the public, that the Alliance - like many national and international organizations – is in tune with today’s realities. As such, we need to prepare the key messages on the green defence agenda in time for the 2014 Summit.

The purpose of this initiative

“Green” agenda or policies in defence establishments can have several purposes:

Firstly, to limit the detrimental impact of defence activities on the environment, for example by minimizing the use of fossil fuels and/or by using alternative/renewable fuels.

Secondly, to save money – for example, by being more efficient in the use of existing facilities and capabilities or by introducing new technologies (wind power and solar systems, bio-fuels or other alternative solutions, such as the “smart grids”).
Thirdly, to optimize operational effectiveness and lower the operational vulnerabilities. For example, reducing fossil fuel consumption or utilizing alternative and renewable energy sources limits the need for fuel convoys, which in turn puts fewer soldiers at risk, as illustrated by the frequent attacks on ISAF fuel convoys from Pakistan to Afghanistan.

Having this in mind, we should ask what NATO as an organization can do to be more environment-friendly and more energy-efficient in the way the Alliance is conducting its "business". This is relevant in NATO-led peace support operations. It is relevant for the running of the existing headquarters. It is relevant for NATO exercises.

As for now, NATO is looking at how to mitigate international security risks emanating from environmental factors, such as depletion of natural resources, pollution, extreme climate conditions, water security, etc. Energy-issues are on the Alliance’s agenda. In Chicago, the NATO nations made a decision to develop NATO’s capacity in the energy security area, including improvement of military energy efficiency, development of competence in supporting the protection of critical energy infrastructure, and development of outreach activities with partners on a case-by-case basis. Establishment of the NATO Energy Security Centre of Excellence in Lithuania in 2012 will help to develop this capacity by supporting the NATO capability development process, mission effectiveness and interoperability in all aspects of energy security.

We believe that the potential for developing a more green defence should be further explored. Therefore, we propose to consider some concrete suggestions on how the “green defence” dimension could be promoted in the Alliance.

**Possible concrete ways forward**

- Can NATO as an organization – as many nations already do - set targets for what we want to achieve in terms of energy-savings and reduction of the use of fossil fuels? The development of technologies that replace fossil fuels with alternative energy sources needs a strong political support. Therefore, we may discuss the option of including concrete targets of reduction of carbon emissions and fossil fuel consumption in the upcoming MOD political guidance. Can NATO develop a “green” policy for NATO-owned structures and agencies?

- Could we, on the basis of national lessons learned, develop some kind of code of conduct - for instance ten good/best practices that member nations could be inspired by?

- Can NATO support further development and implementation of “green” policies in member nations through more focused knowledge-sharing, common training and education? Raising awareness of the NATO policy makers and military leaders through education and training has potential. One possible way is to develop environmental and energy-related courses, or to integrate environmental security aspects into already accredited NATO courses. Such courses could be held in the NATO School in Oberammergau, the NATO Energy Security Centre of Excellence in Vilnius, the NATO Defence College in Rome, or the Baltic Defence College. In other words, how can we use NATO schools and the COEs for this purpose?

- Another way could be to perform or support studies/research/information-gathering on the economic and operational benefits of energy-efficient and climate-friendly solutions.
Can we make use of the NATO defence planning, NDPP, for example, by making it possible for nations to explain in their individual replies how they approach “green” challenges and opportunities? Another idea would be to work on incorporating common environmental and energy concerns into the NATO standards and doctrines.

How can we use Allied Command Transformation to stimulate further research, knowledge-sharing and concept-development in the green defence dimension? The NATO Science for Peace and Security Programme has supported various cooperative activities that tackle environmental issues. Moreover, it gives a possibility to enhance cooperation with Partners in the environmental security area, including energy security – such possibilities should be fully used. The NATO ENSEC COE may also be used as a platform for solid research projects.

How could we in a deliberate and focused way share the best national lessons learned and best practices, when it comes to reduction of the use of fossil fuels, applying new technologies and performing “change management” in our defence establishments? As a first step, we may consider having a follow-up to the NORDEFCO/Northern Group conference held in Copenhagen May 2012, where a number of experts discussed a broad range of challenges and opportunities concerning green defence.

As we move towards and beyond 2014 connectivity, training and exercises will be increasingly important as part of the Connected Force Initiative. Would it also be possible to include the Green aspects into a number of exercises? The ENERGEX 2012 held in Lithuania could stand as a good example of a Command Post Exercise designed to analyze how different constraints of energy supply could affect sustainability of military capabilities in an operational environment. Also, the existing NATO exercises could be enriched with scenarios covering military energy efficiency aspects as well as other environmental factors.

Can we develop a comprehensive database to collect data on energy-consumption in different NATO operations? Measuring consumption of fuels and other types of energy in the military operations, and collection of this data into one NATO database would help to prepare/improve the operational performance standards of the NATO forces.

How do we involve both the traditional defence industry and “green” industries? For example, in the application of the dual-use technologies or development of hybrid standards with both military and civilian application?

How can we promote closer cooperation between NATO and the EU, where the Commission is working on “green defence” proposals for the upcoming European Council in December 2013? One possible way could be to use the EU-NATO Capability Group that may serve as an instrument for exchange of information, sharing the best practices and helping avoid duplication. Another possibility is to mutually promote concepts and doctrines in each organization (including the European Union Military Concept on Environmental Protection and Energy Efficiency for EU-led military operations).