GREEN DEFENCE FRAMEWORK

Approved by the North Atlantic Council in February 2014
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OVERVIEW

1. Green Defence could, at this stage, be defined as a multifaceted endeavour cutting across a wide range of activities, including operational effectiveness, environmental protection and energy efficiency. It involves several domains, including operations, logistics, engineering and defence planning and it includes a wide variety of actors: civilian and military, Allies and partners, international organisations and private sector.

2. NATO’s activities, in particular operations and exercises, which involve movement, deployment, sustainment and redeployment of considerable quantities of equipment and troops, have a significant environmental impact. Security concerns related to the environment were acknowledged in the 2010 Strategic Concept. At the 2012 Chicago Summit Allies agreed to work towards significantly improving the energy efficiency of military forces. New sustainable and environmentally conscious technologies such as wind power systems, solar panels and alternative fuels have emerged and, together with innovative thinking, provide new opportunities.

3. Today, activities related to Green Defence are scattered throughout NATO and nations. These ongoing strands of work should be acknowledged. There is also a need for enhanced oversight and sharing of best practices of “green” solutions that can improve the efficiency of resources and create operational benefits at a reasonable cost.

4. NATO could tie together all these efforts in the Alliance which could potentially reduce cost and lower the risks to Allied soldiers and help reducing the environmental footprint. Increased energy efficiency responds to environmental concerns in Allies’ public opinion and demonstrates that NATO is responsive to them. Saving energy and demonstrating environmental awareness are enduring benefits. Developing this coherent Green Defence framework will contribute to the “green” profile of NATO.

SCOPE OF THE GREEN DEFENCE FRAMEWORK

5. The Green Defence framework is structured along three pillars: 1) reinforcing efforts of NATO bodies; 2) facilitating Allies’ efforts, and 3) improving NATO’s “green” profile. The Green Defence framework will be developed over time through existing structures and resources, while complementing national efforts and the work of other international organizations and avoiding unnecessary duplication.

6. NATO could establish a process for coordination, sharing of best practices, bringing together NATO stakeholders and national subject matter experts, and ensuring transparency, where necessary. To that end, further oversight and coordination of the current strands of work within NATO could add value.

7. In developing this framework, NATO’s purpose and specificity as a political-military alliance must be taken into account. The Alliance does not appear to be an appropriate venue to engage in environmental politics. Green Defence efforts will be focused on activities which add operational value and bring clear benefits. With expertise in house, in nations and in industry, NATO’s added value lies in enhanced information sharing and facilitating multinational approaches among Allies and partners, as appropriate.
TOWARDS A “GREENER” NATO: REINFORCING NATO EFFORTS

8. **Aim:** As an organisation, NATO aims to become more energy efficient and environmentally sustainable in its activities, while saving resources and enhancing operational effectiveness, where feasible. NATO will consider how “green” policies and research could be promoted within the Alliance, with the aim of enhancing national efforts.

9. **Internal coordination.** Various committees, working groups and NATO bodies work on different aspects of Green Defence. A certain degree of collaboration already exists (e.g. the Energy Security Task Force). To improve overall coordination and streamlining of activities across NATO, a focal point could be identified within existing structures and entrusted with identifying duplications as well as synergies, and producing regular updates on the “greening” of NATO.

10. **“Green” accounting.** NATO could consider the applicability of “green” standards and principles across the NATO HQ, NATO Command Structure and NATO Agencies, and consider the applicability of setting up “green” accounting and benchmarks to measure progress.

11. **NATO training, education and exercises.** Green Defence related issues should continue to be reflected, where appropriate, in NATO training and education curricula as well as exercise planning, building upon existing efforts in this area and highlighting the direct operational value of energy efficient technologies and practices. Allied Command Transformation and the relevant Centres of Excellence (COE), including Energy Security and Military Engineering COEs, should play a significant role in this endeavour.

12. **Science and technology.** The NATO Science and Technology Organisation (STO) will pursue its research efforts aimed at laying the groundwork for “greener” future military capabilities, and will continue engaging with the NATO Military Authorities. Advice of the NATO Chief Scientist on the most promising developments will be taken into account. The STO study on Power and Energy in NATO Operations could provide the basis for a comprehensive database on energy consumption on NATO operations.

TOWARDS A “GREENER” ALLIANCE: FACILITATING ALLIES’ EFFORTS

13. **Aim:** NATO aims to provide a platform for promoting and supporting cooperation among Allies, and with partners, where appropriate, allowing nations to share best practices and technologies and offering opportunities to improve national Green Defence efforts. As a next step, NATO could build on existing work to put in place a platform for information sharing and best practices.

14. **Best practices.** Over the past years, Allies have been devising ways to reduce the energy consumption of their armed forces. Rising fuel costs, the logistical challenge of supplying large quantities of fuel during operations, and the risks to the soldiers protecting fuel convoys have sparked national and multinational initiatives to explore alternative energy supplies and energy-saving technologies and minimise environmental footprint. NATO will facilitate sharing lessons learned, best practices and nationally-developed “green” technologies. As a first step towards improving exchange of information, a question on national Green Defence activities could be included in the next Defence Planning Capability Survey.
15. **Logistics.** In the area of logistics, the Single Fuel Policy promotes the use of a single fuel for all land-based aircraft, vehicles and equipment. The Policy on Power Generation for Deployed Force Infrastructure\(^1\) has been developed and its logistics implications will need to be considered by the Logistics Committee. The Vision on Future Fuels is being revised by the Petroleum Committee.

16. **Armaments.** The Conference of National Armaments Directors NATO Naval Armaments Group is addressing maritime pollution, waste management, energy efficiency and power generation. The NATO Army Armaments Group developed a number of projects that have environmental and energy savings elements. The NATO Industrial Advisory Group is looking into dual use green technologies in support of consequence management operations, and will consider the “green” aspects of capabilities whenever possible and appropriate. Opportunities for developing Smart Defence projects on “green” capabilities and equipment will be explored further by Allies and relevant NATO bodies.

17. **Smart Energy.** The Science for Peace and Security (SPS) project “Smart Energy Team”\(^2\) (SENT) is preparing a comprehensive report on countries’ strategies, projects and requirements for multinational capabilities. It will provide recommendations for strategies, standardization and multinational activities under the SPS Programme and the Smart Defence initiative, aiming at best practices and interoperability. A display of “smart energy” solutions during the Exercise Capable Logistician 2013 provides one example of concrete implementation measures.

18. **Environmental protection.** NATO Military Principles and Policies for Environmental Protection, and a range of NATO Standardization Agreements (STANAGs) and other joint standardization publications provide a solid conceptual foundation for environmental protection during the preparation and execution of military activities. The Military Committee Joint Standardization Board’s Environmental Protection Working Group is actively promoting environmental protection and developing STANAGs in this area.

**EXTERNAL ENGAGEMENT: IMPROVING NATO’S “GREEN” PROFILE**

19. **Aim:** NATO aims to provide a platform for Allies to draw upon work and expertise available in partner nations, other international organisations and industry. The Alliance’s efforts towards improved cooperation with partners and the private sector and better communication with the general public will contribute to the Alliance’s “green” profile.

20. **Public diplomacy.** Green Defence related efforts of NATO have been promoted through various public diplomacy tools. Relevant NATO COEs provide additional public diplomacy opportunities. The visibility of Green Defence efforts can be further raised by highlighting the benefits of reduced costs for Allies, lowered risks to Allied soldiers, and increased energy efficiency, all of which respond to environmental concerns in Allies’ public opinion. Additional public communication of NATO’s “green” credentials will be pursued through existing structures and procedures and within existing resources.

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\(^1\) The Policy on Power Generation for Deployed Force Infrastructure is available at: [www.natolibguides.info](http://www.natolibguides.info) under “NATO Documents”.

\(^2\) The NATO Smart Energy Team (SENT), 2015: Comprehensive Report is available at: [www.natolibguides.info](http://www.natolibguides.info) under “Reports”.
21. **Partners.** Environmental concerns related to defence activities could be a useful topic for engagement with partner nations. Allies will engage partners on Green Defence in different frameworks, including by inviting selected partners to contribute to relevant work strands of the Green Defence framework using the existing mechanisms.

22. **International organisations.** Coordination with other international organisations would be beneficial to avoid unnecessary duplication. This requires a better picture of the current strands of work in other international organisations, including on EU’s “Military Green” and UN’s “Greening Peacekeeping Operations”. Mutual briefings would be beneficial for all parties.

23. **Private sector.** Given that energy efficient and environmentally responsive technologies are mainly of a civilian or dual-use nature, appropriate ways to engage with defence and “green” industries could be pursued. The NATO Industrial Advisory Group is exploring options to play a useful role in this regard. Enhanced cooperation with industry, conducted in accordance with the Framework for NATO-Industry Engagement, could be of mutual benefit. As a concrete step, NATO activities, including exercises, where appropriate, could be used by industry as test beds for new technologies.

**WAY AHEAD**

24. Development and implementation, over time, of the work strands depicted under the three pillars should ultimately make Green Defence integral to the Alliance’s endeavours. Agreeing this Green Defence framework will provide the necessary political impetus and add visibility to the ongoing efforts of NATO bodies and among Allies. This would also make NATO better prepared to respond to the environmental challenges and resource constraints outlined in the Strategic Concept, and would enhance operational resilience. In this context, an appropriate focal point could be identified within existing structures in order to find duplications as well as synergies, and produce regular updates on the “greening” of NATO.

25. **NATO bodies will continue their efforts in a more streamlined and coordinated manner towards making NATO a “greener organization”, by incorporating relevant aspects of Green Defence in NATO training, education and exercise activities, applying “green” standards and principles across the NATO HQ, NATO Command Structure and NATO Agencies, where appropriate, and by pursuing scientific research geared towards “greener” future military capabilities. As regards procurement and infrastructure, rules, designs, standards and criteria could take into account “green” technologies and aspects.**

26. **The political commitment of Allies remains of paramount importance for successful implementation of the Green Defence framework. Allies should continue addressing concrete aspects of Green Defence related to logistics, armaments, energy efficiency and environmental protection through existing NATO committee structure, as well as through more innovative solutions, such as SENT.**

27. **Environmental concerns transcend the borders of the Alliance. It is therefore important to step up NATO’s engagement with partners and the private sector, including defence and “green” industries, focusing on the areas where NATO can add value. In this context, Allies should consider how the relevant aspects of Green Defence could be addressed in the context of NATO-EU Capability Group. The visibility of NATO’s Green Defence credentials must be raised further as well.**
RECOMMENDATIONS

28. The Council is invited to:
   a. Agree this report;
   b. with a view to reinforcing NATO efforts, within existing structures and resources:
      task NATO bodies and committees, including the NATO Military Authorities, to continue mainstreaming Green Defence efforts in their respective strands of work, as appropriate, taking into account the Green Defence framework outlined in this report;
   c. with a view to facilitating Allies’ efforts:
      1) invite Allies to share lessons learnt and best practices in the Green Defence area;
      2) encourage Allies to continue implementing the agreed policies and standards related to Green Defence;
      3) task the relevant NATO bodies and committees to consider the Green Defence implications of their ongoing work;
   d. with a view to external engagement:
      1) task the NATO staffs to continue identifying relevant areas of engagement with partner nations and international organizations on Green Defence;
      2) request the NATO Industrial Advisory Group to consider the “green” aspects of capabilities whenever possible and appropriate;
   e. invite Defence Ministers to note this report.