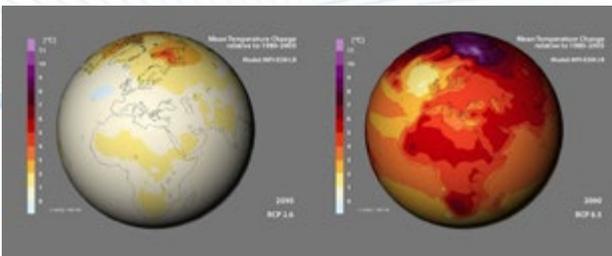


## Compendium of Best Practices

At the NATO Summit in Brussels on 14 June 2021, Allied Heads of State and Government agreed a Climate Change and Security Action Plan, with the aim of making NATO the leading international organisation when it comes to understanding and adapting to the impact of climate change on security. It provides a 360-degree approach, encompassing measures to increase Allied awareness of the impact of climate change on security. It outlines the need for clear adaptation and mitigation measures, and enhanced outreach, while ensuring a credible deterrence and defence posture.



Below you will find a few examples of how individual Allies are putting these measures into practice. They include government initiatives, public-private partnerships, military and dual-use technologies, national and international efforts reflecting the different types of interventions required to meet the challenges posed by climate change.

### AWARENESS

A number of Allies have brought the notion of climate change as a threat multiplier into their national and defence policies. Public national risk assessments highlight and analyse key risks that hold the potential to cause crises that go far beyond what can be managed locally or with ordinary day-to-day resources. These risk profiles often contain typical climate related incidents, e.g., heatwaves and drought, storms and hurricanes, coastal flooding, and extreme rainfall and can form the basis for preparedness planning.

National Defence Energy Transition Action Plans set out the approach, principles, enabling conditions and measures to make defence organisations more sustainable in a targeted manner with due regard for the financial resources available and the tasks of the armed forces.

Defence budgets are being reinforced across the Alliance to fund the measures listed in the Action Plans, i.e., to implement the enabling conditions for the energy transition, to carry out

studies and pilot projects, and to embed sustainability more explicitly in the conduct of regular activities.

The subject of climate change and security is increasingly part of the curricula of Allied military education institutions. A Multinational Capability Development Campaign (MCDC) project called *Climate Change, Global Security and Future Operations* (CLIMSEC) aims at developing a common climate security construct to provide commanding officers and planners of military activities in areas affected by climate change with a better understanding of climate changes effect on operations. Other projects identify some of the most significant new global security threats and opportunities that could occur because of climate change and assess the direct operational consequences of climate change in terms of the efficacy and viability of different types of military activity.

Allies attach great importance to raising awareness for the disproportionate impact of climate change on women and girls, as well as marginalised communities. The conclusions of the UN's Fourth World Conference on Women (Beijing, 1995) and the Beijing Platform for Action are used to measure progress in this area.

### ADAPTATION

Allies are reviewing their national crisis response plans to deal with extreme weather events, including in the areas of energy, water and food supply. National exercises test the resilience of their electricity grids, critical infrastructure and energy mix.

Through NATO's Climate Change and Security Impact Assessment, a number of climate change adaptation measures were identified, from retrofitting and improving the resilience of infrastructure to altering operational planning and training schedules.



Some NATO countries established public-private partnerships to provide a strategic and comprehensive approach to respond to defence-related energy and environmental challenges. Strategic defence and civilian stakeholder alliances can more easily integrate international defence programmes, global defence value chains and research and development projects in the areas of sustainable mobility, environmental protection, energy efficiency and renewable energy sources.

## MITIGATION

Many Allies have created action plans to frame their efforts to mitigate the effects of climate change. Often, these policies define greenhouse gas (GHG) reduction targets for 2030 and include indicative trajectories and objectives for 2040 and 2050.

Typically, national efforts to mitigate the effects of climate change include benchmarking emissions and the resources used in defence-related activities (fuel consumption, waste production, energy expenditure, use of ammunition, water consumption, chemicals, accidental emissions, etc.).

The collection, analysis and processing of data enable defence institutions to set reduction goals and strategies.

Under NATO's Science for Peace and Security (SPS) Programme, researchers work to develop technology to limit GHG emissions, including by developing green hydrogen and electricity.



Some Allied Governments have introduced environmental criteria for the procurement of different types of products and services. Energy efficiency is becoming a criterion in the development of new military equipment. Allied defence organisations play an important role in the transition by testing concrete solutions. Examples of this include:

- experiments with the use of hydrogen in long-range drones for maritime surveillance;
- the use of biofuel in the flying, sailing and driving domains;
- the renovation of Defence-built estate according to energy efficiency principles and standards and by using innovative civil construction techniques;
- the installation of photovoltaic systems and other renewable energy sources for the production of electricity and heat;

- the use of smart energy management systems leading to reduced energy consumption;
- the replacement of traditional lighting systems by LEDs;
- the development of new underwater spoilers that reduce the fuel consumption of patrol vessels;
- the use of more economic diesel and electric engines instead of the gas turbines in new frigates;
- research into energy-independent camps, including by creating a "hydrogen highway" in Europe and by developing energy-autonomous logistic hubs located in military facilities to ensure energy self-sufficiency and support green transport;
- the use of free areas in Defence-built real-estate for renewable energy production;
- the increased use of simulators by aircraft, land vehicles and submarine crews;
- the replacement of internal combustion engine (ICE) administrative vehicles with electric vehicles;
- the use of lessons learned from the civilian sector to make military heavy transport more efficient.

NATO as an organisation has developed its own methodology to identify the emissions associated with the operations of its enterprise.

## OUTREACH

Allies advocate for the integration of climate change-related concerns in all UN activities. Several nations are members of the UN Group of Friends on Climate and Security, and support the Climate and Security Mechanism.

The public sector, civil society and research institutions of NATO countries engage in collaborative networks to share knowledge, seek innovative solutions, uncover best practice examples and set collective aims and objectives with respect to climate change and security. An example of this is the Nordic-Baltic Expert Network on Climate and Security, which brings together twelve research institutes to create a space for research cooperation and to support member states from the region who serve on the UN Security Council and other multilateral and regional bodies.

In attempting to diversify their energy sources, Allies are reaching out to partners in the Middle East and North Africa region.

As members of the Organisation for Security and Co-operation in Europe, Allies support the project "Strengthening Responses to Security Risks from Climate Change in South-Eastern Europe, Eastern Europe, the South Caucasus and Central Asia". The project focuses on raising awareness, developing capacities and sharing knowledge within and among the regions, as well as through the implementation of climate change adaptation measures in the most vulnerable geographic areas (climate change and security hot spots).