CLIMATE STRATEGY OF THE FINNISH DEFENCE

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Försvarsministeriet
Ministry of Defence

Photo: The Finnish Defence Forces

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The Finnish defence Climate Strategy continues the long-standing systematic climate and energy work of the Defence and is based on existing defence policy and implementation documents. The strategy supports national climate mitigation and adaptation objectives by reducing greenhouse gas emissions, improving energy efficiency, investing in the transition to clean energy sources and leveraging green technologies. It does this while ensuring military effectiveness and a credible deterrence and defence posture. Clear objectives, effective measures and systematic monitoring and reporting, together with competent personnel and management, secure the Finnish defence roadmap through energy transition and meet climate responsibilities.

The strategy also responds to the objectives defined in the EU Strategic Compass for Security and Defence, and in the Nato Climate Change and Security Action Plan. It is a key part of the Finnish defence commitment to the defence energy and climate policies of the EU and Nato. Effective and close international defence cooperation is essential to secure joint defence capabilities and, at the same time, to manage climate-related risks and prepare for the energy transition.

The Finnish defence has identified climate change and its parallel and related phenomena, including the energy transition, as factors affecting the operating and security environment. The diverse impacts of climate change affect the global geopolitical situation and especially the Arctic region, changing Finland's security environment. The security impacts of climate change can be addressed not only through international cooperation but also by developing national foresight and preparedness. In Finland, the total defence operating model and the national risk assessment are effective tools for, among other things, managing the impacts of climate change. Climate change is also one of the key drivers of change in the government's joint foresight work aiming to prepare for future changes in the operating environment.

The Climate Strategy continues the longstanding systematic climate and energy work of the Finnish defence

The Defence Forces need to adapt to climate change and mitigate emissions. Climate risks – for example floods caused by extreme weather events, or disruptions in energy distribution and telecommunications – are also risks to main defence functions. Adaptation measures improve the management of current and future climate risks and thus ensure functional defence capacity in a changing operating environment. Mitigation measures support the national mitigation objectives and the Defence Forces preparedness for the energy transition. Proactive preparedness for the energy transition in society is a prerequisite for the continuity of defence activities. It is not possible to phase out fossil-based fuels in the short term; however, defence activities cannot depend on them. In order to maintain defence capability, it is of utmost importance to be able to utilise the types of energy available at any given time and to adapt activities to the changes taking place around them.

2. CLIMATE SECURITY

The security impacts of climate change are wide-ranging and affect Finland in the form of direct, indirect and transition impacts. Direct natural phenomena caused or intensified by climate change may damage infrastructure critical to society, such as power supply disruptions caused by the combined effect of soil frost decline and storms. Impacts arising from climate policy measures and climate change mitigation, such as a transition from fossil fuels to renewable energy, can be regarded as transitional effects of climate change.

Cascading and cross-border effects are related to the political, economic and cross-border consequences of climate change. For example, exceptional weather conditions around the world can cause production difficulties and disruptions in supply chains, which may also be felt in Finland. The consequences may become even stronger if they are combined with disputes and confrontations between states. Climate change is linked to several other root causes of immigration and strengthens the push factors in migration. Climate change may increase the size and unpredictability of migration, and the ability to control it, posing security risks. The indirect impacts are essentially linked to geopolitical and economic phenomena and thus to broader change in the security environment.

Systematic research, foresight and analysis provide tools for the defence to manage the climate change-related security risks

A key change in the operating environment for Finland is the opening up of the Arctic region, which increases the strategic and security policy weight of the region. Geopolitical changes can be expected from safeguarding the raw materials required for the energy transition or from phasing out fossil production. Finnish defence will take into account the climate change impacts on the security environment by using research, foresight and analysis. In the years to come, climate change security analysis will be created for national Defence, Foreign and Security policies. The security impacts of climate change will be taken into account more systematically as part of the production of the knowledge base and strategic planning.

The energy transition towards a fossil-free energy system and better energy efficiency are important factors in defence energy security. Securing the energy supply during disturbances in normal conditions and in emergency conditions is essential for preparedness. By improving energy efficiency and utilising alternative energy sources, it is possible to achieve better performance at lower cost, improve security of supply and reduce the vulnerability of activities. Better energy efficiency will also benefit the logistics system. A higher independent functional capacity and longer operating distances will create new opportunities for planning and implementing operations. Energy efficiency measures in office premises will also generate long-term savings.

The connection between climate risks and security risks (Climate Change Adaptation Plan of the Finnish Defence Administration)

3. FINNISH DEFENCE

Photo: The Finnish Defence Forces

Finland's defence solution is based on a strong national defence capability as part of Nato's collective deterrence and defence. Alongside being a member of the EU and Nato, and in addition to being allied with the United States, Finland still needs strong and credible national defence. Conscription, an extensive and trained reserve with a wartime strength of 280 000 soldiers, and a high resolve to defend the nation will remain the cornerstones of national defence in the future.

To prepare the armed forces for climate change, it is necessary for the Finnish defence to take action to support national and international climate commitments without jeopardising defence capabilities and defence development. The following organisations are responsible for the supporting measures: the Ministry of Defence; the Finnish Defence Forces; and Defence Properties Finland

THE MINISTRY OF DEFENCE

The Ministry of Defence is in charge of the climate and energy policy relating to national defence. It oversees national defence policy and international cooperation in defence policy matters. It steers defence policy and coordinates tasks in the government that are connected to the total defence. The Ministry of Defence is also responsible for the resources and operational preconditions of military national defence, as well as for the development of Finland's defence as a member of the EU and Nato and in international defence cooperation. In addition, it takes part in international crisis management and European security structures, coordinates the total defence, maintains the will to defend the country and provides executive assistance to other authorities on request.

Photo: The Finnish Defence Forces

In 2024 the budget of the Finnish Defence Forces is EUR 5,5 billion, excluding pensions and VAT. Material procurement has a share of 56 %, of which the acquisition of F-35 fighters is financially the largest project.

THE FINNISH DEFENCE FORCES

One of the main climate responsibilities of the Defence Forces is operational energy management during the energy transition towards carbon neutrality without compromising defence capabilities. The principal task of the Defence Forces is the military defence of Finland, which includes ensuring Finland's territorial integrity, securing the livelihood and basic rights of its population, and securing the government's freedom to act. It also includes defending the rule of law with military force if an armed attack or corresponding external threat is directed at Finland and providing military training and education. In addition to military national defence, the Defence Forces support other national authorities, provide international assistance, participate in international activities fulfilling defence cooperation agreements, and take part in international military crisis management operations.

Finland's defence is based on strong national defence as part of Nato's collective deterrence and defence

Annually, the Defence Forces, with 12 000 personnel, train approximately 22 000 conscripts and 40 000 reservists. The Defence Forces have a total area of 294 000 ha in military use in a nationwide network of defence training, storage and operational areas.

DEFENCE PROPERTIES FINLAND

Defence Properties Finland is responsible for defence infrastructure energy efficiency, resilience and climate mitigation measures concerning properties. As a strategic partner of the Defence Forces it is responsible for the defence properties (6 000 buildings with a floor area of 2,7 million square metres), their maintenance and the organisation of services in all security situations. Readiness, preparedness and responsibility are at the core of all its activities. Defence Properties Finland is an unincorporated state enterprise and started operations on 1 January 2021 as a subsidiary unincorporated state enterprise of Senate Properties.

Photo: The Finnish Defence Forces

CLIMATE AND ENERGY STEERING DOCUMENTS

Finnish defence energy and climate strategic documents referred to in this strategy:

- Ministry of Defence Guidance to Defence Command on Long-term Strategic Energy and Climate Targets and Measures
- Climate Change Adaptation Plan of the Finnish Defence Administration
- The Energy and Climate Programme of the Defence Forces 2022–2025 (3rd Revision)
- Roadmap to Greenhouse Gas (GHG) Emission Reduction of the Defence Forces 2023

The Finnish defence is supported by many other strategic partners, who have an important role in national defence and preparedness for climate change. The national defence industry and other strategic service providers have a responsibility to maintain their operational capabilities in changing climate conditions.

4. CLIMATE CHANGE ADAPTATION

Photo: The Finnish Defence Forces / Combat camera, Samuli Haapala

Despite effective global climate change mitigation measures, the climate continues to change, and the ability to adapt is essential. Climate change will have significant direct and indirect impacts on the Finnish defence. In addition to changing weather and climatic conditions, these impacts include the consequences of climate change mitigation measures, such as efforts to reduce emissions, a transition from fossil fuels to renewables, and spillover effects on the security environment. They will inevitably also have economic impacts. Therefore the Finnish defence also needs to manage climate risks and to adapt operations in line with climate change in order to maintain the capabilities and preconditions for defence in the future.

The Climate Change Adaptation Plan of the Finnish Defence Administration has addressed the need for the Defence Forces to prepare for the impacts of climate change and the energy transition in a proactive way. This plan assessed the risks by examining the exposure and vulnerability of objects and functions to climate change phenomena, on the basis of which key risks were identified. The risk assessment identified the fact that climate change phenomena can pose risks to infrastructure, equipment, operations and personnel across a fairly broad front. To minimise and manage risks is to invest in securing defence capabilities far into the future.

Photo: The Finnish Defence Forces

The National Climate Change Adaptation Plan 2030 states a vision of wellbeing, safety and security in a changing climate. The plan sets three goals, which are specified in more detail through 10 themes and 24 targets. The goals are:

The goals are:

- Actors in society have a strong will to adapt to climate change.
- Actors in society have access to efficient means to assess, prevent and manage climate change-related risks to nature and society.
- Actors in society have the capacity and capability to prevent, prepare for and manage climate change-related risks to nature and society.

The Climate Change Adaptation Plan of the Finnish Defence Administration complements the National Climate Change Adaptation Plan 2030. The plan states a vision of climate-resilient and energy –smart defence. It contains the goals for climate change adaptation and discusses the needs for measures that have been identified. While the target year for the proposed measures is 2030, the long-term aim is 2050, in keeping with EU policy.

The goals are:

- The Finnish defence identifies and understands the impacts of climate change and the energy transition on the performance, training, exercises and planning of national defence.
- The Finnish defence understands the security impacts of climate change nationally and internationally, and recognises and is able to anticipate its own role in relation to them.
- The Finnish defence has the ability to manage the known climate risks and to identify and assess new risks actively.
- The Finnish defence is able to take advantage of the positive impacts of climate change.

IDENTIFIED ADAPTATION NEEDS:

- Floods
- Increase in rainfall
- Near-freezing temperatures
- Longer heat waves
- Shorter snow season
- Prevention of alien species, pandemic preparedness.
- Changes in ice conditions at sea
- Warmer winters, hotter summers
- Climate change mitigation
- Security impacts

ADAPTATION MEASURES:

- Integrating adaptation into activities and planning
- Adapting the changing operating environment to a changing climate
- Preparing for and adapting to the energy transition
- Managing health risks

Adaptation to climate change is necessary to maintain and develop defence capabilities

Photo: The Finnish Defence Forces

5. CLIMATE CHANGE MITIGATION

Photo: The Finnish Defence Forces

The National Climate and Energy Strategy outlines measures by which Finland will meet the EU's climate commitments for 2030 and achieve the targets set in the Climate Change Act for reducing greenhouse gas emissions by 60 per cent by 2030 and becoming carbon neutral by 2035.

The strategy focuses on the green transition and the phasing-out of fossil energy. With regard to heat production, the strategy focuses on promoting non-combustion-based heating. The strategy includes a national hydrogen strategy to promote the hydrogen economy and electrofuels, and to set quantitative targets for hydrogen electrolysis capacity.

The climate objectives of the Finnish defence support the carbon neutrality objective of the Government Programme without compromising the defence capability in accordance with the Defence Policy Report. For the last decade, as part of the Defence Forces' Energy and Climate Programme, the focus of attention has been particularly on the energy efficiency of properties, emissions reduction and, to an increasing extent, on the emissions caused by fuel consumption in operations. Tangible measures to reduce GHG emissions from fuel consumption were planned in a roadmap in 2023. The first step is to increase the use of renewable diesel in land vehicles. The roadmap will be updated in 2025 and 2028. These measures to reduce emissions also serve the need to prepare for the energy transition. It is important to execute the energy transition in such a way as to support capabilities rather than put them at risk.

The Energy and Climate Programme of the Defence Forces was updated in 2022. The aim of the Programme is to improve the energy efficiency and climate responsibility of the Defence Forces' activities and to promote the maintenance of capabilities in all circumstances and situations.

VISION FOR 2035

The Finnish Defence Forces

- is energy efficient and has high climate responsibility in all activities.
- is prepared for the energy transition so that it's able to utilise available fuels and other energy resources in the future.
- has energy systems that are resilient so that the energy intake is secured in all situations.
- systematically report energy consumption and its impacts on climate.
- is aware of the cost of its energy consumption.
- maintain its level of performance in the changing climate conditions.

THE GOAL FOR GHG EMISSIONS FROM FUEL CONSUMPTION

- By 2030, the GHG emissions of army and navy vehicles will be halved from the 2020 level. As a boundary condition, the military capabilities shall not be compromised. The possibilities for reducing GHG emissions in aviation will be studied.

  Renewable liquid fuel is currently the most important means of achieving the desired emission reductions because it will not be possible to solve the capability requirements of the Defence Forces by the 2030s using other energy solutions. The introduction of renewable forms of energy will also support the defence capability, as society aims to phase out fossil fuels.

THE GOAL FOR ENERGY CONSUMPTION AND GHG EMISSIONS OF PROPERTIES

- Energy consumption in properties will be reduced by 4 % during the period 2022–2025. By 2025, GHG emissions from the maintenance of properties will be reduced by 75 % from the 2020 level.
- By 2030, the target is to achieve carbon neutrality in the management of properties.

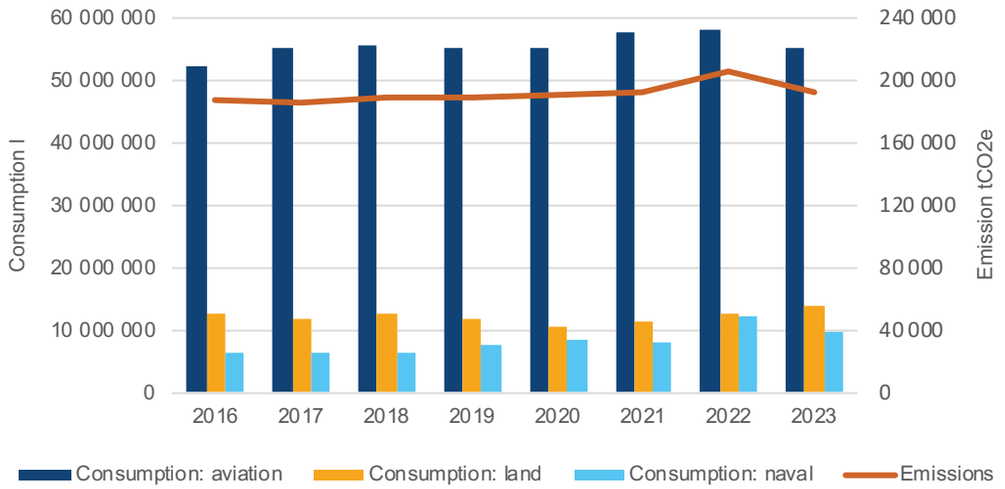
MITIGATION MEASURES:

- Developing energy leadership and enhancing know-how.
- Developing energy- and climate-related communication, education and reporting.
- Developing solutions and good practices to reduce energy consumption and emissions in Defence Forces' activities.
- Ensuring energy supply in disruptive situations and emergency conditions.
- Preparing for the energy transition and other social impacts of climate change.
- Reducing emissions from traffic by using renewable and low-emission energy.
- Recognising climate risks and taking them into account in planning activities and infrastructure. Developing systematic climate risk management.
- Developing consideration of energy efficiency and climate effects in projects, procurement and life cycle management.
- Developing consideration of energy efficiency and climate effects in the use and maintenance of properties.

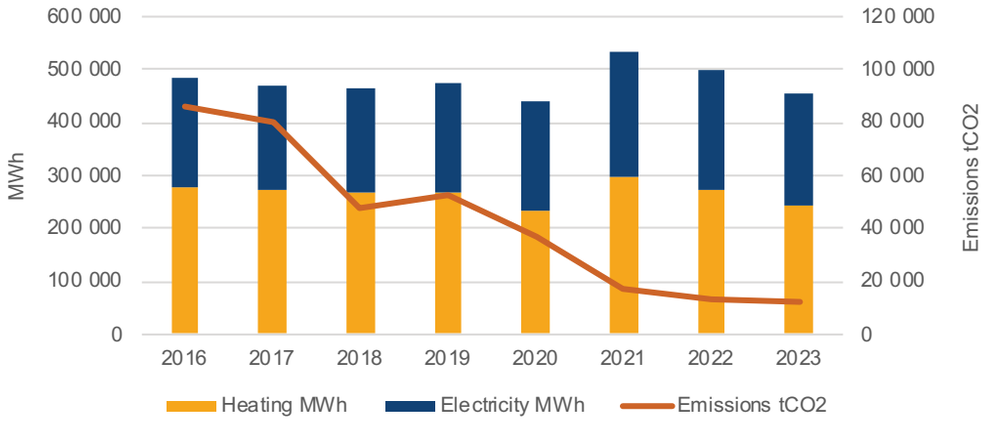
The Finnish defence's climate change mitigation measures support adaptation to the ongoing energy transition

Photo: The Finnish Defence Forces

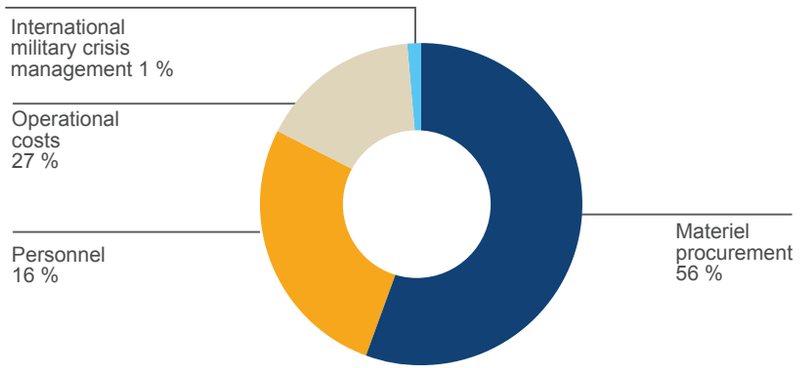
FUEL CONSUMPTION AND EMISSIONS



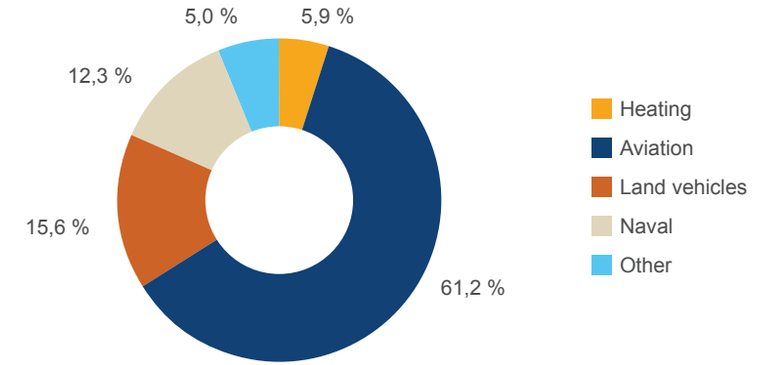
REAL ESTATE ENERGY CONSUMPTION AND EMISSIONS



DISTRIBUTION OF DEFENCE FORCES BUDGET 5,5 BN EUR (2024)



GHG EMISSION DISTRIBUTION (2023)



6. INTERNATIONAL DEFENCE COOPERATION

Photo: The Finnish Defence Forces

International defence cooperation plays an important role in supporting national defence in preparing for climate threats and risks. Research, analysis and foresight, adaptation and mitigation are all important areas in which international cooperation is necessary and beneficial for the defence community in maintaining and developing defence capabilities. In the near future, significant investment and resources are needed for R&D concerning the suitability for defence applications of new technologies related to the energy transition. Controlled defence transition towards a carbon-neutral environment is possible but achievement of it will take time and joint effort.

As a member of Nato, Finland will actively take part in discussion of the impact of climate change in the Alliance. The Nato Strategic Concept describes climate change as one of the key challenges of our time, with a strong impact on the security of allies. Finland supports Nato's aim of becoming a leading international organisation in understanding and adapting to the security impacts of climate change. The objective is promoted with the help of Nato's Climate Change and Security Action Plan, which means that aspects related to climate change must be taken into account in Nato's political and military preparation.

The European Union is actively promoting a defence effort in energy transition. The European Defence Agency and Commission have taken long-term voluntary actions, at the request of Member States, to enhance defence energy efficiency and security, to increase the share of renewable energy, and to improve mitigation and adaptation measures in key defence areas. EU funding tools have also been made available for defence projects, offering greater resources for actions supporting EU climate goals. Cooperation with research institutes and the defence industry have also created a fruitful community platform that produces valuable information and opportunities for Finnish defence climate actions.

In bilateral cooperation and other international cooperation, platforms such as the Nordic Baltic Defence Estates and DEFNET play an important role for Finnish defence in specific climate areas. Climate issues are already an established topic in these groups, and the importance of this topic is not going to decline in the future.

Defence transition towards a carbon-neutral environment requires time and joint effort

Photo: The Finnish Defence Forces

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