

APPROACH TO MANAGING THE IMPACTS OF CLIMATE CHANGE ON THE DEFENCE OF THE CZECH REPUBLIC



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Introduction

Climate change and its consequences carry risks that permeate all areas of society, including defence and security. As a result of climate change, the world will face new security challenges in the coming decades shaping the security and operational environment, the nature of conflicts, the required military capabilities and the operational procedures of the armed forces.

Extreme natural phenomena linked to climate change may deepen instability on both regional and global scales, threaten energy security, increase migration, and cause food shortages or other humanitarian crises. These factors may increase tensions and intensify conflicts, threatening the security of the Czech Republic and its Allies.

The impacts of climate change will also influence the role, shape, and capabilities of the armed forces. They must be prepared for an increased likelihood of operations being conducted under extreme climatic conditions. The need for adaptation and readiness in the defence sector will grow accordingly. This will affect training and operational procedures, the frequency of deployments, and demands on infrastructure, equipment, resilience, and the health of military personnel.

The North Atlantic Treaty Organisation and the European Union both understand the influence of climate change on armed forces and the need for their adaptation. At the Brussels Summit in 2021, Allies agreed that NATO should be the “leading international organisation” in addressing the security and defence implications of climate change, a position reaffirmed in the NATO 2022 Strategic Concept (the “Strategic Concept”).¹ Similarly, the climate and defence agenda is highlighted in the 2022 EU’s Strategic Compass for Security and Defence (the “Strategic Compass”),² where climate change, environmental degradation, and natural disasters are identified as multipliers of other threats and challenges.

In the Strategic Compass, EU Member States pledge, among other things, to develop their national strategies for preparing their armed forces for climate change. The Czech Republic fulfils the commitment with this document.

The necessity to ensure environmental security, mitigate climate change, and manage its impacts on security and defence is also set out in the 2023 Security Strategy of the Czech Republic³ and the 2023 Defence Strategy of the Czech Republic.⁴ Within the Ministry of Defence of the Czech Republic (the “MoD”), there are already initiatives and measures being implemented to adapt to the effects of climate change and reduce the negative impact of human activity on the environment. However, given the rise in security threats linked to climate change and the evolving national and international policies in this area, there is a growing need for a coordinated approach within the MoD to address these challenges.

¹ The NATO 2022 Strategic Concept, adopted by NATO Heads of State and Government at the 2022 Madrid Summit.

² A Strategic Compass for Security and Defence, adopted by the European Council on 23 March 2022.

³ Security Strategy of the Czech Republic 2023, approved under Resolution 478 of the Government of the Czech Republic of 28 June 2023.

⁴ Defence Strategy of the Czech Republic 2023, approved under Resolution 737 of the Government of the Czech Republic of 4 October 2023.

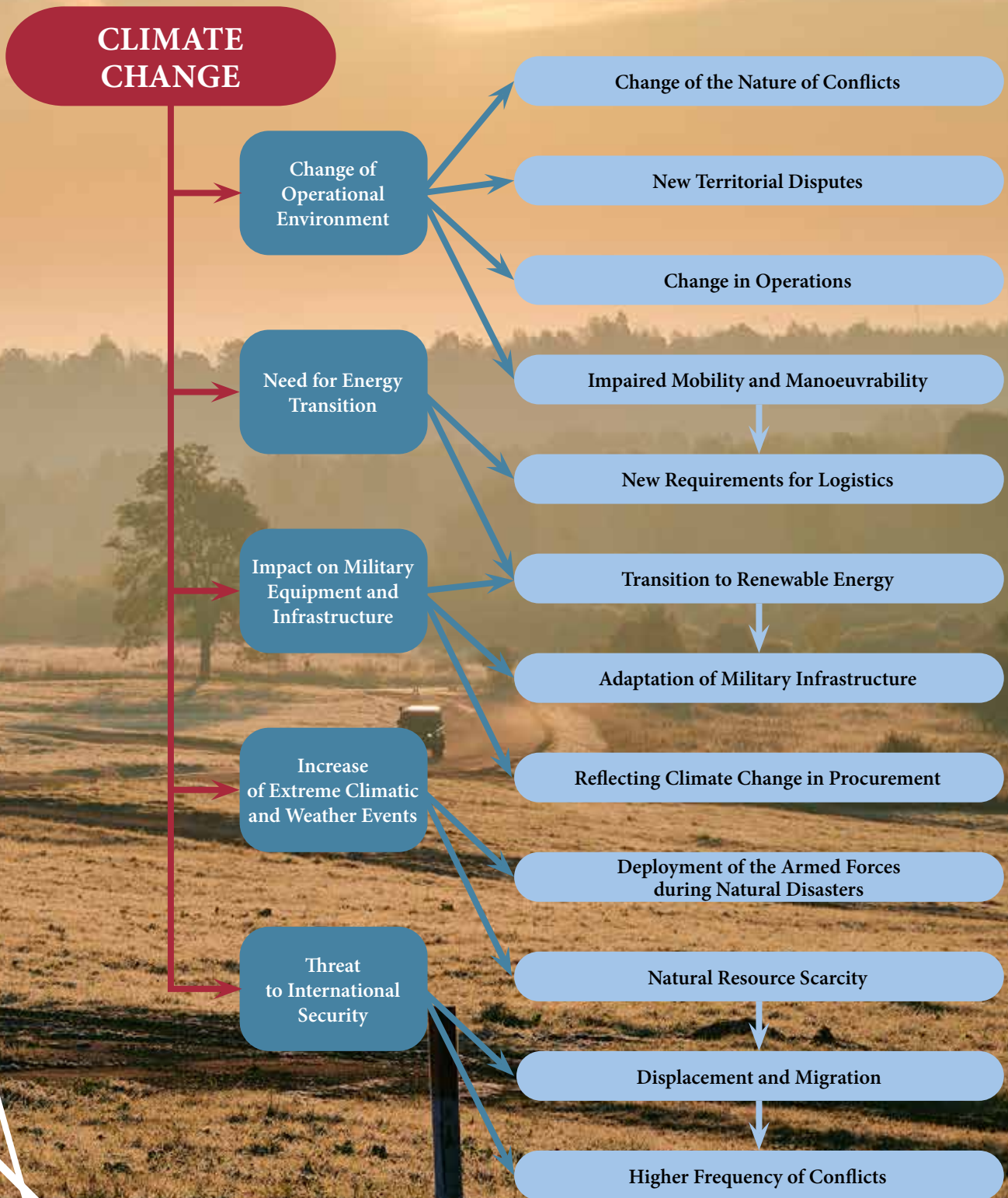


Purpose and objectives of the document

This document sets out the primary goals for the adaptation of the MoD to climate change and establishes the approach to preventing and coping with climate risks. The Approach deals simultaneously with environmental protection and climate change in the defence context, as these two areas are closely interconnected.

There is a two-way relationship between the impacts of climate change and defence activities. On one hand, it is necessary to adapt military capabilities to the demands of operating in environment affected by climate change; on the other, the MoD faces increasing requirements in the form of political commitments and regulatory measures aimed at mitigating the negative effects of its activities on the environment.

Impact of climate change on defence capabilities



1. Impacts of climate change and climate risks on defence capabilities

- Climate risks⁵ can influence the geopolitical landscape, posing a threat to international security and stability, and are among the factors **exacerbating armed conflicts and migratory flows**.
- More frequent extreme climatic events⁶ place **greater demands on the resilience and endurance of the troops, as well as on objects important for national defence**. That includes installations, training sites, equipment, personnel, military technology (especially that equipped with sensitive electronics), logistics support, and operational support in areas of deployment.
- The effects of extreme weather events **impair the mobility and manoeuvrability of land forces** in the terrain, **restrict air operations**, reduce the availability of air support and airlift, jeopardise flight safety, burden logistics, and increase the consumption of energy and fuel.
- Disruption of infrastructure due to extreme weather events may, beyond the direct threat and limitation of armed forces' capabilities, also **cause significant financial losses and increase the costs** of reconstructing and restoring military installations, technologies, and capabilities.
- With the implementation of the international climate commitments, the **armed forces will increasingly be pressured to transition to low-emission energy sources** and reduce their carbon footprint, imposing new demands on technologies, processes, and costs in the future.
- The **ongoing energy transition** associated with new energy sources will reduce dependency on external energy suppliers and thus lower vulnerability of the logistics supply chain. At the same time, it will **place new demands on logistics and its resilience**.
- The more frequent extreme climatic events and natural disasters **will lead to more requests to deploy the armed forces in support of the Integrated Rescue System**.
- Changing landscapes in certain regions will give rise to **new territorial disputes**, notably in the Arctic, where warming is opening new transport routes and opportunities for resource extraction. The growing strategic importance of this area may contribute to the further destabilisation of the international security environment.

⁵ Climate risks are defined by the Intergovernmental Panel on Climate Change (IPCC) in *Climate Change 2022: Impacts, Adaptation and Vulnerability*. These include risks related to adverse effects on terrestrial and marine ecosystems, public health, and food and raw material security.

⁶ Direct threats and impacts of climate change on the operational environment include phenomena such as extreme heat, drought, widespread fires, soil erosion, desertification, extreme precipitation events linked with hazardous weather phenomena (storms, flash floods, hail, gales, tornadoes), floods, and rising sea levels in coastal areas.



2. Background and current situation

2.1. National climate strategy documents and goals

The Ministry of the Environment coordinates the Czech Republic's national policy and strategic direction in environmental protection and adaptation to climate change. The overarching policy document defining the Czech Republic's goals in climate change mitigation is the Climate Protection Policy of the Czech Republic (the "Climate Policy").⁷ The Climate Policy sets out measures to reduce greenhouse gas emissions and to achieve climate neutrality by 2050, while ensuring favourable socioeconomic development and the competitiveness of the Czech economy. One of the crucial targets defined by the Climate Policy is to reduce greenhouse gas emissions by at least 55 % by 2030 compared to 1990. This is to be achieved through the development of renewable energy sources, energy savings, and the phasing-out of fossil fuels, including the complete termination of coal mining and coal-fired electricity and heat production by 2033.

The key national documents defining the Czech Republic's climate change adaptation goals are the Strategy on Adaptation to Climate Change in the Czech Republic⁸ and the subsequent National Action Plan on Adaptation to Climate Change.⁹ These documents aim to reduce vulnerability and limit the impacts of climate change on the Czech Republic through measures targeting specific areas affected by climate change, such as forestry, agriculture, the landscape water management, biodiversity and ecosystem services, health and hygiene, urban landscape, tourism, industry and energy, transport, cultural heritage, and safe environment.¹⁰ They respond comprehensively to all identified climate change phenomena in the Czech Republic, including prolonged drought, floods and flash floods, heavy rainfall, rising temperatures, extreme heat, severe winds and wildfires.

The influence of climate change on defence is also recognised in the 2023 Defence Strategy: *"Where relevant, the impact of climate change on the security and operational environment, the nature of conflicts and the operational standards of the Czech and Allied forces (including the limited availability of vehicles using fossil fuels in the future and the advent of alternative energy sources) will be reflected in developing the defence capabilities of the Czech Republic."*¹¹

The energy sector is addressed by the State Energy Policy,¹² developed by the Ministry of Industry and Trade, which rests on three strategic goals: ensuring the security of energy supply, competitive and socially acceptable energy prices, and sustainable energy management. The State Energy Policy measures will lead to the gradual decarbonization of the Czech energy mix, transitioning from predominantly fossil fuels towards greater diversification by strengthening nuclear energy and renewables.

The above-mentioned national climate policies and strategies are concerned with defence only marginally. The impact of climate change on certain specific areas, such as defence planning and armed forces deployment, is not addressed at all. This is one of the reasons for producing this document, which focuses on managing the impacts of climate change on defence. However, the objectives and measures it outlines for the MoD, are fully consistent with all the national policy documents mentioned above.

⁷ Climate Protection Policy, approved under Resolution 564 of the Government of the Czech Republic of 22 June 2016. This document is currently under revision.

⁸ Strategy on Adaptation to Climate Change in the Czech Republic for 2021–2030, approved under Resolution 785 of the Government of the Czech Republic of 13 September 2021.

⁹ National Action Plan on Adaptation to Climate Change, serving as the implementation document for the Strategy for Adaptation to Climate Change in the Czech Republic. The update of the action plan for the 2021–2025 period was approved under Government Resolution 785 of 13 September 2021.

¹⁰ The aim is to achieve a highly efficient early warning system and a responsible public response to crisis situations resulting from climate change.

¹¹ Defence Strategy, paragraph 81.

¹² Policy, approved under Resolution 362 of the Government of the Czech Republic of 18 May 2015. This document is currently under revision.

2.2. International climate and defence commitments

The Czech Republic has committed to international cooperation on climate change mitigation, climate change adaptation, and climate action financing by signing the United Nations Framework Convention on Climate Change¹³ and related documents, the most recent being the Paris Agreement signed in 2015.¹⁴ This Agreement establishes obligations for all EU Member States and other signatories, including major global emitters such as China and the United States. Its primary goal is to keep the rise in average global temperature well below 2.0 °C compared to pre-industrial levels, and to pursue efforts to limit the increase to 1.5 °C.

Interim results indicate that, to meet the original target of the Agreement, measures to reduce greenhouse gas emissions will need to be tightened further. At the United Nations Climate Change Conference in December 2023, the parties agreed to triple renewable energy use, double energy efficiency, and phase out fossil fuels. At the following conference in Baku in December 2024, states committed to increase financial expenditure to meet climate commitments.

The low-emission development goals defined in the Climate Policy stem from the Paris Agreement and existing EU commitments. In 2019, the European Commission introduced the European Green Deal (the “Green Deal”),¹⁵ which was subsequently adopted by both the European Council and the European Parliament. The Green Deal aims to transform the European economy to ensure long-term sustainability, enabling growth without increasing the exploitation of natural resources. Its goal is to achieve carbon neutrality in the EU by 2050 and to decouple economic growth from natural resource use. The Green Deal is legally binding through the European Climate Law.¹⁶ In 2019, the Fit For 55 climate package was also adopted, mandating the EU to reduce greenhouse gas emissions by 55% by 2030 compared to 1990.¹⁷

2.2.1. NATO objectives and activities

NATO actively addresses the security impacts of climate change within the scope of its Climate Change and Security agenda. These topics have been included in the forward-looking reflection process “NATO 2030” and the subsequent Strategic Concept, which recognises climate change as one of today’s defining challenges, with profound effects on the security of Allies and as a multiplier of crises and threats.

Since 2021, every NATO summit has covered climate change. In that year, the Allies adopted the NATO Climate Change and Security Action Plan,¹⁸ aiming to weave climate considerations into NATO’s political and military agenda, in particular by raising awareness, adapting to climate change, and mitigating the impact of military activities on the climate by reducing emissions. Each year, NATO assesses the security implications of climate change, including effects on the strategic environment, missions, operations, and the adaptation of allied armed forces to maintain operational effectiveness.¹⁹ The Alliance also integrates climate considerations into resilience, civil preparedness, defence planning, innovation, mission and operational planning, training and exercises, and disaster response. To mitigate climate change, NATO developed its Greenhouse Gases Emission Mapping and Analytical Methodology.²⁰

In 2022, NATO nations including the Czech Republic committed to integrating climate change into the Alliance’s core tasks (deterrence and defence, crisis prevention and management, and cooperative security). NATO itself set a target to

¹³ United Nations Framework Convention on Climate Change, adopted at the United Nations Conference on Environment and Development in Rio de Janeiro in 1992.

¹⁴ The Paris Agreement, adopted by the parties to the United Nations Framework Convention on Climate Change in 2015.

¹⁵ European Green Deal, presented by the European Commission on 11 December 2019.

¹⁶ Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 (“European Climate Law”).

¹⁷ Fit for 55 legislative package, approved by the European Commission on 9 October 2023.

¹⁸ NATO Climate Change and Security Action Plan, adopted at the NATO Brussels Summit in 2021.

¹⁹ According to the second assessment report from 2023, extreme climatic conditions place excessive strain on the operation of equipment and shorten the life cycles of military gear, generating additional maintenance and replacement costs. The earlier first report recognises climate change as an overarching challenge that demonstrably increases security risks.

²⁰ The NATO Greenhouse Gases Emission Mapping and Analytical Methodology, approved at the NATO Heads of State and Government Summit in Vilnius in 2023.

reduce civilian and military emissions from its facilities and infrastructure by 45% by 2030 and to become carbon neutral by 2050. In 2023, a new NATO Climate Change and Security Centre of Excellence was established in Montreal, Canada.

At the 2023 Summit in Vilnius, the Allies pledged to adapt their infrastructure, military capabilities, and technologies to enhance resilience in the future operational environment. The impacts of climate change on military capabilities and resilience are also considered within NATO's joint procurement framework. The Conference of National Armament Directors (the "CNAD") adopted, within the scope of the Alliance's climate and security agenda, the Methodology for CNAD Standards Review.²¹ This document's aim is to ensure that climate change and adaptation efforts do not jeopardise personnel or the operational effectiveness of the Alliance.

2.2.2. EU objectives and activities

In the realm of climate security and defence, the EU has adopted two principal documents. The first is the Climate Change and Defence Roadmap, which identifies the steps necessary for the EU and its Member States to achieve goals in operational planning, capability development, and international cooperation.²² The second is the Concept for an Integrated Approach on Climate Change and Security, which reflects the impacts of climate change and environmental degradation on crisis management and operations within the Common Security and Defence Policy (the "CSDP").²³ The REACH Regulation²⁴ also affects defence, setting conditions for the registration, evaluation, authorisation, and restriction of chemical substances for Member States.

The Strategic Compass also highlights the need to adapt the security and defence sector to climate change. Among other tasks, it mandates sending "climate advisers" to all CSDP missions and operations and strengthening the European External Action Service's structures dedicated to crisis response. In the Strategic Compass, Member States committed to develop national climate and defence strategies, improve armed forces' assistance to civil authorities in emergencies, and conduct joint exercises.

In June 2023, the EU High Representative for Foreign Affairs and Security Policy and the European Commission issued a Joint Communication on a New Outlook on the Climate and Security Nexus,²⁵ focusing on raising awareness of climate change impacts on defence, urging Member States to adapt their military capabilities to climate change and reduce their climate footprint, and calling for international cooperation in this area. The EU Council responded to the Joint Communication with conclusions²⁶ emphasising that climate change and environmental degradation lead to increased instability and conflict. In March 2024, the European Commission also published the Communication on Managing Climate Risks: Protecting People and Prosperity,²⁷ based on findings from the nearly simultaneous European Climate Risk Assessment.²⁸ This Communication urges Member States to fully implement existing adaptation commitments and consider the Commission's recommendations for better anticipating, understanding, and addressing growing climate risks.

The European Defence Agency (the "EDA") oversees several initiatives aimed at managing the impacts of climate change within the context of defence. A key platform for sustainable energy in the defence sector is the Consultation Forum for Sustainable Energy in the Defence and Security Sector (the "CF SEDSS"), tasked with implementing the EU's energy legal framework and sharing information and best practice.

²¹ *A Methodology for CNAD Standards Review*, adopted by the CNAD in 2023.

²² *The EU's Climate Change and Defence Roadmap*, adopted by the European Parliament on 7 June 2022.

²³ *Concept for an Integrated Approach on Climate Change and Security*, adopted by the EU Council on 5 October 2021, EEAS (2021)770.

²⁴ Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency.

²⁵ Joint Communication to the European Parliament and the Council: A New Outlook on the Climate and Security Nexus: Addressing the Impact of Climate Change and Environmental Degradation on Peace, Security and Defence, adopted by the European Commission and the High Representative on 23 June 2023.

²⁶ Council Conclusions on EU Green Diplomacy, adopted by the EU Council on 13 March 2024.

²⁷ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Managing Climate Risks – Protecting People and Prosperity, published by the European Commission on 12 March 2024.

²⁸ European Climate Risk Assessment (EUCRA), published by the European Environment Agency (EEA) on 11 March 2024.

The issue of the circular economy in defence is addressed by the Incubation Forum for Circular Economy in European Defence (the “IF CEED”), which aims to transfer circular economy principles from the civilian to the defence sector. The EDA also regularly collects and analyses data from the Member States regarding defence energy use, with the goal of reducing consumption.

2.2.3. UN objectives and activities

The United Nations Security Council also addresses the issue of climate change impacts on international security. In 2018, the Climate Security Mechanism (the “CSM”)²⁹ was established to bring a more systematic approach to tackling climate-related security risks. The CSM supports UN peacekeeping missions, resident coordinators, and regional organisations in assessing climate-security risks and shaping strategies to manage them. Since 2018, a UN Group of Friends on Climate and Security has also been active, working to promote the climate security agenda within the UN system, especially in the Security Council, and to strengthen the UN’s analytical capacities in this field.

2.2.4. OSCE objectives and activities

The OSCE addresses the climate security agenda primarily within its economic and environmental dimension. The 2007 Madrid Declaration on Environment and Security³⁰ explicitly recognised climate change as a long-term challenge and a complementary task to be addressed by the OSCE within its regional mandate. In 2019, the OSCE Group of Friends of the Environment was established, focusing on climate change in the context of conflict prevention, confidence-building, and the fostering of good neighbourly relations. The Czech Republic was among its founding members.

2.3. Czech MoD activities

The MoD is already carrying out several activities to address the impacts of climate change. Efforts to reduce the MoD’s contribution to climate change are focused primarily on environmental protection. This is coordinated by the MoD’s environmental officer, who is embedded within the logistics section and oversees initiatives to improve environment protection across the Ministry. The environmental officer’s responsibilities include adapting national environmental policy goals to the MoD’s specific context, implementing NATO standards, and representing the Ministry in international working bodies and interministerial climate-focused platforms.

As part of the green transition, some state enterprises established by the MoD are shifting towards renewable energy sources. Measures are being introduced to reduce the energy demands of buildings, and the introduction of low-emission vehicles, where appropriate, is in preparation. The use of alternative energy sources will be vital not only for the MoD’s contribution to the national energy transition, but also to ensure a sustainable fuel and energy base for the activities of the armed forces.

An integral aspect of the Czech Armed Forces’ role lies in their participation in humanitarian missions and operations, as well as in supporting the components of the Integrated Rescue System in coping with natural disasters and their consequences.³¹ As climate change progresses, both the frequency and intensity of such events are expected to rise, and the MoD must be prepared for this growing challenge.

²⁹ The UN Climate Security Mechanism was established by the Department of Political and Peacebuilding Affairs (DPPA) within the UN Secretariat.

³⁰ Madrid Declaration on Environment and Security, adopted by the OSCE Ministerial Council on 30 November 2007.

³¹ The Czech Armed Forces are being repeatedly deployed for this purpose. In the past, this has included their involvement in rescue efforts and the mitigation of flood damage in the Czech Republic, the deployment of Czech engineers to assist with flood recovery in Slovenia, the provision of MoD helicopters and imaging to support wildfire localisation efforts in Hrensko, and assistance in dealing with the aftermath of a tornado in south Moravia.





3. Principles and objectives for addressing the impacts of climate change within the Ministry of Defence

3.1. Overarching principles

- Adaptation and mitigation measures must not jeopardise the combat readiness of the armed forces or the defence capabilities of the Czech Republic.
- The outlined measures align with national climate and environmental protection policies and strategies.
- The outlined measures respect the commitments undertaken by the Czech Republic within international organisations, in particular NATO, the EU, and the UN, and their implementation will draw on tools of international cooperation.

3.2. Primary and secondary objectives

Primary objective:	The Czech Republic will be prepared to face security threats caused or exacerbated by climate change.
Secondary objectives:	<i>(a) The impacts of climate change on the security and operational environment, the nature of conflicts, and operational procedures will be reflected in efforts to strengthen national defence capabilities.</i>
	<i>(b) Climate agenda will be incorporated into the activities of the relevant departments within the MoD, in accordance with a follow-up implementation plan.</i>
	<i>(c) The MoD will raise its awareness of the effects of climate change on defence and will develop expertise in this field.</i>
	<i>(d) The MoD will cooperate with academia and the industry on the influence of climate change on defence and will support research and development in this field both within and beyond the MoD.</i>
Primary objective:	The Czech Armed Forces will remain combat-ready in conditions shaped by extreme weather events and will be able to adapt to an operational environment transformed by climate change.
Secondary objectives:	<i>(a) The effects of climate change will be reflected in defence planning and capability development.</i>
	<i>(b) Shifts in the operational environment and in the nature of conflicts will be reflected in the planning of missions and operations.</i>
	<i>(c) The MoD will gradually adapt its infrastructure and logistical support, improving its resilience to the negative impacts of climate change.</i>
	<i>(d) The armed forces will be prepared to support the Integrated Rescue System in responding to non-military crises, unless it compromises national defence.</i>
Primary objective:	The MoD will seek to reduce the environmental impact of its activities.
Secondary objectives:	<i>(a) The MoD will continuously adopt measures that contribute to achieving carbon neutrality in the Czech Republic by 2050, based on the country's current international commitments.³²</i>
	<i>(b) The MoD will gradually introduce sustainable and low-emission energy sources.</i>
	<i>(c) The MoD will introduce circular economy principles³³ to extend the life cycle of materials and minimise waste.</i>
	<i>(d) Principles of environmental protection will continue to be upheld within the MoD in accordance with the Climate Policy.</i>
	<i>(e) The MoD will introduce tools to measure the carbon footprint of its activities, following the recommendations of NATO and the EU.</i>

³² This objective is defined in the Green Deal, the Climate Policy of the Czech Republic, and NATO's Climate Change and Security Action Plan. These commitments may evolve over time, and the MoD will contribute to their fulfilment in line with national goals.

³³ Within the MoD, the circular economy is centred on efforts to reuse materials and to refurbish or recycle existing products, raw materials, and components, thereby extending their life cycle and minimising waste.

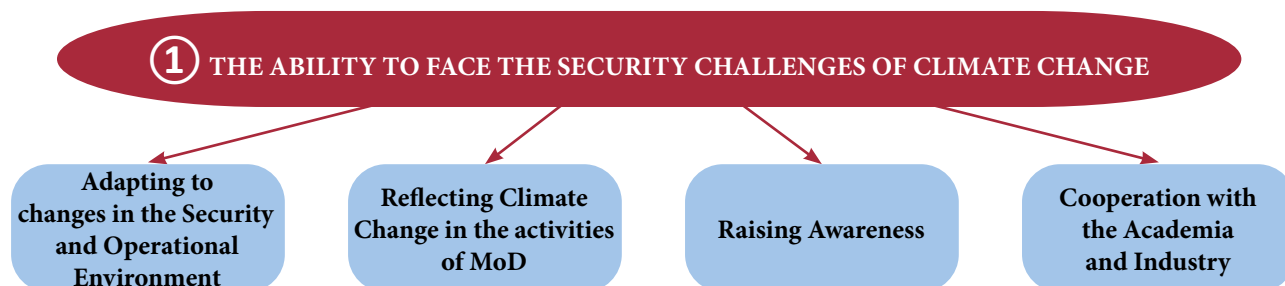


4. Proposed measures for addressing the impacts of climate change within the Ministry of Defence

4.1. Preparedness of the MoD for the impacts of climate change

Objective 1. The Czech Republic will be prepared to face security threats caused or exacerbated by climate change.

The preparedness of the Czech defence sector for the impacts of climate change will be ensured through measures relating to defence management, the development of awareness and expertise, and collaboration with industry and with public and private institutions involved in science and research.



Measures for secondary objective 1(a) The impacts of climate change on the security and operational environment, the nature of conflicts, and operational procedures will be reflected in efforts to strengthen national defence capabilities.

- The impacts of climate change on the armed forces will be duly reflected across all levels of national defence management – political-strategic, military-strategic, operational, and tactical.
- Climate change impacts will be integrated into the preparation of strategic and policy documents (particularly the Defence Strategy of the Czech Republic, the Long-Term Perspective for Defence, and the Czech Armed Forces Development Concept).

Measures for secondary objective 1(b) Climate agenda will be incorporated into the activities of the relevant departments within the MoD, in accordance with a follow-up implementation plan.

- The climate agenda and the adaptation to climate change will be incorporated into the activities of the relevant departments within the MoD.
- Following the adoption of this document, stakeholders will be designated for each area. All activities linked to climate change and its implications for defence will be coordinated and interconnected.
- Over the long term, the MoD will strive to increase staffing and expertise in the field of climate change and defence.

Measures for secondary objective 1(c) The MoD will raise its awareness of the effects of climate change on defence and will develop expertise in this field.

- The MoD will continually map the impacts of climate change on defence and explore adaptation possibilities, drawing on the activities and tools of national and international organisations and actors. In evaluating risk elimination options, an emphasis will be placed on technologies that reduce dependence on external energy suppliers, such as the use of renewable energy, efficient water management solutions, and the possibility of building “smart bases”.³⁴ Existing inter-

³⁴ Military installations that employ technological innovations in energy, mobility, and structures to increase their efficiency and economy.

national initiatives and capability development projects focused on climate change will be thoroughly mapped, and the MoD will consider joining them.

- Climate-related topics will be incorporated into the training of military personnel, including specialised education programmes, training and exercises. Educational courses and research activities at the University of Defence covering climate, security and defence will continue to be developed.
- The education of relevant MoD staff in the field of climate change will be supported at both national and international levels. Participation in international courses will increase, and experts will be sent to attend relevant meetings, conferences, and exercises.
- The MoD will consider involvement in activities organised by the NATO Climate Change and Security Centre of Excellence in Montreal, to possibly include posting a national representative there in the future.
- The MoD will raise awareness of climate change impacts on defence. Climate and defence issues will be reflected in strategic communication and public outreach activities.

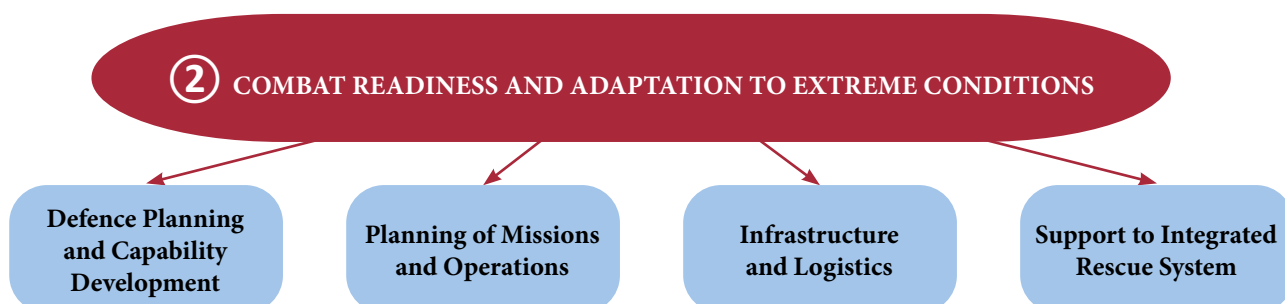
Measures for secondary objective 1(d) The MoD will cooperate with academia and the industry on the influence of climate change on defence and will support research and development in this field both within and beyond the MoD.

- Adapting to climate change requires appropriate investment in new technological solutions, procedures, and organisational innovations. The defence industry must therefore have access to adequate financing from both private and public sources so that it is progressively able to adapt to climate change and meet related international commitments. The MoD will continue to engage in national and international activities aimed at ensuring the defence and security sector's access to funding, including financial resources and investments directed towards a sustainable economy.
- MoD representatives will continue to gather information from manufacturers and service providers offering sustainable solutions applicable to the needs of the armed forces. Information seminars, industry days, and presentations will be held to ensure awareness of the existence and potential use of these technological solutions by the armed forces, based on the MoD's requirements.
- The MoD will support the export opportunities for domestic producers of sustainable defence solutions on international markets.
- In the field of defence research, development, and innovation (R & D & I) focused on sustainable solutions and technologies, the MoD will support connecting domestic research institutions with foreign partners.
- The MoD will promote the participation of Czech R & D & I entities in international defence initiatives such as the European Defence Fund (the "EDF") or EDA activities focused on sustainable solutions and the circular economy.
- In the field of industry and innovation, the MoD will seek replacements for fossil fuels and combustion engines. While the MoD will adopt such solutions rather than initiate them, it must be prepared for these changes and capable of implementing new solutions where appropriate.

4.2. Adaptation to changes in the operational environment

Objective 2. The Czech Armed Forces will remain combat-ready in conditions shaped by extreme weather events and will be able to adapt to an operational environment transformed by climate change.

Adaptation to the evolving operational environment will be reflected in the planning and development of military capabilities. Targeted measures will enhance the resilience of military installations and protect critical infrastructure from extreme weather events and climate-related threats. Capability development will also focus on adaptation, resilience, and operational effectiveness in a climate-challenged environment.



Measures for subsidiary objective 2(a) The effects of climate change will be reflected in defence planning and capability development.

- The MoD will incorporate the impacts of climate change on defence capabilities into medium- and long-term planning, in alignment with the NATO Defence Planning Process, which takes climate change into account.
- The MoD will develop capacities for modelling, forecasting, and evaluating climate-related threats (foresight) and their potential impact on the security and defence capabilities of the Czech Republic, with a particular emphasis on adapting the armed forces.
- Over the long term, capabilities for data collection, the forecasting and detection of extreme weather events, and the threats they pose to operations will be expanded.
- Decision-making processes at all levels of planning, command, and control will be adapted accordingly. The training and overall preparedness of the armed forces will also be adjusted to raise awareness of the present and future effects of climate change on the security and operational environment.
- Steps will be taken to adapt the Czech defence sector to operations in environments with limited access to food and water, including exploring the use of alternative resources such as water purification systems and atmospheric water generation. Advanced materials will be tested and adopted in the procurement of new gear, armaments, and equipment suitable for operations in extreme climatic conditions.
- Operational planning will include parameters for reducing the energy demands of the armed forces' operational activity and their logistical support. This will be achieved through innovation and the implementation of technologies, procedures, and measures that reduce dependency on external energy suppliers. Examples include “smart bases” at deployment sites and the use of solar panels to meet energy needs during missions.
- All equipment carried by the soldier (uniforms, ballistic protection, communications equipment, night vision devices, weapons, ammunition) must be suitable for use in extreme climate conditions. Armaments and equipment must function reliably and ensure combat readiness even in the harshest environments.

Measures for secondary objective 2(b) Shifts in the operational environment and in the nature of conflicts will be reflected in the planning of missions and operations.

- The consequences and risks of climate change will be reflected in the deployment of armed forces in missions and operations. Operational planning must anticipate deployments in conditions of extreme heat or cold, which place greater demands on weapon systems and personnel. Measures will be taken to address physiological constraints on forces, health risks,³⁵ material fatigue, increased failure rates of combat technology, the need for more frequent maintenance and repair, higher operational costs, and reduced equipment life cycles.
- The impacts of climate change will be incorporated into concepts and scenarios for the use of the armed forces in crisis situations, in line with requirements arising from NATO's operational planning. This includes the deployment, performance, and sustainability of units, life cycle planning for existing and new equipment and materials and ensuring a secure supply chain.

Measures for secondary objective 2(c) The MoD will gradually adapt its infrastructure and logistical support, improving its resilience to the negative impacts of climate change.

- The MoD will focus on preventing disruption to infrastructure caused by extreme weather events and will take appropriate technical, security, and organisational measures to strengthen its resilience.
- Reliable, continuous, and efficient energy supply to military installations and systems will be ensured so that the armed forces maintain the readiness and effectiveness of military operations.
- Energy supplies will also be secured for tasks arising from the Czech Republic's role to provide Host Nation Support (“HNS”) within NATO. As a host nation, the Czech Republic will be ready to provide Alliance forces stationed or passing through its territory with access to national infrastructure and energy supplies (electricity and fuel). This will require the further strengthening of self-sufficiency in energy production through the use of renewable energy sources.

Measures for secondary objective 2(d) The armed forces will be prepared to support the Integrated Rescue System in responding to non-military crises, unless it compromises national defence.

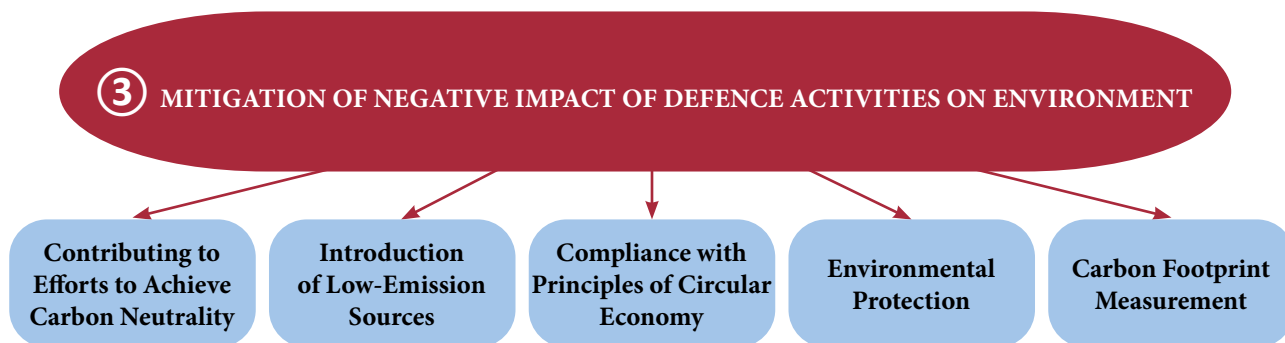
- Support for the Integrated Rescue System will focus primarily on ensuring essential organisational and technical measures, such as forecasting, warnings, evacuations, rescue work, and coordination.
- The capabilities of designated Czech Armed Forces units to conduct rescue operations and support the Integrated Rescue System in the event of natural disasters will continue to be developed.

³⁵ For example, vaccination against infectious diseases.

4.3. Mitigation of negative impact of MoD activities on climate change

Objective 3. The MoD will seek to reduce the environmental impact of its activities.

Measures to mitigate the impact of MoD activities on climate change will focus on energy transition,³⁶ the circular economy, material procurement, and environmental protection.



Measures for secondary objective 3(a) The MoD will continuously adopt measures that contribute to achieving carbon neutrality in the Czech Republic by 2050, based on the country's current international commitments.

- The MoD will participate, to an appropriate extent, in nationwide efforts to achieve carbon neutrality as required by the Green Deal and the related national policies.³⁷
- The MoD will take steps to reduce greenhouse gas emissions, gradually reducing the environmental footprint from the use of military equipment.

Measures for secondary objective 3(b) The MoD will gradually introduce sustainable and low-emission energy sources.

- In line with the global energy transition, the MoD will create conditions for the adoption of low-emission vehicles and the gradual shift to low-emission energy and fuel sources where practical (for instance, by increasing the share of low-emission non-combat vehicles in its fleet). This transition will also reflect anticipated developments in the market, which is expected to lead to the dwindling availability of fossil-fuel-powered vehicles. In parallel, opportunities for emission-free energy sources for military installations and systems, including energy storage solutions, will be explored. When introducing low-emission sources, emphasis will be placed on ensuring that the defence capabilities of the Czech Republic are not compromised in any way.
- The energy transition will also aim to enhance the MoD's resilience to the impacts of climate change and to strengthen energy security, for example by reducing uncertainty in fuel imports and lowering fuel import costs. At the same time, the introduction of low-emission energy sources must not compromise the combat readiness of the armed forces.
- The MoD will steadily increase the energy efficiency of its infrastructure in accordance with the Climate Policy and State Energy Policy. An emphasis will be placed on energy-saving measures across all installations managed by the MoD.
- Newly constructed Ministry-owned buildings will be designed as low-energy.³⁸ In addition to thermal performance, new buildings will reflect the development of modern technologies for heating and air-conditioning, the use of renewable energy (especially photovoltaics and solar thermal energy), and the utilisation of solar gain and shading.
- Where suitable, the MoD will continue to install photovoltaic power systems on its land and on land of state-owned enterprises established by the MoD.
- In transitioning to renewable energy and fuels, the MoD will prioritise avoiding new technological and resource dependencies on countries that act contrary to the interests of the Czech Republic. The risks of dependencies are particularly linked to China, which currently dominates the processing of critical raw materials. The MoD will therefore promote

³⁶ Transformation of the resource base for electricity and heat production towards high-efficiency technologies and low-carbon fuels.

³⁷ The MoD will contribute to nationwide efforts, on the understanding that commitments at both national and EU level may evolve over time.

³⁸ Buildings with very low energy demands, met to a significant extent by renewable sources.

the integration of domestic actors into international supply chains that place an emphasis on the elimination of technological and resource dependence on unreliable or hostile states. In the procurement of materials, armaments, and equipment, it will set criteria that clearly favour secure suppliers. In addressing issues of technological and resource dependence, the MoD will also draw on the European Critical Raw Materials Act,³⁹ which aims to enhance the resilience of critical raw material supply chains and significantly expand the refining, processing, and recycling of these materials within Europe.

Measures for secondary objective 3(c) The MoD will introduce circular economy principles to extend the life cycle of materials and minimise waste.

- Opportunities will be explored to streamline waste management and material recycling. The MoD will also seek ways to prolong the life cycle of the materials it uses.
- The Czech Republic will participate in relevant circular economy activities coordinated by the EDA.
- When introducing military equipment into service, environmental requirements will continue to be assessed.
- I– n its procurement, the MoD will establish long-term partnerships with industry to ensure the efficiency of the entire life cycle of equipment, including maintenance and environmentally responsible disposal at the end of its technical lifetime.

Measures for secondary objective 3(d) Principles of environmental protection will continue to be upheld within the MoD in accordance with the Climate Policy.

- The MoD will remain committed to protecting the environment, emphasising more efficient pursuit of national environmental policy objectives. The principles of nature conservation will be observed on land owned or managed by the MoD, which is included in the protected areas in the European NATURA 2000 system.⁴⁰ This will be achieved by monitoring the impact of military activities on natural objects of protection and the overall environmental state of areas used for national defence. The MoD will increase the efficiency of monitoring to prevent pollution or environmental damage.
- On land managed by the MoD and on land owned by its subordinated state enterprises, there will be effort to support environmental landscape stability and biodiversity, as well as forest resilience to biotic and abiotic pressures. This will include the application of close-to-nature forestry methods aimed at enhancing species, age, and spatial diversity (with a preference for natural forest regeneration) and the implementation of projects supporting water retention in the landscape.
- Water and soil protection (including anti-erosion measures), the safeguarding of air quality, and nature and landscape conservation will be ensured at the MoD.
- Emphasis will be placed on the development of atmospheric water generation systems, which are crucial, among other uses, for military decontamination operations.

Measures for secondary objective 3(e) The MoD will introduce tools to measure the carbon footprint of its activities, following the recommendations of NATO and the EU.

- The MoD will gradually introduce measures resulting from environmental standardisation arrangements within NATO. Further measures to minimise the carbon footprint will be identified on the basis of ongoing evaluation.
- The Czech Republic will support the development of joint NATO and EU standards for data collection and measuring the impacts of climate change on the defence sector.

³⁹ Regulation (EU) 2024/1252 of the European Parliament and of the Council of 11 April 2024 establishing a framework for ensuring a secure and sustainable supply of critical raw materials.

⁴⁰ A network of protected areas covering Europe's most valuable and threatened species and habitats.



Implementation

The Approach to Managing the Impacts of Climate Change on the Defence of the Czech Republic will be updated as required in response to the adoption or revision of key national or international climate commitments, updates to core national climate protection documents, and developments in the international security landscape and operational environment as a result of climate change.

The Approach seeks to set a course for the MoD to follow over the medium and long-term period, grounded in international and national documents and commitments to which the Czech Republic has signed up. A further aim is to raise awareness of the issue and to incorporate it into existing structures and activities. A detailed breakdown of resources needed for the implementation of the document will, by default, be addressed in standard policy and planning documents.

Strategic objectives will be translated into specific tasks in the follow-up Implementation Plan which will set the timelines and responsibilities for the various MoD departments within their competences. The Implementation Plan will be developed in the first quarter of 2026 and updated as necessary following the update of the Approach.

Every two years the MoD's environmental protection coordinator will submit to the Minister of Defence a report on progress in carrying out the Implementation Plan. This report will be prepared in cooperation with other departments of MoD's, according to the responsibilities defined in the Implementation Plan.





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