

**Arctic Environment Ministers' Meeting**  
**Exploring Common Solutions for the Arctic Environment**  
**11-12 October 2018**  
**Science Centre Arktikum, Rovaniemi, Finland**

**Statement Switzerland**

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**Environmental Challenges in the Arctic – from Knowledge to Action**

- Common features of nature have aligned both people in the Arctic and in the Alps to cope with an ever-changing environment in creative and sustainable ways. Switzerland has developed a deep commitment to Arctic research over the last 100 years and is proud to have enjoyed many accomplishments with partners from all the Arctic Council Member States.
- In the Arctic, permafrost is under our feet. In Switzerland, permafrost is above our heads: Thawing permafrost and melting glaciers are serious challenges for both Polar and Alpine Regions. Since pre-industrial times, the mean air temperature in Switzerland has increased by 1.4 degrees Celsius, i.e. almost twice the global average. The Arctic suffers from an ever higher warming rate, indeed the planet's fastest.
- Both the Arctic and the Alpine Regions will continue to warm more rapidly than the global mean. Our research focuses on what this means for our societies, our economies, our security and our environment. Decisive action is necessary, but it will only be successful if we reinforce our international cooperation. If we do not succeed to do so in the Arctic, we will not succeed at the global level.

**Switzerland and Biodiversity in the Arctic**

- Climate warming has been more pronounced in Arctic and Alpine areas, and changes in the mountain flora are occurring as the temperature envelope moves upslope. Decisive action must be taken to protect biodiversity and sustain valuable ecosystem services.
- Switzerland is taking part in the International Tundra Experiment ITEX. We do so both as participants in the global data analysis and –since 2009– with our experimental site in Switzerland. Switzerland also sends researchers to ITEX sites in other countries. In this large project, research teams are performing long-term experiments in Arctic, Antarctic and Alpine habitats at over 40 sites worldwide. By generating higher temperatures in warming chambers, research teams investigate how simulated climate change affects the vegetation. The results show that the vegetation in cold regions has already changed with climate change and will continue to do so.
- Vegetation changes are a problem across the whole Arctic. Swiss researchers are also involved in a global change and biodiversity research project in the Siberian Tundra, which aims to observe and understand how climate warming affects tundra ecosystems and how the changing vegetation in turn affects permafrost thawing and climate through energy and carbon fluxes. Results are of international importance as data of this region are very scarce and contribute to the understanding of changes and mechanisms at a pan-arctic scale.
- In 2018, a Swiss researcher joined the Conservation of Arctic Flora and Fauna (CAFF) biodiversity working group of the Arctic Council.

## Exploring Common Solutions to Arctic Environmental Challenges

- Having Observer status enables Switzerland to share its expertise in the area of interdisciplinary research on climate change.
- If we are truly serious about advancing our capabilities to predict future local and global change – and to give decisive answers to the implied challenges – we all must coordinate our activities at the international level. Only by joining hands will our research lead to societal benefits.
- Switzerland, as a global leader in research, innovation and technology, has taken on its share of the responsibility to address the major challenges facing our planet. We do so in solidarity with the rest of the world. That is why Swiss researchers work closely with colleagues abroad who are predominantly from the eight member states and the observer states.
- With climate change facing us today and even more so in the future, the role of polar science in providing critical knowledge for these sensitive regions will grow, and the Swiss science community is committed to continue to make important contributions to this field.
- Swiss leadership in international negotiations has been critical in addressing climate change, the depletion of the stratospheric ozone layer and the transport of pollutants, all of which disproportionately affect both high-mountain areas and polar regions. Switzerland was among the major drivers for an effective international system for chemicals management.
- The reduction of black carbon and methane emissions in the Arctic is of critical importance to tackle climate change in this region but also to address human health issues. Therefore, Switzerland, as an Observer state, welcomes and supports the Arctic Council's initiatives on black carbon and methane emissions reduction.