



AMAP's work on climate change in the Arctic

Heidi Sevestre, AMAP Secretariat

AMAP
Arctic Monitoring and
Assessment Programme

AMAP

- Established in 1991
- Working group in the Arctic Council from 1996
- Delegates from:
 - The eight Arctic states
 - Six permanent participants
 - Observers
 - Expert groups
- Secretariat located in Tromsø, Norway



AMAP Mandate:

"to monitor the levels of, and assess the effects of, anthropogenic pollutants in all components of the Arctic environment."

"... assessment of the effects of [...] climate change on Arctic ecosystems."

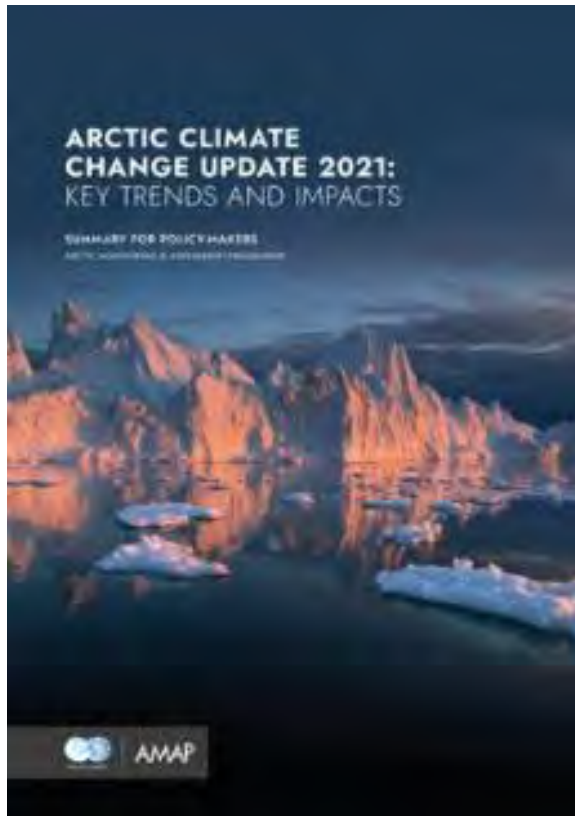
"... human health impacts and the effects of multiple stressors."

-> Science based policy relevant recommendations

AMAP DELIVERABLES 2021



Importance of Meteorology in AMAP's assessments



Climate Expert Group Lead
John Walsh



Co-Lead for ecosystems
Johanna Mård



Co-Lead for meteorology
Rasmus Benestad



Arctic Regional
Climate Centre
Network (ArcRCC-N)



ILMATIETEEN LAITOS
METEOROLOGISKA INSTITUTET
FINNISH METEOROLOGICAL INSTITUTE

Arctic Climate Change Update 2021: Key Trends and Impacts.

Summary for Policy-makers



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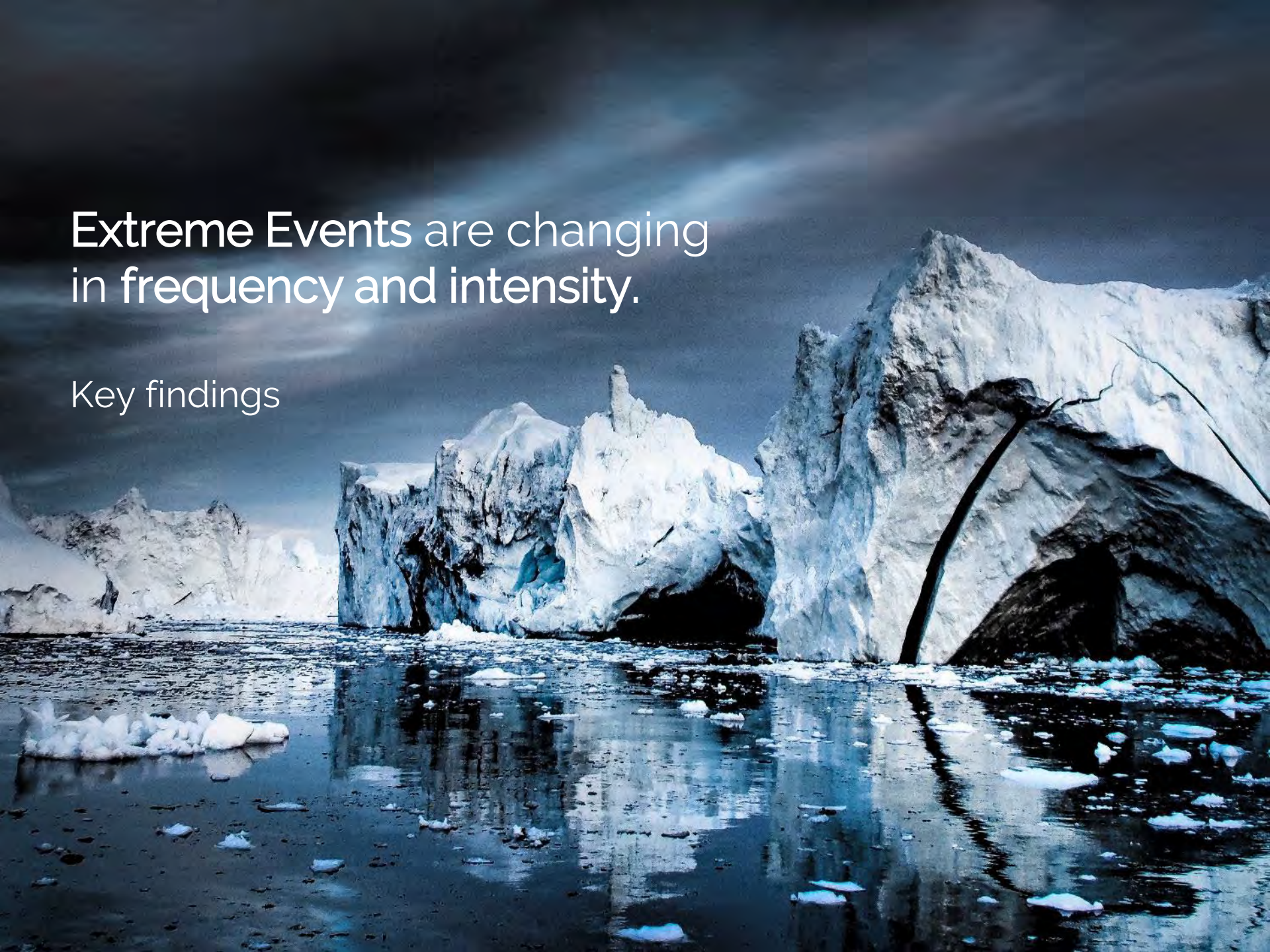


The physical drivers of Arctic Change
continue to change rapidly.

Key findings

Extreme Events are changing
in frequency and intensity.

Key findings



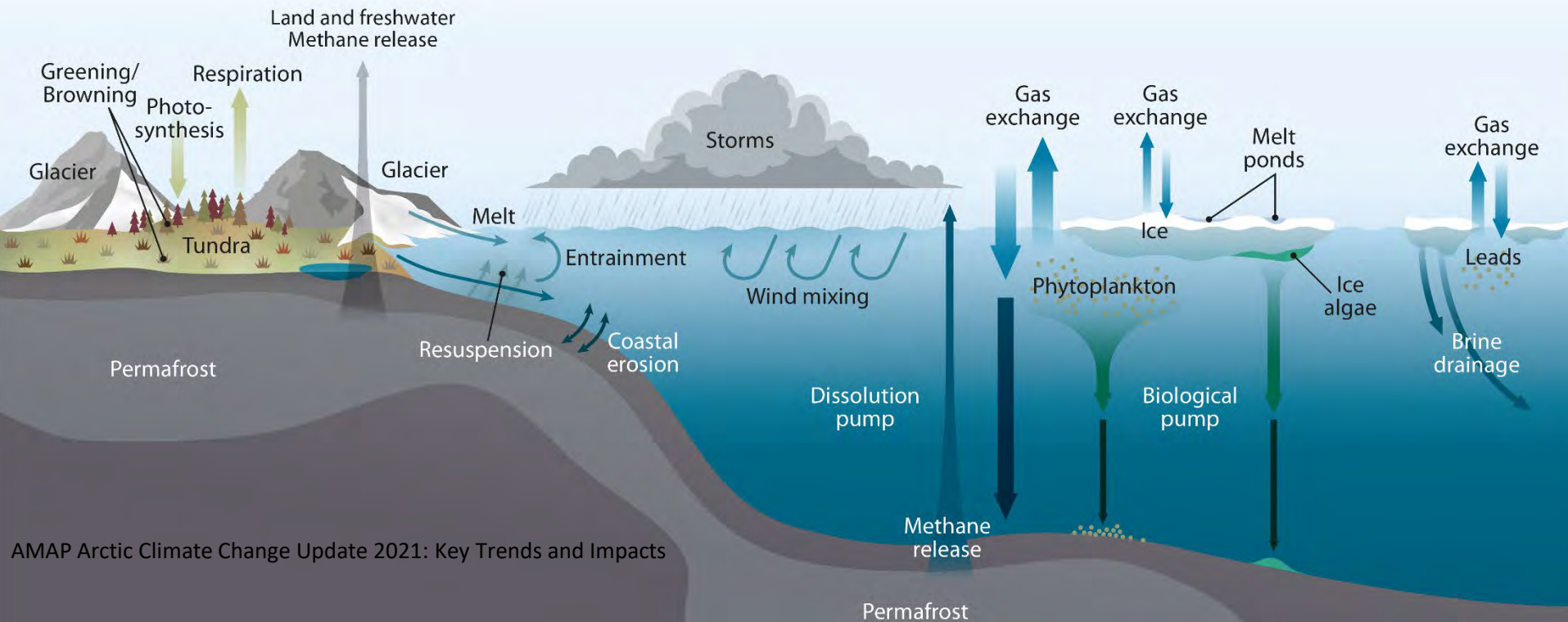
A photograph of two reindeer in a tundra environment. The reindeer are white with some brown patches, and the one in the foreground has large, velvet-covered antlers. They are standing on a green mossy ground with scattered grey rocks. The background is a steep, rocky slope covered in similar vegetation.

Climate change is having major impacts
on Arctic communities.

Key findings

Arctic ecosystems are experiencing rapid, transformational changes.

Key findings





Changes in the Arctic have **global** consequences.

Key findings

The Arctic will warm rapidly over the course of the century.

Key findings



Upcoming AMAP work on climate



2023 biennial climate update report

Chapter 1: Introduction and synthesis of key climate indicators

Chapter 2: Cryosphere including permafrost

Chapter 3: Hydrology

Chapter 4: Arctic ocean acidification

Chapter 5: Thresholds and extreme events

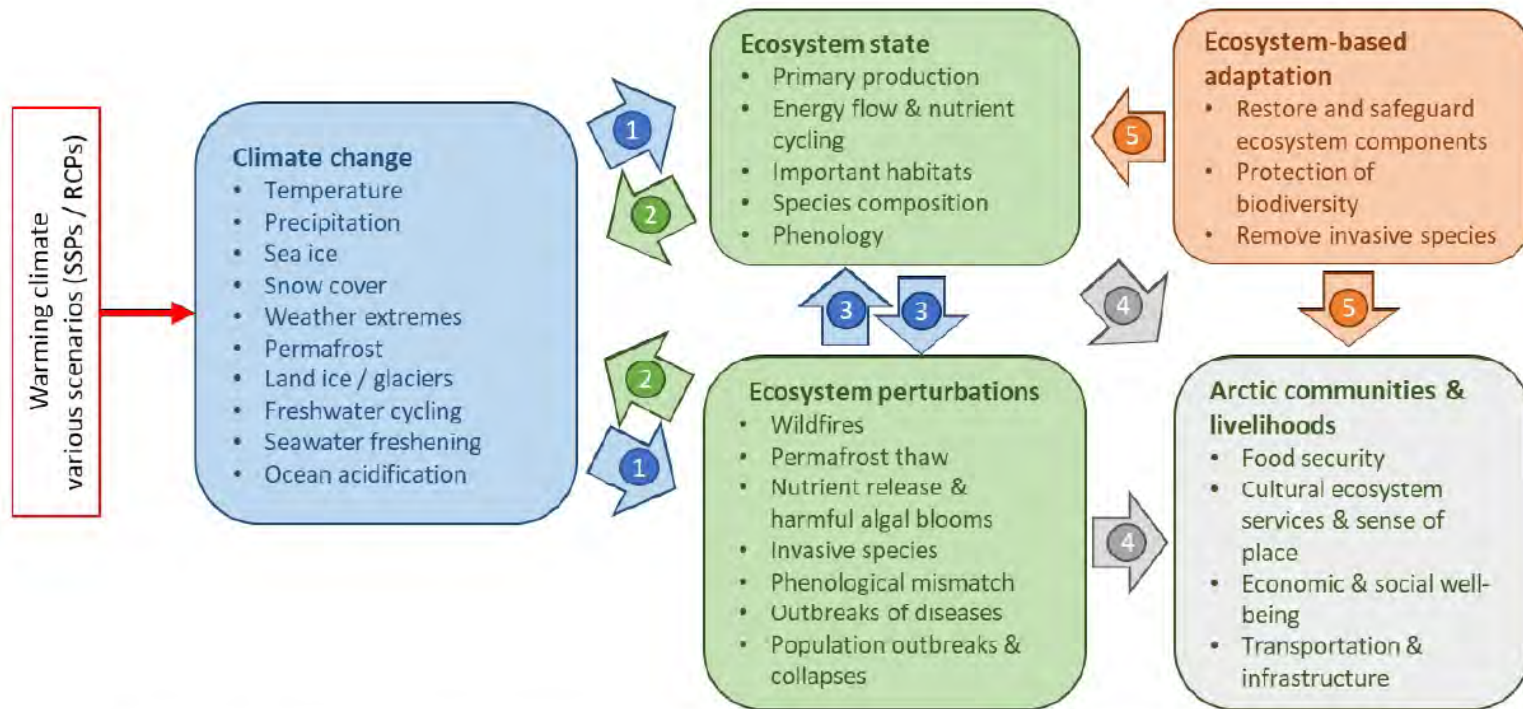
Chapter 6: Wildfires

Chapter 7: Arctic/mid latitude weather connectivity

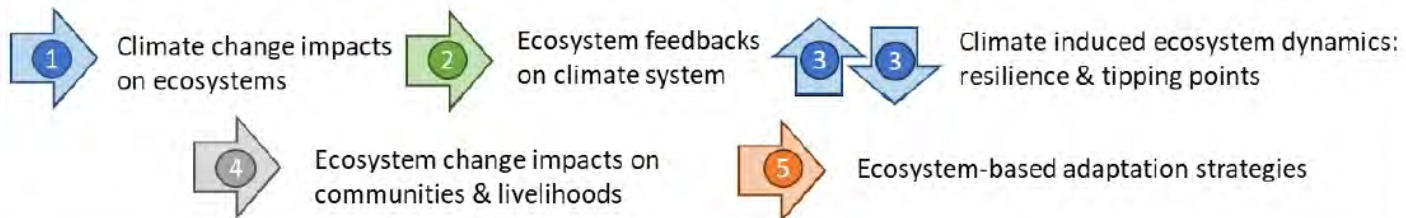
Chapter 8: Summary report for AMAP-CAFF project on “Climate change impacts on Arctic ecosystems and associated climate feedbacks”



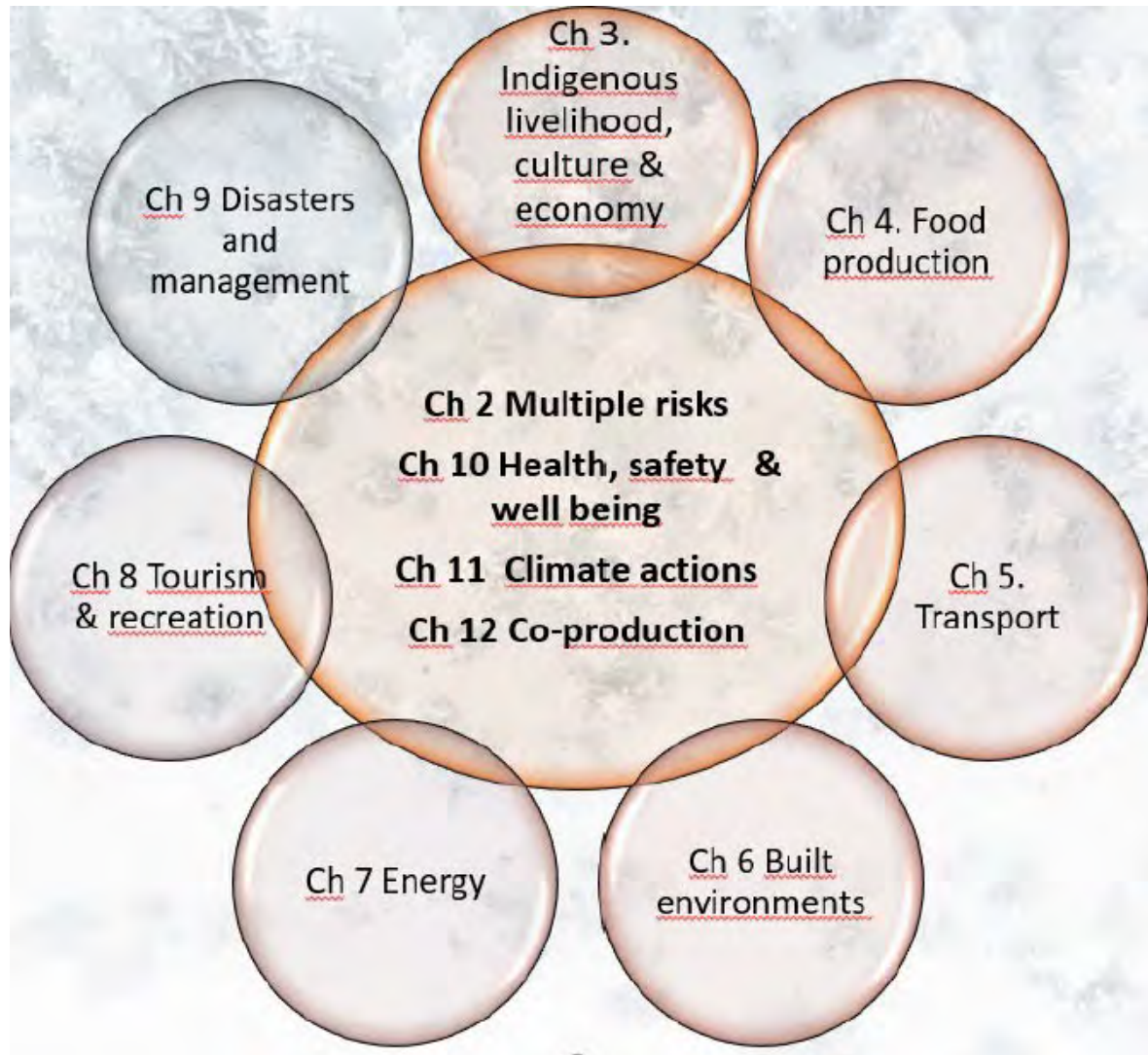
AMAP-CAFF Cooperation: Climate change impacts on Arctic ecosystems and associated climate feedbacks



Climate change impacts on Arctic ecosystems and associated climate feedbacks –relevant topics:



Societal implications of climate change and impacts of extreme events in the Arctic.



A composite image featuring a dark blue background with several white and light blue icebergs of various shapes and sizes. Two narwhals are visible in the upper portion of the image, their long, white tusks pointing downwards. The overall composition suggests an Arctic or Antarctic environment.

THANK YOU

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