



Agenda Item 5

AMAP WG 28/5/2

Whitehorse: 16 – 18 September 2014

AACA Pan-Arctic report outline

Prepared and presented by AACA INT co-chairs

28 August 2014

Background

The AACA reports will consist of three regional reports and one Pan-Arctic report. The Pan-Arctic report will build on the regional reports and be released approximately 6 months later and be delivered to the 2017 Arctic Council Ministerial meeting. The regional teams are now finalising their respective Table of Contents and working on detailed chapter outlines and text. It is now time to develop the Pan-Arctic report Table of Contents.

The draft outline of the Pan-Arctic report has been produced by INT co-chairs and has been distributed to the Integration Team (Executive Body and Advisory Board) for comments. Comments from INT will be discussed and the ToC revised accordingly.

The pan-Arctic report builds on the regional report outlines, but has some significant differences. The pan-Arctic report will take more of a global perspective, bringing forward the interests and role of non-Arctic states in the Arctic. Adaptation Actions are usually very locally focussed, drawing on regional issues and context. The pan-Arctic report will have less focus on adaptation actions, but more focus on drivers of change, interactions, and consequences. In this sense, the regional and pan-Arctic reports will be complementary.

During the remainder of 2014 we plan to start drawing on authors for the pan-Arctic report, to further develop the outline and content. Later, a call for authors may be needed to draw in additional expertise.

The time lag behind the regional reports, always the pan-Arctic report to progressively draw on the regional reports. One key way we will bring in regional content is through “boxes” drawing on specific issues of interest at the regional level.

Action requested

AMAP WG is invited to discuss the draft outline of the Pan-Arctic report and:

- give any comments and identify possible gaps in the draft outline for the pan-Arctic report.
- comment on the timeframe for the pan-Arctic report
- give signals on national participation and funding for the pan-Arctic report

The Global Arctic

Disclaimer: This Table of Contents is an initial draft and nothing is set in stone. The idea is to get initial reactions, promote discussion, and determine if it is heading in the right direction. Feel free to be critical in your comments.

Global (climate, environmental, and socio-economic) drivers have a large impact on the Arctic, and the Arctic has a significant global influence (climate feedbacks, oil/gas/mineral resources, etc). Responding to change in the Arctic requires understanding the integrated relationship of the Arctic with the rest of the world.

This is the Integration Report (INT) of the AACA project, drawing on the three Regional Reports (RITs) and other Arctic Council assessments, to give a pan-Arctic perspective. Key regional components will primarily be brought into the INT via “text boxes” with specific detail from the RITs.

This report will mainly be assessment with only a little research depending on needs and resources. Since it has a large component of assessment it will draw on existing Arctic Council Assessments, IPCC, etc.

Timeframe

The pan-Arctic report will start in earnest from January 2015 and all text will be finalised including peer review November 2016.

Chapter 1. Introduction

- 1.1 Background
 - 1.1.1 Previous (relevant) Arctic Council driven assessments
 - 1.1.2 The knowledge gaps
 - 1.1.3 The need for an integrated assessment
 - 1.1.4 The birth of AACA: The Arctic Council mandate
- 1.2 The concept of interacting drivers, across spatial and temporal scales
 - 1.2.1 External (global) vs internal (regional) drivers, interactions, nesting, ...
 - 1.2.2 Cumulative effects
 - 1.2.3 A pan-Arctic view
 - 1.2.4 The need for pilot regions
- 1.3 Regional and stakeholder perspectives
- 1.4 Scope of this report
- 1.5 Structure of this report

Chapter 2. Drivers of Arctic change

- 2.1 Describe new scenario process (SSPs, RCPs, etc.)
- 2.2 Spatial focus
- 2.3 Temporal focus: short (current), medium (2030) and long (2080) term
- 2.4 Socio-economic drivers
 - 2.4.1 Global (taken from the existing SSPs)

- 2.4.1.1 Key elements
- 2.4.1.2 Key uncertainties
- 2.4.2 Regional (taken from the AACA-IIASA scenarios workshop)
 - 2.4.2.1 Key elements
 - 2.4.2.2 Key uncertainties
- 2.4.3 An extended Arctic SSP framework (taken from the AACA-IIASA scenarios workshop)
- 2.5 Climate as a driver of change (global such as WMGHGs, regional such as SLCFs)
 - 2.5.1 Selection/prioritisation of concentration pathways (RCPs)
 - 2.5.2 Globally driven
 - 2.5.2.1 Global climate forcing (long-lived GHGs)
 - 2.5.2.2 Transport of energy into (and out of) the Arctic
 - 2.5.3 Regionally driven (Short-Lived Climate Forcers, land use change, albedo, etc.)
 - 2.5.3.1 Within the Arctic
 - 2.5.3.2 Transported into the Arctic
- 2.6 Environment as a driver of change (e.g., POPs, mercury, heavy metals, oil spills, ...)
 - 2.6.1 Globally driven
 - 2.6.2 Regionally driven
- 2.7 The role of policy in mitigating the drivers of change
 - 2.7.1 SSP/SPA/RCP matrix
- 2.8 Identified knowledge gaps

Chapter 3. Current and future impacts on the Arctic

- 3.1 Biophysical (all include projections and variability, draws heavily on SWIPA update)
 - 3.1.1 Climate (temperature, precipitation, extremes)
 - 3.1.2 Snow cover and extend (2 pages, plus figure)
 - 3.1.3 Sea ice
 - 3.1.4 Greenland ice sheet, icecaps, and glaciers
 - 3.1.5 Permafrost
 - 3.1.6 Water balance
 - 3.1.7 Feedbacks
- 3.2 Ecosystems (ecological changes, effects on ecosystem services, and biodiversity)
 - 3.2.1 Terrestrial (ABA CAFF, AMAP OGA-3, etc.)
 - 3.2.2 Freshwater (draw from FWB –T.P.)
 - 3.2.3 Coastal (draw from Coast report)
 - 3.2.4 Marine systems (draw from AMAP OGA-3 & AMSA iic)
- 3.3 Socio-economic priority issues (primarily based on assessment of existing literature)
 - 3.3.1 Oil and gas extraction (2 pages, plus figure)
 - 3.3.2 Mining
 - 3.3.3 Shipping
 - 3.3.3.1 Destination
 - 3.3.3.2 Pan-Arctic
 - 3.3.4 Industry
 - 3.3.5 Agriculture
 - 3.3.6 Forestry
 - 3.3.7 Fisheries

- 3.3.8 Subsistence use of natural resources
 - 3.3.8.1 Reindeer herding
 - 3.3.8.2 Fisheries and hunting
 - 3.3.8.3 ...
- 3.3.9 Ecosystem Services
- 3.3.10 Tourism
- 3.3.11 Services
- 3.3.12 ...
- 3.4 Local communities (drawing heavily on permanent participants and regional/local governments)
 - 3.4.1 Peoples
 - 3.4.2 Migration/Population
 - 3.4.3 Cultural heritage
 - 3.4.4 Human health
 - 3.4.5 Education
 - 3.4.6 Arctic Social Indicators
 - 3.4.7 ...
- 3.5 Interaction of drivers (primarily based on assessment of existing literature)
 - 3.5.1 Regional interactions
 - 3.5.2 Global interactions
- 3.6 Identified knowledge gaps
- Chapter 4. The Arctic as a driver of global change**
 - 4.1 Global interest in the Arctic (draws heavily on non-Arctic states)
 - 4.2 Climate feedbacks (to lower latitudes)
 - 4.2.1 Sea-ice (e.g., affecting mid-latitude weather)
 - 4.2.2 ...
 - 4.3 Socio-economic feedbacks (to lower latitudes)
 - 4.3.1 Energy supply (e.g., the role of Arctic oil/gas/renewables in global energy markets)
 - 4.3.2 Mining
 - 4.3.3 Transport
 - 4.3.4 Food supply
 - 4.3.5 Geopolitics
 - 4.3.6 ...
 - 4.4 Identified knowledge gaps
- Chapter 5. Responding to Arctic Change**
 - 5.1 Governance
 - 5.1.1 Global
 - 5.1.2 Pan-Arctic
 - 5.1.3 National
 - 5.1.4 Local
 - 5.1.5 Relationship between scales
 - 5.2 Resilience
 - 5.3 Adaptation under different socio-economic and climate scenarios
 - 5.4 Global collaboration to manage drivers of change

- 5.4.1 Climate
- 5.4.2 Demand for resources
- 5.4.3 ...

5.5 Pan-Arctic context, regional Adaptation Actions

- 5.5.1 Pan-Arctic Adaptation Actions (e.g., regulations on shipping, oil/gas, ...)
- 5.5.2 Regional Adaptation Actions (e.g., details from the regional reports)

5.6 Identified knowledge gaps

Chapter 6. The path forward

- 6.1 Key knowledge gaps
- 6.2 Key findings
- 6.3 ...

Chapter 7. Recommendations

- 7.1 Identified knowledge gaps
- 7.2 Key recommendations

Annex 2 – Draft regional ToCs

These attached regional ToCs are for your information and should be used as a background for the discussions about the pan-arctic ToC. These are overview version without showing the subchapters.

DRAFT Regional Report Structure

Part A: Description of Region (NB: These “parts” may only be used internally)

Chapter A1: ... (NB: Chapter numbers may ultimately numeric)

Chapter A2: ...

...

Part B: Drivers of Change

Chapter B1: ...

Chapter B2: ...

...

Part C: Consequences (Challenges/Opportunities)

Chapter C1: ...

Chapter C2: ...

...

Part D: Adaptation Actions

Chapter D1: ...

Chapter D2: ...

...

DRAFT BRIT ToC (as at 19/08/2014)

Part A: Description of Region

Chapter 1: Introduction

Chapter 2: Local and regional perspectives

Chapter 3: Description of the region (status and trends)

Part B: Drivers of Change

Chapter 4: Drivers of change (climate, environmental, socio-economic)

Part C: Consequences (Challenges/Opportunities)

Chapter 5: Regional scenarios (participatory methodology)

Chapter 6: Impact Assessment

Chapter 7: Resilience

Part D: Adaptation Actions

Chapter 8: Adaptation options

Part E: Synthesis

Chapter 9: Synthesis

DRAFT BCB ToC (as at 19/08/2014)

Part A: Description of Region

Chapter 1: Introduction

Chapter 2: Stakeholder regional perspectives

Chapter 3: General description of the region (status and trends)

Part B: Drivers of Change

Chapter 4: Globally driven change

Chapter 5: Regionally driven change

Part C: Consequences (Challenges/Opportunities)

Chapter 6: Scenarios Thinking for Arctic Futures

Chapter 7: Impact Assessment

Chapter 8: Resilience

Part D: Adaptation Actions

Chapter 9: Adaptation options/actions/measures

Part E: Synthesis

Chapter 10: Knowledge gaps

DRAFT BBDS ToC (as of 5/06/2014)

Part A: Description of Region

Chapter 1: Introduction

Chapter 2: Description of the region (status and trends)

Part B: Drivers of Change

Chapter 3: Globally and regionally driven changes

Part C: Consequences (Challenges/Opportunities)

Chapter 4: Impact Assessment

Chapter 5: Resilience (maybe in chapter 6)

Part D: Adaptation Actions

Chapter 6: Adaptation options/actions/measures

Part E: Synthesis

Chapter 7: Knowledge gaps