Thinking about the Arctic’s future: Scenarios for 2040

Audun Iversen, September 2011

1. Project/publication
   http://www.wfs.org/futurist
   http://proquest.umi.com/pqdweb?index=0&did=1325188551&SrchMode=1&sid=1&Fmt=6&VInst=PROD&VType=PQD&RQT=309&VName=PQD&TS=1301511413&client Id=21127

2. Initiator
   The scenarios seem to be result of the authors own efforts.

3. Objective
   The author has not stated a clear objective for the study, but some of his intentions can be identified in the text:
   “Offer a structure for thinking about the Arctic’s future and its global impacts”
   “the scenarios are designed to be provocative but plausible”
   “hopefully they will stimulate strategic thought and rational discussion about how the Arctic region should evolve throughout the twenty-first century”.

4. Geographical delimitation
   This study is circumpolar in breadth.

5. Time horizon
   2040

6. Thematic focus
   The study is concerned with some key themes providing the framework for the four scenarios:
   • Global climate change, which results in significant regional warming in each of the four scenarios.
   • Transportation systems, especially increases in marine and air access.
   • Resource development—for example, oil and gas, minerals, fisheries, freshwater, and forestry.
   • Indigenous Arctic peoples — their economic status and the impacts of change on their well-being.
   • Regional environmental degradation and environmental protection schemes.
   • The Arctic Council and other cooperative arrangements of the Arctic states and those of the regional and local governments.
   • Overall geopolitical issues facing the region, such as the Law of the Sea and boundary disputes.

7. Images of the future
   Four different scenarios are outlined:

   **Globalized Frontier**
   In this first scenario, the Arctic in 2040 has become an integral component of the global economic system. Abundant natural resources, a less-harsh climate, mostly sparse populations, and a geography permitting shorter global air and sea routes between North America and Eurasia have been critical factors influencing the Arctic’s development.

   **Adaptive Frontier**
   In this scenario, the Arctic in 2040 is being drawn into the globalization era much more slowly than might be anticipated. However, there is substantial international cooperation and harmony among many actors and stakeholders, principally because the circumpolar nations realize they have significant environmental, social, and economic interests and
responsibilities in the Arctic.

**Fortress Frontier**
Widespread resource exploitation and increased international tension exist throughout the Arctic in this scenario. The Arctic is viewed by much of the global community as a storehouse of natural riches that is being jealously guarded and developed by a handful of wealthy circumpolar nations.

**Equitable Frontier**
In this scenario, the Arctic remains integrated with the global economic system in 2040, but the evolving international sustainability paradigm has altered the region’s development strategy to one emphasizing gradualism. Resource exploitation such as fishing is a given (not an option) in much of the Arctic, but such commercial activities are being tempered by greater consideration of broad social and environmental concerns. Mutual respect and cooperation among the circumpolar nations are the norm.

### 8. Key driving forces
Drivers are not specified, but implicitly many of the key themes (item 6) also indicate driving forces.

### 9. Uncertainties/wildcards
Wildcards are not incorporated in the scenarios but mentioned in the conclusion as issues to be considered:
- The continued enclosure of the Arctic Ocean seabed by the five Arctic coastal states (Canada, Denmark [Greenland], Norway, Russia, and the United States) – a trend that will surely drive regional geopolitics.
- Key boundary disputes between the Arctic states—between the United States and Canada, between Canada and Denmark, and between Russia and Norway—continue to be unresolved, vexing issues.
- Future ships voyaging into the Arctic Ocean could bring alien species in their ballast water and increase air emissions into the cooler surface atmosphere of the Arctic.
- A future “Global Climate Treaty” might slow climate warming, but by how much? It is plausible that the relentless loss of Arctic sea ice and glacial ice, observed during recent decades, might continue and possibly accelerate.

### 10. Accomplishment and collaboration
The study is based on the authors own experience. Lawson W. Brigham is Alaska Office Director of the U.S. Arctic Research Commission and a former chief of strategic planning for the U.S. Coast Guard.

### 11. Method
This is a qualitative study.

### 12. Sources of information
No databases or special sources of information are referred to. The strong focus on climate change builds on the report from the Arctic Council: *Impacts of a Warming Arctic: Arctic Climate Impact Assessment (ACIA).*

### 13. Strengths
The study presents four interesting scenarios, with content and names that separates them well, and points to widely different futures. This is a typical strength of strongly edited scenarios (scenarios that are not the result of a process full of compromises between actors…).

### 14. Weaknesses
As it is ”only” the vision of one man, it may lack the legitimacy broader involvement may give.

### 15. Attention and significance

### 16. Relevance for the Fram Centre
The writer, Lawson Brigham, has a wide network, and may be an interest contact for further discussion/cooperation. He is invited to speak at the Arctic Futures side-event at Arctic Frontiers 2012 in Tromsø.