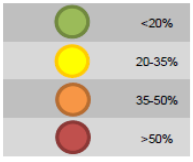
The EU Arctic Footprint and Policy Assessment (AFPA)

Audun Iversen, September 2011

1. Project/ publication	Ecologic Institute (2010): *The EU Arctic Footprint and Policy Assessment Report*. Berlin, 243 pages http://arctic-footprint.eu/sites/default/files/AFPA_Final_Report.pdf
2. Initiator	The study is initiated by the European Commission, DG Environment.
3. Objective	The Arctic Footprint and Policy Assessment aims to improve the effectiveness of EU environmental policies with respect to the Arctic region. The study is undertaken as an assessment of the EU's current footprint on the Arctic environment and to evaluate how it could change over time. The effectiveness of the EU's current environment-related policies are also analysed, including how these policies relate to current and future footprint scenarios. Furthermore, options for improving EU policy are also developed.
4. Geographical delimitation	The AFPA focuses on the part of the Arctic of relevance to the European Union (EU). The EU has a significant impact on the socio-economic and environmental aspects of the Arctic region. Three Member States, Denmark (Greenland), Finland and Sweden, have territories in the Arctic. Two other Arctic states – Iceland and Norway– are members of the European Economic Area. The analysis focuses specifically on the EU and does not elaborate on the impacts of other Arctic or non-Arctic nations.
5. Time horizon	Three illustrative scenarios describing potential changes in the EU's Arctic footprint up to 2030 provide the context for a discussion of long-term policy considerations.
6. Thematic focus	Analyses were conducted within nine distinct policy issue areas: 1) biodiversity, 2) chemicals and transboundary pollution, 3) climate change, 4) energy, 5) fisheries, 6) forestry, 7) tourism, 8) transport and 9) Arctic indigenous and local livelihoods. For each of these areas current status is described and EU's footprint in percentage of global impact is estimated. The report also discusses EU policy options and provides an EU Arctic footprint scorecard with flagship indicators.

CATEGORY	FLAGSHIP INDICATOR	EU SHARE
Biodiversity	no flagship indicator	n.a.
Chemicals	PCB-153 emissions from Europe	57%
	Market demand for BFRs in Europe	17%
	EU-27's share of mercury emissions over the Arctic	24%
	EU-27's final demand for products from mercury-intensive Arctic industries	36%
	SO_2 emissions from the EU-27	42%
	EU-27's final demand for products from SO_2-intensive Arctic industries	38%
Climate change	GHG emissions from the EU	16%
	Europe's share of black carbon emissions to the Arctic	59%
Energy	EU-27's final demand for products from the Arctic oil and gas industry	24%
Fisheries	EU-27's share in fish imports from Arctic countries	39%
Forestry	EU-27's final demand for products from the Arctic forestry industry	n.a.
Tourism	Share of EU-27 tourists in the Arctic	27%
Transport	EU share of global shipping traffic in the Arctic	n.a.
Arctic livelihoods	EU impact on employment/income in the Arctic	n.a.



7. Images of the future

The report describes three different futures in 2030. The three scenarios are based on the assumption that the magnitude of the EU's impact on the Arctic is determined not only by the pressures emerging from the EU, but also by the Arctic's relative vulnerability to those pressures, determined by the severity of climate change impacts and availability and effectiveness of management strategies. The scenarios were built around given combinations of the four main drivers, accounted for in more detail under question 8.

The authors chose to develop scenarios describing high, medium and low impact of the EU footprint. The three scenarios are characterised by high (5), medium (3) and low (1) levels of change in each of the four variables, giving this table of possible variations:

Possible combinations of variables for the future EU Arctic footprint scenarios	ARCTIC PRESSURES AND RESILIENCE		DRIVERS OF EU FOOTPRINT	
5-High impact	**5** climate	**1** management	**5** growth	**1** efficiency
4-Medium high impact	**4** climate	**2** management	**4** growth	**2** efficiency
3-Medium BAU impact	**3** climate	**3** management	**3** growth	**3** efficiency
2-Medium low impact	**2** climate	**4** management	**2** growth	**4** efficiency
1-Low impact	**1** climate	**5** management	**1** growth	**5** efficiency

Scenario 1: Race for Resources
In this scenario a high level of economic growth and a low level of resource efficiency in the EU interact with rapid climate change and a low level of effectiveness in management of Arctic pressures, leading to a high impact EU footprint in the Arctic in 2030.

Scenario 2: Business as Usual
In this scenario a moderate EU economic growth is largely counterbalanced by a comparable increase in resource efficiency. Europe 2020 targets have been met. However, efforts at managing pressures in the Arctic are not quite able to hold the effects of climate change in check and environmental conditions in the Arctic continue to deteriorate.

Scenario 3: Eased by Efficiency
In this scenario economic growth in the EU coupled with high resource efficiency creates low demand for resources and products, more sustainable rates of consumption and reduced global greenhouse gas emission levels. Though the momentum of climate change continues to create some pressures in the Arctic, these challenges are addressed through a high level of international cooperation on Arctic adaptation and ambitious regulations.

8. Key driving forces

The scenarios take four variables as the most critical to the future development of the EU footprint in the Arctic:
(1) EU economic growth: the amount of growth in EU GDP from 2010 – 2030;
(2) EU resource efficiency: the amount of environmental impact per unit energy consumed in the EU by 2030;
(3) Climate change in the Arctic: the change in degrees Celsius in the Arctic from 2010 – 2030 and other metrics such as extent of sea ice recession and extent of melting permafrost;
(4) The efficacy of management of Arctic environmental pressures: the degree of

	coordination among international actors, such as governments, NGOs, the private sector, and individuals to address climate change impacts and their derivatives in the Arctic by 2030, along with the effectiveness of multilevel governance.
9. Uncertainties/wildcards	No wild cards were discussed.
10. Accomplishment and collaboration	The project team for the EU Arctic Footprint and Policy Assessment was led by Ecologic Institute, and included three additional institutes: the Arctic Centre, SERI and Stockholm Environment Institute. The scenarios are based on an expert workshop held in April 2010.
11. Method	The study used a scenario approach.
12. Sources of information	The scenarios are qualitative.
13. Strengths	The team makes good use of the scenarios for the development of long-term policy considerations. The scenarios highlight challenges that the EU will be facing, such as: 1. Utilising ecosystem-based management 2. Assisting in Arctic climate change adaption efforts 3. Continuing climate change mitigation efforts within the EU and internationally 4. Continuing to increase resource efficiency 5. Reducing pollution from a wide variety of sources 6. Strengthening the policy process within the EU and among other international actors and improving cooperation
14. Weaknesses	The high-medium-low-impact approach leads to scenarios that could have been more qualitatively different. As the authors point out, especially in the second scenario the balance struck between the variables are very delicate and slight shifts in any of them could tip the balance in one direction or the other.
15. Attention and significance	This report has received a lot of attention, and based on that, and the importance and effort put into it by the EU Commission, it is reasonable to assume that it has also greatly affected EU thinking on Arctic environmental matters.
16. Relevance for the Fram Centre	This report gives a broad overview of EU relations to the Arctic environment, and as the EU is and will be important for the development of the Arctic, their position is of importance to other nations and their activities.