

Uncertain futures in the Arctic: Strategic options for Yamal indigenous peoples

Vilena Valeeva, Kathrin Stephen (IASS)
Johannes Gabriel (Foresight Intelligence)
Elena Nikitina (IMEMO)

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Photo credit: Kathryn Hansen /NASA



Brief Introduction

Yamal 2040 is a case study within the international Blue-Action research project

Goals

- Build, use, and assess scenarios for the future of the Yamal region in the Russian Arctic in collaboration with stakeholders

In order to

- Develop greater capacity among stakeholders to adapt to multiple changes and
- proactively prepare for alternative and uncertain futures of the Yamal region

The Yamal region

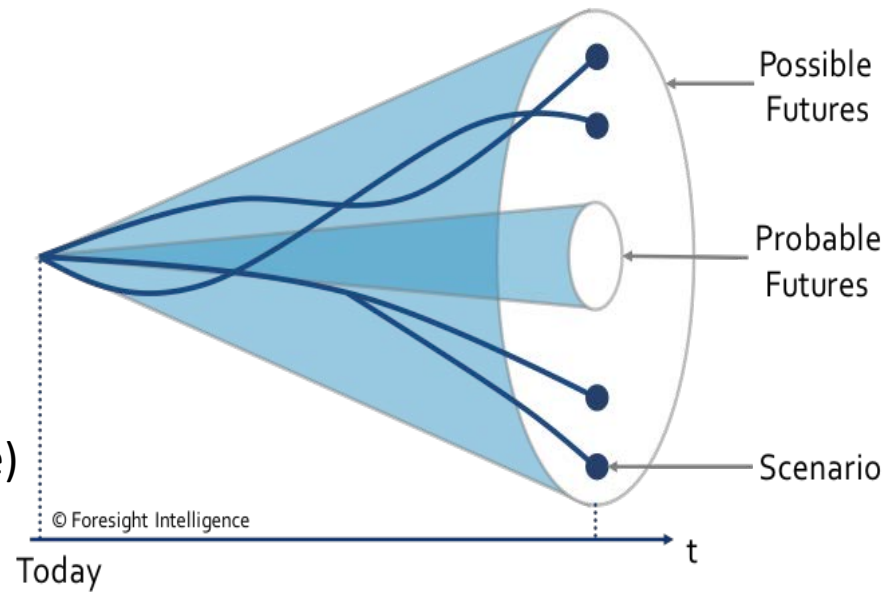
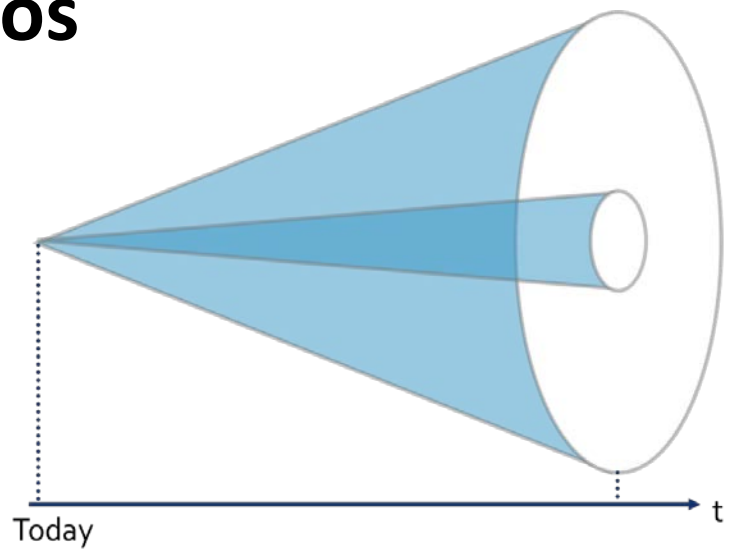
- Yamal is considerably affected by climate change
- Yamal region is at the core of petroleum development in Arctic Russia and produces more than 80% of Russia's natural gas
- Population of the Yamal region is 534.000 people. 8% of them are indigenous (Nenets, Khanty, Selkup)
- The future of Yamal is highly uncertain due to substantial climatic, environmental, economic, social, political, and legal changes in the years and decades to come



Map by Stasyan117/Wikipedia

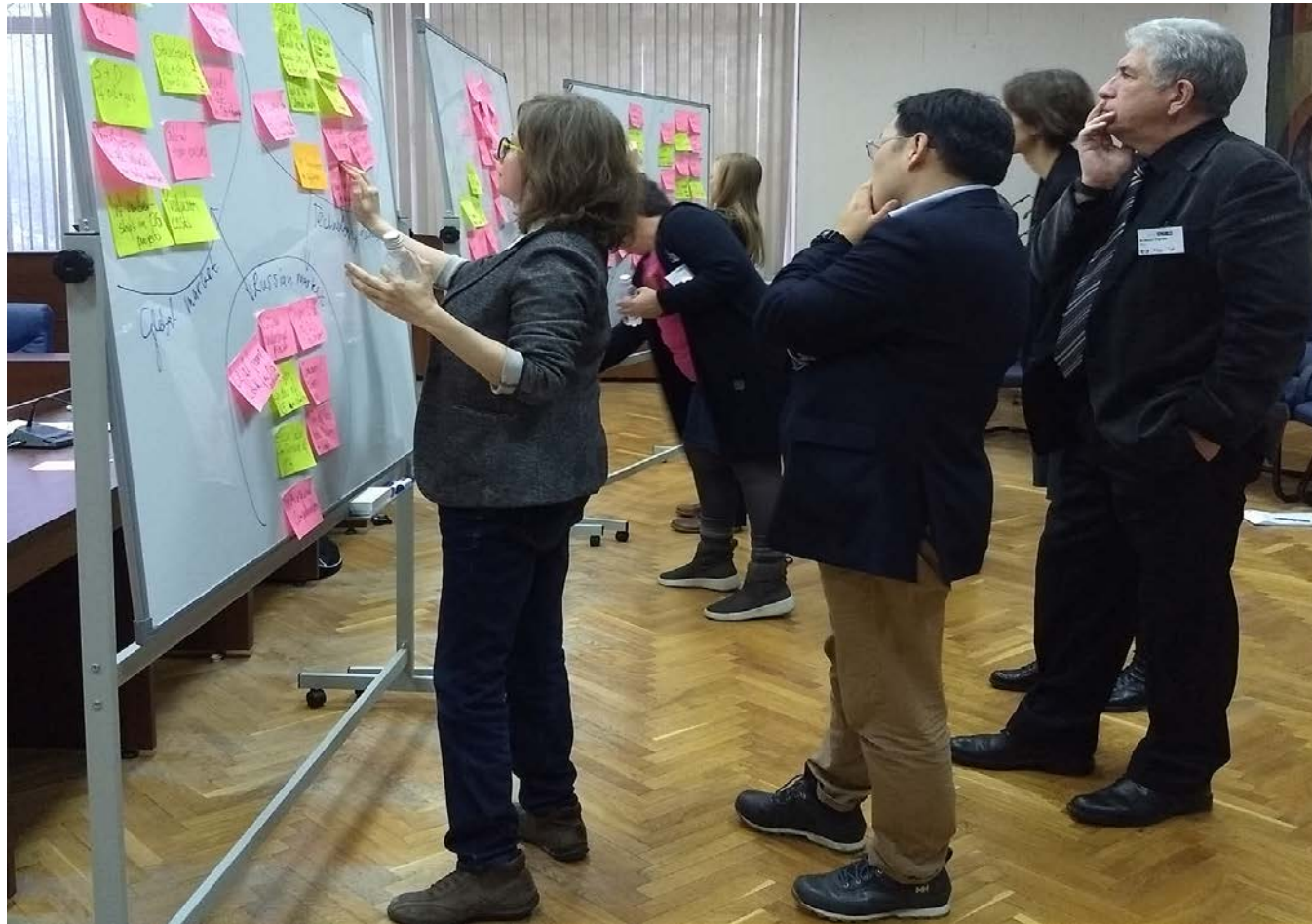
Scenario methodology: On Foresight, Strategic Foresight, and Scenarios

- Foresight is systematic thinking about uncertain futures.
- Strategic foresight is action-oriented foresight.
- Scenarios are (strategic) foresight tools.
- A scenario is a comprehensive description of:
 - a possible future situation, composed of consistent parts.
 - a plausible trajectory that leads to a certain situation.



Credits: Johannes Gabriel (Foresight Intelligence)

Creating scenarios is a structured group process



Credits: Kathrin Stephen (IASS)

Participants

- Environmental NGOs
- Indigenous peoples rights NGOs
- Oil and gas business
- Consulting
- Local community
- Scientific community
- Media

Methodological steps: 3 workshops

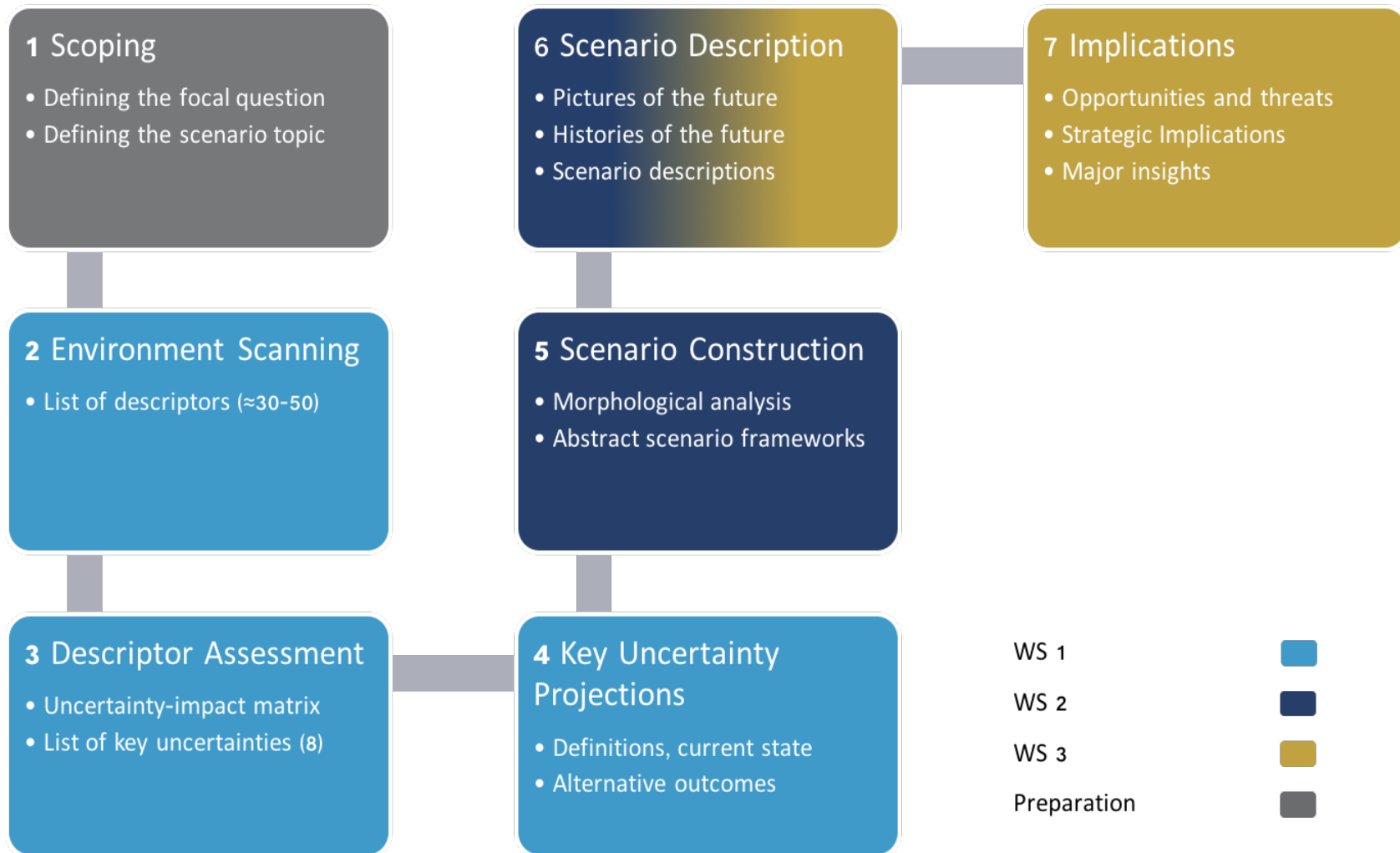


Illustration by Johannes Gabriel (Foresight Intelligence)

1st Scenario “Yamal 2040: Reinventing itself”

- Breakthroughs in energy storage technologies changed the global energy market. The demand for Yamal gas sharply declined.
- Due to shrinking job opportunities, Yamal’s population dropped.
- The impacts of climate change have taken their toll and Yamal is doubly affected.
- Yamal’s reindeer population almost died out in the early 2020s because of climate change impacts and overgrazing. Reindeer herders had to introduce new innovative models of herding.
- Yamal succeeded to develop business models alongside the ever-present gas production.
- Yamal’s new focus is on IT, alternative tourism and local production of fish, reindeer meat, and Arctic herbs.

2nd scenario: “Yamal 2040: Gas Boom”

- Increased international efforts in climate change mitigation.
- Demand for LNG is steadily on the rise until 2040.
- Sanctions are lifted
- The effects of climate change in Yamal have not been as severe as many expected.
- Mercury releases create problems for reindeer herders
- Yamal businesses are under pressure to reduce environmental impacts of Yamal’s petroleum development and to increase Corporate Social Responsibility programs

3rd scenario: “Yamal 2040: Snow Queen”

- In 2040, the Yamal and European climate is much cooler than expected.
- Prices for oil and gas are high due to a stalemate in the global energy transition and higher global energy consumption rates.
- The continuing sanction regime as promoted industrial diversification and home-grown innovation in Russia (and Yamal).
- With stable international demand for oil and gas in combination with a diversified – yet energy resource based – portfolio, Yamal in 2040 achieves a stable regional economy and development.
- Programs for the economic, social, and ecological improvement of oil and gas extraction are successful.
- Indigenous peoples are transitioning smoothly from nomadic traditional ways of life to settled industrial lifestyles.

4rth Scenario: Wild Card

- Breakdown of Gas Infrastructure as a result of a huge gas eruption.
- Commercial disaster: Production stop for several months at least. Additional costs coming from reparation and compensation fees. Reputational costs, fading political support, and dropping share prices.

Strategic options for Yamal indigenous peoples

- Invest in education and self-education
- Promote political participation



Credits: Oldag Caspar, Germanwatch



Project Coordinators: Steffen M. Olsen, Danish Meteorological Institute, smo@dmi.dk and Daniela Matei, Max Planck Institute for Meteorology, daniela.matei@mpimet.mpg.de

Project Office: Chiara Bearzotti, Danish Meteorological Institute, chb@dmi.dk

Communication, Dissemination, Engagement, and Exploitation officer:
Hannah Grist, SRSL, Hannah.Grist@srsi.com



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