International Boreal Forest Research Association
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IBFRA | Insight Process
Why do boreal forests matter?

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Joint ECE/FAO Working Party on Forest Statistics, Economics and Management, forty-first session
27-29 March, FAO-UNECE, Geneva, Switzerland

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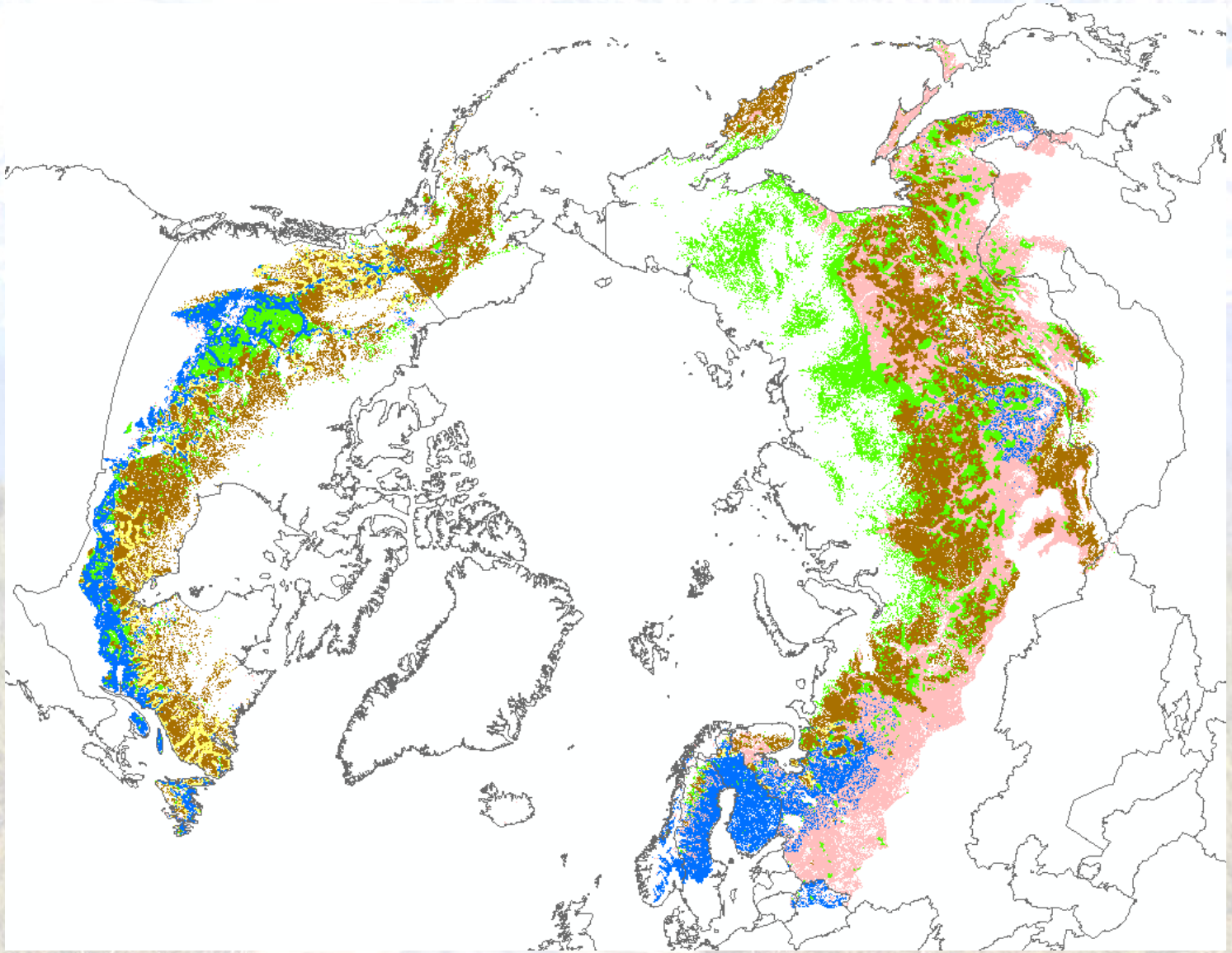
- ****** 1991** - USSR, USA, Canada, and Nordic Countries
- **INTERNATIONAL** public institution bringing together forest experts, policy makers, civil society organizations, and other stakeholders from boreal and other forest zones
- **MISSION** - "… to promote and co-ordinate inter- and trans-disciplinary research to increase the understanding of the role of the circumpolar boreal forests in the global environment and the effects of environmental change on that role …" (the White-Sea Declaration, 1991)
- **PRODUCTS** - comprehensive studies of boreal forests and valuating their role in providing stability of the earth climate system and global bioeconomy

→ 25 international experts forming the IBFRA Steering Group
→ series of broad international studies
→ scientific expeditions in Northern Eurasia and Alaska
→ 700+ research papers
→ 18 international conferences ~ 4,000 participants

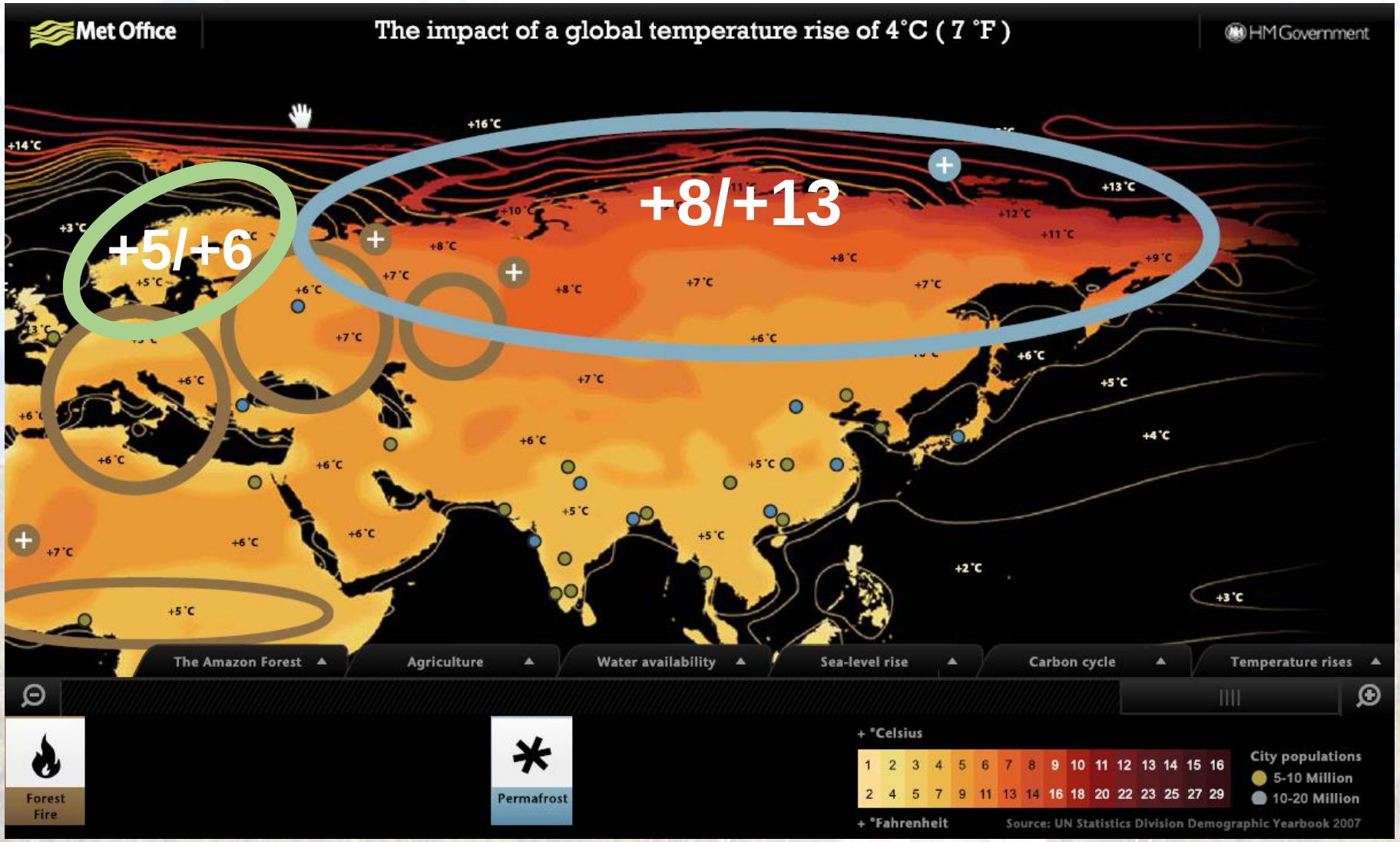
Diverse forest management situation in boreal zone

Area of certified forests in Canada and Nordic countries 190 mln ha, in Russia 30 mln ha



Source: http://forest.geo-wiki.org; Kraxner et al. 2017

Northern Eurasia under +4°C globally



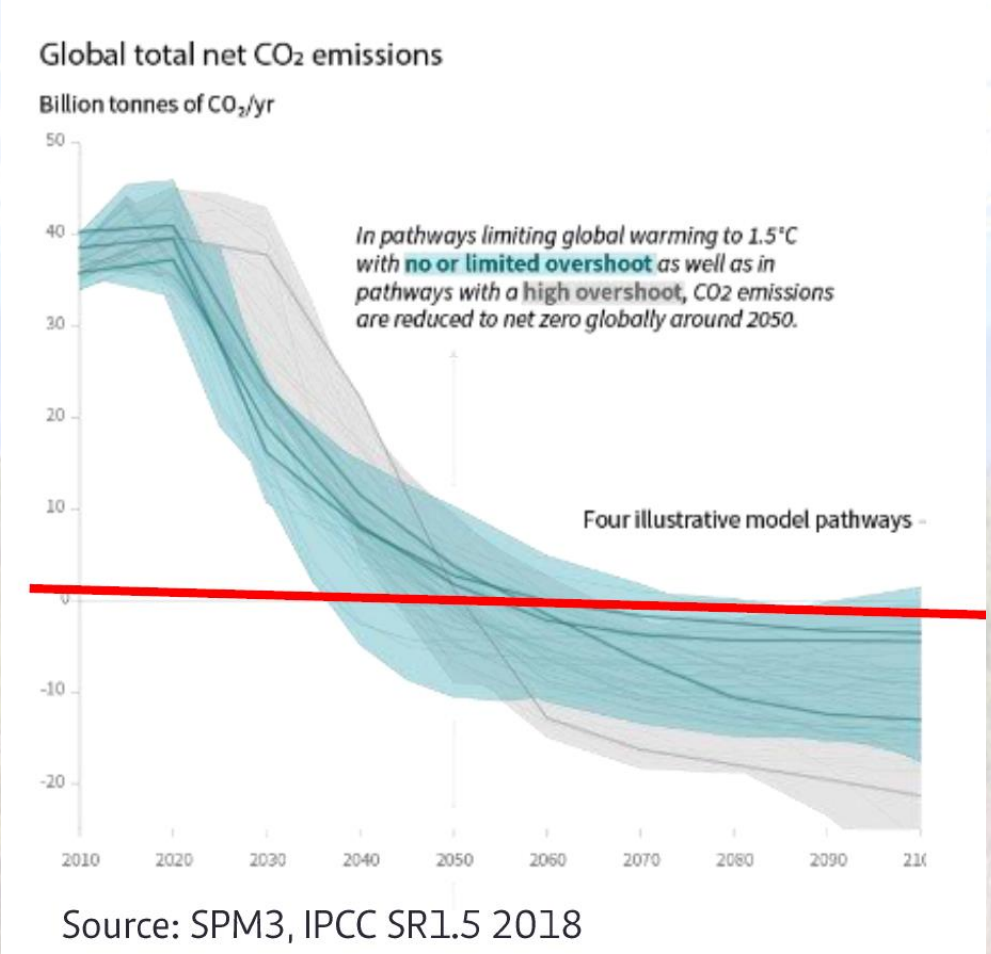
Impacts of environmental changes on forests will be **both positive and negative**: growth, mortality, disturbances.

Understanding **where, when and how** these impacts will occur is necessary to design effective climate change mitigation and adaptation strategies for the boreal forest sector.

… will potentially lead to 20-50% loss of Siberian boreal forest (Tchebakova et al. 2009)

The boreal forest and negative emissions

IPCC SR 1.5°C: by 2050 net negative in order to achieve 1.5 deg C!



Source: SPM3, IPCC SR1.5 2018

Land-based Negative Emissions Technologies (NETs) will affect global forest sector

- Large increases in land-based carbon sinks required.
- Afforestation, reforestation, restoration … several 100 Mha to >2 Billion ha
- Intensification of forest management, conservation
- Increased use of long-lived wood products
- Increased use of bioenergy and biomass-based liquid transportation fuels
- Bioenergy with Carbon Capture and Storage (BECCS)

- **The bioeconomy has great potential vs. sustainable supply for all?**
- **Boreal forests have an important role and can e.g. remove carbon with all additional benefits but they are under threat – CC→ large release (fire, pests, …)**
- **They receive disproportionally low attention (30% of global surface!)**

Diverging views on best strategies, little consideration of climate change

→ need to develop **regionally appropriate mitigation and adaptation strategies**.

→ what strategies are **technically feasible, climate effective, sustainable and socially acceptable?**

→ Circumboreal Working Group from the policy community of six boreal countries reached out to IBFRA to explore opportunities for science collaboration among boreal countries.

→ experts from 6 boreal countries gathered in Haparanda, Sweden (June 24-25, 2018) for the IBFRA Science-policy Dialogue with CWG

→ presented results at Ministerial Summit, June 26:

IBFRA Insight Process
Topics identified by policy community

Background paper

- **Six examples of mitigation actions**
- **Three examples of key issues**
- **Opportunities and potential benefits** of increased research collaboration among circumboreal nations

IBFRA Policy Dialogue produced ~ 30 questions:

? Which (boreal) forest sector **actions** can mitigate climate change with high certainty?

? How large are the biophysical and economic **mitigation potentials of long-lived HWP and bioenergy** from boreal forests?

? What are **socially-acceptable roles** of forest management, wood product and bioenergy uses for climate mitigation?

? What are the **positive and negative impacts of climate change** on boreal forests?

IBFRA Insight Process – WHAT?

- An IPCC-like assessment of scientific consensus on selected topics.
- Primarily meta-analysis and synthesis.
- Science-based and policy relevant - but not policy prescriptive.
- Focused on the boreal region.
- Produces 1 report/policy brief (per funded topic)
- Produces 1 scientific peer-reviewed article (per funded topic)
- 1 topic / term ~ 1 year
- not a “one-off” process

IBFRA Insight Process – HOW?

- **IBFRA Insight Task Force** represented by selected members of IBFRA Steering Group
- Identify potential **sponsors** for individual IBFRA Insight topics.
- Work with **Circumboreal Working Group and sponsor** to identify specific topics.
- Develop **Terms of Reference** for Insight Expert Team
- Form **IBFRA Insight Expert Teams** for specific topics representing
  - experts from boreal countries (for writing and reviewing)
  - both senior and young scientists
  - one hired position to help with writing
- **IBFRA Insight Task Force** oversees review, outreach and publication process.
- Develop **key messages** and **communications strategy.**

IBFRA Insight Process – STATUS-QUO?

Kick-Off at Skogens Dag 2019, 23 January, Stockholm, Sweden

1st IBFRA Insight Topic:

Sustainable boreal forest management
– challenges and opportunities for climate change mitigation -
It will address climate change impacts, role of forests in mitigating climate change and the ways in which the forest sector can contribute to net negative emissions.

Funding under the framework of the National Swedish Forest Programme:

To strengthen strategic collaboration on boreal forests in science-policy interface
Collaboration: Swedish Forest Agency, Future Forests at SLU, IBFRA.
The project funding from both SFA and SLU.

IBFRA Insight Process – STATUS-QUO?

Research Lead: Swedish University of Agricultural Sciences (SLU)
Future Forests Platform

Scientific Lead: ***Prof. Peter Högberg*** - a high ranked scientist and professor in soil science at the Swedish University of Agricultural Sciences (SLU).

Expert within the field of forest soils and forest carbon balances.

From 2015 – 2018 he was the Vice Chancellor of SLU

IBFRA Insight Process – Next Steps?

- ✓ Select Insight topic with Circumboreal WG and those funding the topic
- ✓ Announce the IBFRA Insight Process at Swedish Forest Day
- ✓ Identify relevant experts from boreal regions
- ✓ Identify format and arrange initial workshop with 15 – 30 participants from all boreal countries → **20-21 May 2019, Stockholm**
- ❑ Prepare first draft of document
- ❑ Review process of first draft
- ❑ Prepare second draft
- ❑ Arrange final workshop to complete and discuss report and paper (scientists + policy experts)
- ❑ Finalise report / policy brief and start preparing scientific paper
- ❑ Aim at completion of the first cycle within 1 year from now

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!Thank you | See you!

@ IBFRA Insight Process Workshop in May 2019

@ Cool Forests Session in September 2019,

IUFRO WC, Curitiba, Brazil

@ IBFRA19 in 2020, Fairbanks, Alaska, USA