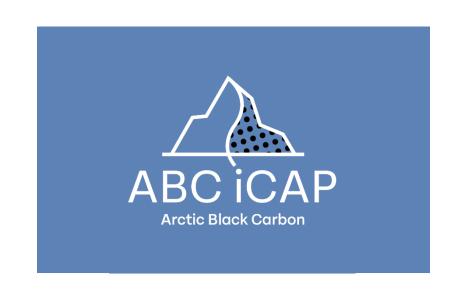
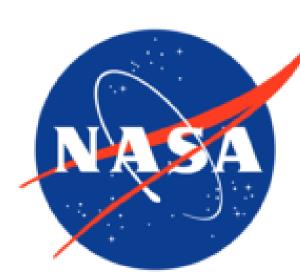


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Forest fires in Quebec in June 2023. Source: Société de Protection des Forêts Contre le Feu

Climate change will increase the fire activity and risk in the Arctic

- Increased lightning & drier conditions
- Longer fire seasons
- Thawing permafrost
- Transitions to grasses, moving tree line and dry peat

Other common developments across the **Arctic affecting wildfires**

- Expansion of agriculture further north
- More human-caused ignitions

Future pathways for Arctic forest fires

Wildfires are expected to become more common and more severe in the Arctic states due to climate change. Main cause for the fires is human activity, even in the boreal and Arctic forests. To assess the impacts of human activity to Arctic wildfires, we have created pathways for future wildfires up to 2050 for the Arctic states. We explore high and low fire activity and risk pathways for the Arctic and present our regional Best guess pathways.

We got this

Lowest fire activity and fire risk pathway







More prescribed & cultural burning, high attack rates on wildfires





stabilizes, less expansion





Reduce / prevent fires caused by tourism, accidents

More green energy, precautions for fireprone areas

In all pathways fire activity and risk will increase in the Arctic region and fire risk will increase in boreal region due to climate change.

Let it burn

Highest fire activity and fire risk pathway



Limited fuel treatments

Population growth in fire

prone areas

Wildland Urban Limited prescribed & cultural burning, Interface risks low attack rates increase

Increased tourism, limited guidance

on wildfires

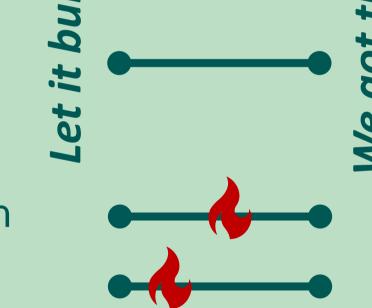


Less green energy, more fuel extraction in fire-prone areas

Best guess

Most likely pathways

Main factors for each region, and their development in relation to the two extreme pathways



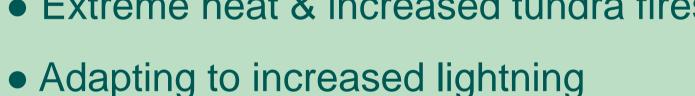
Nordic Countries

- Adapting to lengthening fire season
- Handling of dry peat
- Timber management (incl. prescribed fire (to diversify stand age))
- Human caused fires (majority of the ignitions)

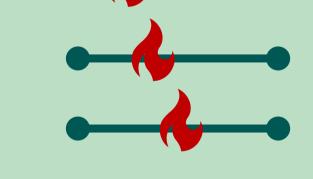


North America

- Adapting to lengthening fire season
- Extreme heat & increased tundra fires

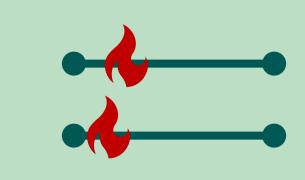






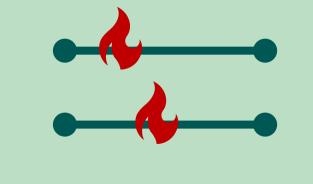
Eurasia

- Adapting to lengthening fire season
- Adapting to extreme heat & increased dry peat and tundra fires
- Adapting to increased lightning
- Lack of firefighting infrastructure



Greenland

- Extreme heat & degraded permafrost
- Human caused fires



References

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Limited funding

for fire prevention

& fighting