



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

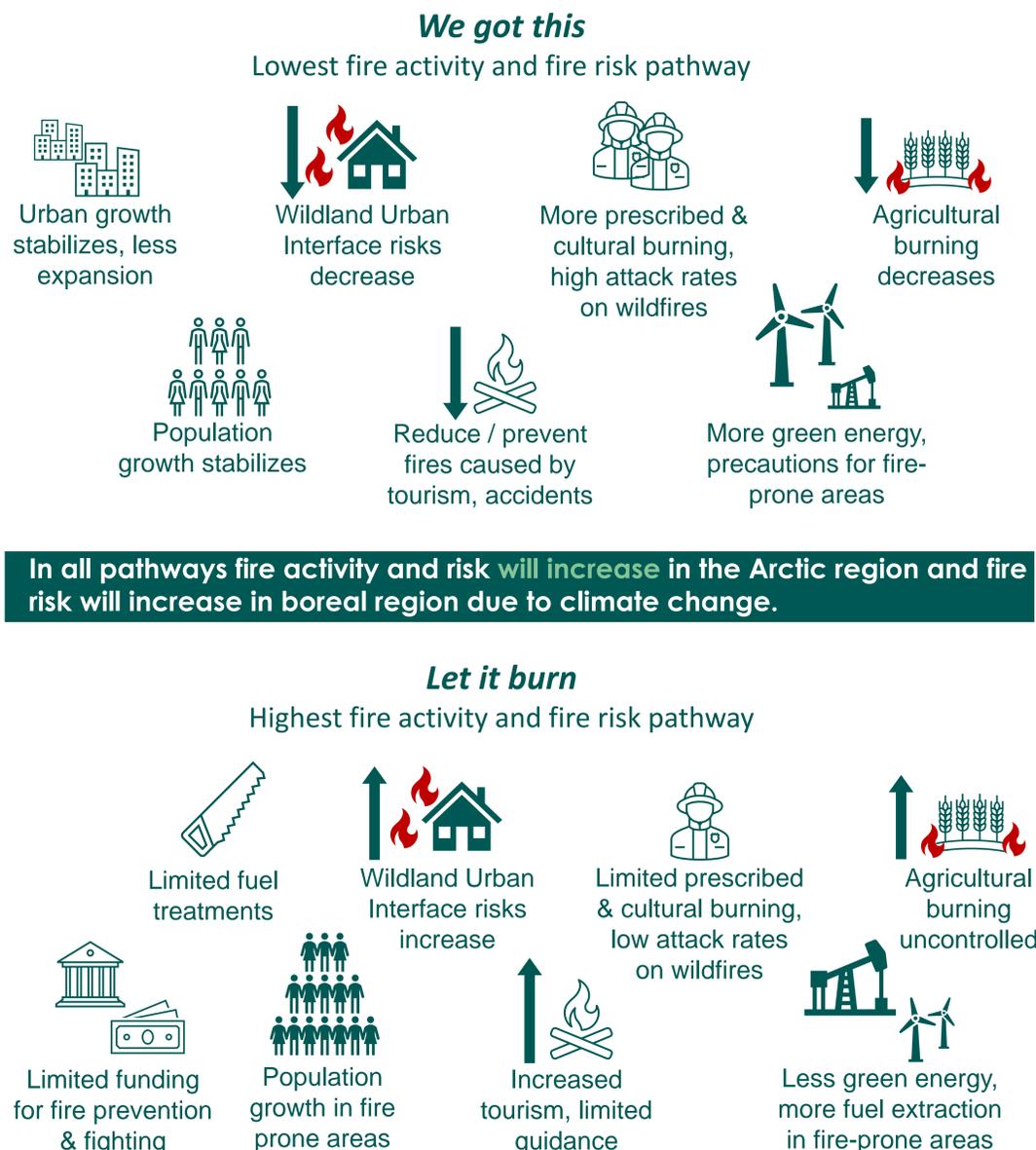
- Increased lightning & drier conditions
- Longer fire seasons
- Thawing permafrost
- Transitions to grasses, moving tree line and dry peat

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.



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.

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

Let it burn | We got this

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
- Adapting to increased lightning
- Wildland urban interface (WUI)

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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