

Impacts of carbon pricing on the hunting, fishing and trapping economy in the Inuvialuit Settlement Region

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Non-technical summary

A main feature of the 2019 Pan-Canadian Framework on Clean Growth and Climate Change is the reduction of greenhouse gas emissions through government taxation of those emissions, often referred to as a "carbon tax." The Government of the Northwest Territories is currently implementing a carbon pricing program in compliance with this federal policy.

The Inuvialuit Settlement Region is distinct from southern and more urban areas of Canada by virtue of its remote location and its vibrant traditional economy, based on hunting and fishing, that produces tremendous economic and social value. The traditional economy supports Inuvialuit food security and nutrition, builds trust and social capital, and promotes both physical and mental health. However, because of its non-monetary nature, the traditional economy is largely invisible to national- and territorial-level economic statistics. Avoiding a disproportionate burden on Indigenous peoples is a core principle of the Pan-Canadian Framework, but the impact of carbon pricing on traditional economies has not yet been accounted for in the implementation of carbon pricing, in the Northwest Territories or elsewhere.

Based on the Inuvialuit Harvest Study (IHS), at least 122,677 kilograms of food were harvested in the ISR in 2018. The retail cost of comparable market food substitutes for this food is over 3.18 million dollars. These estimates correspond to approximately 44.1 kg or \$1,150 per Inuvialuit beneficiary living in ISR communities. Comparable retail foods (pork, beef, poultry, fish) in this quantity would produce between 1,082–1,171 tonnes CO2-equivalent emissions per year if shipped by food mail. Importantly, these estimates are based only on harvests reported in the IHS, and as such should be considered minimum estimates. The total amount of food, replacement cost, and carbon emissions incurred through replacements are likely much more, possibly as high as double our estimates.

The Inuvialuit Traditional Economy is highly dependent on imported fossil fuels, both for the importation of necessary supplies and for powering hunting vehicles including snowmobiles, boats, and all-terrain vehicles. This dependence is not recent and is the result of complex historical factors. Further, in the Arctic these modes of transportation cannot be easily replaced with greener technology at the present time. We estimate that 165,985 litres of gasoline, worth approximately \$292,133, would have been used in the production of harvests reported in the



2018 IHS. We estimate the carbon impact of this volume of gasoline to be 395 to 502 tonnes CO2-equivalent emissions per year.

The other major source of carbon emissions associated with the traditional economy is production of vehicles. Unfortunately there is limited data available to calculate the quantities and frequencies of vehicle purchases in the region. Nevertheless, our calculations suggest that, even if the entire carbon emissions of vehicle production were applied to food production (and not to other benefits of the traditional activities such as recreation and health), the traditional economy could still produce a net carbon savings relative to imported market foods. More data would be required to provide a clearer estimate of the total carbon inputs to the traditional economy.

Fossil fuels and vehicles used in the traditional economy will be heavily impacted by carbon pricing; but no exception has been made for fuels used for subsistence purposes in the Inuvialuit Region. However, Inuit hunters throughout Canada are already experiencing difficulty affording the gasoline and equipment required for traditional harvesting activities. Further increases in the cost of harvesting will reduce the ability of many Inuvialuit to engage in harvesting, which may lead to poorer nutrition, poorer health, and a lower quality of life in Inuvialuit settlements.

Based on these findings, we recommend that mechanisms should be put in place to protect the Inuvialuit Traditional Economy from potential negative effects of carbon pricing. Such mechanisms need to account for the fact that harvest production is unevenly distributed across households and that a substantial portion of harvested foods are redistributed within and between Inuvialuit communities through sharing. We note several limitations to our study as the result of a lack of available data on many aspects of the traditional economy. Consequently we emphasize that our estimates should be considered preliminary and that more detailed studies need to be undertaken to better understand the sensitivity of harvesting to fossil fuel prices.