Revitalizing Traditional Fire Management

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Overview

The use of early season traditional fire management to mitigate destructive late season fires has produced positive results in Australia. These outcomes include significant reductions in carbon emissions, improved conservation outcomes, as well as reductions in lifestyle diseases among Aboriginal participants (think diabetes, obesity and heart disease). In addition to these outcomes, participants are able to generate income by managing their land-base – fire management has produced sustainable livelihoods for people on country – creating healthy ecosystems and healthier communities.

Under commitments in the Kyoto Protocol, governments like Australia and Canada, have to reduce their greenhouse emissions – there are commitments to reduce carbon emissions by hundreds of millions of tons per annum. Aboriginal fire management programs allow Aboriginal groups to sell carbon credits to the government (and companies) to meet their emissions targets. These carbon credits are calculated by measuring the emissions from early season fires and the measured carbon emissions released by late season fires – the difference between these amounts is the carbon credits available for sale by the Aboriginal groups to the government (or industry) buyer. In Australia, these early season fires have reduced millions of tonnes of carbon from being released into the atmosphere, and generated revenues of around $40 million dollars (AUD) to Aboriginal peoples last year.

These fire management programs offer sustainable livelihoods for Aboriginal peoples living on their lands across northern Australia. Empirical evidence demonstrates improved forest and hydrological health, as well as reductions in public health costs to Indigenous communities (that amounts to tens of millions of dollars per annum).

Research Purpose

Could these fire management programs be applied to Canada? Two factors suggest that this idea is worthwhile to explore, in the context of British Columbia. The first is that many groups in British Columbia historically managed their land-base with fire. This practice was suppressed by settler governments. The second factor is that the suppression of this fire management along with increased temperatures from climate change, means that fires have become more destructive on the land-base, evinced by the fierce wildfires that swept through British Columbia's interior in the

recent summer of 2017. The United Nations estimated 2017 to be the hottest year on record in global history; and 2018 is expected to be hotter, meaning more fire risk.

Bringing back early season fire management could help mitigate these late season fires in Canada, as they have done in parts of Australia. Applying the model from Australia is problematic, as the landscapes and political-economy is distinct – there are considerable forest and timber values in British Columbia's interior. But, in acknowledging this difference, it is important not to cast the concept aside. Fire management in a carbon framework could be adapted to and developed for British Columbia's interior. The ambition of this project is to design and test a fire management carbon framework.

The purpose of this project is to explore the application of traditional fire management to the Tsilhqot'in title lands and Dasiqox Tribal Park area, in central British Columbia. The Tsilhqot'in Nation has a history of managing their landscape with fire. With the first declaration of Aboriginal title, and asserted claims to the Dasiqox Tribal Park area, the Tsilhqot'in want to actively manage these areas for fire, which devastated much of the broader region in 2017. Generating revenue to prevent carbon emissions from devastating late season fires, estimated at many thousands of tonnes, could provide important income to Tsilhqot'in members and support conservation and restoration efforts on their lands.

The Tsilhqot'in title lands and Dasiqox Tribal Park are critical habitat for many endangered and threatened species, including the Grizzly Bear as well as Mountain Caribou. Canada has international commitments to preserve and maintain habitat for these species. Managing connected habitat is essential for the survival of these endangered species.

Research Design

This project will first engage Tsilhqot'in community in a series of workshops to build understanding of these fire management programs, and will include presentations from Australian practitioners who have developed and implemented these programs (February- May 2018). If there is community support, the next phase is to develop a recognised carbon methodology, to measure carbon emissions and make carbon credits available for sale under the Verified Carbon Standard (September 2018). A pilot study would then be undertaken in the field and evaluated (April 2019). If successful, the program would be designed and implemented at commercial scales, and the results evaluated (September 2019). Insights would be documented and shared with the broader public (December 2019).