Not All Fire is Bad: Indigenous Fire Stewardship in Canada

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Introduction:

Wildfires have disastrous consequences for everyone, especially for Indigenous communities who often lack the resources and infrastructure needed to prevent the loss of their homes and lands to these devastating events (Isai, 2021). Studies predict an increase in the occurrence, duration, and severity of wildfires throughout Canada because of climate change (Gaur et al., 2021). Wildfire smoke can spread pollution across thousands of kilometers, negatively impacting the air quality in areas far removed from the site of the burn (Hirschlag, 2020).[1] In short, wildfires pose both an environmental and public health concern for all Canadians, proving that it is critical for the government to address these issues in novel and innovative ways. The detriments of wildfire were a key theme in the 2021 Speech from the Throne (Parliament of Canada, 2021), and the government has expressed that wildfires will be a central concern of the upcoming and first-ever *National Adaptation Strategy* (ECCC, 2021).

The purpose of this paper is to address a significant gap in the government's approach to wildfires: the lack of Indigenous Fire Stewardship. Current approaches to wildfire management focus on extinguishment rather than prevention and have not successfully reduced disastrous fires from occurring. An illustrative example of the inadequacy of current policies is the complete destruction of the entire community of the Nlaka'pamux people in Lytton, British Columbia due to forest fires last year (Isai, 2021). This devastating event suggests the federal government needs to consider alternative methods for preventing and responding to wildfires. In particular, we argue that current policies should be revised to better engage with and incorporate cultural practices of Indigenous Fire Stewardship (IFS), specifically prescribed (or, *controlled*) burns, to manage and prevent disaster and restore the land.

Although there have been some steps towards adopting this alternative model through application-based funding initiatives such as FireSmart (Indigenous Services Canada, 2022), we argue that this program should be expanded nationally and improved through the creation of new institutions that support and facilitate a more collaborative approach with Indigenous communities. We also recommend that Parks Canada incorporate these initiatives into their current programming under the stewardship of Indigenous peoples through existing partnerships. Deepening these partnerships is crucial not only because these communities are on the frontlines of many fires each year, but also because they have deep repositories of traditional knowledge that can and should be incorporated into current federal policies to dramatically improve Canada's approach to wildfire prevention and mitigation now and into the future.

Background:

Over the past decade, Canadians have faced a multitude of highly destructive wildfires, averaging over 5,300 fires per year (Natural Resources Canada, 2021). Paired with the scientific consensus on climate change, wildfires are likely to become more frequent in number and scope as well as affect areas that are not normally vulnerable to devastation (Gaur et al., 2021).

As wildfires have quite literally swept through the nation (Aziz, 2021), Western-focused approaches to tackling these hazardous occurrences have prioritized extinguishment over prevention. A study of Vancouver Island's ecosystem since European settlement found the two

[1] These pollutants pose a serious threat to the health of all Canadians, especially "children, older adults, and those with heart disease, diabetes, asthma, COPD, and other lung diseases" (American Lung Association, 2016), with exposure proven to result in increased respiratory hospital admissions (Delfino et al., 2009).

driving forces of negative ecological change to be a lack of prescribed burns and the rise of fire suppression (Bjorkman and Vellend, 2010). However, Indigenous communities and peoples in Canada have historically employed the method of prescribed burns for centuries (Berkes and Davidson-Hunt, 2006) to rid the forest of "dead leaves, tree limbs, and other debris" that could lead to destructive wildlife (National Geographic Society, 2019). This type of ecological maintenance is both preventative and healing for the land, as it can "return nutrients to the soil in the ashes of vegetation that could otherwise take years to decompose" as well as provide "additional sunlight and open space" to help younger trees and other plants start to grow (ibid). Although Parks Canada prescribes burns in select locations across the country (Parks Canada, 2017), broadly speaking, Canada makes "little use of the practice" (Campbell, 2016), especially in collaboration with Indigenous communities who have access to historical and traditional ecological knowledge that can facilitate the burns safely.

To some degree, an initiative embodying IFS exists under current policy, specifically a program called FireSmart within Indigenous Services Canada. The program receives approximately $3.2 million dollars per year and operates in 53 different First Nation communities (Indigenous Services Canada, 2022). FireSmart includes controlled burns, but also incorporates emergency management as well. A recent report noted that despite the clear benefits of IFS, it has "historically been ignored and inhibited by colonization, government regulations, and legislation around fire suppression" (CCA, 2022: 40).

Indigenous Fire Stewardship:

The concept of Indigenous Fire Stewardship (IFS) corresponds to the practices of Indigenous peoples providing stewardship over forests and ecosystems on their traditional territories as they have done since time immemorial. IFS has been described by scholars as "the inter-generational teachings of fire-related knowledge, beliefs, and practices among fire-dependent cultures regarding fire regimes, fire effects, and the role of cultural burning in the fire-prone ecosystems and habitats" (Lake and Christianson, 2019: 1). Scientific studies confirm that IFS's prescribed burns and fire management increase biodiversity, promote the health of an ecosystem, and reduce large-scale wildfires (Trauernicht et al., 2015; Mistry et al., 2016; Hoffman et al., 2021). One study with Anishinaabe elders of Iskatewizaagegan (Shoal Lake, Ontario), found that their principles of fire and conservation were in complete alignment with the concept of multifunctional landscape management, both of which do not align with the modern forest management policy of suppression (Berkes and Hunt, 2006: 43).

The principles of modern forest management continue to be unaligned with IFS. A report[2] by the government of British Columbia explicitly outlined that the province should "increase the use of traditional and prescribed burning as a tool to reduce the risk associated with landscape and local-level hazards, and to regenerate ecosystems" (2018: 96-97). Despite this recommendation, difficulties in practicing IFS have persisted.[3] One such study seeking to reconcile these two opposing views, has argued for a strategy of "walking on two legs", an

[2] After a particularly disastrous 2017 wildfire season, the report was commissioned on lessons learned and how to address the "new normal" of large-scale wildfires in the province (Government of British Columbia, 2018).

[3] Four years after the BC report, the Secwepemcúlecw Restoration and Stewardship Society issued their own report, concerning the Elephant Hill wildfire which engulfed a large part of their territory. The report, while acknowledging the increased awareness of IFS throughout society, noted that there are several barriers facing the use of prescribed and cultural burning, most importantly: 1) a lack of understanding between fire agencies and Indigenous communities in terms of fire; and 2) the distinctions between cultural and prescribed burning (Dickson-Hoyle and John, 2021: 190). The report recommended several ways to better handle wildfire management based in greater funding and collaborative partnerships (Dickson-Hoyle and John, 2021).

Indigenous-centered response to fire management that uses Western science as its one leg, and Indigenous knowledge and science as the other leg (Dickson-Hoyle et al., 2021). The researchers suggest that this approach is central to reconciliation in providing for Indigenous ecological stewardship over their traditional territories, a right that has long been denied under colonization (ibid).

Recommendations:

1) The Government of Canada should launch a national expansion of the FireSmart program and create new institutions to deepen relationships with new and existing Indigenous partners.

Given the increasing frequency and damage of wildfires in Canada, FireSmart in its current form is too small in scale and scope to be effective. Although application-based funding packages are constructive ways to pilot new approaches, the FireSmart program needs to be expanded and supported through institutions that promote a more collaborative approach between Indigenous leaders, communities, peoples, and the Canadian government. Thus, we propose that the federal government work with Indigenous organizations to create an Institute for IFS to develop best practices and provide technical support to implement IFS across Canada. The government should also create IFS working groups and engagement tables to deepen relationships with new and existing Indigenous partners, such as the Assembly of First Nations and Métis National Council (ECCC, 2020), as well as regional organizations who can help the federal government partner with individual communities on the front lines of fires. These local level partnerships are important given that the knowledge that underpins IFS is often considered sacred and is inherent to the communities who possess it. Research on Indigenous data sovereignty argues that data-collection ought to be controlled by the Indigenous nation to whom it belongs, acknowledging proper self-determination and autonomy over sacred knowledge (Rowe, Bull, and Walker, 2020). As a result of this recommendation, we envision FireSmart would be greatly expanded to form a seminal part of Canada's plans, strategies, and approaches towards wildfire prevention and response.

2) The Government of Canada should expand the mandate of Parks Canada to include Indigenous Fire Stewardship as part of the operations of all national parks.

IFS within national parks would contribute to better wildfire management and create substantial benefits towards the biodiversity and well-being of these spaces. Parks Canada should look to engage with IFS through existing relationships with Indigenous peoples and communities[4] and through the processes and actors described in the first recommendation. This program would combine Indigenous knowledges and practices with the capabilities and resources of Parks Canada, resulting in an Indigenous-led program that contributes to the well-being of park land. Scholars have argued Indigenous stewardship over park lands is a clear example of a tangible act of reconciliation with Indigenous peoples (Finegan, 2018).

In sum, public support for IFS in Canada can revive important cultural practices for Indigenous peoples while protecting the environment and the health of all Canadians. The recommendations put forth in this paper have sought to highlight how IFS can benefit all people while also presenting one more step on the path to reconciliation between the Government of Canada and Indigenous peoples.

[4] Parks Canada currently works with "more than 300 First Nations, Inuit, and Metis groups across Canada" (Parks Canada, 2021).

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