



**INDIGENOUS  
INCLUSION IN  
CLIMATE CHANGE  
POLICY:**

**DECOLONIZING CLIMATE ACTION**



**WRITTEN BY  
ANEELA T. RAHMAN**

## INTRODUCTION

Climate change is a global issue that has varied impacts on different communities, while the consequences fall heavily on marginalized communities. Moreover, tackling the climate issue requires the involvement of all affected populations in the decision-making process for sustainable change. This brings up two overarching questions:

1. What can we learn from Indigenous knowledge in terms of climate change adaptation strategies?
2. How can these communities be included at national and international levels?

Drawing on this, this paper argues that while Indigenous communities have an important role in developing climate action strategies, they are not sufficiently included in the formal policy arena. The decolonization of colonial environmental structures serves as a framework for this paper, drawing on a post-colonial narrative. This pertains to Indigenizing climate change approaches moving forward (Whyte, 2017). An institutional framework will also be used to understand the enabling environment necessary for Indigenous involvement in policy.

The paper will first briefly explain the methodology and establish the theoretical framework for this paper. The following section will review relevant literature to highlight key ongoing debates. The fourth section will explore Indigenous movements and initiatives at different levels. The last section will discuss some policy implications and ways to include Indigenous voices moving forward.

## METHODOLOGY

Using Academic Search Complete as the main database, the majority of the

research used a search string composed of terms relating to Indigenous communities and knowledge as well as those relating to climate change action. Indigenous knowledge includes keywords such as traditional or local knowledge, and Indigenous knowledge systems. Climate change is inclusive of keywords such as biodiversity loss, global warming and environmental degradation, as well as adaptation or mitigation strategies. These keywords are used to develop a foundation for understanding current Indigenous climate change adaptations and climate actions. Based on this, the question on Indigenous involvement at national and international levels is approached.

## THEORETICAL FRAMEWORK

Institutional and post-colonial frameworks will be used as an approach to analysing Indigenous inclusion in the climate policy arena. The institutional framework is concerned with the role of institutions within the context of Indigenous inclusion in the policy arena and building their resilience to climate change. A post-colonial framework is used to complement the institutional approach to highlight the vulnerabilities of the Indigenous community to climate change. Colonialism and capitalism characterized the dependence on carbon-intensive economics and industrialization, driving anthropogenic climate change (Whyte, 2017). As a result, Indigenous communities were left vulnerable to these changes, pointing to the erosion of their cultures due to the destruction of ecosystems which Indigenous communities relied on (Whyte, 2017.). Whyte's (2017) work provides a solid foundation to build the discussion for this paper as it highlights

the vulnerabilities of the Indigenous community in the context of climate change.

### LITERATURE REVIEW

The key takeaway from the literature is that Indigenous knowledge and practices rely heavily on perception of natural phenomena and cultural practices. Inman, et al. (2020) and Kupika et al. (2019) found that religious and cultural practices affected how their target communities in Zimbabwe and Namibia perceived climate change. In the Middle Zambezi Biosphere Reserve (MZBR), Zimbabwe studied by Kupika et al. (2019), the participants believed that they experienced increased droughts due to their lack of rainmaking ceremonies. Additionally, in a study by Apraku et al. (2018), local farmers were shown to practice biodiversity conservation by protecting certain plants as part of their culture. These kinds of practices are especially useful for small-scale subsistence farmers to control their yields during climatic changes. Similarly, Henri et al. (2020) conducted interviews with Inuit harvesters which highlight the contributions of Inuit harvesters to research on the Arctic Tern. As the knowledge holders on the Arctic Tern, the Nunavik Inuit provided specific observations on the species, the which in turn support management practices and scientific research on the species (Henri et al., 2020). The communities' attention to species that are of cultural importance is relevant as it complements and supports scientific research as well as policy. Given the nature of Indigenous practices, they are better suited for community level strategies, which brings up the question of scaling these methods up to a macro

level. Complementing these methods with other scientific approaches could enable them to be leveraged towards larger scale projects and policies.

### **"IT IS EQUALLY IMPORTANT TO ACKNOWLEDGE THE ISSUE OF EXPLOITATION OF INDIGENOUS ECOLOGICAL KNOWLEDGE BY CLIMATE SCIENTISTS"**

Within the area of what can be learned from Indigenous knowledge, an overarching idea is that it needs to be utilized in combination with scientific knowledge for best results. Mogomotsi et al. (2020) found through using Botswana as a case study that a significant proportion of the respondents had concrete climate change adaptation strategies influenced by Indigenous knowledge. Another factor at play here is that of perception, which is often correlated with other factors such as experience, financial feasibility, and level of education (Mogomotsi et al., 2020; Ochieng et al., 2017). This brings in the issue of financial limitations of farming and Indigenous communities, which may hinder them from appropriately implementing their adaptive strategies.

Both Mogomotsi et al., (2020) and Ochieng et al., (2017) agree on the need for greater financial and social support for these communities to facilitate the implementation of their climate change adaptation strategies. These two papers bring in a social protection dimension to the institutional framework in that they call for institutions to acknowledge and build the resilience of Indigenous adaptation methods. This highlights the vulnerabilities of the Indigenous

community, meaning though Indigenous knowledge provides much to work with in the policy arena, it is under-utilized due to the lack of social and financial support. Echoing these sentiments, Palframan (2015) poses a question on how communities can actualise their local ecological knowledge. Using Lesotho as a case study, Palframan (2015) argued that simply funding governments of low-income countries will not guarantee a trickle-down to the most vulnerable communities. In essence, this highlights the issue of access as well as institutions in that they lack the incentives to invest in Indigenous approaches. In essence, Indigenous knowledge provides sustainable approaches to climate change adaptation at the policy level. However, the inclusion of this knowledge requires institutional support to improve their capacity and resilience.

**"THE INCLUSION OF EXPERT ADVICE AND SCIENTIFIC KNOWLEDGE IS REQUIRED TO INCREASE THE ADAPTIVE CAPACITY OF INDIGENOUS METHODS"**

Across these articles, the common finding is that local Indigenous and farmer knowledge could not mitigate the impacts of climate change on their own. Rather, the inclusion of expert advice and scientific knowledge is required to increase the adaptive capacity of Indigenous methods. Additionally, the literature highlights the vulnerability of Indigenous and farming communities to climate change, which necessitates the need for adaptive strategies on their part to mitigate the heavier impacts on their environment. The inclusion of their practices in mainstream climate change

strategies shows promise and has the potential upscaling. However, it is equally important to acknowledge the issue of exploitation of Indigenous ecological knowledge by climate scientists (Whyte, 2017). Acknowledging this is important to ensure that Indigenous knowledge is not simply collected for research but for achieving positive results for Indigenous communities. Moreover, a direct involvement of the Indigenous community can facilitate a better approach that addresses the unequal burden of climate change experienced by the community.

**CASE STUDIES**

The case studies in this section span movements initiatives at different levels to understand the current landscape of indigenous involvement in climate action. A review by Labbé et al. (2017) explores the Inuit community in Nunavut, where they documented 700 discrete adaptation initiatives. The authors find that adaptations in Nunavut have been driven by multilevel coordination and leadership implemented largely at the community level. However, actors at different levels are not communicating and collaborating with each other sufficiently to develop combined approaches. Rather, Labbé et al. (2017) find that adaptation is largely occurring at the groundwork level. While groundwork initiatives are foundational for building resilience, greater urgency and upscaling is necessary to address accelerating climate change impacts (Labbé et al., 2017). Moreover, there is a lack of formal adaptation planning which would provide greater strategic direction for the government (Labbé et al., 2017). Due to lack of infrastructure and prioritization, the upscaling of these initiatives have been limited.

In terms of Indigenous social movements advocating for involvement in climate action, one example includes Indigenous Climate Action (ICA). ICA works on connecting and supporting Indigenous communities for building leadership in climate action (Indigenous Climate Action, 2019). ICA supports Indigenous sovereignty over their land as well as Indigenous-led climate solutions. The ICA also collaborated with the City of Toronto's Environment & Energy Division and Resilience Office to guide efforts to include Indigenous Traditional Knowledge (ITK) (Indigenous Climate Action, 2018). Key requests that were highlighted in the report included being included at the decision-making table and for climate change strategies to not be undertaken in silos. This highlights the intersectionality of the environment with culture and health sectors by drawing land protection and its relationship with human health and water health issues (Indigenous Climate Action, 2018). This report signals a step forward for the Indigenous community in terms of being included at the table, even at a municipal level. The inclusion of these marginalized voices draw attention to issues that are not always taken into consideration within mainstream policy formulation approaches, such as the intersectionality of the environment and health.

The United Nations Educational, Scientific and Cultural Organization's (UNESCO) Local and Indigenous Knowledge Systems (LINKS) programme is another relevant example. The work in this program is related to Sustainable Development Goal (SDG) 13 on climate action and promotes the inclusion of Indigenous knowledge in global climate

science and policy processes (UNESCO, 2019). The programme produces various publications on Indigenous knowledge and practices such as their *Local Knowledge, Global Goals* poster series. This publication introduces important concepts and emerging issues relating to Indigenous knowledge systems and their interactions with science and policy (UNESCO, n.d). The *Local Knowledge, Global Goals* publication is an appropriate document recognizing the contributions of the Indigenous communities in the realm of climate adaptation. However, it does bring up the question of next steps in the inclusion of Indigenous knowledge in climate adaptation. The literature explored, including this publication, have been largely normative in terms of outlining concrete steps that should or could be taken to include the Indigenous community. This draws attention to the discussion of power dynamics wherein lies the overarching issue since state actors hold the barriers to entry into the policy arena. As a result, much of the interest in formally including the Indigenous community is more so ad hoc based on priorities. Moreover, the lack of formalization of Indigenous approaches speaks to the barriers these communities face to getting involved in the policy arena. Inclusion would allow for a more holistic approach to climate change policy while taking into consideration the needs of Indigenous communities.

## CONCLUSION

A recurring theme from the literature is that inclusion has not formally taken place despite the level of climate action at the community level. Though this groundwork has been recognized by organizations such as UNESCO, there have been limited

consistent efforts made towards formally including this work in the policy and strategy space. Littlechild's (2020) words are pertinent here as she discusses the presence of federal climate programs for First Nations communities. She argues that these programs are "completely oversubscribed" where First Nations communities do not have the capacity to engage with these programs (p. 266). Moreover, certain iterations of agreements, such as the Green New Deal, homogenize the experiences of Indigenous communities (Littlechild, 2020). This highlights the frustrations of Indigenous communities where they are blocked by the very institutions that are meant to include their voices in formal policies. The post-colonial perspective highlights the disenfranchisement of the Indigenous community who are blocked from involvement at an institutional level. From an institutional perspective, it shows that the power dynamics favour state actors as they control the access to the formal policy arena. Though formalization is not the "end all be all" for Indigenous communities it would enable more sustainable, and holistic change to occur in the realm of climate policy.

The literature and case study show that Indigenous knowledge is based on working with the land for adapting to climate change but they lack resilience. In essence, we must engage with the community, be culturally sensitive, and be mindful of not exploiting the knowledge gained from Indigenous inclusion. It is yet to be seen what concrete steps can be taken to truly include Indigenous communities in the formal space. This highlights the overall need to address the underlying power and colonial structures

that continue to exist.



As a master's candidate studying International Development and Globalization, Aneela is interested in the area of policy and social protection for marginalized communities. She is actively furthering these interests through volunteer work in her community and the UN. Aneela's future goals involve legal studies as a means of providing social protection to those in need.

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