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The Indigenous Alternative: TEK, IEL, and Solutions for the Unsolvable

Cara Victoria Sawyer*

Abstract

This comment addresses the intentional exclusion of Indigenous nations from the United Nations and, consequently, from the UNFCCC and subsequent climate regime. It cautions of the adverse consequences that have resulted from such exclusion, both to the warming planet and to all its human residents. Critics say that the climate regime has fallen woefully short of reaching its goals. However, this comment suggests that including Indigenous nations in substantial international climate change conversations and decisions could result in yet-to-be-made progress toward reducing global warming. The permanent position status that the Inuit people hold on the Arctic Council, for example, helped empower them to envisage a unique solution to the impact climate change was having on their lives and take action in an international court to plant their idea in the international consciousness—that human rights and environmental rights are inextricably intertwined.

This comment posits that the clean development mechanism ("CDM") is not inherently broken, but rather that carbon markets have been poorly deployed and can be reimagined to substantially address climate change. Including Indigenous experts with traditional ecological knowledge ("TEK") on the expert committee mandated by the Paris Agreement and granting permanent position or voting status to Indigenous nations within the UN climate regime could bring alternate and lasting solutions in climate change. To illustrate how Indigenous philosophies might bear on reimagining carbon markets, the comment compares current carbon market implementation with how two different Indigenous philosophies might alter them such that they in fact operate to achieve the goals of the Paris Agreement.

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I. Introduction

To understand why Indigenous voices are conspicuously missing from international conversations around climate change and the disastrous fallout such omission entails, we must begin with the colonialism that was foundational in building the international legal structure. As a result, the United Nations Framework Convention on Climate Change ("UNFCCC") and other international environmental governance mechanisms intentionally exclude Indigenous peoples and traditional ecological knowledge ("TEK") from discussions and decision-making in international environmental law ("IEL"). At a basic level, tribal governance structures are generally excluded from United Nations ("UN") governance bodies because they are not a State. This and other systematic exclusion tactics are a gross lapse in judgment that negatively affects us all and require remedy.

This comment insists that all Indigenous nations should participate in international organizations not just because it is their right, but because consideration of all cultural viewpoints has the potential to yield creative solutions. The Inuit possess the right to permanent participation in an international body and, with such support, are able to connect human rights infringements from climate change with human rights violations on the international stage. The comment then examines alternative economic theories propounded by two different Indigenous nations as applied to the climate regime's Clean Development Mechanism ("CDM"). Each proposes a viable alternative application of the CDM. It concludes that the CDM is not inherently broken but incorrectly deployed, holding out hope that the goals of the Paris Agreement may still be met, and that climate change may still be addressed.

II. Background

The climate regime (describing the body of IEL agreements created under the UNFCCC framework)[1] has proven woefully inadequate in addressing principle causes of climate change, as evinced both by our own senses and a massive and ever-growing body of science,[2] while often exacerbating the problem. The "historic" Paris Agreement ("Agreement") came into force in 2015, but many scientists, scholars, and civil society groups point out critical flaws.[3] Solutions are almost entirely non-binding and enable major polluters to abrogate responsibility for the harms they cause.[4] The Agreement and underlying UNFCCC create "false solutions," such as carbon markets and carbon offset mechanisms.[5] These market mechanisms purport to offer a solution, but in effect allow polluters to continue with business as usual and even profit in the meantime.[6] An Indigenous Environment Network report describes carbon markets as a privatization of our shared atmosphere.[7] Other climate justice groups demonstrate how climate markets further compromise the rights of communities disproportionately affected by climate change, such as Indigenous nations, who hold little or no responsibility for it.[8]

A. IEL, the Climate Regime, and Flawed Economic Mechanisms

The UN climate regime created and continues to justify global carbon markets, which are criticized as ineffective at best and actively detrimental at worst.[9] In the face of developed countries' resistance to binding treaty regulations or contingent liability, the climate regime employed nationally determined contributions ("NDCs"), whereby each Party voluntarily declares how much they will reduce emissions.[10] The Kyoto Protocol created three "flexibility mechanisms."[11]

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[1] United Nations Framework Convention on Climate Change art. 4, Mar. 21, 1994, 1771 U.N.T.S. 107, 170 [hereinafter UNFCCC].

[2] *See generally* MILLENNIUM ECOSYSTEM ASSESSMENT: ECOSYSTEMS AND HUMAN WELL-BEING SYNTHESIS (Millennium Assessment Board of Review Editors et al. eds, 2005) [hereinafter MEA Report].

[3] Julia Dehm, *Carbon Colonialism or Climate Justice? Interrogating the International Climate Regime from a TWAIL Perspective*, 33 WINDSOR Y.B. ACCESS JUST. no. 3, 2016, 129, 130-32.

[4] Dehm, *supra* note 3, at 130.

[5] *Id.*

[6] Dehm, *Carbon Colonialism*, at 131; UNFCCC, *supra* note 1; Paris Agreement, Dec. 12, 1995, Registration No. 54113 [hereinafter Paris Agreement].

[7] Indigenous Environment Network, *No to Colonialism: Indigenous Peoples' Guide False Solutions to Climate Change* 4 (2009).

[8] Dehm, *supra* note 3, at 130; Elizabeth Ann Kronk Warner, *South of South: Examining the International Climate Regime from an Indigenous Perspective*, *in* INTERNATIONAL ENVIRONMENTAL LAW AND THE GLOBAL SOUTH 451, 451 (Shawkat Alam et al. eds., 2016).

[9] Dehm, *supra* note 3, at 134; Chuwumerije Okerere & Philip Coventry, *Climate Justice and the International Regime: Before, During, and After Paris*, 7 WILEY PERIODICALS 834, 838 (2016).

[10] Paris Agreement, *supra* note 6, Art. 4, ¶ 2]; Dehm, *supra* note 3, at 132; Claudia Comberti, Thomas F. Thornton, & Michaela Korodimu, *Addressing Indigenous Peoples' Marginalisation at International Climate Negotiations: Adaptation and Resilience at the Margins* 11 (Envtl. Change Institute, Univ. of Oxford, Working Paper 2016) (available at https://ssrn.com/abstract=2870412).

Parties could save or prevent emissions using any of the three.[12] Reducing Emissions from Deforestation and Forest Degradation ("REDD+") enables credit production from forest conservation-based projects.[13] Joint Implementation ("JI") consists of a State or company sponsoring a project in another State that would otherwise not occur, with such projects' goals being to reduce anthropogenic (i.e., human-created, emissions).[14] Finally, the CDM is the method by which carbon trading is enabled.[15] The Paris Agreement expanded carbon markets, whereby a country that was under its NDC allowance could either sell or trade representative credits with another State that needed to buy or trade in order to "reduce" its emissions to meet its NDC.[16] Reimagining the CDM is the focus of this comment's proposal.

Author Julia Dehm provides a Third World Approach to International Law ("TWAIL") perspective of the CDM, noting that although many studies demonstrate how futile it is to achieve any significant emissions reductions through the CDM, the climate regime nonetheless continues to justify carbon markets because they take a global perspective and thus provide commonality.[17] Though this is perhaps technically accurate, it is nonetheless over-simplified and inadequate.[18] Both emissions (sources) and 'sinks' (carbon storage mechanisms) could be viewed as an aggregate. However, the idea is inherently flawed because it fails to address root causes of climate change.[19] Carbon markets instead use a 'free market' mechanism to financially allocate usage of sinks and sources.[20] The carbon offset credit systems allow emitters to purchase the right to pollute, thus creating *no actual reduction* of emissions and failing to achieve the reason the CDM was created in the first place—to actually reduce the increasing of the Earth's temperature.[21] Indeed, the Paris Agreement aimed to hold global temperature increase to a maximum of 2° C with a nod towards adhering to 1.5°,[22] but were all countries to meet their NDCs, scientific projections show the planet will still ultimately warm by 2.7-3.7 °C.[23] Not only do carbon markets fail to sufficiently reduce emissions to meet Paris Agreement goals, but what is worse, the

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[11] Kyoto Protocol to the United Nations Framework Convention on Climate Change Art. 12, Feb. 16, 2005, 2303 U.N.T.S. 162, 224 [hereinafter Kyoto Protocol]; Dehm, *supra* note 3, at 133.

[12] Kyoto Protocol, *supra* note 11.

[13] Dehm, *supra* note 3, at 132-33.

[14] *Id.*

[15] Kronk Warner, *supra* note 8, at 451.

[16] Paris Agreement, *supra* note 6, Art. 4, ¶ 2(a); *see also* Dehm, *supra* note 3, at 133.

[17] Dehm, *supra* note 3, at 142, 145-46 (in this context, commonality implies that the solution is common to all who are impacted).

[18] Dehm, *supra* note 3, at 145-46.

[19] Dehm, *supra* note 3, at 137, 145-46.

[20] *Id.*

[21] Dehm, *supra* note 3, at 132-34.

[22] Paris Agreement, *supra* note 6, Art. 2, ¶ 1(a); *see also* Okerere & Coventry, *supra* note 9, at 839.

[23] Okerere & Coventry, *supra* note 9, at 839.

implementation of these mechanisms often leave chaos in their wake.[24] There are several issues.

First, carbon offset markets promote "a system of technocratic rule managed by experts."[25] Such systems take power from local actors and place decision making in the hands of scientists and "experts" who dictate from the top down what will be done to solve the problem of climate change.

Additionally, when land is restricted to carbon offset purposes, those living traditionally on land can be ousted, and any resulting benefit is funneled to the purses of a few.[26] For example, under REDD+, General Motors, American Electric Power, and Chevron purchased carbon offset credits to offset their emissions and make money on the carbon market by 'helping' to save the Amazon.[27] After creating forest reserves under REDD+, they hired local Green Police to enforce protection of their 'investment,' with the resultant "green grabbing" forcing Indigenous peoples off of lands they had traditionally inhabited – and, ironically, helped to sustainably manage.[28]

For these and other reasons, the current approach to carbon offsetting does not work. However, though Dehm argues carbon markets do not work as a matter of course, it may instead be possible to address climate change and achieve the goals of the Paris Agreement through other means.

B. Marginalization of Indigenous Peoples in International Law

There have been limited opportunities for Indigenous peoples to present their concerns, ideas, or knowledge, including TEK, in the UN or other important international fora, and similarly the climate regime has yet to truly consider Indigenous perspectives.[29]

To find out why, we must look to the history and philosophy behind international law. International law distinguishes between the global North and the global South. Northern[30] countries with technological and industrial advance-

[24] Kronk Warner, *supra* note 8, at 451; Okerere & Coventry, *supra* note 9, at 839.

[25] Dehm, *supra* note 3, at 135.

[26] Dehm, *supra* note 3, at 136.

[27] Kronk Warner, *supra* note 8, at 451; *see also* Dehm, *supra* note 3, at 134-35.

[28] Kronk Warner, *supra* note 8, at 451; *see also* Dehm, *supra* note 3, at 134-35.

[29] Comberti et al. *supra* note 10, at 2; Winona LaDuke, *Traditional Ecological Knowledge and Environmental Futures*, COLO. J. INT'L ENVTL. L.& POL'Y 127, 133-34 (1994); Kronk Warner, *supra* note 8, at 451; Sabaa Ahmad Khan, *Rebalancing State and Indigenous Sovereignties in International Law: An Artic Lens on Trajectories for Global Governance*, LEIDEN J. INT'L. L. 675, 685 (2019).

[30] This paper distinguishes the global North (wealthy, industrialized countries such as the United States, members of the European Union, Japan, Canada, New Zealand, and Australia who hold more economic power and whose economic interests diverge from those of the global South), from Western culture or society (the homogeneous cultural concept of a modern, industrialized, and Americanized culture that rejects values arising from differing or traditional cultures). *See, e.g.*, Sumudu Atapattu & Carmen G. Gonzalez, *The North-South Divide in International Environmental Law: Framing the Issues, in* INTERNATIONAL ENVIRONMENTAL LAW AND THE GLOBAL SOUTH 1, 2 (Alam et al. eds., 2016) (defining the global North); Samuel P. Huntington, *The West Unique, Not Universal*, 75 FOREIGN AFFS., no. 6, 1996, at 28, 28(defining Western culture).

ments are often referred to as civilized, developed, or first-world.[31] Whereas these terms evoke positive imagery of arrival and top-tier positioning, in contrast, the countries of the global South are considered primitive, referred to as developing or third-world, and hold a predictably lower position in the global power hierarchy.[32] This hierarchical system undergirded colonialism, and the resulting international laws were designed to civilize the cultures who Europeans cased as uncivilized.[33] Northern mainstream cultures and methodologies came to dominate international governance, policy, cultural, and economic spheres, while States of the global South continue to hold significantly less power and exert less influence.[34]

However marginalized the South may be, Indigenous nations regardless of location are further marginalized, or "South of South."[35] The United Nations General Assembly ("UNGA") does not recognize "nations," though they are a group of people with a common language, common lands, history, and culture.[36] Instead, only States can be members of the UN.[37] So even though there are over 5,000 nations, most go unrepresented amongst the 193 UN member-States.[38] Created under the UN structure, the climate regime similarly only recognizes States.[39]

Though countries in which Indigenous populations reside do hold seats, representation is nonetheless minimal, for several reasons.[40] First, Indigenous people and ideas remain underrepresented in State governance.[41] Second, States often discriminate against Indigenous peoples.[42] Third, Indigenous non-Western self-governance methods frequently go unrecognized by their States of residence.[43] As a result, Indigenous viewpoints remain un- or under-represented in climate governance.[44]

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[31] M. Rafiqul Islam, *History of the North-South Divide in International Law: Colonial Discourses, Sovereignty, and Self-Determination*, *in* INTERNATIONAL ENVIRONMENTAL LAW AND THE GLOBAL SOUTH 23, 23 (Shawkat Alam et al. eds., 2016).

[32] *Id.*

[33] Antony Anghie, *The Evolution of International Law: Colonial and Postcolonial Realities*, 27 3D WORLD Q. 739, 741-42 (2006).

[34] Atapattu, *supra* note 30, at 2; Anghie, *supra* note 33, at 741.

[35] Kronk Warner, *supra* note 8, at 453-56.

[36] LaDuke, *supra* note 29, at 132; U.N. Charter, Art. 4, ¶ 2.

[37] LaDuke, *supra* note 29, at 132; U.N. Charter, Art. 4, ¶ 2.

[38] LaDuke, *supra* note 29, at 132; Comberti et al., *supra* note 10, at 3; *Member States*, UNITED NATIONS, https://www.un.org/about-us/member-states (last visited Dec. 26, 2021).

[39] U.N. Charter, Art. 4, ¶ 2; UNFCCC, *supra* note 1, Art. 20; Kyoto Protocol, *supra* note 11, at Art. 13, ¶ 8; Paris Agreement, *supra* note 6, at Art. 16, ¶ 8.

[40] Comberti et al., *supra* note 10, at 23.

[41] Comberti et al., *supra* note 10, at 23.

[42] *Id.*

[43] *Id.*; Kronk Warner, *supra* note 8, at 453-56.

[44] Kronk Warner, *supra* note 8, 453-56.

C. TEK and IEL

Indigenous ways of thinking tend to differ from those of the global North.[45] "Integrated system[s] of knowledge, practice, and beliefs" are considered TEK.[46] Indigenous leaders in their own words describe TEK as:

> ". . .a cumulative body of knowledge and beliefs, handed down through generations by cultural transmission, about the relationship of living beings (including humans) with one another and with their environment. Further, TEK is an attribute of societies with historical continuity in resource use practices; by and large, these are non-industrial or less technologically advanced societies, many of them Indigenous or tribal."[47]

TEK is critically important in the context of climate change because a group of people with personal, group, and generational knowledge hold a holistic and contextualized perception of their environment impossible to envision by any other means. As one leader noted:

> ". . .we spend a great deal of our time, through all seasons of the year, travelling over, drinking, eating, smelling and living with the ecological system which surrounds us. Aboriginal people often notice very minor changes in quality, odour and vitality long before it comes obvious to government enforcement agencies, scientists or other observers of the same ecological system."[48]

Thus, while Western scientists define their scope of study by *excluding* everything except a specific subject matter, Indigenous peoples instead define their scope of study by *including* every aspect of an ecosystem.[49]

TEK is clearly invaluable to assessing the extent of climate change and creating solutions. However, to date, TEK is generally ignored in IEL fora.[50] On the rare occasion a Conference of the Parties ("COP")[51] allows an Indigenous voice to be heard, cultural barriers or differences in rhetorical modes can obscure the message.[52] As one Indigenous leader at COP21 succinctly stated, "we are the

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[45] Fikret Birkes, *Traditional Ecological Knowledge in Perspective*, *in* TRADITIONAL ECOLOGICAL KNOWLEDGE: CONCEPTS AND CASES, 1, 5 (Julian T. Inglis, ed., Int'l Dev. Res. Ctr. 1993); Comberti et al., *supra* note 10, at 5.

[46] Birkes, *supra* note 45, at 5; Comberti et al., *supra* note 10, at 3.

[47] Birkes, *supra* note 45, at 3.

[48] Chief Robert Wavey, *International Workshop on Indigenous Knowledge and Community-Based Resource Management: Keynote Address*, *in* TRADITIONAL ECOLOGICAL KNOWLEDGE: CONCEPTS AND CASES 11, 11-12 (Julian T. Inglis ed., Int'l Dev. Res. Ctr. 1993).

[49] Chief Wavey, *supra* note 48, at 11-12; Comberti et al., *supra* note 10, at 18-19 (documenting Indigenous peoples' awareness of exceptional manners in which their environment is changing as evidence of climate change at subtle ecosystemic levels).

[50] Khan, *supra* note 29, at 675-78.

[51] Conference of the Parties, i.e., Parties to the climate regime.

[52] Comberti et al., *supra* note 10, at 15 (personal anecdote from a COP, where after an Indigenous leader's speech, an audience member commented, "[i]t's nice for them that they are here, but it wasn't a very well-structured presentation. I mean, they didn't really convey any ideas very clearly, so I didn't really follow." The author notes that this is a result of the audience member confronting an unrecogniz-

ones already providing solutions to climate change and we are completely being ignored."[53]

D. Intentional Muting of Indigenous Voices

The climate regime is a reflection of South-of-South marginalization and resultant silencing.[54] First, only States already members of the UN can adopt and be Parties to the UNFCCC.[55] Further, as discussed above, only States can be UN members.[56] Non-State Indigenous peoples, tribes, or nations are therefore not Parties to any of the major environmental treaties and therefore have no say in shaping IEL. One may counter that UNFCCC, the Kyoto Protocol, and the Paris Agreement all contain the provision that any observer who is not a Party may attend COP sessions. But the provision contains a massive caveat—they ". . .may be so admitted *unless at least one third of the Parties present object*" (emphasis added).[57] In practice, this means that any observer wanting to remain in attendance has to continuously appeal to at least two thirds of the parties present, which can place one in the unfortunate position of having to choose between voicing an opinion or remaining in the room.

Second, IEL leadership unfortunately physically marginalizes Indigenous peoples at the COPs. This intentional distancing can be seen in the spatial design of the 2015 Paris COP21 that yielded the Paris Agreement. A November 2016 paper by authors Comberti, Thornton, and Korodimou provides a first-hand account as experienced by a translator for several Indigenous Amazonian leaders at the COP.[58] COP meetings are already confusing to the uninitiated, and require fluency in navigating the proceedings in order to even get 'inside' the conference.[59] The translator noted that Hall 6, the space set aside for important discussions, was placed far from civil society discussions in Hall 4. Also, the "green space" set aside for Indigenous peoples (confusingly colored orange on notably uninformative maps) was located outside, not inside, the main conference, resulting not in automatic *inclusion* of Indigenous attendees but rather automatic *exclusion*.[60]

These are only a few examples of a calculated, or perhaps worse, mindless silencing of voices with alternative points of view. Such silencing has enabled a

able mode of discourse). *See also*, Edward T. Hall, THE SILENT LANGUAGE (Doubleday & Co. 1959) (whereby Western society will often speak of conclusions and personal beliefs, members of Indigenous and other ethnic groups may speak in stories. They objectively convey no less accurate or clear information, but an individual less familiar with listening to a discursive communication style may be left with the impression of a lower educational level or simply with confusion).

53 Comberti et al., *supra* note 10, at 15.

54 *Id.* at 13.

55 UNFCCC, *supra* note 1 Art. 7, ¶ 6.

56 U.N. Charter, Art. 4, ¶ 2.

57 UNFCCC, *supra* note 1, Art. 7, ¶ 6; Kyoto Protocol, *supra* note 11, at Art. 13, ¶ 8; Paris Agreement, *supra* note 6, at Art. 16, ¶ 8.

58 Comberti et al., *supra* note 10, at 13-14.

59 Comberti et al., *supra* note 10, at 14-15.

60 Comberti et al., *supra* note 10, at 13-15.

broken carbon market structure and continues to distract us from making urgently necessary improvements to global human systems and infrastructure.[61]

III. Discussion

A. The ICC: Linking Climate Change and Human Rights

The Artic Environmental Protection Strategy ("AEPS"), which later became the Artic Council ("AC"),[62] is significant in this conversation. This international organization gave Permanent Participant (PP) status to six Artic Indigenous Peoples Organizations (IPOs).[63] The AC's member IPOs include the Inuit Circumpolar Council ("ICC") and five other Indigenous groups from the Artic region, most of whose memberships are not defined by national borders, but rather by tribal affiliation.[64] According to the ICC's Circumpolar Inuit Declaration on Sovereignty in the Artic ("Inuit Declaration"), "Inuit are permanent participants in the Artic Council with a *direct and meaningful seat at discussion and negotiating tables* (emphasis added)."[65] Explicit in this statement is the fact that they cannot be removed from the AC, and implicit in it is that their voices are heard. This is currently a unique position for an Indigenous nation.

Thus empowered, in 2005 the president of the ICC petitioned the Inter-American Commission on Human Rights ("IAHCR") with a claim against the United States ("U.S.").[66] The claim pointed to the U.S. government's knowledge about links between rising global temperatures and greenhouse gasses ("GHGs"), the U.S. being the largest emitter of GHGs, its failure to ratify the Kyoto Protocol, and its negligible efforts to reduce emissions.[67] Most importantly, the Inuit Petition presented the idea that the U.S. government knew the impacts these decisions were having on the Artic, and by extension, on the Inuit people.[68] Though the IACHR did not proceed with the Petition, it nonetheless was the first instance of international legal action establishing a link between climate change and human rights.[69] The Petition was featured in the front section of the New York Times[70] and given press coverage by the BBC.[71] It subsequently contributed to

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[61] Dehm, *supra* note 3, at 134.

[62] *History of the Arctic Council Permanent Participants*, The Arctic Council (Aug. 28, 2015) https://arctic-council.org/en/news/history-of-the-arctic-council-permanent-participants/.

[63] *Id.*

[64] *Id.*

[65] *A Circumpolar Inuit Declaration on Sovereignty in the Arctic, adopted by the Inuit Circumpolar Council*, Inuit Circumpolar Council – Alaska (Apr. 2009), https://iccalaska.org/wp-icc/wp-content/uploads/2016/01/Signed-Inuit-Sovereignty-Declaration-11x17.pdf [hereinafter *Inuit Declaration*].

[66] *Inuit Petition and the IAHCR*, Center for International Environmental Law, https://www.ciel.org/project-update/inuit-petition-and-the-iachr/ (last visited Dec. 26, 2021) [hereinafter CIEL].

[67] Jacqueline Peel & Hari M. Osofsky, *A Rights Turn in Climate Litigation?*, 7 Transnat'l Envtl. L. 37, 47 (2018).

[68] *Id.*

[69] *Id.*

[70] Andrew C. Revkin, *Eskimos Seek to Recast Global Warming as a Rights Issue*, N.Y. Times, Dec. 15, 2004, at A3.

an IAHCR decision to investigate this crucial link on its own a year later, bringing the plight of the Inuit into the eye of the public and creating a new legal avenue for climate change redress.[72] This was the first time an international human rights tribunal was asked to consider the human rights implications of climate change.[73]

The claim holds two important considerations and is not insignificant, even in its lack of apparent success. First, it exposed to the public *for the first time* the concept that climate change violates human rights. This accomplished several things. It shed light on and publicized a critical but under-examined aspect of climate change. It also humanized an otherwise-marginalized and possibly unknown South-of-South nation. People who may have been unaware of the Inuit would have read or heard about them as a people fighting for rights that the readers might also want for themselves. Or, there are those who may have read about the claims of injustice and identified with the Inuit. Further, such press may shed light on the plight of other Indigenous people whose human rights are similarly affected by the effects of climate change or bring public awareness to the plight of all those who live off the land, including other Indigenous peoples.

The second important consideration the claim implicates is that, as the first legal claim of its kind,[74] it created the possibility of human rights claims against States, and possibly non-States, who have contributed to GHGs and thus caused harm to myriad individuals as well as groups or other Indigenous nations. The fact that the ICC president filed the Inuit Petition on behalf of a group that is representative of her tribe is significant for three reasons. First, it has motivated other peoples to follow suit.[75] The Arctic Athabaskan Peoples filed a complaint against the Canadian government in 2013, arguing that Canada violated their human rights due to high levels of Canadian black carbon emissions, and asked for a remedy based on the implications of the impact such emissions have on their human rights.[76] Second, the Inuit Petition was filed on behalf of a community of people whose bonds cross international borders.[77] As international law is so State-centric, the ICC approach is an important reminder that alternative governance schema are not just possible but functional. Last, it is not a suit by an individual against a State requesting redress for harms to that individual, but rather a suit brought by representatives of a *nation* claiming redress for the impact a State's actions had on that community's way of life. This is empowering for nations who might want to make claims against States in the future.

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[71] Richard Black, *Inuit Sue U.S. Over Climate Policy*, BBC NEWS (Dec. 8, 2005, 6:53 PM GMT), http://news.bbc.co.uk/2/hi/science/nature/4511556.stm.

[72] CIEL, *supra* note 66; Revkin, *supra* note 70; Peel & Osofsky, *supra* note 67, at 46.

[73] Peel & Osofsky, *supra* note 67, at 46.

[74] Peel & Osofsky, *supra* note 67, at 46.

[75] Peel & Osofsky, *supra* note 67, at 64.

[76] Peel & Osofsky, *supra* note 67, at 64.

[77] *Inuit Declaration*, *supra* note 65.

However, the case was not made possible in isolation. It was only with both the support of the AC and under several principles of international law delineated in two international treaties that the Inuit were able to file their Petition.

B. The Significance of Permanent Position Status

The Arctic Council ("AC") was instrumental in assisting the Inuit to bring the Petition. The AC is an international organization comprised of eight member-nations, including the U.S. and Canada.[78] Its mission is to promote "cooperation, coordination, and interaction among the Artic States, Arctic Indigenous communities, and other Arctic inhabitants on common Arctic issues."[79] Participation in the AC gave the Inuit a legitimate voice in international decision-making on matters that affect them. As mentioned above, it is rare that a non-State group or tribe has any status whatsoever in international environmental law.[80] When the UNGA was crafting the United Nations Declaration on the Rights of Indigenous Peoples ("UNDRIP"), Australia, New Zealand, Canada, and the U.S. loudly voiced their opinion against providing Indigenous groups too much power. They claimed that giving Indigenous peoples a voice in international governance might provide them veto power over domestic policy and legislation.[81] If the ICC did not have PP status, the ICC president's bold move might have been used to silence the Inuit voice on the AC or, worse, see them expelled from the organization by the U.S. or Canada. Alternatively, the knowledge of this possibility could have precluded the ICC president from filing in the first place.

C. International Indigenous Legal Rights

The Inuit were able to file their Petition based upon several principles guiding international law that grant the Inuit – and indeed, all Indigenous peoples – the right to an active voice in international environmental governance.[82]

First, the UNDRIP affirms that Indigenous peoples have the right to self-determination, noting "the fundamental importance of the right to self-determination of all peoples, by virtue of which they freely determine their political status and freely pursue their economic, social and cultural development."[83] Second, the right to self-determination goes hand in hand with the right to sovereignty, by which one is deemed to have "authority over territory, resources, and 'peoples.'"[84] The International Labor Organization Convention 169 ("ILO 169") re-

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78 The Arctic Council, https://arctic-council.org/index.php/en/about-us (last visited Dec. 26, 2021).

79 *About*, The Arctic Council, https://arctic-council.org/en/about/ (last visited Dec. 26, 2021).

80 Peel & Osofsky, *supra* note 67, at 46.

81 Sarah Nykolaishen, *Customary International Law and the Declaration on the Rights of Indigenous Peoples*, 17 Appeal 111, 122 (2012).

82 Khan, *supra* note 29, at 676.

83 G.A. Res. 61/295, U.N. Doc. A/RES/61/295, annex, United Nations Declaration on the Rights of Indigenous Peoples (Sept. 13, 2007) [hereinafter UNDRIP].

84 Khan, *supra* note 29, at 676.

inforces Indigenous rights to land and resources, as it is the only internationally binding treaty related to Indigenous peoples.[85]

The Inuit Declaration interprets self-determination more broadly than did UNDRIP.[86] The Inuit Declaration states, "It is our right to freely determine our political status, freely pursue our economic, social, cultural and linguistic development, and freely dispose of our natural wealth and resources. States are obligated to respect and promote the realization of our right to self-determination."[87] Plus, for the Inuit, self-determination is impossible without sovereignty, because their ability to continue as a society depends on the health and vitality of the tundra, sea, land, and ice that comprise their traditional hunting, gathering, and fishing grounds.[88]

UNDRIP and ILO 169 are clearly important; however, treaties are binding solely on countries that have ratified them.[89] Over 150,000 Inuit[90] live in a territory stretching across international borders.[91] As a result, the decisions of any one of Denmark, Greenland, Canada, the U.S., or Russia can impact *Inuit Nunaat*, the Inuit homeland.[92] Of those countries, only Denmark has ratified ILO 169.[93] So, though ILO 169 and UNDRIP delineate important principles for Indigenous nations in international law, they do not afford the Inuit or other Indigenous peoples any protection on the international stage. For example, the Inuit have taken issue with the United Nations Convention on the Laws of the Sea ("UNCLOS") for failing to include their nation's concerns and voices in UNCLOS processes and thus impinging on their right to sovereignty under UNDRIP, but UNCLOS's own framework provides only for State sovereignty.[94] So, although UNDRIP and ILO 169 are available as evidence of the Indigenous right to sovereignty and self-determination, in practice they provide no real rights or power.[95]

The Inuit Petition is therefore particularly important. Against the backdrop of UNDRIP and ILO 169, its filing furthered the process by which to create customary international law to recognize Indigenous rights. In the absence of State ratification, customary international law is the primary way principles of self-determination and sovereignty under UNDRIP and ILO 169 will gain weight in international governance. The situation the Inuit experienced in contending with

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[85] Khan, *supra* note 29, at 683.

[86] *Inuit Declaration*, *supra* note 65.

[87] *Id.*

[88] *Id.*

[89] United Nations, *Ratification,* The Dag Hammarskjöld Library at the United Nations, https://ask.un.org/faq/14594 (last visited Dec. 26, 2021).

[90] Revkin, *supra* note 70.

[91] *Inuit Declaration*, *supra* note 65.

[92] *Inuit Declaration*, *supra* note 65.

[93] International Labour Organization, *Ratifications of C169 - Indigenous and Tribal Peoples Convention, 1989 (No. 169)*, https://ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11300:0::NO::P11300_INSTRUMENT_ID:312314.

[94] Khan, *supra* note 29*,* at 663.

[95] *Id.*

UNCLOS is clear proof international law "still does not recognize Indigenous peoples as full and equal participants in international law-making."[96] However, UNDRIP continues to acknowledge Indigenous peoples as international legal actors.[97] Therefore, active Indigenous participation in climate regime governance may yield not only workable solutions to climate change but also promote Indigenous rights.

IV. Proposal: Reimagining the Climate Regime's CDM

Reimagining the CDM is particularly crucial at this moment in time, considering both that the Paris Agreement's global temperature increase limitation goals[98] are likely to go unmet, and that the looming impacts of such a prognosis are so severe.[99] Increasing Indigenous participation in the climate regime may serve not only to support Indigenous rights but also to address seemingly inherent problems with carbon markets and the CDM.[100] Civil society movements are highly critical of the carbon market system as a primary cause of this failure, concerned about resulting environmental and social justice fallout.[101] It is possible, however, that the carbon market system is not inherently broken.

We must first address a common misconception. It would be easy to assume that the "Indigenous voice" is unified or consistent, or that "Indigenous peoples" are all the same simply by virtue of certain parallel facts, but this is not the case. Certainly, the term often refers to a country's original population.[102] However, other definitions include (1) self-identification as Indigenous; (2) being the non-European group living in an area colonized by Europeans; (3) remaining socially isolated from mainstream society; (4) identification to certain territories and natural resources; and/or, (5) maintaining traditions despite surroundings or land being transformed by outside societies.[103] There is no one definition of "Indigenous,"[104] and it is in this diversity of world views, outlooks, and history that the power of Indigenous participation may reside. As is demonstrated by the Inuit Petition, Indigenous participation in international law-making uncovers creative and perhaps new solutions to seemingly unsolvable problems.

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[96] Khan, *supra* note 29, at 11.

[97] *Id.* at 3.

[98] Paris Agreement, *supra* note 6, Art. 2, ¶ 1(a) (stating a goal to hold the global temperature increase to below 2° C and if possible, below 1.5° C).

[99] Okereke & Coventry, *supra* note 9, at 6.

[100] Dehm, *supra* note 3, at 145-46.

[101] Dehm, *supra* note 3, at 134; Okereke & Coventry, *supra* note 9, at 5.

[102] Robert Hitchcock, *International Human Rights, the Environment, and Indigenous Peoples*, *in* ENDANGERED PEOPLES: INDIGENOUS RIGHTS AND THE ENVIRONMENT 1, 2 (Univ. Press of Colorado 1994).

[103] Hitchcock, *supra* note 102, at 2, 4.

[104] *Id.* at 2.

A. First Steps

Indigenous voices must first be given voice in climate regime fora before any solutions may be brought. This is in perfect keeping with the Paris Agreement Article 7, par. 5, which states, ". . .adaptation action should be based on and guided by. . .as appropriate, traditional knowledge, knowledge of Indigenous peoples and local knowledge systems."[105] When those educated in TEK are not present at key moments in decision-making, this mandate is severely impaired if not entirely eschewed. The question becomes, how could giving non-State actors unprecedented status at climate regime COPs be achieved and justified, e.g., "appropriate?" There are two possible answers.

First, Indigenous peoples might be included in a key Paris Agreement compliance mechanism, the expert committee of Article 15, par. 2.[106] This would undoubtedly bring fresh, unique, and practical ideas, and perhaps address the concern that the climate regime is a technocratic, top-down system because Indigenous experts are, in many cases, both scientific experts and local actors.[107]

Though Western society tends to define 'experts' only as those who have gone through the rigors of a university or other Western-accredited methods, Indigenous experts have different but comparable levels of knowledge. Consider that a scientist's background and working situation(s) play a critical role in determining "their scientific socialization and the research they engage with."[108] Though members of Indigenous societies, nations, and tribes may not always attain their scientific knowledge through a university education, Indigenous experts nonetheless possess extensive and valuable scientific traditional knowledge, different from but complementary to knowledge held by Western scientists. Their TEK provides not only data but unique temporal and historical place-based information, as well as distinctive methods of environmental best practices.[109] One notable example comes from anthropologists' work with Philippine horticulturalists, one of whom possessed incredibly detailed knowledge about over 1,600 plant species.[110] Another example comes again from the Inuit, whose numerous words for different types of snow were adopted by Western science when English vocabulary on the topic was not sufficiently accurate.[111] A last critical example comes from the Zuni people. Where modern industrial agriculture removes groundwater faster than it is replaced, applies over 500,000 tons of pesticides per year, and loses seven tons of topsoil to erosion each year, Zuni "dry farming" practices have allowed them to survive and thrive in the dry, arid lands of the American southwest for 1,500 years without detrimental effect to the environ-

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[105] Paris Agreement, *supra* note 6, at Art. 7, ¶ 5.

[106] Paris Agreement, *supra* note 6, at Art. 15, ¶ 2.

[107] Dehm, *supra* note 3, at 135; *see section supra*, "IEL, the Climate Regime, and Flawed Economic Mechanisms."

[108] Frank Biermann & Ina Möller, *Rich Man's Solution? Climate Engineering Discourses and the Marginalization of the Global South*, Int'l Envtl. Agreements: Pol. L. & Econ. 1, 7 (Mar. 6, 2019).

[109] LaDuke, *supra* note 29, at 127.

[110] Berkes, *supra* note 45, at 1.

[111] *Id.* at 2.

ment or to their ability to produce food.[112] Indigenous individuals with such irreplaceable, valuable knowledge are indeed experts, though it may have been gathered through non-Western means. Including those with such relevant, critical, and timely knowledge in expert panels is clearly a winning situation for Indigenous rights and for the climate regime – to do otherwise is a loss for both.

Another option would be to grant either permanent participant ("PP") status, which the Inuit enjoy in the Artic Council, or voting status, to Indigenous nations in climate governance structures. In politics, decisions are made largely by those present in the room at the time.[113] Either position would enable Indigenous voices to remain in the room regardless of the power, status, or opinions of other actors. PP or voting status would ensure that TEK and the abovementioned expert knowledge would be present during important discussions. To ensure both that customary international law evolves to recognize Indigenous nations' rights,[114] and that effective means develop to truly address climate change, overt inclusion of Indigenous peoples in the climate regime is a logical conclusion.

Once there is a platform for the diversity of Indigenous voices to be expressed on the international stage without fear of retribution, any number of solutions may present themselves. As will be explored below, incorporating and considering TEK and Indigenous ideas may in fact address and remedy seemingly unsolvable problems with the CDM.

B. Carbon Offsetting Reimagined

What if the CDM is not inherently broken?[115] True, carbon markets in their current iteration have done damage[116] while failing to address root causes of climate change.[117] It is possible, however, that global aggregation and market mechanisms are salvageable component aspects of the system.[118] To properly utilize the CDM per Article 6 of the Paris Agreement, States shall (par. 2) "promote sustainable development" and "ensure environmental integrity."[119] Orienting the CDM to ensure these goals are met could ensure the CDM be redeployed properly. To come into compliance with Article 6, any reimagined method would have to reduce *real aggregate emissions* instead of allowing the global North to purchase offset credits and simply continue emitting.[120] Thus, any reimagined CDM must disincentivize and ultimately decrease overall carbon consumption. Below are two possible applicable Indigenous philosophies.

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112 LaDuke, *supra* note 29, at 139-40.

113 Kris Manjapra, *When Will Britain Face Up to Its Crimes Against Humanity?*, The Guardian (Mar. 29, 2018, 1:00 AM EDT), https://www.theguardian.com/news/2018/mar/29/slavery-abolition-compensation-when-will-britain-face-up-to-its-crimes-against-humanity.

114 Khan, *supra* note 29, at 678.

115 *But see* Dehm, *supra* note 3, at 145-46, refuting this supposition.

116 Kronk Warner, *supra* note 8, at 451; *see also* Dehm, *supra* note 3, at 134.

117 Dehm, *supra* note 3, at 133-34.

118 *Id.* at 145-46.

119 Paris Agreement, *supra* note 6, Art. 6, ¶ 2.

120 Dehm, *supra* note 3, at 134.

i. Chipko Economics

The Chipko, a people of the Himalayan mountains in India whose name means "Hug-to-the-tree people" in their language, began a movement to save their forests in the 1970s,[121] with the slogan of "What do the forests bear? Soil, water, and pure air."[122] In 1977, the Chipko halted commercial harvesting of trees in their region.[123] With three members of the tribe literally hugging the base of each tree, contractors and truckloads of police found themselves unable to cut down the trees and withdrew.[124] The Chipko were subsequently able to convince the government to ban Himalayan logging.[125]

The Chipko understand economics in an entirely different – but no less valid – manner from the West. Sundral Bahuguna, one of the leaders of the Chipko Movement, notes how modern "economic growth is based on the plunder of nature – the great treasure of hundreds of thousands of years. . . . The irony is that this type of economics is actually uneconomical, because. . .you undermine your basic capital."[126] This "basic capital" consists of soil, water, and air, the foundation for the healthy existence of all life. Bahuguna explains that Western economics has created an inaccurate distinction between *development*, defined as the materialistic accumulation of things, and *ecology*, defined as an aesthetically pleasing natural setting.[127] However, Bahuguna states that the real distinction should be made between Western "economic growth," generally destructive of the environment, and true sustainable ecological development.[128] Thus while Western economics positions human improvement as defined by financial accumulation of personal material wealth often in opposition to ecological health, Chipko economic theory instead explains that long-term growth is only possible with an absence of environmental destruction. Healthy ecological systems are a 'permanent economy' based on three self-renewing pillars of ecological capital – clean water, air, and land.[129]

Sustainable ecological development would therefore be a basic tenet of a CDM operating under Chipko economics. Instead of defining development as enabling Western economic success as measured by level of income per household or quantities of cars driven, success instead would be measured by resultant quality of local, national, and/or international basic capital. Thus, for example,

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[121] Chipko Information Centre, *The Chipko Message*, Uttar Pradesh, India 8, http://www.uky.edu/~tmute2/nature-society/password-protect/nature-society-pdfs/chipkoMovementStatement.pdf [hereinafter Chipko Message].

[122] *Id.* at 7.

[123] *Id.* at 9.

[124] Chipko Message, *supra* note 121, at 9-10.

[125] *Id.* at 6, 8 (describing how the Chipko name was derived from a similar successful protest against a Maharajah almost 250 years prior, though the historical protest yielded substantially higher loss of arboreal and human life).

[126] Chipko Message, *supra* note 121, at 11.

[127] Chipko Message, *supra* note 121, at 10.

[128] *Id.*

[129] *Id.* at 10-11.

any company or State engaged in JI projects in a developing country would have to ensure that any and all results of the project would also entail true ecological development and leave the water, air, and soil significantly and measurably cleaner at local, national, and international levels than before the project had commenced and for the lifecycle of the project.

Under a Chipko model, money exchanged in carbon markets would disincentivize fossil fuel production and consumption because both damage all three ecological pillars. Currently, carbon markets are a simple exchange of capital where a country or company polluting over their NDC purchases credits on an open market from a country or entity that is polluting less, and in return is relieved of NDC contribution violations.[130] This type of detached market transaction offends Chipko ideals and also violates the Paris Agreement as discussed above because it neither promotes sustainable development nor ensures environmental integrity[131] – the purchaser is free to continue degrading soil, water, and air at will.

A carbon market approach under Chipko theory may remedy this issue if it were to grant polluters the right to purchase offset credits only within a broader ecological context. First, as a policy matter Indigenous peoples employing TEK would be considered experts on the topic of ecological development – after all, they are often the single example of truly sustainable existence in a given region or country.[132] A system operating under Chipko theory may therefore employ them to advise, teach, or help polluters reduce their carbon footprint. Further, Indigenous sellers in possession of valuable TEK that encourages rehabilitation or support of the ecological pillars might be granted higher-value credits to sell. Such high-value credits could require that purchasers commit to more significant reductions in energy consumption, or to a timeline by which to eliminate their fossil fuel dependence entirely. Alternatively, all carbon offset credit buyers might be required as a condition of purchase to present a plan to reduce real emissions, receive fines if they prove unable or unwilling to achieve their plan's results over a reasonable period of time, and require advising by appropriate abovementioned Indigenous experts. Chipko economic theory is therefore one way to reimagine the CDM while meeting Paris Agreement goals.

ii. Buen Vivir

Buen vivir is a movement and philosophy that has somewhat recently become well-known from and among a variety of South American Indigenous peoples.[133] The concepts embodied in *buen vivir* analogously present themselves in various South American tribes – as *sumac kawasy* in the Quichua language, *suma qamaña* in Aymara, *shiir waras* by the Shuars, *küme mongen* by the Mapuche, and in various ideas present in the Guaraní culture.[134] Literally translated from

[130] Dehm, *supra* note 3, at 133.

[131] Paris Agreement, *supra* note 6, at Art. 6, ¶ 2.

[132] LaDuke, *supra* note 29, at 129.

[133] Eduardo Gudynas, *Buen Vivir: Today's Tomorrow* 442 Soc'y Int'l Dev. 441, 442-44 (2011).

[134] *Id.* at 443.

the Spanish as "the good life," *buen vivir* is best thought of a way of living well, which requires living a full life in community with both other people and nature.[135] Its popularity came largely from South American outrage to the negative environmental and human rights impacts of large-scale, top-down development projects funded by multilateral, multinational financial institutions.[136] As it made its way through Latin American culture, concepts taken from *buen vivir* have been incorporated in both the Ecuadorian and Bolivian constitutions in 2008 and 2009, respectively.[137]

Though there are many ways in which *buen vivir* is employed and deployed, for our purposes we will consider how it envisions development – or rather, how it does not. Unlike the Chipko Movement which accepts but redefines development, *buen vivir* is predicated on the idea that it is important not to seek 'alternative development,' but rather to seek 'alternatives to development.'[138] That is, that the goal of society orienting around development and economic growth is inherently flawed. In fact, the language and traditions of several Indigenous cultures in South America entirely lack the concept of Western progress or economic development.[139]

Reimagining the CDM in light of *buen vivir* ideology, then, development would clearly not be a goal. That is not to say, however, that *buen vivir* can't apply to and transform carbon markets and in doing so achieve real reductions in GHG emissions.

In keeping with the community orientation so central to *buen vivir*, carbon credit buyers become part of the community whose carbon offset credits it offers to purchase. Though it would be most logical under this theory to buy and sell credits in the immediate physical vicinity to any polluting entity – for example, within a 200-mile radius – buyers might solicit credits from any seller in its "community," as appropriately defined. In any case, exchanges under *buen vivir* would be significantly more than a single monetary transfer of funds. To ensure the health of the whole community, which includes not only people but nature as well, a buyer perhaps must demonstrate measurable reduction its GHG emissions as well as reduction in fossil fuel reliance, dependence, and/or production as applicable. There would be an objective standard of required reduction per dollar spent or per credit purchased. If the purchaser is or becomes unable or unwilling to meet these requirements, the community offering carbon credits for sale refuses the transaction or the contract is considered breached with remedies available to the seller. It would not be in keeping with *buen vivir* that money would be exchanged to do good on one level while harm on another level would continue with impunity. Alternatively, the buyer might be allowed to defer compliance if it demonstrates inability or incapacity to comply at the time of purchase, and instead opt to educate its members in the plight that its violations cause other mem-

[135] Gudynas, *supra* note 133, at 442.

[136] Gudynas, *supra* note 133, at 442.

[137] Gudynas, *supra* note 133, at 443.

[138] *Id.* at 442.

[139] *Id.*

bers of the community. There would of course be a compliance timeline with penalties imposed as well as additional fees for this option.

JI projects would have to comply with goals set forth by *buen vivir* philosophy. Carbon market-based funding for projects would not be channeled through the State but rather go directly to the local economy. For example, a project to build a bridge under *buen vivir* ideology would be made with local and biodegradable materials to local specifications in a place and in a manner not dictated by a foreign bank or by the government. The bridge is a success if it did minimal damage to nature and natural resources, and if it successfully served local and regional, not international, needs.[140]

Buen vivir has been applied in many ways with various interpretations across the countries whose Indigenous and non-Indigenous populations use it.[141] There are doubtless other methods of deploying its concepts, with the above examples as just one possibility.

V. Conclusion

Though this comment has applied Chipko[142] and *buen vivir*[143] philosophies to climate change, many sustainable economic systems may exist within other Indigenous communities,[144] as of yet unheard. Were an Indigenous expert to hold a position of real authority on a UN committee, and/or a tribe to obtain voting status in the IEL regime, true progress towards addressing climate change might finally be made. Indigenous individuals, nations, and tribes would be properly equipped, situated, and empowered to suggest and help deploy actually sustainable TEK and, for example, reimagine the CDM such that climate change mitigation or sustainable adaptation would be possible. Such methods would not just put money into the pockets of an elite few[145] but employ Indigenous peoples and educate others in sustainable TEK methodologies that create clean water, clean air, and healthy soil, and ensure ecological sustainability for future generations.

It is entirely possible that the aforementioned unmet goals of the Paris Agreement[146] can still be achieved. Important to recall is the history of international law, still operating upon antiquated international legal concepts of the civilizing mission of colonialization.[147] State-centric decision-making methodologies have implemented a system that negatively impacts the human rights of those already

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[140] Gudynas, *supra* note 133, at 446.

[141] *Id.* at 441-47.

[142] *See generally* Chipko Message, *supra* note 121.

[143] *See generally* Gudynas, *supra* note 133.

[144] *See* LaDuke, *supra* note 29, at 129, generally, (exploring Indigenous approaches to economic sustainability and land use).

[145] Dehm, *supra* note 3, at 135-36.

[146] Paris Agreement, *supra* note 6, at Art. 6, ¶ 2 (defining goals to "promote sustainable development" and "ensure environmental integrity"); at Art. 2, ¶ 1(a) (establishing the goal to hold the global temperature increase to below 2°C and if possible, below 1.5°C).

[147] Anghie, *supra* note 33, at 742.

affected while failing to address the root causes of climate change,[148] as the planet grows ever warmer.[149] Carbon markets are currently being implemented using flawed ideas and corrupt methodologies, but this comment asserts that the CDM is not necessarily inherently broken. If Indigenous experts are appropriately recognized for their vast wealth of knowledge[150] and empowered with a permanent voice in the international climate regime, it may well be possible to successfully reimagine carbon markets and actually achieve the goals of the Paris Agreement.

[148] Dehm, *supra* note 3, at 133-34.

[149] Paris Agreement, *supra* note 6, Art. 2, ¶ 1(a); *see also* Okerere & Coventry, *supra* note 9, at 7.

[150] Berkes, *supra* note 45, at 1.