



Enhancing meaningful Indigenous leadership and collaboration in international environmental governance forums

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ABSTRACT

This is the first global empirical study that specifically explores the perspectives of Indigenous peoples, people working for Indigenous Peoples' Organisations (IPOs) and people working in other relevant roles (e.g., conveners of large environmental NGOs) on the barriers to meaningful and effective participation in global environmental governance forums. A total of 30 key informant participants were interviewed for this study. Participants were invited based on their engagement with and/or their interest in Indigenous participation and leadership related to environmental governance. Inductive analysis of the interview data revealed that 'capacity barriers', 'representation, grouping and disconnect', 'inclusion and exclusion', and 'insights for how to proceed in the future' to be important primary themes for discussion. Secondary themes were also determined for each primary theme to highlight the key issues and to develop implications and recommendations for enhancing meaningful Indigenous leadership and collaboration in international governance forums.

1. Introduction

Globally, Indigenous peoples are increasingly acknowledged for their leadership in environmental governance and stewardship, as well as their significant contributions to maintaining and enhancing biodiversity across multiple scales (Garnett et al., 2018; Artelle et al., 2019; Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services IPBES, 2019; Zurba and Papadopoulos, 2021; Enns et al., 2014). Alongside this acknowledgement is a growing awareness among Indigenous communities, Indigenous and non-Indigenous academics, governments, and global conservation organizations that both

social and environmental justice should be secured through Indigenous leadership and collaboration within environmental governance systems, including at the international level. The monumental passage of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) also highlights the significance of Indigenous participation in decision making and the essential role of Indigenous knowledge (United Nations Declaration on the Rights of Indigenous Peoples, 2007). The passing of the UNDRIP and its implications for nation states have opened renewed debates and opportunities to expand on Indigenous rights and sovereignty (Reimerson, 2013). As stated by Indigenous leader and former Bolivian President Evo Morales, "Indigenous movement had

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gone from one of resistance to power” in the wake of the declaration (Lightfoot, 2016).

However, despite the growing evidence and awareness supporting Indigenous leadership and collaboration in environmental governance, Indigenous peoples continue to face hurdles in securing decisive roles as rights holders in decision making processes and environmental governance structures and processes that support outcomes that reflect Indigenous community values (Suchet-Pearson et al., 2013; Zurba and Berkes, 2014; Enns et al., 2014; Chen et al., 2018; Zurba et al., 2019; Rubis and Theriault, 2020; Arney et al., 2022; Tengö et al., 2017; Parks and Schröder, 2018; Marion Suisseea et al., 2021). Many Indigenous individuals, communities and organizations continue to navigate their involvement in international environmental governance and policy-making forums convened by large organizations such as the United Nations Convention on Biological Diversity (CBD) Conference of Parties (COPs) meetings, with mixed results and often disappointing outcomes (Garnett et al., 2018; Zurba and Papadopoulos, 2021; Watson et al., 2014). This paper explores the experiences of people engaging in a range of diverse international environmental governance forums, some of which explicitly aim to strengthen Indigenous governance systems (e.g., ICCA Consortium), others which prioritise environmental issues and which Indigenous peoples and organisations are trying to influence and re-shape (e.g., International Union for the Conservation of Nature [IUCN] and The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services [IPBES]). We recognise that Indigenous groups are not the only voices which are underrepresented in these fora. Other groups, including women and rural people and communities possess deep environmental knowledge, and are often not adequately represented in international environmental decision-making settings.

While there is some emerging research on Indigenous participation in these diverse international environmental governance forums (e.g., Tengö et al., 2017; Marion Suisseea et al., 2021), a significant gap remains with regards to exploring the experiences and perspectives of Indigenous peoples and communities engaged in such forums. This paper starts to address this gap by developing a broad understanding of the barriers to meaningful and effective participation in global environmental governance forums. We recognize that there is significant diversity in the types of environmental governance forums that exist which impacts each forums governance processes and structures; however, our aim for this paper is to focus on the experiences of Indigenous peoples broadly within these forums. Indeed, we investigate the experiences and perspectives of Indigenous people, people working for Indigenous Peoples’ Organisations (IPOs) and people working in other relevant roles (e.g., conveners of large environmental NGOs) as a foundation for understanding the hurdles and challenges facing Indigenous peoples seeking to be decisive stakeholders in global environmental governance affecting their ability to exercise their rights to self-determination and self-governance. We employed a qualitative research design (with interviews conducted both with Indigenous and non-Indigenous participants) to meet the following objectives: (1) Determine what supports “meaningful” leadership and collaboration in international environmental governance and policy forums for Indigenous people and IPOs; and (2) Identify implications and frame recommendations for how Indigenous leadership and collaboration in a diverse array of international environmental governance forums can be more just, equitable and beneficial for Indigenous peoples and communities.

2. Methods

A qualitative grounded theory research approach was employed to generate the data for this paper. This allows for a qualitative and holistic recognition of complex social realities (Skoldberg and Alvesson, 2009). Semi-structured interviews were conducted using an interview guide to explore the experiences and perspectives of participants on what it means to meaningfully engage with Indigenous peoples in global

environmental governance spaces. Semi-structured interviews were an ideal approach to exploring experiences and perspectives because they are flexible, open-ended, and can cover a range of topics related to the subject of study (Bernard, 2006; Guest et al., 2013). Semi-structured interviews were also useful for accommodating the diverse backgrounds of participants from across the globe, as the interview guide allows a level of flexibility in the wording and structure of questions asked to participants to accommodate the participants interests, expertise, and comfortability (Bernard, 2006; Guest et al., 2013; Creswell and Creswell, 2018). The interview guide consisted of two parts (See supplementary information). The first part of the interview guide included general questions about the identity of the participant and their general experience and capacity with respect to participating in global environmental governance. The second part of the interview guide focused more specifically on Indigenous participation in environmental governance at the global scale and the perspectives of participants based on their experiences in this context.

2.1. Positionality and recruitment of participants

This research is part of a larger project that aims to generate and enhance knowledge for shaping, implementing, and assessing Indigenous collaboration in governance frameworks for global protected areas. The project and co-authors of this article include partners from IPOs (Centre for Indigenous Peoples’ Research and Development, Nepal; Iisaak Olam Foundation, Canada; North Australian Land and Sea Management Alliance, Australia; Kua’āina Ulu ‘Auamo, Hawai’i; Centre for Maya Research and Development/Sotzil, Guatemala; MOPAWI/Development Agency of the Mosquito, Honduras) and from academia (both Indigenous and non-Indigenous scholars) ([omitted for blind peer review]). Purposive sampling was conducted by reaching out to Indigenous, IPO and environmental NGO (ENGO) leaders who were known to be engaged in international environmental policy forums. The names and contact information were obtained by reviewing online materials from forum events, reviewing organization website information, and from recommendations from IPO research partners. Several participants were recruited through a snowball sampling method, where near the end of the interview, participants were asked if they knew of others in the field to whom we should reach out to for this research. The remaining participants were recruited by searching organization web pages for people in relevant roles.

This method of recruitment produced a wide range of participants who offered insightful accounts based on their experiences at the interfaces between IPOs, ENGOs and global forums. It was not structured as a representative sample in a statistical sense, nor was it explored using a survey tool. The decision to use in-depth qualitative interview methods was selected to ensure that nuanced, experience-based insights could produce a broad critical view of key issues.

Since this study is focused on the global scale, participants were recruited with a focus on obtaining participants from a diversity of global demographics. We were able to recruit participants who work in the following continents: Oceania (6), North America (11), Africa (5), Asia (4), Europe (4). Of these Indigenous and non-Indigenous participants, their work spanned local to global scales, with some working at multiple scales. We had 11 participants who worked at the local scale, five who worked regionally (e.g., worked across the Pacific Islands), and 21 who worked at the global scale. The study identified the importance of including Indigenous voices in global environmental governance forums and aimed to recruit a significant number of Indigenous perspectives. We interviewed 10 Indigenous participants; 3 non-Indigenous participants who work for IPOs; and 17 non-Indigenous participants who work for or are engaged in environmental governance work through global NGOs (e.g., IUCN, IPBES).

2.2. Data collection

A total of 30 interviews were completed between November of 2020 and July of 2021. Interviews took place remotely using virtual communication software that included Zoom and Microsoft Teams and took approximately 45- to 75-minutes to complete. Written notes were also taken during the interview process. A semi-structured interview guide was used along with prompts. The interview guide began with general questions (e.g., What is your organization and what is your role?) and was followed by questions asking about perspectives relating to global environmental governance forums (e.g., What role do you believe Indigenous leaders should play in decision-making related to global environmental governance?). The questions did not focus on a singular forum but rather invited general thoughts based on experiences of attending multiple international events focused on environmental governance. Member checking was conducted throughout the interview in order to ensure that the interviewer understood what was being expressed by the participants (Tong et al., 2007; Birt et al., 2016). Member checking includes returning the collected data to the study participants for validation and ensures that it includes precise and representative information (Birt et al., 2016). In order to prepare for the analysis process, interviews were audio-recorded and transcribed. Participants were given transcripts of their interviews and invited to provide amendments. Participants were also contacted to confirm that their quotes could be used and identifying labels were confirmed to be appropriate. A process of informed consent took place prior to all interviews and all participants were given the choice to remain fully anonymous or to be named. Participants could also withdraw fully from the study for a period of up to five months.

Participants were invited based on their engagement with Indigenous participation and leadership related to environmental governance. Table 1 represents the regions and involvement of participants in different forms of international environmental governance forums. International environmental governance forums included any international gathering with environmental challenges and issues on their primary agenda. These international bodies include international

Table 1
Participant regions and affiliations.

Participant	Location	Scope of Work	Type of organization
Participant 1	USA	Local	IPO
Participant 2	Nepal	Local	IPO
Participant 3	Canada	Local	IPO
Participant 4	Mexico	International	IPO
Participant 5	Uganda	International	International organization
Participant 6	Tanzania	Local	Local NGO
Participant 7	Europe	International	International organization
Participant 8	USA	International	International organization
Participant 9	Switzerland	International	International organization
Participant 10	Cameroon	International	International organization
Participant 11	Indonesia	International	International organization
Participant 12	India	International	International organization
Participant 13	Australia	Local	IPO
Participant 14	Mexico	Regional	International organization
Participant 15	Germany	International	International organization
Participant 16	Canada	International	International organization
Participant 17	Fiji	Regional	Regional organization
Participant 18	Sweden	Regional	Academic institute
Participant 19	Micronesia	Regional	Regional organization
Participant 20	USA	International	International organization
Participant 21	USA	International	Academic institute
Participant 22	Fiji	Local	Academic institute
Participant 23	Canada	Local	Academic institute
Participant 24	Uganda	Local	Local association
Participant 25	Canada	Local	International organization
Participant 26	USA	International	International organization
Participant 27	New Zealand	Local	International organization
Participant 28	Palau	Regional	International organization
Participant 29	Canada	International	International organization
Participant 30	Zimbabwe	Local	Academic institute

organisations (e.g., IUCN), intergovernmental bodies (e.g., IPBES), and international associations (e.g., ICCA Consortium). Membership to national organizations is also noted. Of the 30 key informants, 13 self-identify as Indigenous Peoples, 3 identified as non-Indigenous Peoples working for an IPO, and 14 identified as non-Indigenous Peoples working for a non-Indigenous organization. Participants in the “Global” category self-identified as having experience and expertise in facilitating Indigenous participation in international environmental governance settings. Many participants did not specifically work in one region and considered themselves to hold multiple roles. Five participants who identified their expertise as local also saw themselves in the international domain. Similarly, two participants who identified their work as regional considered themselves as international practitioners as well. 16 of the participants identified as women and 14 identified as men.

2.3. Data analysis

The interview data was reviewed and coded by one researcher using NVivo, a computer-aided qualitative data analysis software. The interview data was handled according to Braun and Clarke’s (2006) thematic data analysis method. Specifically, and in keeping with the grounded theory approach (Locke, 2002; Heath and Cowley, 2004; Chun Tie et al., 2019), inductive thematic analysis was used to determine distinct themes to be captured and ensured that the findings were ‘data-driven’ (Braun and Clarke, 2006). Analysis of the interview data was an iterative and recursive process, involving a continual moving back and forth across the entire data set, coded excerpts, and resultant themes/analyses (Braun and Clarke, 2006). Themes were organized into primary and secondary themes (Table 2). The coding of the interview passages was coarse (i.e., several lines per coded passage) to maintain the integrity and context for the quotes to be interpreted. Preliminary themes and results of the study were shared with the entire project team to determine if there were any gaps in the data that would require revisiting.

3. Results

3.1. Capacity barriers

Access to international forums was noted as a major obstacle for effective participation of Indigenous peoples. Participants stated that the location of in-person forums can create a major geographic barrier due to distance, as well as logistical barriers for travelling to these forums, which include getting a passport, navigating airports and cities, credit

Table 2
Themes emerging from the data.

Primary themes	Secondary themes
Capacity Barriers	Access Agency and influence Language Information sharing Finances and funding Resources
Representation, grouping and disconnect	Homogeneity and generalisation Lack of diversity in national and local representation Disconnection across local, national and global scales
Inclusion and Exclusion	Key organisations and policy processes leading to policy developments Empowerment and leadership Knowledge hierarchies, (mis)understanding and (mis)interpretation Inclusion over time
How to proceed in the future	Collaboration and co-creation Bring rights-based approaches into global forums The importance of youth and intergenerational knowledge sharing

cards and spending money. Another major access issue is who gets invited to these forums. For every Indigenous person that is representing their community or a conglomeration of communities under an organization, there are several other members that do not have access to an invitation to attend. Consequently, these organizations cannot achieve comprehensive inclusion and representation of their members. As one non-Indigenous, IPO-affiliated practitioner stated:

“A lot of these international forums take place in faraway places and participation requires a large financial investment. The very nature of travelling - getting passports, credit cards, flights, navigating airports, visas etc. for Indigenous leaders is a huge barrier. And without them being able to be physically present, then their voices are always silent.”

Even if Indigenous people are present at these forums and in environmental governance spaces, presence does not guarantee *agency*. Barriers to agency include a lack of familiarity with the negotiation processes at these forums and not being positioned by the organization itself to have a platform from which Indigenous peoples can negotiate (e.g., the Convention on Biological Diversity [CBD] International Indigenous Forum on Biodiversity [IIFB] is a caucus, not a party, so cannot negotiate). The way in which forum events are planned and how Indigenous voices and stories and perspectives are centered (or not) in these events also has an impact on the *influence* Indigenous peoples have in these spaces. Participants emphasized the importance of providing adequate support (e.g., technological and presentation support) for participants who are present in these spaces to ensure they can effectively participate. One non-Indigenous, IPO-affiliated practitioner spoke to this as:

“[Indigenous leaders] know at a very deep level what it means for their nation or community, but it’s very disorienting or can be very disorienting, confusing, and difficult to really know how to participate... They need, often, interpretation support, they need a lot of support with preparation on the substantive technical issues, but also the political implications of motions or resolutions. A little word here or there tweaked in the text can make a big difference in terms of the actual meaning or implications moving forward.”

Language creates barriers for those who are not fluent in dominant or official organizational languages, such as English. Many participants felt that their ability to participate in processes was limited (e.g., some of the conversation is still lost with simultaneous translation) and that there was an impact on their confidence to communicate their experiences to a larger group. For example, the Indigenous leader Tinka John (Participant 24) stated, “maybe the most resourceful person cannot even attend these global events because they cannot speak English or any other international languages” and that the language barrier can lead to others in the room to be dismissive of that information. Participants also pointed out the conceptual limitations of discussing issues in English, where the language may not accurately capture what is being communicated in the same way that an Indigenous language would (e.g., relational terms used to refer to nature). Overall, because of the westernized origin, basis and biases of the forums, the onus is put on Indigenous participants to acquire proficiency to participate effectively, rather than challenging and changing the format of the forums to ensure meaningful participation in diverse ways.

Another issue raised in several interviews is the barrier that *financing and funding* plays in Indigenous participation in such forums. Participants stated the need to provide funding to ensure that Indigenous people can attend. They also emphasised concerns with the conditional nature that often comes along with funding, and explained how the power that comes along with funding can directly influence who participates in events. It was also stated that this could affect how these participants decide what they share in these events, for example, participants feeling constrained in what they say for fear of losing future funding. Participants discussed the importance of Indigenous

communities having autonomy over how their funding is spent in order to reduce that conditionality. Participants also mentioned the importance of providing adequate remuneration for Indigenous participants in these forums, and that their time and contributions should be valued above only being paid for transport and accommodation, for example. An employee of an IPO related the financial challenges as:

“You still have to make a living, you still have to support your family, and you still have to cover organizational costs and support. It’s not just about being there.”

Information sharing was also noted as a barrier affecting the capacity to participate. Participants stated that there should be more opportunities for Indigenous representatives to be aware of what global opportunities exist for their participation. One Indigenous leader suggested:

“I think the easiest way is just to have that ongoing and increased communications. So just making people aware of what opportunities there are... a lot of these Indigenous groups are under-resourced. They don’t have a lot of capacity, but a lot of the times they just don’t know what opportunities exist out there at a national or global scale.”

Participants also suggested that the planning of the forums themselves could also be more transparent and done in a way that is more inclusive. Especially since the way in which these forums and opportunities for participation (e.g., being a member of a committee) take place is based on western ways of communication (e.g., written reports, monthly meetings, very mechanized and systematized procedures). Such forms of communication do not always align with the ways of knowing/communicating of Indigenous persons and can impact the way knowledge is shared. One participant gave the example of people being only given 15 minutes to present and fit into a standard template for presentations when they could give a much richer presentation if enabled to present in a way that best suited the information they were aiming to convey (e.g., a longer narrative).

Participants noted that *resources*, such as time and energy, are significant facilitators to participating in international forums. Time and energy, however, were also noted as being very limited for people working for IPOs because of other day-to-day commitments. Participants mentioned on several occasions the psychological and emotional toll (e.g., feelings of not being fully listened to) that Indigenous representatives experience when they participate in international forums and present in these spaces. Technology and internet access were other resources needed to participate in international forums, especially as forums shifted to online platforms (e.g., Zoom) when COVID-19 prevented in-person meetings. Other technologies, such as those that build infographics for presentations, were also considered to be capacity barriers to participation. Several participants mentioned the need to increase the capacity of Indigenous communities and give them the tools in order to improve participation. Dr. Witness Kozanayi (Participant 30), an Indigenous leader described this as:

“These are threatening spaces, these forum spaces, suddenly the selected local community members are made to interact with people from all corners of the world. This is like being thrown in the deep end... Presentation is not something that one just wakes up one morning able to do, especially when we’re talking of these international conferences. People go to university, to college to be trained on public speaking, to come up with convincing presentations.”

3.2. Representation, grouping and disconnect

Many participants discussed (mis)representation, the arbitrary grouping of Indigenous peoples, and disconnections within and between scales. Participants critiqued the *homogeneity and generalizations* that accompanied the way that organizations understand and talk about

Indigenous peoples. They stated that this was often connected to romanticizing Indigenous peoples and not recognizing that Indigenous communities are complex, diverse, dynamic, and have their own issues (e.g., social, political) like any community. There is a paradox at play in forums that appear to endorse the collective rights of Indigenous peoples but operate in ways that make the exercise of those rights impossible in practice. Imposing external views of democratic, representative or proportionality, as the measure of good governance is to recolonize the spaces of governance in favour of the already enriched and empowered, and is the antithesis of creating space for reconfiguring accountability in global environmental governance.

Participants also talked about the cultural diversity of Indigenous communities and emphasised that one Indigenous representative cannot represent the interests of every individual in a community, and that it is important that Indigenous participants are selected by community members in the manner appropriate to local understandings. Participants pointed out that participation has links to capacity barriers. Certain communities and community members may not have the capacity to send a participant to these forums, or they may simply not have the necessary information to be aware that participating in these forums is a possibility. Barbara Nakangu (Participant 5), the non-declaring (in terms of Indigeneity) former Chair of the IUCN Natural Resource Governance Framework shared her perspective on this aspect as:

“I think what is important from a governance perspective is to consider that the next step after collective recognition is to make sure that Indigenous peoples are not romanticised. Note that even within them there are power dynamics. Those who come to the platform should really represent others and not just their individual interests or perspectives.”

Another major issue in meaningful participation is the *lack of diversity in national and local representation*. Participants mentioned several areas where a lack of representation could be addressed. They noted that certain countries - particularly African and South Asian countries - are vastly underrepresented, especially considering the high diversity of Indigenous and local communities that exist in these areas. One non-Indigenous contributor to international policy noted, “there are thousands of these Indigenous communities and there are thousands of Indigenous languages [in South Asia], but I don’t see their sufficient representation”. Participants also noted that there could be more diversity in terms of gender and age (youth) as well. One participant noted that there could be more Indigenous representation in international organization leadership positions (i.e., IUCN). Participants mentioned that there is a need for better outreach to invite communities who are not present at these forums. Related to these issues of representation is the existing *disconnection across local, national, and global scales*. Participants stated that there is a need for communities to connect further with each other, recognising that people within the same community often have different interests, which can make it challenging to develop a unified strategy. It was noted there is often a disconnect between what is happening at the local level in communities, and broader-level policies and decisions. Even though Indigenous and local communities usually interact directly with the land, communication is often lacking between their experiences and regional and national governance. This prevents Indigenous voices from being heard, understood, and accurately reflected in policy-decisions. Furthermore, participants identified a disconnect between local and global levels and pointed out how a lot of the conversation that takes place in international governance systems has not yet reached the local level/translated to on the ground action (Widmark, 2018). Examples were given, including the UNDRIP not being recognized and implemented at a local level, a lack of translation between international-level conversations and local-level practical projects and actions that have an impact at the local level, and an absence of local/regional offices of international organisations that community members can interact with at the local level.

3.3. Inclusion and exclusions

Participants often felt excluded from *key organisations and processes leading to policy developments*. Organisations such as the CBD, IUCN, and IPBES play an important role in increasing the inclusion of Indigenous peoples in international forums by creating spaces for inclusion and making longer-term commitments for cultivating relationships with IPOs. This includes facilitating dialogue about difficult topics (e.g., history of conservation), and acting like a bridge between policy and people on the ground. Overall, participants note that there is clear effort to engage deliberately, intentionally, and thoughtfully (e.g., IPOs as members in IUCN), but there are also a lot of ways that engagement could be improved. Indigenous peoples are still a minority in these settings, not as an under-represented stakeholder alongside a diverse range of under-represented stakeholders, but as rights-holding groups who are strategically fighting for their rights to be recognised or implemented (Larson et al., 2022). As such, there is a need to expand inclusion throughout forums. For example, participants also note the importance of integrating inclusion into the structure of these organisations, providing long-term commitments for inclusion. The Indigenous IPO leader, Ann Singeo (Participant 28) spoke to this when they stated:

“You have this big dialogue happening, but Indigenous voices are always kind of undefined. And you always feel like, you need permission to interject into the conversation and then it’s not necessarily part of the main agenda. And so, you just kind of hope that you have strong enough advocacy outside of the main conversation to advocate for the need to include Indigenous views and representation in the resource management plan or dialogue.”

International forums create opportunities for *empowerment and leadership* for Indigenous peoples, who often do not have opportunities to affect policy in their own countries. Despite these opportunities, participants felt that it was important to continue to work against tokenistic or patronizing forms of participation and ensure that Indigenous peoples have roles that have direct influence on policy. Alongside this discussion, participants often talked about the consequences resulting from Indigenous peoples’ exclusion from policy making, such as negative effects for natural resources and conservation. They noted that the leadership is there, but international forums need to provide appropriate spaces where fundamental values and needs can be addressed in order for leadership to emerge. For example, Ana Mandri (Participant 16), a non-Indigenous contributor to international policy stated:

“I believe work needs to be done to create a welcoming space where Indigenous and non-Indigenous community members can truly feel welcome, heard, and understood. We must work on empowering them, so they can participate in an even ground. That is something that is not easily done. So, there is a lot of work to be done.”

Indigenous perspectives, experiences, knowledges, and priorities are often excluded because international forums have difficulties with *knowledge hierarchies, (mis)understanding and (mis)interpretation*. Indigenous concepts are not always well understood, and Indigenous peoples’ issues and concerns at times are ignored and underestimated, and not always accurately reflected in the conversations. Participants suggested that the best way to avoid misinterpretation is to bring Indigenous voices to the forefront. Participants stated that Indigenous and local knowledges are often regarded as secondary to western knowledges. They stated that western science still dominates environmental governance discussions at the global level, making it challenging for other perspectives to be heard. Knowledge and nature-based solutions that are already held at the community level are not always recognised, indeed can be rejected, at the international level if they can’t be presented in ways that reflect western scientific discourses. This privileges academic knowledges, and specifically western scientific knowledges. Participants advocated for the need to find better ways to respect, recognize, value,

and integrate Indigenous and local knowledges, and for western-trained researchers and practitioners to obtain training in traditional ways of learning and knowing, so that capacity and tolerance can be fostered on both sides. Several participants talked about the importance of utilizing Indigenous/traditional knowledges alongside western knowledges recognizing the immense value that Indigenous/traditional knowledges brings to environmental governance. However, several participants also talked about ongoing differences in epistemological and ontological assumptions that create clashes regarding what the appropriate solutions are to caring for and preserving biodiversity. Several anonymous participants talked about major strides in the conservation sector, including acknowledging the importance of working with Indigenous people who steward lands and waters through active presence in and interacting relationally with places and species (which is also often essential for their livelihoods). They also noted however that there are still many big actors (e.g., Big Environmental NGOs and national governments) who wish to protect nature from people by keeping people out. This is an issue that has been covered in the media (e.g., [Abulu and Sutherland, 2021](#)), has been addressed in humanitarian campaigns (e.g., Survival International), and was elaborated by Ann Singeo (Participant 28) as, “We will only care better for the planet if we increase conversations that include the human dimension of those resources. As long as we continue to speak about it as strictly science, then we’re going to disregard the humans that are in that space and who have relationships with those forests and those oceans.”

Consideration of Indigenous participation in international forums and *inclusion over time* was highlighted as being important. Generally, the inclusion of Indigenous peoples in these forums was seen as improved over the last 20–30 years, with an increase in participation and leadership over time. The adoption of the UN Declaration on the Rights of Indigenous Peoples (UNDRIP) by IUCN and UN bodies, as well as the CBD’s 2019 declaration of the role of Indigenous peoples and local communities in conserving biodiversity, were noted as turning points for inclusion. Inclusion has also become more prevalent in certain parts of organisations. For example, certain IUCN commissions and working groups have much higher levels of inclusion while those more focused on technical species-related work tend to have less. Eli Enns (Participant 3), an Indigenous leader of the IISAAK OLAM Foundation IPO described this as:

“The trajectory was: Indigenous as a display at a conference, and then an acknowledgement or a prayer, and then it’s just business-as-usual, and then integration in terms of knowledge about a particular plant or a physical phenomenon in the environment, and then it’s evolved from that to start understanding the social innovations that Indigenous worldviews come with and understandings of the nature of reality that are starting to play out in some of the advanced engagements.”

3.4. How to proceed in the future

When it comes to how to proceed in the future, participants had several ideas as to what they would like to see happen. Several people mentioned *collaboration and/or co-creation* as a way to move forward. Suggestions included ensuring Indigenous people were part of whole and long-term processes, enabling governments and Indigenous communities to work together to sustain ecosystems and manage lands and waters, and through combining western and Indigenous ways of knowing to make decisions. Participants stated that organisations like IUCN can help bring different parties together. They also said that collaborations between communities and organisations at a local level can help build capacity for participation at an international level. They noted that not working together is causing irreversible harm, and that when collaboration/co-creation does happen, it benefits everyone. The need to create new processes to replace existing flawed models was stressed. An Indigenous scholar and contributor to international policy

development illustrated this point by saying:

“The same process is not always the right process. The same process can change. The process needs to change as issues are found in those processes, and we should not be so stuck on the process that this is the way that we’ve always done things and stick with that.”

Several participants also discussed the importance of continuing to *bring in rights-based approaches into global forums*. Some participants discussed rights-based approaches, such as supporting Indigenous peoples in ownership and management of their land, and how it was important to focus on this in international forums instead of only on conventional conservation models, such as protected areas. Such participants saw organisations like IUCN playing an important supportive role in advancing rights-based approaches. One participant mentioned that IUCN is increasingly integrating the language of rights in their programs and how that is a step in the right direction. Along similar lines, Dr. [omitted for blind peer review] (Participant 2), an Indigenous leader and Director of the Centre for Indigenous Peoples’ Research and Development (CIPRED) IPO, pointed out that “[Large conservation organizations] are working more bilaterally with the government and the government priority has not been there for ensuring Indigenous peoples’ rights”, and suggested that international organisations should speak out when national governments are suppressing Indigenous rights, instead of continuing to work with them.

Finally, *the importance of youth and intergenerational knowledge sharing* was highlighted by participants as being important for the future of Indigenous participation and leadership in international governance forums. They stated it was important to prepare to hand over these responsibilities to the next generation, that the younger generation may have a shorter learning curve and be able to adapt to such forums more easily to represent their community, and because it is important to pass on knowledge to youth so that they can make more informed decisions in the future. As the Indigenous governance scholar, Dr. Sherry Pictou (Participant 23) noted, “There’s a new generation coming and they’re not going to standby. Having said that, I think we need to improve that intergenerational transmission of knowledge because I know that in some parts of the world, there’s big concern about that, about being able to pass it on.” Participants also mentioned that organisations working at the international scale can play a role in creating spaces for intergenerational knowledge sharing to occur. They mentioned that the work is starting (e.g., IUCN Youth Summit that occurred in 2021 with over 15,000 people registered), but that there needs to be more effort in seeking out, attracting, and engaging youth. Participants also talked about the need for knowledge sharing to occur beyond environmental governance forums and towards practical projects that truly empower youth. They discussed the need to create opportunities for young Indigenous people to manage their territories, appreciate their culture, defend their rights, and defend biodiversity.

4. Discussion

International forums that bring together Indigenous leaders with conservation practitioners and policy makers are complex by virtue of their geographic, political and socio-cultural diversity and power dynamics existing across parties representative of different interests and scales. Despite this complexity, there are ways in which the organizations and affiliated partners convening such forums can support better outcomes for Indigenous participants and for conservation. Our findings demonstrate that “meaningful” Indigenous leadership and collaboration in international governance and policy forums must include: (i) multi-directional capacity supports, capacity recognition, and adaptation of forums to meet and support the capacities of Indigenous leaders; (ii) mechanisms that recognize diversity and the need for representation of Indigenous communities across geographic scales; (iii) clear understandings of the impacts of knowledge hierarchies and power dynamics; and, (iv) respect for the rights and sovereignties of Indigenous

nations in policy development processes.

A fundamental starting point for reshaping international environmental governance forums is to acknowledge that their inherent structures are typically based on western models and ideals that do not often support Indigenous leaders to share their knowledges in ways that they feel are meaningful (i.e., culturally relevant and effective). In doing so they fail to address the deep colonizing nature imposed by the capacity deficits and procedural vulnerabilities such forums reflect and impose on Indigenous participation (Howitt et al., 2013a, 2013b; Hsu et al., 2015). To be more inclusive, equitable and respectful of Indigenous sovereignties and rights, international governance forums need to be restructured to facilitate diverse ways of sharing knowledges and eliminate challenges around access faced regularly by Indigenous peoples (Merino, 2018; Emanuel and Wilkins, 2020). Indigenous-led processes and/or structures and procedures that are co-developed between representatives from IPOs and international organizations, with IPOs receiving equitable support and compensation for their contributions to the planning will improve IPO engagement and participation. In addition, this participation and support for a rights-based approach where Indigenous peoples own and manage their own lands will improve environmental governance and biodiversity outcomes. Parties liaising with Indigenous leaders and IPOs should also receive training on cultural awareness and sensitivity, and on approaches to supporting diverse perspectives in environmental governance forums. This should include training to identify and address intercultural capacity deficits within the international organizations themselves (Suchet-Pearson and Howitt, 2006; Howitt et al., 2013a, 2013b). Creating spaces specifically for Indigenous peoples was also suggested several times throughout the interviews as a way to increase participation and reduce many of the obstacles that come with communicating Indigenous epistemologies in a western governance setting.

International organizations face an immediate challenge in achieving comprehensive representation because networks can become too large to manage and be effective, and because international organizations operate at an international rather than local level. They are thus limited by mismatches of social-ecological fit with governance systems facing challenges in establishing governance processes and/or structures that are cross-scalar in nature or that have the capacity to align with the needs and context of the local socio-ecological systems (Bergsten et al., 2014; Guerrero et al., 2015; Pittman and Armitage, 2017). It could therefore be unreasonable to expect that an international forum be designed to be fully representative of local communities without building relationships locally, which requires time, resources and hard work with many people working closely with communities. Further, evidence from research with international-facing organizations and networks, such as Model Forests and Biosphere Reserves, also struggle to achieve regional representation from Indigenous communities and organizations (Buchy and Hoverman, 2000; Klenk et al., 2013; Bullock et al., 2019). However, achieving this regional representation will not necessarily resolve issues embedded within institutional design. Local contexts and the needs of local peoples require attention during the early design of international governance forums. Transformative change and/or significantly adapting existing forums may be required to create more opportunities for governance decision-making that transcends governance scales. This also underscores the important role of Indigenous self governance, robust local Indigenous institutions, and Indigenous organizations that have the potential to provide representation to community issues that are severely lacking or entirely absent in international forums. This includes acknowledging and addressing issues beyond those that are conventionally regarded as relating to “the environment”, “conservation”, “sustainability”, or other similar western terms. To many Indigenous peoples and communities, issues such as food, housing and social wellbeing are inseparable from issues that are conventionally labelled as being environmental. Moreover, many Non-Governmental Organizations (NGOs) have been complicit and/or implicated in human rights abuses in the past (Domínguez and Luoma,

2020a; Domínguez and Luoma, 2020b) which makes it essential to bring a rights-based approach to global Indigenous discourse on governance for meaningful change (Tauli-Corpuz et al., 2020; Reyes-García et al., 2022).

Rights-based approach to global governance will require increasing diversity and respecting Indigenous epistemologies. Increasing diversity, could be done by specifically targeting expanded participation from those individuals/organizations that represent various genders, youth, and equity-deserving groups. Coupled with leadership training programming, more diverse participants could be supported to become future leaders within international organizations, for example within IUCN. Indigenous youth can be supported to assume leadership roles as guardians of intergenerational Indigenous knowledge and architects of significant policy pertaining to Indigenous communities in the future. This stands to strengthen community ties and assist the emergence of a new generation of Indigenous leaders. Diversity must also mean the inclusion of Indigenous peoples from all over the globe and a mutual respect for all geographically diverse Indigenous communities, their languages, and cultural traditions. Finally, there is a strong need to enhance diversity in representation across scales (regional, local, and global) and ensure that a rights-based approach enables grassroots representation of Indigenous communities that can be translated within and across scales.

Challenges to understanding, incorporating, and using Indigenous knowledges in environmental governance and policy development are widespread, and reflect both the damage and disconnect caused by colonisation. Bridging of knowledge systems for co-learning and decision making has been identified as a pivotal pathway towards establishing governance systems that recognize the diversity in knowledge that exists (Bartlett et al., 2012; Zurba et al., 2022). In addition to this ‘bridging’ of knowledge systems, several participants pointed out the need to ‘reconcile’ traditional and western epistemologies. In this context, reconciling epistemologies refers to creating space within governance structures for different worldviews to operate collaboratively and without the assumption that they are mutually exclusive. Increasingly, and fortunately, conservation researchers are working with various partners, including Indigenous organizations, to develop models for co-research that value and draw upon Traditional and local knowledge (Norström et al., 2020; Cooke et al., 2022; McKemey et al., 2022). For example, Westwood et al. (2020) make explicit the need for non-Indigenous peoples to also train, learn and build internal system capacities and personal relationships needed to carry-out co-research and decisions. They provide a self-assessment tool for (western) researchers to help them better understand research partnerships and to position themselves as co-researchers, recognizing that these sorts of reflexive activities are not part of conventional academic pedagogies.

5. Conclusions

The paper offers exploratory qualitative insights on Indigenous participation in global environmental governance forums and highlights the barriers to meaningful participation. The ostensibly post-colonial structure of international forums continues to reflect ongoing deep colonizing in many ways, and to misrepresent and generalize Indigenous peoples and exclude their diverse perspectives as rights holders rather than stakeholders from governance. Despite broad acknowledgement that Indigenous peoples hold unique rights globally and that their meaningful participation in global forums is widely considered more just, Indigenous realities stand in stark contrast. Indigenous voices continue to be delegitimized with varying consequences for different Indigenous communities and their respective participation in international environmental fora. Several themes from the interview data have been used to identify capacity barriers, challenges of inclusion, exclusion, and representation. Furthermore, recommendations are made for systematic changes in global environmental forums to invite meaningful Indigenous participation that truly support Indigenous rights of self-

determination and self-governance and represents diverse Indigenous contexts spread across the globe. A renewed focus on Indigenous representation and participation in specific international environmental governance forums is needed to further decouple barriers that are associated with each forum and how they may differ from other similar fora.

6. Limitations

This exploratory project does not encompass all perspectives on the challenges of Indigenous representation and governance at international environmental forums. Instead, it offers an exploratory engagement intended to support future research in this field. Furthermore, the research is not meant to provide insights with regards to any one forum. Instead, the research provides an important starting point for understanding experiences across such forums so that future research might be better informed. Language is another limitation of this study. While English was not the primary language for all participants, all participants were fluent in English. Studies engaging participants in languages other than English might uncover additional themes. This is another area of research that could be advanced in future research that investigates participation from different regions (e.g., Latin America).

Ethics approval

This research received approval from the [removed for peer review] University Research Ethics Board (Certificate #: 2020–5068).

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Reporting summary

Further information on research design is available in the Nature Research Reporting Summary linked to this article.

CRedit authorship contribution statement

Eli Enns: Writing – review & editing. **Pasang Dolma Sherpa:** Writing – review & editing. **Richie Howitt:** Writing – review & editing. **Ricky Archer:** Writing – review & editing. **Ahmad Hameed:** Writing – review & editing, Writing – original draft. **Ameyali Ramos Castillo:** Writing – review & editing. **Kevin Chang:** Writing – review & editing. **Charlotte Greenlees:** Writing – review & editing, Writing – original draft. **Sandie Suchet-Pearson:** Writing – review & editing, Conceptualization. **Melika Habibi:** Writing – review & editing. **Ryan Bullock:** Writing – review & editing, Validation, Methodology, Investigation, Funding acquisition, Formal analysis, Conceptualization. **Anastasia Papadopoulos:** Writing – review & editing, Writing – original draft, Methodology, Formal analysis. **Bryanne Lamoureux:** Writing – review & editing, Methodology, Investigation, Formal analysis, Data curation. **Melanie Zurba:** Writing – review & editing, Writing – original draft, Visualization, Validation, Supervision, Software, Resources, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Conceptualization. **Ramiro Batzin:** Writing – review & editing. **Oswaldo Munguia:** Writing – review & editing.

Declaration of Competing Interest

The authors do not have any direct conflicts of interest with the publication of this work. Some of the co-authors are affiliated with Indigenous Peoples' Organizations (IPOs), which does not create a direct conflict of interest. Instead, it is in line with appropriate research norms

and protocols (“nothing about us without us”) for research involving Indigenous peoples.

Data Availability

The authors declare that the data supporting the findings of this study are available within the paper and Supplementary Tables.

References

- Abulu, L., Sutherland, L., 2021. WWF distances itself from rights abuses at U.S. congressional hearing. *Mongabay*. (<https://news.mongabay.com/2021/11/wwf-distances-itself-from-rights-abuses-at-u-s-congressional-hearing/>).
- Arney, R.N., Henderson, M.B., DeLoach, H.R., Lichtenstein, G., German, L.A., 2022. Connecting across difference in environmental governance: Beyond rights, recognition, and participation. *Environ. Plan. E: Nat. Space* 0 (0). <https://doi.org/10.1177/25148486221108892>.
- Artelle, K.A., Zurba, M., Bhattacharya, J., Chan, D.E., Brown, K., Housty, J., Moola, F., 2019. Supporting resurgent indigenous-led governance: a nascent mechanism for just and effective conservation. *Biol. Conserv.* 240, 108284.
- Bartlett, C., Marshall, M., Marshall, A., 2012. Two-Eyed Seeing and other lessons learned within a co-learning journey of bringing together indigenous and mainstream knowledges and ways of knowing. *J. Environ. Stud. Sci.* 2, 331–340.
- Bergsten, A., Galafassi, D., Bodin, Ö., 2014. The problem of spatial fit in social-ecological systems: Detecting mismatches between ecological connectivity and land management in an urban region. *Ecol. Soc.* 19 <https://doi.org/10.5751/ES-06931-190406>.
- Bernard, H.R., 2006. *Research Methods in Anthropology. Qualitative and Quantitative Approaches*. Altamira Press, Lanham.
- Birt, L., Scott, S., Cavers, D., Campbell, C., Walter, F., 2016. Member checking: a tool to enhance trustworthiness or merely a nod to validation? *Qual. Health Res.* 26 (13), 1802–1811. <https://doi.org/10.1177/1049732316654870>.
- Braun, V., Clarke, V., 2006. Using thematic analysis in psychology. *Qual. Res. Psychol.* 3 (2), 77–101.
- Buchy, M., Hoverman, S., 2000. Understanding public participation in forest planning: a review. *For. Policy Econ.* 1 (1), 15–25.
- Bullock, R., Zurba, M., Reed, M., McCarthy, D., 2019. Indigenous participation in collaborative governance: Insights from Experience with Canada's Model Forests. *J. Plan. Educ. Res.* <https://doi.org/10.1177/2F0739456X20920913>.
- Chen, Y.Y., Kuan, D.-W., Suchet-Pearson, S., Howitt, R., 2018. Decolonizing property in Taiwan: challenging hegemonic constructions of property. *Environ. Plan. D: Soc. Space* 36 (6), 987–1006. <https://doi.org/10.1177/0263775818799751>.
- Chun Tie, Y., Birks, M., Francis, K., 2019. Grounded theory research: A design framework for novice researchers. *SAGE Open Med.* 7 <https://doi.org/10.1177/2050312118822927>.
- Cooke, P., Fahey, M., Ens, E.J., Raven, M., Clarke, P.A., Rossetto, M., Turpin, G., 2022. Applying biocultural research protocols in ecology: insider and outsider experiences from Australia. *Ecol. Manag. Restor.* 23, 64–74.
- Creswell, J.W., Creswell, J.D., 2018. *Research design: qualitative, quantitative, and mixed methods approaches*. Sage Publications, Inc.
- Domínguez, L., Luoma, C., 2020a. Decolonising Conservation Policy: How Colonial Land and Conservation Ideologies Persist and Perpetuate Indigenous Injustices at the Expense of the Environment. *Land* 9 (3), 65. <https://doi.org/10.3390/land9030065>.
- Domínguez, L., Luoma, C., 2020b. Violent conservation: WWF's failure to prevent, respond to and remedy Human Rights abuses committed on its watch. *Minority Rights Group International*.
- Emanuel, R.E., Wilkins, D.E., 2020. Breaching barriers: the fight for Indigenous participation in water governance. *Water* 12 (8), 2113.
- Enns, C., Bersaglio, B., Kepe, T., 2014. Indigenous voices and the making of the post-2015 development agenda: the recurring tyranny of participation. *Third World Q.* 35 (3), 358–375. <https://doi.org/10.1080/01436597.2014.893482>.
- Garnett, S.T., Burgess, N.D., Fa, J.E., Ferenández-Llamazares, A., Molná, Z., Robinson, C. J., Leiper, I., 2018. A spatial overview of global importance of the Indigenous lands for conservation. *Nat. Sustain.* 1, 369–374.
- Guerrero, A.M., Bodin, Ö., McAllister, R.R.J., Wilson, K.A., 2015. Achieving social-ecological fit through bottom-up collaborative governance: an empirical investigation. *Ecol. Soc.* 20 (4), 41. <https://doi.org/10.5751/ES-08035-200441>.
- Guest, G., Namey, E.E., Mitchell, M.L., 2013. *Collecting qualitative data: a field manual for applied research*. Sage Publications.
- Heath, H., Cowley, S., 2004. Developing a grounded theory approach: A comparison of Glaser and Strauss. *Int. J. Nurs. Stud.* 41 (2), 141–150. [https://doi.org/10.1016/s0020-7489\(03\)00113-5](https://doi.org/10.1016/s0020-7489(03)00113-5).
- Howitt, R., Doohan, K., Suchet-Pearson, S., et al., 2013b. Capacity deficits at cultural interfaces of land and sea governance. In: Walker, R., Jolola, T.S., Natcher, D.C. (Eds.), *Reclaiming Indigenous Planning*. McGill-Queens University Press, Montreal and Kingston, pp. 313–338.
- Howitt, R., Doohan, K., Suchet-Pearson, S., Cross, S., Lawrence, R., Lunkapis, G.J., Muller, S., Prout, S., Veland, S., 2013a. Intercultural capacity deficits: contested geographies of coexistence in natural resource management. *Asia Pac. Viewp.* 54 (2), 126–140.
- Hsu, M., Howitt, R., Miller, F., 2015. Procedural vulnerability and institutional capacity deficits in post-disaster recovery and reconstruction: insights from wutai rukai experiences of typhoon morakot. *Hum. Organ.* 74 (4), 308–318.

- Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), 2019. Global assessment on biodiversity and ecosystem services. IPBES, Bonn.
- Klenk, N.L., Reed, M., Lidestav, G., Carlsson, J., 2013. Models of representation and participation in model forests: dilemmas and implications for networked forms of environmental governance involving indigenous people. *Environ. Policy Gov.* 23 (3), 161–176.
- Larson, A.M., Barletti, J.P.S., Vigil, N.H., 2022. A place at the table is not enough: accountability for Indigenous Peoples and local communities in multi-stakeholder platforms. *World Dev.* 155, 105907.
- Lightfoot, S., 2016. *Global Indigenous Politics: A Subtle Revolution*. Routledge.
- Locke, K., 2002. The grounded theory approach to qualitative research. In: Drasgow, F., Schmitt, N. (Eds.), *Measuring and analyzing behavior in organizations: Advances in measurement and data analysis*. Jossey-Bass, pp. 17–43.
- Marion Suiseeya, K.R., Zanotti, L., Haapala, K., 2021. Navigating the spaces between human rights and justice: cultivating Indigenous representation in global environmental governance. *J. Peasant Stud.* 1–25. <https://doi.org/10.1080/03066150.2020.1835869>.
- McKeme, M.B., Rangers, B., Rangers, Y.M., Costello, O., Hunter, J.T., Ens, E.J., 2022. 'Right-way' science: reflections on co-developing Indigenous and Western cross-cultural knowledge to support Indigenous cultural fire management. *Ecol. Manag. Restor.* 23, 75–82.
- Merino, R., 2018. Re-politicizing participation or reframing environmental governance? Beyond indigenous' prior consultation and citizen participation. *World Dev.* 111, 75–83.
- Norström, A.V., Cvitanovic, C., Löf, M.F., et al., 2020. Principles for knowledge co-production in sustainability research. *Nat. Sustain* 3, 182–190. <https://doi.org/10.1038/s41893-019-0448-2>.
- Parks, L., Schröder, M., 2018. What We Talk about When We Talk about "Local" Participation in International Biodiversity Law. The Changing Scope of Indigenous Peoples and Local Communities' Participation under the Convention on Biological Diversity. *PACO* 11 (3). <https://doi.org/10.1285/i20356609V1113P743>.
- Pittman, J., Armitage, D., 2017. How does network governance affect social-ecological fit across the land–sea interface? An empirical assessment from the Lesser Antilles. *Ecol. Soc.* 22 (4), 5. <https://doi.org/10.5751/ES-09593-220405>.
- Reimerson, E., 2013. Between nature and culture: exploring space for indigenous agency in the Convention on Biological Diversity. *Environ. Polit.* 22 (6), 992–1009. <https://doi.org/10.1080/09644016.2012.737255>.
- Reyes-García, V., Fernández-Llamazares, Á., Aumeeruddy-Thomas, Y., et al., 2022. Recognizing Indigenous peoples' and local communities' rights and agency in the post-2020 Biodiversity Agenda. *Ambio* 51, 84–92. <https://doi.org/10.1007/s13280-021-01561-7>.
- Rubis, J.M., Theriault, N., 2020. Concealing protocols: conservation, Indigenous survivance, and the dilemmas of visibility. *Soc. Cult. Geogr.* 21 (7), 962–984. <https://doi.org/10.1080/14649365.2019.1574882>.
- Skoldberg, K., Alvesson, M., 2009. *Reflexive methodology: New Vistas for Qualitative Research*. SAGE Publications.
- Suchet-Pearson, S., Howitt, R., 2006. On teaching and learning resource and environmental management: reframing capacity building in multicultural settings. *Aust. Geogr.* 37 (1), 117–128.
- Suchet-Pearson, S., Wright, S., Lloyd, K., Burarrwanga, L., 2013. Caring as country: Towards an ontology of co-becoming in Natural Resource Management. *Asia Pac. Viewp.* 54 (2), 185–197. <https://doi.org/10.1111/apv.12018>.
- Tauli-Corpuz, V., Alcorn, J., Molnar, A., Healy, C., Barrow, E., 2020. Cornered by PAs: Adopting rights-based approaches to enable cost-effective conservation and climate action. *World Dev.* 130, 104923.
- Tengö, M., Hill, R., Malmer, P., Raymond, C.M., Spierenburg, M., Danielsen, F., Folke, C., 2017. Weaving knowledge systems in IPBES, CBD and beyond—lessons learned for sustainability. *Curr. Opin. Environ. Sustain.* 26–27, 17–25. <https://doi.org/10.1016/j.cosust.2016.12.005>.
- Tong, A., Sainsbury, P., Craig, J., 2007. Consolidated criteria for reporting qualitative research (COREQ): A 32-item checklist for interviews and focus groups. *Int. J. Qual. Health Care* 19, 349–357.
- United Nations Declaration on the Rights of Indigenous Peoples (2007). Resolution / adopted by the General Assembly, A/RES/61/295, available at: (<https://www.refworld.org/docid/471355a82.html>).
- Watson, J.E., Dudley, N., Segan, D.B., Hockings, M., 2014. The performance and potential of protected areas. *Nature* 515 (7525), 67–73.
- Westwood, A.R., Barker, N.K., Grant, S., Amos, A., Camfield, A.F., Cooper, K., Dénes, F. V., Jean-Gagnon, F., McBlane, L., Schmiegelow, F.K.A., Simpson, J.I., Slattery, S.M., Sleep, D.J.H., Sliwa, S., Wells, J.V., Whitaker, D.M., 2020. Toward actionable, coproduced research on boreal birds focused on building respectful partnerships. *Avian Conserv. Ecol.* 15 (1), 26. <https://doi.org/10.5751/ACE-01589-150126>.
- Widmark, C., 2018. Bargaining costs in a common pool resource situation – the case of reindeer husbandry and forestry in northern Sweden. *Can. J. For. Res.* 49 (4) <https://doi.org/10.1139/cjfr-2018-0265>.
- Zurba, M., Berkes, F., 2014. Caring for Country through participatory art: creating a boundary object for communicating Indigenous knowledge and values. *Local Environ.* 19 (8), 821–836.
- Zurba, M., F. Beazley, K., English, E., Buchmann-Duck, J., 2019. Indigenous protected and conserved areas (IPCAs), Aichi Target 11 and Canada's Pathway to Target 1: Focusing conservation on reconciliation. *Land* 8 (1), 10.
- Zurba, M., Papadopoulos, A., 2021. Indigenous participation and the incorporation of indigenous knowledge and perspectives in global environmental governance forums: a systematic review. *Environ. Manag.* 1–16.
- Zurba, M., Petriello, M.A., Madge, C., McCarney, P., Bishop, B., McBeth, S., Bailey, M., 2022. Learning from knowledge co-production research and practice in the twenty-first century: global lessons and what they mean for collaborative research in Nunatsiavut. *Sustain. Sci.* 17 (2), 449–467.