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Examples of indicators for an environmental peacebuilding project may include indicators related to conflict (e.g., number of conflicts in a particular area or the percentage of intervention participants who have experienced conflict within a certain timeframe) or the environment (e.g., number of hectares demonstrating improved ecosystem condition). However, it is also essential to include indicators that connect conflict and environmental factors. This may include, for example, the percentage of community members who feel safer following the implementation of a natural resource management plan, or the percentage of people who participate in a water **conservation** intervention who can provide examples of improvements in intergroup relations. These examples demonstrate the importance of context-specific indicators that capture the mechanism by which environmental work is supposed to reduce conflict, or vice versa. In each case, it is important to consider whether certain indicators may create perverse incentives in intervention implementation or **monitoring**. For example, if an intervention tracks the number of conflicts in a particular area, there may be an incentive to underreport these to show the intervention is making progress. Additionally, to the extent that resources and time allow, it is important that interventions not limit their monitoring to pre-defined indicators, which will only capture information on what could be anticipated. If interventions only monitor anticipated changes, then it is likely they will miss some important unintended effects. Qualitative indicators about unintended outcomes can be incorporated to counter this challenge.

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Indigenous Knowledge

Elena Kavanagh and Veronica Limeberry

Indigenous Knowledge (IK) is the collective term representing the myriad ways of knowing and practices of being in Indigenous cultural contexts across the globe (Jessen et al. 2022) that are “continually generated in relationship to place” (Simpson 2017).

Indigenous scholars point to knowledge creation and diffusion that challenge colonial and Western frames of science, inquiry, and practice (Carroll 2015; Clement 2019; Coulthard 2014; Estes 2019; Kimmerer 2013). Often, these knowledges are passed through oral history and cultural transmission over time, in what de la Cadena and

Blaser (2018) term “a concept of ‘a world of many worlds.’” Or, as Escobar (2018) terms, “integrating pluriverses [that] speak to a diversity of ontologies.”

IK is related to traditional ecological knowledge (TEK) which refers to the cumulative, culturally transmitted understanding, skills, and practices developed by Indigenous Peoples over generations, often in direct relationship with their local **environment** and ecologies (Berkes et al. 2000). TEK and IK typically include the sustainable management of **natural resources**, **agriculture**, **biodiversity**, and ecological stewardship, deeply embedded in cultural beliefs, values, and practices.

Within the context of **environmental peacebuilding**, IK is pivotal for fostering **sustainable peace** and environmental protection. These knowledge systems, often holistic and rooted in a deep connection to land and ecosystems, play a vital role in addressing environmental challenges, promoting biodiversity protection and **conservation**, and managing natural resources in ways that mitigate **conflict**. Their significance lies in the capacity to inform adaptive strategies to **climate change**, **land degradation**, and resource scarcity, making the systems highly relevant for contemporary environmental **governance** and conflict resolution.

IK has long been marginalized by colonial and Western scientific approaches. Despite this, it has survived and continues to co-evolve with practices and principles of Indigenous peoples worldwide. There are growing calls to integrate IK into **sustainable development** initiatives, biodiversity preservation, and climate change **adaptation/mitigation** (Argumedo 2013; Blackman et al. 2017; Cajete 2020; Campbell 2019; Zimmerer 2012). However, this presents new concerns of extracting the knowledge of Indigenous peoples under the continued hegemony of practices and goals of colonial/Western science (Escobar 1998; Fernández-Llamazares et al. 2024; Sousa Santos 2016; Zaitchik 2018). Indigenous scholars have offered ways of understanding the interactions and engagement between IK and Western sciences, such as “two-eyed seeing” or Etuaptmumk, championed by Mi’kmaq elder Albert Marshall (Institute for Integrative Science and Health [IISH] n.d.). This perspective

refers to **learning** to see from one eye with the strengths of Indigenous knowledges and ways of knowing, and from the other eye with the strengths of Western knowledges and ways of knowing ... and learning to use both these eyes together, for the benefit of all.

(IISH n.d.)

Research emphasizes the importance of integrating IK into environmental management and **peacebuilding** initiatives (Aikenheal and Ogawa 2007; Petzold et al. 2020). Of note, Indigenous communities must have the agency, support, and capacity to lead and make decisions on crucial environmental laws, policies, and practices. Inclusion and integration without leadership and decision-making authority can maintain political hierarchies of knowledge that diminish and reduce the efficacy of IK for environmental peacebuilding (Alfred 2005; Santos 2016; Vojno 2022).

The growing recognition of IK in global environmental agreements, such as the UN **Convention on Biological Diversity** and the recent UN Pact for the Future, further underscores its value for both environmental and peacebuilding agendas. As communities that reside on most of the world’s most biodiverse lands and waters, who

are marginalized and particularly vulnerable to conflict, Indigenous peoples and their knowledge are key to environmental peacebuilding (Bratspies 2020; Office of the High Commissioner for Human Rights [OHCHR] 2024; Vojno 2022; WWF et al. 2021). For example, as the Office of the United Nations High Commissioner for Human Rights report sums up: “Indigenous knowledge and ancestral wisdom are essential to achieving Colombia’s aspirations for lasting and true Total Peace, as well as environmental protection” (OHCHR 2024). Thus, IK can foster more inclusive decision-making, promote ecological **sustainability**, and reduce tensions around land and resource use that lead to better **peace** outcomes.

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Indigenous Rights

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Indigenous Rights are Indigenous Peoples' inherent rights to self-determination, autonomy, and the preservation and flourishing of their cultural identities.

Indigenous identities emerge from the relationship between peoples and places through which distinct cultures—languages, religions, and **governance** institutions—have been created and continue to evolve over countless generations (Coulthard 2014). In many parts of the world, Indigenous Peoples' origin stories articulate their deep connections with place, as peoples emerging from the land itself, and refer to