



## Better Rights, Better Data.

Indigenous Peoples and Local Communities' recognition and participation in climate change policy.

Policy Brief – December 2020

### Local Indicators of Climate Change Impacts Observation Network (LICCION)

This policy brief responds to the UNFCCC call for more grounded data on climate change impacts. Research highlights the need for better local-level data to gain a more complete understanding of local climate change impacts and build better policy. Indigenous Peoples and Local Communities (IPLC) are the primary rights-holders of their environments and often engage directly with nature or observe impacts of climate change first-hand. Therefore, IPLC are key not only to fill local-level knowledge gaps, but - perhaps more urgently - to lead in developing inclusive and region-specific climate change policy.

### Key Messages

1. The geographical bias of current climate change impacts data may result in inadequate climate change policy decisions, based on data availability rather than on regional realities.
2. Indigenous and Local Knowledge (ILK) can complement instrumental climate change data by filling knowledge gaps as well as bringing additional biophysical and socioeconomic impact information.
3. ILK complex understandings of climate change impacts can help in the design of more comprehensive, inclusive and context-specific climate change policies.
4. Recognizing IPLC rights at all governance levels is an essential requisite to the diligent inclusion of their perspectives and knowledge systems in climate change adaptation and mitigation policies.

### Scarcity of Ground Level Data

During the 2018 Conference of Parties (COP24) to the United Nations Framework Convention on Climate Change (UNFCCC), parties established the Facilitative Working Group of the Local Communities and Indigenous Peoples Platform (LCIPP) with the overall purpose “to strengthen the knowledge, technologies, practices, and efforts of local communities and indigenous peoples related to addressing and responding to climate change, to facilitate the exchange of experience and the sharing of best practices and lessons learned on mitigation and adaptation in a holistic and integrated manner and to enhance the engagement of local communities and indigenous peoples in the UNFCCC process”<sup>i</sup>. Additionally, countries are implementing Nationally Determined Contributions (NDCs) to establish climate change policy at the highest level for which better climate data would be relevant. At the same time, scientific attention to recognise IPLC experience in climate change research has increased since 1992<sup>ii</sup>. Climate change impact information currently used in

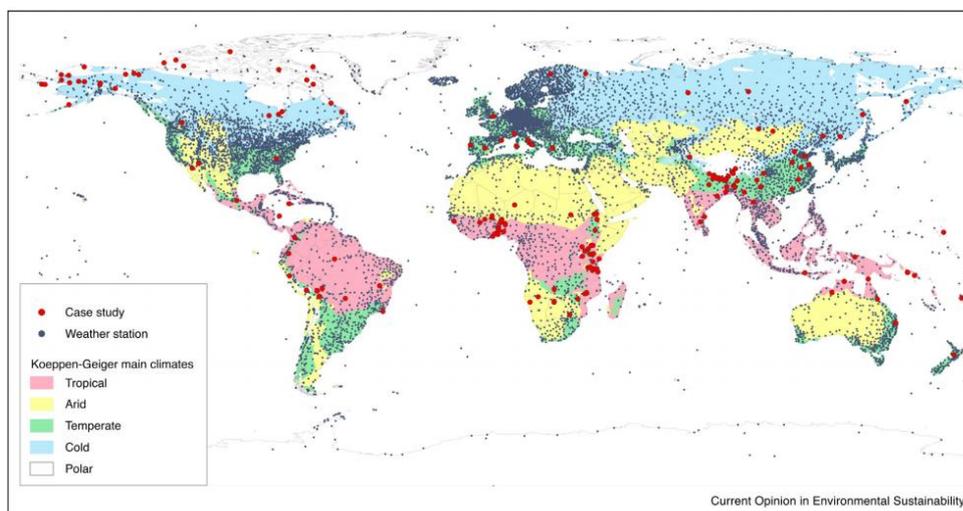


Figure 1 - Distribution of world meteorological stations based on the CRUTEM.4.6.0.0 dataset and locations of the reviewed case studies along with the main climates according to the Koeppen-Geiger classification (Source: iv).

scientific research and policy development is often based on weather forecasts and output of Global Climate Models (GCMs)<sup>iii</sup>. Research on local indicators of climate change impacts shows an unbalanced geographical and climatic distribution of current local observations, which are highly dependent on their distance to and connectivity with weather stations for documentation (Figure 1)<sup>iv</sup>. This leaves a scattered and possibly incomplete picture for policy decisions regarding climate change impacts being taken on the basis of data availability rather than local/regional reality. In addition, GCM gathered data is difficult to downscale to local and regional resolutions, leaving even more of a gap or non-specificity in documented spatial areas<sup>iii</sup>.

## Indigenous Peoples and Local Communities

It is estimated that over one quarter of global land is traditionally owned, managed, used or occupied by Indigenous peoples, with the figure expected to be much higher for IPLC<sup>v</sup>. IPLC could be key contributors to filling ground-level data gaps since they inhabit the environments of which data are often lacking<sup>ii</sup>. Millennia of dynamic generational experience and engagement with the land, water and biodiversity makes these communities important observers of changes. Furthermore, climate change research often focuses on climatic and physical data, while omitting the associated local-level socioeconomic and biophysical data. In this regard, IPLC could play

an important role in providing additional and complementary knowledge<sup>vi</sup> <sup>ii</sup>. The historical regional presence of IPLC also means that local observations have the potential to reflect unusual rather than average patterns of climate change impacts, which can lead to more relevant regional policy decisions

and planning<sup>i</sup>. Despite the increased recognition of IPLC-gathered data and knowledge in climate change impact research, this process often comes under the prerequisite that such knowledge must be validated by already established scientific data or model output, leading to perceived power imbalances<sup>ii</sup> <sup>vii</sup>.

However, the different perspectives and experiences of these impacts on IPLC can provide complementary knowledge to dominating scientific narratives when validated within their own reference framework<sup>ii</sup> <sup>vi</sup>. In fact, ground level knowledge does not only fill data gaps but can also exist alongside <sup>ii</sup> and further validate scientific understandings of climate change impacts; thus offering a more comprehensive understanding of regional biophysical and socioeconomic climate-induced changes.

## A Rights-based Approach

Comprehensive knowledge and data on climate change impacts requires better human and land rights for IPLC. The Paris Agreement, UN Declaration on the Rights of Indigenous Peoples (UNDRIP), United Nations Permanent Forum on Indigenous Issues (UNPFII), and the International Indigenous Peoples Forum on Climate Change (IIPFCC) each emphasize the interdependence between sustainable resource management, climate change mitigation, and Indigenous Peoples and Local Community rights.

Furthermore, IPLC-led organisations point to strengthening human rights as a requisite to effectively integrate IPLC knowledge and practices in climate change mitigation and adaptation policy<sup>viii</sup>. For example, in the context of Indigenous Peoples (IP), recognition of IP rights within NDCs and national climate policy at the highest level can be strengthened by the availability of Indigenous-led data, and vice versa. This provides more accurately interpreted information on climate change impacts and response mechanisms. Embedding a rights-based approach implies working with Indigenous data and knowledge under their frameworks and protocols and towards Indigenous Data Sovereignty (IDS) and ownership<sup>ix</sup>. The formation of the UNFCCC Facilitative Working Group (FWG) for the LCIPP represented a breakthrough in IP rights on climate change policy participation and negotiation. Yet the need for better local-level embeddedness that contributes to IDS remains essential for comprehensive and diverse representation of rights and knowledge at the national and international level.

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## Recommendations

1. National climate policy planning including NDCs should incorporate regional working groups for non-IPLC and IPLC climate change and socio-ecological researchers to assess how Indigenous and local knowledge can be incorporated within entire research processes (i.e., design, planning, methodology, analysis, etc) beyond just the data collection phase.
2. Intergovernmental institutions and governments should encourage the use of initiatives within civil society or academia that highlight and promote local observations or grounded-data and practices such as the [Indigenous Navigator](#), the [Database of Good Practices](#), and [SIKU](#), in order to better align these with UNFCCC commitments (see endnote for LICCION's tool<sup>x</sup>).
3. NDCs should develop rights-based climate change policy that is enforced and grounded in traditional experiences and protocols. This should include mitigation and adaptation strategies that encompass local-level biophysical and socio-cultural information and knowledge, beyond just climate data. In the context of IP, these strategies should especially adhere to the customary protocols or practices that characterize IDS and self-determination, as defined by UNDRIP.



<sup>i</sup> Local Communities and Indigenous Peoples Platform <https://unfccc.int/LCIPP#eq-1>

<sup>ii</sup> Reyes-Garcia et al., (2010). Local indicators of climate change: The potential contribution of local knowledge to climate research. *Wiley Interdisciplinary Reviews: Climate Change*, 7(1), 109-124. doi: 10.1002/wcc.374

<sup>iii</sup> Welch-Devine, M. (2020). Changing Climate, Changing Worlds: Local Knowledge and the Challenges of Social and Ecological Change. Springer Nature. Chapter 9, Operationalising Local Ecological Knowledge in Climate Change Research: Challenges and Opportunities of Citizen Science.

<sup>iv</sup> Reyes-Garcia et al. (2019). A collaborative approach to bring insights from local observations of climate change impacts into global climate change research. *Current opinion in environmental sustainability*, 39, 1-8. <https://doi.org/10.1016/j.cosust.2019.04.007>

<sup>v</sup> IPBES. (2019). [Report of the Plenary of the IPBES on the work of its seventh session.](#)

<sup>vi</sup> Garteizgogeaescoa, M. (2020). Using proverbs to study local perceptions of climate change: a case study in Sierra Nevada (Spain). *Regional Environmental Change*, 20(2). <https://doi.org/10.1007/s10113-020-01646-1>

<sup>vii</sup> Garcia-del-Amo, D. et al., (2020). Including indigenous and local knowledge in climate research: an assessment of the opinion of Spanish climate change researchers. *Climatic Change*, 1-22. <https://doi.org/10.1007/s10584-019-02628-x>

<sup>viii</sup> Asia Indigenous Peoples Pact (AIPP), International Work Group for Indigenous Affairs (IWGIA). (2020). [A Joint Submission From Asia Indigenous Peoples Pact and International Work Group for Indigenous Affairs](#)

<sup>ix</sup> Kukutai, T., & Taylor, J. (Eds.). (2016). *Indigenous Data Sovereignty: Toward an agenda*. Acton ACT, Australia: ANU Press.

<sup>x</sup> In partnership with IPLC, LICCION and LICCI are currently developing [OpenTEK](#), a digital tool designed to better understand Indigenous peoples and local community observations on climate change impacts.