United Nations Educational, Scientific and Cultural Organization

LiNKS Local and Indigenous Knowledge Systems

climate frontlines

On the Local Communities and Indigenous Peoples' Platform:

A submission to the UNFCCC

The following submission is based upon the outcomes and lessons learned from Climate Frontlines[1], a UNESCO initiative that, since 2009, has sought to create a platform to strengthen the voices of indigenous peoples, small islands and vulnerable communities in climate change decision-making. The initiative is housed in UNESCO's Local and Indigenous Knowledge Systems (LINKS)[2] programme, which also hosts the IPBES Technical Support Unit for the Indigenous and Local Knowledge Systems Task Force.

The submission also contains as an annex a presentation made at an informal technical meeting[3] on the matter.

1. Purpose

To operationalize paragraph 135 of 1/CP.21 to 'strengthen the knowledge, technologies, practices and efforts of local communities and indigenous peoples related to addressing and responding to climate change', a platform to exchange experiences and share best practices could seek to achieve several goals at multiple levels including to:

	Aims	Notes
a.	Provide international recognition and respect for knowledge systems of local communities and indigenous peoples (hereafter referred to as local and indigenous knowledge);	Note: This could take into account synergies with related and relevant international norms and standards including: UNDRIP and other associated human rights conventions CBD, Article 8j. See Weathering Uncertainty for an overview on indigenous knowledge for adaptation Nakashima, D.J., Galloway McLean, K., Thulstrup, H.D., Ramos Castillo, A. and Rubis, J.T. 2012.

1 www.climatefrontlines.org

2 www.unesco.org/links

3 Also available online here: http://www.climat.be/fr-be/mediatheque/presentations/meeting-local-communities-indigenous-peoples/

		Weathering Uncertainty: Traditional Knowledge for Climate Change Assessment and Adaptation. Paris, UNESCO, and Darwin, UNU, 120 pp. Available at this website or download as pdf Executive Summary in EN/FR/ES
b.	Support national and regional efforts to build synergies between local and indigenous knowledge and science to better inform climate change decision-making;	Including through events and activities described in 3 below. For example, Climate Frontlines partners with seven communities in six countries in Africa to build synergies between pastoralist knowledge and scientific knowledge of weather, climate and climate change. This provides opportunities for supporting adaptation, including via NAP processes in Africa. www.climatefrontlines/africa See also UNESCO project on Bridging Indigenous and Scientific Knowledge Systems (BRISK) <www.arcticbrisk.org> involving transdisciplinary community-based observatories across the circumpolar Arctic
c.	Promote appropriately local and indigenous knowledge within the communities themselves, including by reinforcing knowledge transmission;	Reinforcing intergenerational knowledge transmission is essential to ensure that these knowledge sets remain vibrant and dynamic. Click here on knowledge transmission in UNESCO-LINKS
d.	Create avenues for exchange of best practices and approaches for working with local and indigenous knowledge, including the use of safeguards;	Ethical guidelines and methods should also include discussions on how to appropriately access indigenous knowledge, managing resulting information and benefits sharing is important. Similar discussions have taken place both within the context of the CBD Article 8j and within IPBES

2. Content

'Knowledge, technologies, practices and efforts of local communities and indigenous peoples related to addressing and responding to climate change' is a broad domain that touches upon numerous dimensions of local and indigenous livelihoods and cultures. Examples of themes are drawn from different activities we have been engaged in over the years:

a	o Observing and understanding the impacts of climate change, including extreme events o Adapting traditional livelihoods – coping with change, seeking opportunities, and recognizing constraints and limits o Mitigation: from impacts on indigenous lands to recognizing indigenous peoples' contributions o Climate change and the ontologies/worldviews of indigenous peoples and scientists	Examples of themes drawn from Climate Frontlines discussion forums, publications and conferences. UNESCO partner events: www.impmpcc.org www.indigenous2015.org www.indigenous2016.org
b	Focus on vulnerable communities that rely on resource-dependent livelihoods including: pastoralism, artisanal fisheries, hunting/gathering, small scale / subsistence farming. Also including women's knowledge in these domains	cf Climate Frontlines community projects
c	Communities in climate-vulnerable regions e.g. Arctic, Sahel, 'Third Pole' and other high-altitude zones, SIDS, low-lying areas	See UNESCO project www.arcticbrisk.org for a project involving transdisciplinary observatories in the Arctic ; and www.climatefrontlines/africa for work in semi-arid/arid regions in Africa

3. Structure

The structure of a platform could be facilitated by multiple activities including by:

a	Provision for periodic review to ensure that the purpose of the platform is being achieved	Indicators could be built into programmes and mechanisms across the UNFCCC to track the inclusion of local and indigenous knowledge; and/or participation of indigenous peoples and local communities. This could allow an iterative and holistic approach to achieving the purpose of para 135.
b	Support, through different mechanisms, for case studies, piloting and other	It is important to utilize not just online or face-to-face /physical

	community-based projects that could be featured at a global event. These case studies and other activities could be shared at the global event; related meetings of the UNFCCC (e.g. Adaptation, Mitigation, Loss and Damage, Sustainable Development etc); related regional and national events organized by governments, IPLCs and other stakeholders including the UN; and a dedicated online platform. These case studies and activities could be also scaled up and replicated/adapted in other locales, as appropriate.	channels but both modalities of communication. Online channels enable wide-spread dissemination of the platform; and face-to-face/physical meetings ensure direct engagement of knowledge holders in the platform. Language is an important issue that is resolved through adequate dedicated funding. Typically the minimum of EN/FR/ES need to be provided.
c	A periodic global event that could be timed around the COP or SBSTA on 'knowledge, technologies, practices and efforts of local communities and indigenous peoples'; where initiatives from indigenous peoples, local communities, governments and other actors could be highlighted and discussed. These could follow the example of the NAP Expo or high-level thematic days.	See, for example: www.indigenous2015.org; www.indigenous2016.org and www.ipmpcc.org UNESCO could help co-organize such events.

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Local and Indigenous Knowledge Systems
UNESCO's LINKS Programme

United Nations
Educational, Scientific and
Cultural Organization

LINKS
Local and Indigenous Knowledge Systems

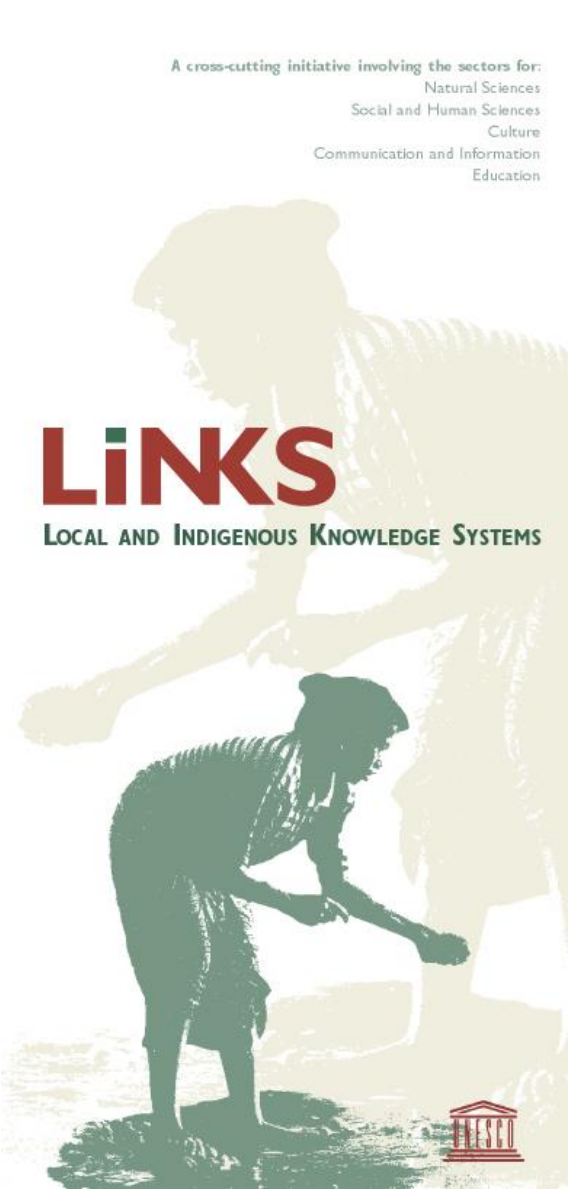
Local communities and Indigenous Peoples Platform - Informal Technical meeting

27-28 February 2017, Brussels

Doug Nakashima & Jen Rubis

www.unesco.org/links

UNESCO - LINKS programme



***UNESCO* - United Nations Educational, Scientific and Cultural Organization**

***LINKS* - Local & Indigenous Knowledge Systems programme**

- cross-cutting programme (since 2002)

* * *

INTERDISCIPLINARY – drawing upon disciplines in the natural and social sciences and culture

* * *

TRANSDISCIPLINARY –building dialogue across diverse knowledge systems

Notably between indigenous peoples' knowledge systems and scientific knowledge.

An Indigenous Peoples' Platform

Multiple dimensions:

- Indigenous Peoples' Rights
- Participation & Governance
- Capacity-building (across all sectors)
- Awareness-raising
- Indigenous Peoples' Knowledge

Recognition *of the essential role of* ***Indigenous Peoples' knowledge, practices and worldviews*** *in environmental decision-making, notably with respect to global climate change*

From recognition to implementation?

Growing recognition of indigenous knowledge for climate change assessment, mitigation or adaptation.

But how can indigenous knowledge contribute, alongside science, to improved decision-making?

Role of IK for achieving biodiversity conservation & natural resource management is well-established.

- Convention on Biological Diversity (1992) - Article 8(j),
- In-depth documentation of IK in all regions and ecosystems,
- Joint or co-management regimes established for wildlife, fisheries, protected areas etc.

…. although many challenges still remain.

Intergovernmental environmental assessments: IPCC and IPBES

The Challenge: ensuring assessments are based on the best available knowledge – both scientific and local & indigenous knowledge

- Intergovernmental Panel of Experts on Climate Change (IPCC) – created in 1988
- Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) - created in 2012

Intergovernmental science-policy processes – ***traditionally*** …

- internationally-recognized scientific experts.
- dominated by the physical & biological sciences.
- restricted to reviews of the peer-reviewed scientific literature.

Opportunities for considering indigenous peoples' experts and indigenous knowledge have been few or nonexistent

Towards IPCC's Fifth Report (5AR)

1. UNESCO-UNU workshop with IPCC:

"Indigenous Peoples, Marginalized Populations and Climate Change", Mexico, July 2011

- Vicente Barros, co-chair of IPCC Working Group II, and several IPCC authors of key chapters
- indigenous knowledge holders, and natural & social scientists with expertise on indigenous knowledge

2. Review of IK in the scientific and grey literature

"Weathering Uncertainty: Traditional knowledge for climate change assessment and adaptation", 2012, UNESCO and UNU

- To build awareness and facilitate inclusion of IK in the 5AR,
- Make IK literature accessible and intelligible for authors whose core expertise is not indigenous knowledge
- Explains key concepts related to indigenous knowledge

IPCC- 5AR: Outcomes for indigenous peoples' knowledge

Summary for Policymakers
5AR Synthesis Report

- **Indigenous, local, and traditional knowledge systems and practices, including indigenous peoples' holistic view of community and environment, are a major resource for adapting to climate change …**
- **Integrating such forms of knowledge with existing practices increases the effectiveness of adaptation.**

(IPCC 2014: 27)

Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES)

Created in 2012 – modelled on the IPCC

IPBES Principles include a specific commitment to ILK:

- **Recognize and respect the contribution of indigenous and local knowledge to the conservation and sustainable use of biodiversity and ecosystems**

Busan Outcome: UNEP/IPBES.MI/2/9, Appendix 1, para. 2 (d)

Scientific & technical functions of the Multidisciplinary Expert Panel:

- **Explore ways and means to bring different knowledge systems, including indigenous knowledge systems, into the science-policy interface**

UNEP/IPBES.MI/2/9, Appendix 1, para. 15 (g)

To oversee this work on ILK, IPBES has created

a **Task Force on Indigenous and Local Knowledge Systems**

- UNESCO-LINKS serves as the Technical Support Unit (TSU)

Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES)

IPBES/5/4

- Proposed approach across all functions
  - Assessments
  - Knowledge and data
  - Policy support tools and methodologies
  - Capacity-building
- Institutional Arrangements
  - MEP
  - ILK liaison groups
  - Secretariat – TSU on ILK
  - Participatory mechanism – web platform, web consultations, dialogue workshops
  - Strategic partnerships

http://www.ipbes.net/sites/default/files/downloads/pdf/ipbes-5-4-en.pdf

Dialogue Workshops to reinforce Indigenous Knowledge (IK)

Challenges for IPBES assessments:

- Designated assessment author teams have little or no expertise with indigenous peoples or indigenous knowledge,
- Unaware of the existing scientific or grey literature,
- Unfamiliar with fundamental issues e.g. IPRs, FPIC
- Lack of expertise addressing epistemological & ontological challenges from coupling indigenous & scientific knowledge.

IK Dialogue workshops:

- Establish a face-to-face dialogue between IK holders, IK experts and IPBES Co-chairs + Authors
- Build capacities of both IK holders/experts and Authors.
- Collectively develop a rigorous, problem-solving approach to IK and its interface with Science (shared definitions & mutually-agreed cross-cultural understandings).

IK dialogue workshops for IPBES assessments

IK Dialogue workshops organized in the framework of five IPBES assessments (pollination and regional assessments)

Procedures:

- Call for proposals from IK holders & IK experts, widely-circulated in multiple languages.
- Selection committee (indigenous peoples, natural & social scientists) reviews submissions and selects submissions,
- Dialogue workshop (3-4 days) brings selected IK holders and IK experts (8-12) together with selected Assessment co-chairs and authors (8-12)
- IK holders and IK experts hold follow-up meetings to report back to their communities and fill gaps in relevant IK,
- Workshop proceedings published to allow citation in Report.

IK dialogue workshops for IPBES assessments

Strengths:

- Allows indigenous knowledge holders to engage directly with assessment Authors.
- Direct dialogue facilitates identification of knowledge, practices and worldviews that are shared, distinctive/unique, or contradictory.
- Similarities and differences can be mutually-acknowledged, understood and negotiated.

Limitations:

- Restricted number of participants to allow dialogue
- Time (3-4 days) is short to address complex issues
- Costly

UNESCO
Community-based Observing Systems

Subregional networks of Observatories based on indigenous knowledge and community observations:

- Circumpolar Arctic network (reindeer herders and hunters)
- Sub-Saharan Africa network (pastoralists)
- Pacific (traditional seasonal calendars)

Two regions where vulnerability is high and climate change impacts are expected to be severe.

- Bridging Indigenous and Scientific Knowledge about Global Change in the Arctic
  - Reindeer pastoralists from Sweden (Sami) and Russian Federation (Even); and hunters (Inuit) from Alaska, Canada and Greenland.
- On the Frontlines of Climate Change project for Africa
  - Led by pastoral peoples - Burkina Faso, Chad, Ethiopia, Tanzania, Kenya, Uganda

Coupling indigenous and scientific skills to forecast weather and climate

Climate Frontlines in Africa

Dialogue platforms organized in Chad (2) and Tanzania (1):

- Bringing together pastoral peoples with meterologists and climate scientists
- To compare, contrast and couple forecasting capacities and techniques
- To improve knowledge for decision-making

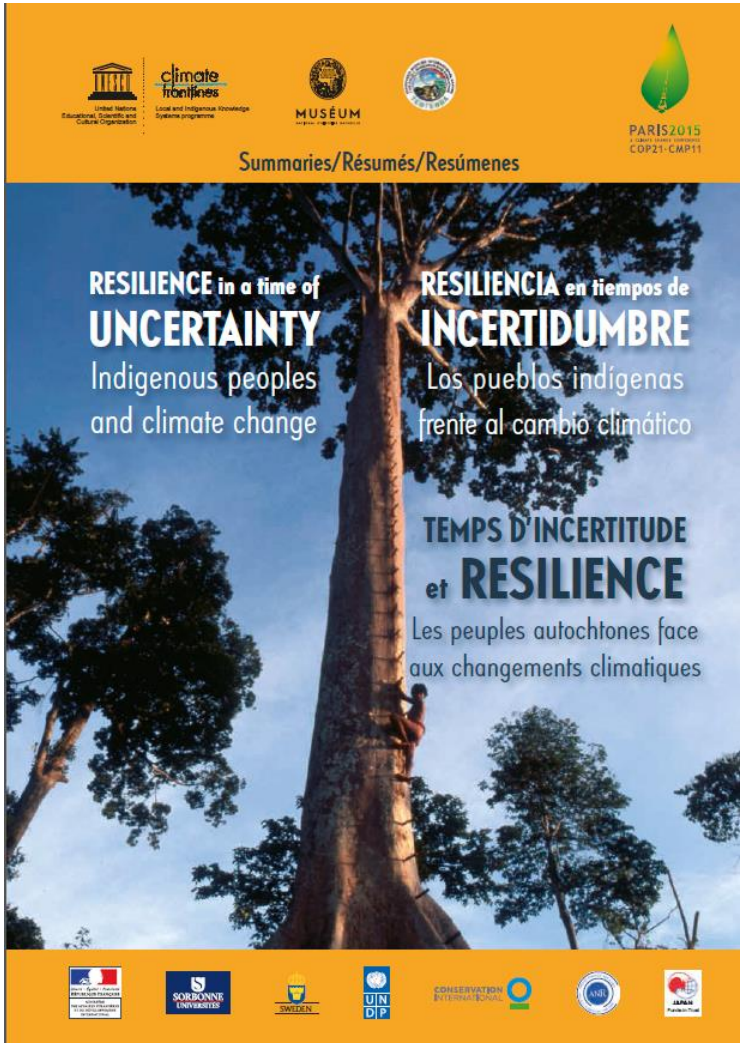
Pastoralist forecasting

- Observation of many variables (bio-physical)
- Local scale
- High resolution know-ledge sharing networks
- Qualitative measures

Scientific forecasting

- Extrapolations based on few physical variables
- Regional/subregional scale
- Modeling with seasonal or annual averages
- Quantitative

Conferences on indigenous peoples and knowledge at COP21 and COP22



www.indigenous2015.org

www.indigenous2016.org

Difficulties aligning IK and science: Insights from a case study in Mongolia

Pastoralists in Mongolia report major degradation of pastures since 1999 (Marin 2010: 167) due to:

- change in the **quality** of rains
  - less soft rains (*shivree boroo*) that penetrate soils,
  - more hard rains (*shiruun boroo*) that run-off.
- increase in **localized patchiness** of rainfall
  - no longer rains over large areas
  - 'silk embroidery' rains (*torgnii hee boroo*) fall in limited areas with extensive areas left devoid of pasture

However scientific data for the same area and period show no significant change – Quantitative measures of average annual precipitation over large territories

Challenges for a Climate Change Platform

1. **Bridging scales – gap between local & regional/global**
   - Challenges may be global, but solutions need to be local
   - Platform to work at different scales, with different tools and actors at the different scales
   - Science technologies (remote-sensing, ocean monitoring, seasonal outlook) provide valuable data,
   - But scales are often too broad for local decision-making,
   - Regional forecasts miss patchiness of rainfall.
2. **Connecting qualitative and quantitative measures**
   - Quantitative data may miss critical qualitative information
   - Total and mean rainfall (vs when and type of rain)
3. **What to monitor?**
   - Standardized scientific measurements may ignore factors essential for local livelihoods
   - Indigenous peoples lead in identifying priorities for adaptation

References

IPBES, 2017. Indigenous and local knowledge systems (deliverable 1 (c)). IPBES/5/4 http://www.ipbes.net/sites/default/files/downloads/pdf/ipbes-5-4-en.pdf

Marin, A. 2010. Riders under storms: contributions of nomadic herders' observations to analysing climate change in Mongolia. *Global Environmental Change*, 20: 162–76.

Nakashima, D.J., Galloway McLean, K., Thulstrup, H.D., Ramos Castillo, A. and Rubis, J.T. 2012. Weathering Uncertainty: Traditional Knowledge for Climate Change Assessment and Adaptation. Paris, UNESCO, and Darwin, UNU, 120 pp. http://unesdoc.unesco.org/images/0021/002166/216613e.pdf

Related websites

Indigenous Peoples, Marginalized Populations and Climate Change www.ipmpcc.org

IK & CC conferences @COP21 and 22
www.indigenous2015.org and
www.indigenous2016.org

Climate Frontlines in Africa:
www.climatefrontlines.org/africa

Arctic-BRISK: www.arcticbrisk.org

UNESCO-LINKS www.unesco.org/links

IPBES ILK publication series
www.unesco.org/new/links/ipbes-pubs

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