Summary Report

LCIPP Multi-stakeholder dialogue at COP 28

Dialogue in collaboration with Technology Executive Committee (TEC)

Version: 29 October 2024

I. Background

The LCIPP Multi-stakeholder dialogues under the Activity 7 of the second three -year workplan falls under the climate change policies and action function of the LCIPP. The deliverable under Activity 7 of the workplan includes convening in-session multi-stakeholder dialogues, including Indigenous Peoples, local communities, Parties and other relevant bodies and processes, to advance the participation of Indigenous Peoples and of local communities in designing and implementing holistic climate change policies and actions at all levels.

The engagement of Indigenous Peoples and of local communities, including ethical and equitable treatment of Indigenous knowledge, is a common thread linking together the multi-stakeholder dialogues. This activity contributes to a participatory approach to climate action, in line with Article 7 paragraph 5 of the Paris Agreement. It contributes to the Paris Agreement objective of promoting climate action that is "based on and guided by the best available science and, as appropriate, traditional knowledge, knowledge of Indigenous Peoples and local knowledge systems".

Collaboration with Technology Executive Committee (TEC)
The mandated dialogue under the current LCIPP workplan was organized in collaboration with the Technology Executive Committee (TEC). The dialogue was also part of Activity D.7. under the Technology Executive Committee workplan 2023–2027[1].

II. Overview of the dialogue

On 3 December 2023, over 100 participants including Indigenous knowledge holders, local community representatives, constituted body members, Parties and other relevant contributors engaged in a dialogue, in conjunction with COP 28. The theme of this LCIPP Multi stakeholder dialogue at COP 28 was Indigenous and traditional technologies, sciences, and innovations.

The dialogue emphasized the crucial role of Indigenous practice, in addressing climate change including managing water resources, preventing land degradation, and restoring ecosystems, all through a holistic approach that views the world as an interconnected whole. The dialogue also highlighted the potential for Indigenous and Western scientific approaches to complement each other, fostering more effective climate solutions.

Indigenous knowledge holders from seven UN Indigenous socio-cultural regions provided examples of traditional technologies from their regions. This was followed by a discussion on how Indigenous innovations can be ethically and equitably engaged into climate technology policies and actions at various levels, with insights from Indigenous knowledge holders and

[1] See here d62c560bb1e443e580d832aae545a3f1.pdf

diverse stakeholders, including representatives from the Intergovernmental Panel on Climate Change (IPCC) and the Centre Climate and Development Knowledge Network (CDKN).

The detailed agenda of the dialogue can be found in Annex I.

III. Recommendations to inform relevant climate change policies and actions

The dialogue clearly outlined that by learning from Indigenous technologies, which are grounded in knowledge systems that have been refined through generations, the global community can explore transformative solutions that address the root causes of the climate crisis and promote living in harmony with nature.

Below are some recommendations highlighted during the dialogue:

1. **Recognize the wisdom of Indigenous Peoples' time-tested practices as essential for addressing environmental challenges globally**
   Inclusive, ethical, and collaborative approach to climate policy and action would value and weave Indigenous knowledge systems and practices of the local communities. Traditional practices, such as controlled burning, water mapping, and seed selection, among others, must be recognized and considered while designing inclusive and ethical climate policies and actions. Time-tested traditional land practices were identified as essential to build resilience against the current environmental crises

2. **Support Indigenous Peoples in the preservation of Cultural and Spiritual Practices**:
   Spiritual and cultural practices such as the Monogit Ceremony (Borneo) and water source rituals (Kenya), elaborated in section IV, were given as examples of environmental stewardship that strengthens human-nature connections. Other examples shared highlighted the importance of the recognition and protection of Indigenous Peoples' diverse practices and efforts to seek legal recognition of nature's rights as integral steps to safeguarding water and land. One such example included the way that Indigenous Peoples designate and restrict fishing zones or preserving cultural heritage but also for conserving ecosystems. Combined, these should be considered crucial components in designing effective climate policies and actions.

3. **Ensure Indigenous Peoples meaningful participation in all elements of climate policy and action**
   To ensure ethical and equitable engagement of the knowledge of Indigenous Peoples, it is essential that they actively participate in the development and implementation of climate policies at local, national, and international levels, specifically in the decision-making processes. Mechanisms should also be set up by Indigenous Peoples to share, based on the appropriate protections and cultural protocols, Indigenous knowledge across regions as well as create academic partnerships to support the mainstreaming Indigenous climate action strategies. In all circumstances, it is essential that Indigenous Peoples lead such collaborative efforts.

4. **Foster Ethical Collaboration Between Indigenous Knowledge and Scientific Research**
   Collaboration between Indigenous knowledge holders and western scientists to weave Indigenous knowledge systems with scientific research is possible, acknowledging the complementary strengths of both. Some examples shared included those partnerships that enhance climate resilience, as seen in practices like animal-based weather forecasting and renewable energy use. However ethical engagement of Indigenous Peoples and local community representatives can be

ensured only by respecting Indigenous rights, sovereignty, and consent, prioritizing partnerships based on fairness, participation, and benefit-sharing.

5. **Support Indigenous Peoples to preserve Indigenous Knowledge and invest in intergenerational knowledge transmission**
   In context of modernization and climate impacts, there are concerns about the loss of Indigenous knowledge due to the dominance of modern technology and education systems that overlook Indigenous wisdom. Indigenous knowledge holders suggested several ways highlighted below to preserve this knowledge:

   - Adequate support, including funding support, is required to document, preserve, and transmit Indigenous knowledge related to climate change.
   - Investment in capacity-building initiatives that empower Indigenous Peoples to sustain traditional practices and implement climate solutions is also essential.
   - Support Indigenous-led initiatives, recognizing their innovations in areas like water mapping, sustainable fishing, and traditional housing.
   - Integrate Indigenous knowledge into western education and policymaking can address climate challenges while safeguarding this wisdom from being overshadowed by modern technology.

IV. Examples of Indigenous and traditional practices and technologies from different regions

Knowledge Holders from different regions shared diverse good practices, experience and innovations from their communities which are summarized in this section.

Ali Mohamed Adan from Pastoralist community in Kenya shared several practices from his region highlighting the interrelation between Indigenous and contemporary technologies, showcasing the resilience and adaptability of pastoralist communities:

In dry land ecosystems, there is a crucial correlation between variable rainfall and the livelihoods of pastoralists, who depend heavily on livestock. Water adaptation is essential in such arid environments, where pastoralist often rely on underground rainwater sources due to the scarcity of permanent rivers. There are several examples of Indigenous technology that pastoralists have employed for generations.

One such example is use of mapping to identify water sources. This traditional knowledge, passed down through generations, plays a pivotal role, particularly in the use of specific plants for mapping water locations. The excavation of water sources is not just a technical process but also a deeply spiritual one, involving rituals, prayers, and ceremonies that reinforce our connection with the Creator.

The pastoralist community continue to prioritize Indigenous tools over modern machinery for excavation, blending traditional and contemporary practices. They also use techniques like stone laying and water purification technologies, which incorporate specific plants and ash, to sustain these water sources.

The weather forecasting techniques of the pastoralists are also rooted in observations of animal anatomy patterns, celestial bodies, and livestock behavior, all of which help predict rainfall. The migration patterns of herding communities are also critical, as they gather and compare information to forecast weather and adjust accordingly.

It is important to note that traditional governance plays a key role in ensuring that this knowledge is passed down from one generation to the next, guaranteeing the continuity of these Indigenous technologies.

The strong connection between Indigenous and contemporary technologies showcases the resilience and adaptability of the pastoralist communities in the face of changing environmental conditions.

Anne Lasimbang representing Kadazandusun community highlighted several practices from the region that reflect the deep respect they have for the earth and valuable lessons that they can offer for global sustainability efforts:

The disconnection between humans and the earth, is a primary driver of climate change. The harmful effects of industrial activities, such as deforestation, mining, and the burning of fossil fuels, are major concerns that continue to disrupt the balance of our environment. The Kadazandusun community in Borneo have always been mindful of the relationship with mother earth through their practice and belief system and that, which has been the basis of Indigenous knowledge, science and technology.

One such example is the Monogit Ritual Ceremony, a traditional practice deeply rooted in their community. "Monogit," meaning "cooling and restoring balance," is a ceremony conducted to heal broken relationships with the earth caused by negative actions. After this ritual, the community abstains from harvesting natural resources for a period, reinforcing our connection and respect for the environment.

Another example is Managal Practice, which literally means "to abstain." This is a conservation method aimed at protecting rivers and forests. We designate specific zones in rivers—red, yellow, and green—to sustainably manage fishing activities. This approach not only replenishes fish populations but also showcases Indigenous scientific knowledge in resource management.

Another significant practice is the use of bamboo to prevent riverbank erosion. By planting bamboo to stabilize riverbanks and harvesting it sustainably for construction, the community achieves both environmental conservation and energy efficiency. Bamboo homes offer natural cooling, reducing the need for electricity and demonstrating a sustainable approach to modern building techniques.

The community also uses traditional food preservation techniques, such as pangi seeds, smoking (manalai), drying, and pickling (mongonsom). These methods have enabled the community to preserve food through various climatic changes, and it is crucial that we pass these techniques on to younger generations.

The practice of seed selection and cross-breeding is also significant. For generations, the community has carefully selected and bred seeds to ensure crop resilience and sustainability. Maintaining seed banks is essential for preserving agricultural practices and ensuring food security.

Jacqualine Denise Shaeffer, representing the Inuit Indigenous Peoples shared insights into how Indigenous Peoples in the Arctic are adapting to climate change:

The profound impacts of climate change on the community, such as extreme permafrost melt, and coastal erosion have been threatening their traditional way of life. Indigenous knowledge systems, which have sustained Arctic communities for thousands of years have been extremely important in fostering harmony with nature and ensuring food security.

The Inuit's understanding of their environment is deeply rooted in their language and culture, with unique terms for different forms of water and ice. Traditional technologies, such as the sealskin boat used for whaling, demonstrate the intricate relationship between Indigenous Peoples and their natural surroundings.

Innovative approaches to climate adaptation, such as leveraging local observations and modern technology to monitor and respond to environmental changes underscores the need for collaboration and co-production of knowledge between Indigenous Peoples and scientific institutions.

The Inuit Peoples have sustainability practices embedded in Indigenous lifestyles, such as waste reduction and multi-purpose tool usage which are important to address climate change.

Britney Supernault, Otipemisiwak Nehiyaw (Métis Cree) from East Prairie Metis Settlement, shares insights on traditional land practices and how they can be a tool against fore fires.:

The practice of controlled burning has been passed down through generations, serving as an effective method to prevent large-scale forest fires.

The perspectives on fire management shifted in the 1950s and 1960s, heavily influenced by campaigns like Smokey the Bear, which painted fire as something harmful. However, there are many benefits of controlled burning to the land, such as improved grass growth and the blooming of wildflowers—many of which also hold cultural significance. These controlled burning practices not only shape healthier ecosystems but also strengthen the community's connection to the land.

Unfortunately, the banning of these traditional practices has led to devastating consequences. Today, we see uncontrollable wildfires that not only destroy communities but also damage the land so severely that it results in floods.

Angel Valencia, from the Yaqui Nation on the border of the United States and Mexico, focused on the intersection of traditional knowledge, spirituality, and environmental stewardship:

The Yaqui peoples place special significance on the full moon, specifically the Wolf Moon, which is believed to carry energy that can influence crop growth and harvesting. They have several Indigenous practices for protecting plants, such as shielding crops from harmful phenomena like solar eclipses to ensure their health and productivity.

Drought-resistant plants, such as the watermelon bean, thrive in their lands due to the connection with nature and Indigenous cultivation methods.

Traditional use of adobe houses in the Yaqui community, which are sustainable, naturally regulate temperature, and are used to store organic seeds, such as pumpkin, beans, and watermelon.

The cultural significance of the Deer Dance in Yaqui traditions, represent the unity of their eight communities in Sonora, Mexico.

An Indigenous representative from Russia highlighted their experiences, accumulated through years of living harmoniously with nature:

These communities, particularly those in the Arctic, inhabit vast, remote areas with harsh climates. Many of them practice a nomadic lifestyle, utilizing their environment with minimal harm. Several practices of the Indigenous Peoples are important in addressing climate change. Some examples are highlighted below

In Chukotka, for example, the Kerenki people have addressed water scarcity by creating reservoirs near their settlements. They cut off the tundra's top layer to form catchment areas that serve as reservoirs in winter.

Another traditional practice involves using natural refrigerators to store skins, but climate change is disrupting these methods, leading to the deterioration of skins as warmer days arrive unpredictably. Fresh water is also sourced from melting snow and ice, which communities collect using snowmobiles or dog sleds.

The hunting traditions of Indigenous peoples are deeply rooted in their worldview, promoting sustainable practices that ensure species do not go extinct. For instance, certain animals are respected and left alone if they mimic human behavior, like covering their eyes with a paw.

Additionally, dog sledding and traditional movement methods across the tundra are being revived, as they do not harm the environment like large machinery does. Sacred places, such as forests and lakes, are respected by Indigenous communities, but these areas are increasingly threatened by industrial and poaching activities.

Modern technology is also changing Indigenous lifestyles. In Yamal, for example, reindeer herders now choose migration routes based on access to mobile communication, showing the blending of traditional practices with modern tools. However, the aggressive expansion of industry is forcing some communities into urban areas.

Indigenous knowledge, such as weather predictions based on natural signs, remains valuable, but it's becoming less reliable due to human-induced environmental changes. For instance, low-flying birds may signal pollution rather than rain.

Several other Indigenous practices were discussed during the event such as,

1. Erity Teave from Rapa Nui highlighted the parabolic solar technology, generating electricity, water, and hydrogen as part of their sustainable development initiatives in her community.
2. Sele Tagivuni highlighted how Indigenous communities use marine protected areas (MPAs) and totems as methods for environmental stewardship and cultural identity.
3. A representative from an Indigenous community in Bangladesh highlighted the utilization of traditional knowledge and techniques, such as ethnomedicine and crop rotation, to safeguard nature and promote self-sustaining ecosystems.
4. Hla Doi, representative from Indigenous community in Myanmar emphasized how Indigenous housing designs and customary institutions have proven resilient to climate impacts like extreme weather and earthquakes.

V. Key takeaways on enhancing the effective and equitable participation of Indigenous Peoples and local communities of Indigenous technologies by stakeholders

In response to the presentations on Indigenous knowledge and technologies for climate mitigation and adaptation, several stakeholders provided insights on ethically and equitably weaving traditional practices into climate policies and actions.

Climate and Development Knowledge Network (CDKN)

In response to the presentations by Indigenous knowledge holders, Shehnaaz Moosa, Director of the Climate and Development Knowledge Network emphasizes the importance of Indigenous wisdom such as respecting, protecting, and using only what is needed from the Earth.

She highlighted the principles of respect, protection, and minimal consumption that underpin indigenous technologies. She stressed the need for a shift in perspective among engineers and technologists to design systems that are humane and compassionate, considering the holistic relationship between humans and the environment. She advocated for collaboration, partnership, and a mindful engagement with ancestral knowledge to develop technologies that align with these principles.

She also emphasized the importance of scaling out Indigenous technologies rather than merely scaling them up, suggesting that integrating these principles into technological design can contribute to more effective climate action.

She emphasized that addressing climate justice requires recognizing and addressing human rights issues, and that technological solutions alone are not sufficient without addressing underlying injustices.

Intergovernmental Panel on Climate Change

Sherilee Harper, Vice-Chair, IPCC Working Group reflected on the importance of incorporating Indigenous knowledge into climate policies and scientific assessments. She emphasized four key takeaways from the session:

1. Language is integral to adaptation, as seen in the diverse terminology for natural elements discussed.
2. Supporting and promoting Indigenous knowledge itself serves as a form of adaptation, demonstrated through practices like water mapping and local observations.
3. Indigenous knowledge can stand alone as a valuable source of information, not always requiring validation from western science.

Moreover, she emphasized the importance of recognizing Indigenous knowledge across all working groups of the IPCC, noting that Working Group II had made significant strides in this regard. She posed a question on how to better integrate procedural equity and justice into the IPCC process, particularly concerning Indigenous knowledge systems, and invited input on promoting self-determination in science assessment reports.

Technology Executive Committee (TEC)

Stig Svenningsen, Chair of TEC and Stephen Minas, member of TEC represented the constituted body at the dialogue.

They stressed the importance of Indigenous representation in decision-making processes. They highlighted the reform of the Climate Technology Centre Network (CTCN) to include a dedicated Indigenous seat and reaffirmed their commitment to climate justice. They appreciated the contributipons from the Indigenous knowledge holders to climate technologies, such as agri-food systems and disaster risk reduction. They emphasized the commitment of TEC to ensuring Indigenous participation in technology development and transfer activities, with 14 representatives from the Indigenous Peoples Organization (IPO) constituency contributing significantly to the current workplan of TEC.

Additionally, they underscored the need for national systems of innovation to accelerate climate action, calling for frameworks that support Indigenous involvement and ethical collaboration.

Additionally, the speaker suggested that the IPCC update its work on technology to include Indigenous perspectives, particularly in systemic innovation and national systems analysis, to improve climate action under the UNFCCC.

Annex I

Agenda

Greetings and Invocation	
13:00 - 13:10	○ Opening invocation *by Josimara Melgueiro, Federation of Indigenous Organizations of the Rio Negro - FOIRN, from the Brazilian Amazon* ○ Welcome remarks *by Activity 7 Co-Leads, Facilitative Working Group of the LCIPP*
Opening Segment *Importance of Indigenous and traditional technologies in transformative climate solutions*	
13:10 - 13:25	Opening remarks by ▪ Gunn-Britt Retter, Co-Chair, Facilitative Working Group (FWG) ▪ Stig Svenningsen, Chair, Technology Executive Committee (TEC)
Panel discussion I: ***Mitigation technologies, sciences, and innovations*** *Moderated by Majid Shafiepour, Facilitative Working Group of the LCIPP*	
13:25 – 14:05	**Examples of existing solutions from knowledge holders** Could you share some examples of Indigenous technologies or traditional technologies being used in your region which has been contributing to mitigating the effects of climate change? Panelists: 1. Irina Kurilova **(Central and Eastern Europe, Russian Federation, Central Asia and Transcaucasia)** 2. Erity Teave Hey **(The Pacific)** 3. Tabea Casique Corondao **(Central and South America, and the Caribbean)** *4.* Anne Lasimbang **(Asia)**
14:05 – 14:20	**Reflections from relevant stakeholders** The Indigenous knowledge holders shared some important technologies which are already working in their regions. How could these be ethically and equitably engaged in your work on climate policies and actions? Discussants: • Sele Tagivuni, representative of the Indigenous Peoples organizations in the **TEC activity group** on 'innovative ocean climate solutions' • Shehnaaz Moosa, Director, **Climate and Development Knowledge Network**
14:20 – 14:40	**Open Dialogue:** Additional examples or reflections from the Indigenous Peoples, representatives from the local communities and other relevant stakeholders

Panel discussion II: ***Adaptation technologies, sciences, and innovations*** *Moderated by Graeme Reed, Facilitative Working Group of the LCIPP*	
14:40 – 15:20	**Examples of existing solutions from knowledge holders** Could you share some examples of Indigenous technologies or traditional technologies being used in your region which has been helping your community adapt to climate change? Panelists: 1. Angel Valencia **(North America**) 2. Jacqualine Denise Shaeffer **(The Arctic)** 3. Ali Mohamed Adan **(Africa)**
15:20 – 15:35	**Reflections from relevant stakeholders** The Indigenous knowledge holders shared some important technologies which are already working in their regions. How could these be ethically and equitably engaged in your work on climate policies and actions? Discussants: • Pasang Dolma Sherpa, representative of the Indigenous Peoples organizations in the **TEC activity group** on 'engagement with the Paris Committee on Capacity-building' • Sherilee Harper, Vice-Chair, **IPCC Working Group I**
15:35 – 15:55	**Open Dialogue** Additional examples or reflections from the Indigenous Peoples, representatives from the local communities and other relevant stakeholders (Interest expressed by Hla Doi (Asia))
Closing	
15:55 - 16:00	Remarks on how the discussions can feed into the UNFCCC process including the work of Constituted Bodies such as TEC and FWG o Stephen Minas, TEC member, co-lead of TEC activity group on 'engagement with the LCIPP' o Activity 7 Co-Leads, Facilitative Working Group of the LCIPP Closing invocation by Indigenous knowledge holder (tbc)