

Multi-stakeholder Forum on Science, Technology and Innovation for the SDGs

New York, 5-6 June 2018

Meeting Summary for side event:

“Resilient water and energy systems: fed by local knowledge and led by local stakeholders”

Conference Room B, New York, 5 June 2018, 08:15 – 09:30 AM

1. Objective of the side event (1 para)

There is wide recognition that the complex problems faced in development are rooted within local systems; that these local systems are comprised of financial, institutional, social, technical, and environmental sub-systems; and that they are grounded by a diverse network of stakeholders that manage and rely on these sub-systems. These stakeholders experience and operate within these systems daily and understand the nuanced, dynamic interactions that drive it to success and to failure. Specifically in water and energy development, leveraging local and indigenous knowledge is key to understanding how systems operate and what actions can be taken to strengthen them. Yet, local knowledge is not something to be taken and used as a commodity. Often, approaches to engage local stakeholders are extractive, in that local knowledge is harnessed and used without engaging stakeholders actively in the solutions. In addition, local knowledge is very often disregarded in favor of external (i.e. scientific and professional) knowledge, leading to developmental dimensions that lack sustainability and ownership at local levels. Furthermore, informing local and indigenous knowledge with external “formal” knowledge (scientific and professional) instead of the reverse, supports local and indigenous sovereignty and capacity to innovate. This session focuses on the water and energy sectors because in developing contexts, energy and water system implementation, management, and governance is increasingly complex. Providing services in these contexts without external support requires a nuanced understanding of the systems, manifesting in tradeoffs and decisions where the understanding of local stakeholders is key.

2. Organizers & Participation

Organizers:

- UN-Water
- UN Major Group for Children and Youth
- Water Youth Network
- Institute for Electrical and Electronics Engineers (IEEE)
- Engineers Without Borders, Cal Poly, San Luis Obispo Chapter
- International Council of Science (ICSU)
- Mortenson Center in Engineering For Developing Communities (MCEDC)
- Fondo Para el Desarrollo de Los Pueblos Indigenas de America Latina y el Caribe (FILAC)

Participation:

Panelists:

- Ms. Faduma Ali, UN-Water

- Dr. Amollo Ambole, University of Nairobi
- Ms. Myrna Cunningham, FILAC
- Ms. Fawzia Tarannum, UNDP
- Mr. Michael Deering, Senior Development Officer at IEEE Foundation
- Ms. Jessica Taylor, President of EWB, Cal Poly Chapter

Moderators:

- Prapti Verma, Water Youth Network
- Kimberly Pugel, UN-MGCY & MCEDC

3. Major issues discussed in the session (in bullet form)

The panelists for the session were questioned on the gaps and opportunities for harnessing of local traditional knowledge for building resilient water and energy systems, and further encouraging and promoting local stakeholder participation in decision making processes. Some of the major issues and missing links in active local stakeholder participation discussed in the session were:

- Lack of local community participation in technology and policy design, implementation, and monitoring
 - Local people have an inherent understanding of the cultural and political strengths and limitations of their communities
- Lack of acknowledgement and respect for local and indigenous knowledge and innovation
- Inequitable distribution of water services and electricity network for indigenous communities
- Lack of substantive data on existing local innovation and knowledge on a global level
- Progress towards the SDGs (such as percent of population with access to energy or water) is not currently tracked separately for indigenous people (i.e. data is not available separately from the rest of the population), and so it is harder to communicate the challenges and to make policies to support indigenous peoples. This may discourage the integration of indigenous sources of knowledge.
- Local people are owners and protectors of their territories but the sense of ownership for natural resources like land and water is missing for them. Some local communities may not accept the concept of privatization of water
- Innovations and technologies at the local level are not often recognized by private players as partners to private sector
- Labelling water as public or private may not always be relevant or applicable in some cases: Local people are the owners and protectors of their water; from their world view, water is not public nor private
- Local energy entrepreneurs may not know of existing potential resources and/or how to access and utilize in-country professional association technology experts
- Web-based sustainable development practice education offerings exist however are too expensive to access
- We need to disrupt current systems if we want them to be equitable to all
- Local knowledge cannot be generalized; we need to respect different types of knowledge and how they are built (i.e. myths)
- Although local regulations may not be written down, they are taught from generation to generation, so considering intergenerational factors is an important concept of development

4. Main outcome

- Reciprocity and complementary practices for development of indigenous people, including combining traditional and occidental knowledges
- To make progress towards all SDGs, leveraging local and indigenous knowledge is key to understanding how systems operate within their unique social, economic, and environmental contexts and determining what actions can be taken to make them more resilient
- Indigenous peoples embody the concept of resilience - for thousands of years they have adapted to and bounced back from changes to their environments, and this is something that can be learned from
- Important to improve the promotion of and support for local knowledge
- Local communities have a deep understanding of their local systems and it is important to understand their governance processes before introducing changes in community practices
- Need to consider local and indigenous knowledge **in equal measure with** formal, quantitative, aggregatable information
- There is a need for indicators that consider culture - but actually using these is difficult because of challenges with aggregation, as cultural indicators are primarily qualitative, which makes it difficult for member states/countries take up and use these indicators
- In addition to these indicators, the SDGs need better, accessible data from diverse knowledge systems. Furthermore, reporting progress towards the SDGs should disaggregate data to show progress of indigenous populations. Similar to how current reports consider Small Island Developing States separately, so could data from indigenous populations. This is an area of collaboration with the IP-MG.

5. Key recommendations for action (in bullet form)

- Create policies at the national and global level to allow local governments and communities:
 - Participate in decision making processes, technology design, and system governance and monitoring
 - Take leadership roles in community projects in water and energy management
 - Create an enabling environment for local innovations to grow and be scaled up to city level, regional and national levels
- Recognize that doing so can build community capacity and sense of ownership, as well as increase the system resilience, as indigenous communities have been adapting to changes for hundreds of years
- Combine traditional knowledge with knowledge brought into the community such as formal and scientific knowledge as well as technologies
- Involve local and indigenous people and organizations in the assessment of current and emerging technologies, to evaluate technology impact and appropriateness
- Shift the dialogue and norms to value indigenous knowledge as another kind of knowledge, and not lesser knowledge
- Leverage technical professional associations that have a global presence in major project design, in implementation and sustainable operation efforts
- Train practitioners about the value of local knowledge and tools and approaches to integrate it without being extractive
- Adopt a multi-university, web-based curriculum for building capacity of local and indigenous water and energy practitioners, that is affordable and teaches them techniques to scale their knowledge.
- Adopt as a standard practice of connecting Water and Energy practitioners, system operators, technology experts, and local / community leaders via social media platforms and other means for shared learning and sustainable operation efficiency