

IAF EARTH OBSERVATION SYMPOSIUM (B1)  
International Cooperation in Earth Observation Missions (1)

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INTEGRATING INDIGENOUS KNOWLEDGE AND STATE-OF-ART EARTH OBSERVATION  
SOLUTIONS FOR THE SENDAI FRAMEWORK IMPLEMENTATION

**Abstract**

The Indigenous Peoples are the custodians of knowledge on biodiversity, forests, wetlands, and resources which constitute historical significance and protects the ecosystems.

This paper discusses potential of EO in providing simplistic and operational tools for the systemic risk analysis to complement the Indigenous Knowledge covering nature-based solutions. This approach helps to address the techno-cultural complexities and provide baseline to meet the 2030 Sendai Framework Disaster Risk Reduction (DRR) targets.

It describes relevant international frameworks and instruments in the context of role of indigenous communities in building disaster resilience. The role of EO based tools and solutions is highlighted that have potential to contribute to achieve global targets of the Sendai Framework and providing nature-based solutions through the specific examples on the Ecosystem-based Disaster Risk Reduction (Eco-DRR) that has high relevance to complement the knowledge of Indigenous communities.

The paper also highlights the lessons learned during the Covid-19 pandemic by DRR community with reference to use of EO-based solutions which is relevant to indigenous communities that are vulnerable due to climate extremes.

The key messages and recommendations addressed the issues of inequalities relating to technological imbalance, language barrier and gender inclusion.

The co-authors from UNOOSA and CANEUS were part of the consultation process that led to formulation of the Sendai Framework in 2015. CANEUS and UNOOSA had also partnered to conduct the workshop “New Global Framework for Sharing of Space Technology and Data Standards to Serve Nation’s Disaster Management Needs” at the “Third UN World Conference on Disaster Risk Reduction held at Sendai in March 2015.

FILAC the only Indigenous “Inter-Governmental” organization with Permanent Observer representation at the United Nations, is empowered to develop solutions to current challenges to serve the needs of Global Indigenous communities. FILAC and CANEUS participated in the UN Secretary General’s Indigenous Climate Action Summit held at UN-NY on Sept 21-22, 2019. It was followed by a side event at UN-HLPF (UN High Level Political Forum) 2020 “Indigenous Peoples-led Use of Earth Observations” organized by CANEUS, FILAC, and others.

FILAC, CANEUS and UNOOSA are working together to help the Indigenous communities bridge the gap with technological equalities, specifically hands-on training, and capacity development to meet the targets of the Sendai Framework using emerging EO technologies.

This paper aims to help the Global Indigenous communities to implement workable and replicable EO solutions in pursuit of building disaster resilience.