

From Concepts to Systems

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CANEUS-UN Partnership **Emerging Technologies** To Support SDG's

COMMUNICATION ON ENGAGEMENT (COE)

Period covered by this Communication on Engagement

From:31-01-2020 31-01-2022 To:

Part I. Statement of Continued Support by Chairman, CANEUS International

July 27, 2022

To our stakeholders:

I am pleased to confirm that CANEUS International reaffirms its support to the United Nations Global Compact and its Ten Principles in the areas of Human Rights, Labour, Environment and Anti-Corruption. This is our Communication on Engagement with the United Nations Global Compact. We welcome feedback on its contents.

In this Communication of Engagement, we describe the actions that our organization has taken to support the UN Global Compact and its Principles as suggested for an organization like ours. We also commit to sharing this information with our stakeholders using our primary channels of communication.

Sincerely yours,

Milind Pimprikar

Chairman



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Parts II and III Description of Actions and Measurement of Outcomes

CANEUS International organization is committed to support the Global Compact and promote the implementation of the ten principles.

As a Global Organization serving the needs of societal stakeholders using emerging technologies-based solutions, CANEUS activities covers international collaborative projects and capacity development initiatives, which are synergistic with the mission and goals of the UN and the Global Compact.

CANEUS has been achieving this goal since its founding in 1999 through the creation of a synergistic collaborative innovation environment focused to support and accelerate international public / private partnership projects, which are strategically important to end-users and partners (corporations, government agencies, NGOs, and academic institutions), by pooling together and leveraging expertise through its "global network" of state-of- the-art technologies, e.g. space exploration, AI, robotics, big data, blockchain, 3D printing, small satellites, nano-bio-medicine, etc., in order to accelerate the introduction and use of advanced technologies and solutions into the supply chain (local/regional/ global) while reducing costs and risks.

CANEUS and UN through their cooperation agreement, share common objectives regarding SDGs, other global agendas, and share similar missions in areas of mutual concern to enhance the effectiveness of their development efforts in areas of common interest in earth observation and space-based technologies and applications that can address SDGs, particularly in the most vulnerable countries.

CANEUS and UN further believe that such aim could be achieved through effective and mutually partnerships between UN and representatives of industry, civil society, and the private sector.

Thus, with this COE, CANEUS International is pleased to report its progress for the years 2020-2022, by implementing following <u>practical actions</u> in support of the Global Compact principles in each of the <u>four issue areas</u> (human rights, labour, environment, and anti-corruption).

Also included in this report is the outcome from these activities measured using the most relevant qualitative and/or quantitative indicators.

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Parts II and III Description of Actions and Measurement of Outcomes

CANEUS actions during the years 2020 – 2022 were focused to address:

- (a) Integration and adaptation of Indigenous Knowledge with emerging frontier technologies to support the UNDRIP (United Nations Declaration on the Rights of Indigenous Peoples),
- (b) Adaptation of labour standards covering labour and anti-corruption by the <u>ILO</u> (International Labour Organization) Convention C169,
- (c) Implementation of <u>CBD</u> (Convention on Biological Diversity) Article 8(j), specifically the Expert Consultation on Biodiversity and Human Rights convened by the United Nations Special Rapporteur on Human Rights and the Environment, and
- (d) Article #15 of the WSIS (The World Summit on the Information Society) Declaration, stipulating that "particular attention must be given to the special situation of indigenous peoples, as well as to the preservation of their heritage and their cultural legacy",

all aimed for Socio-Economic and Environmental Challenges and the recovery from COVID-19 Pandemic.

CANEUS in partnership with Global Indigenous communities represented by FILAC (Fund for the Development of Indigenous Peoples of Latin America and the Caribbean) an "Inter-Governmental" organization, UN agencies such as UNOOSA, FAO, IFAD, UNESCO, ITU, and key actors in the field of EO & ICT, undertook series of collaborative initiatives which were aimed to create a platform to identify the challenges and opportunities to develop and implement culturally relevant tools and solutions enabling its widespread impact on climate change, youth empowerment, gender equality, and the goals of Ibero-American Plan of Action.

With the challenges of accelerated technological inequalities amongst Indigenous Peoples, there is an urgent need to bridge the gap with these imbalances, including language barriers, gender inclusion, labour harmony and anti-corruption, with the integration of frontier STI (Science, Technology, and Innovation) community.

Indigenous Peoples want sustainable solutions from the perspective of their Indigenous science and knowledge, possibly through their own institutional and organizational mechanisms. Therefore, CANEUS initiated and engaged the global STI community, to involve Indigenous knowledge to adapt emerging frontier technologies.

CANEUS actions helped examine and identify challenges and barriers for Indigenous communities to implement workable and replicable emerging technology-based solutions. For example, spatial and temporal nature of the space-based information provides a better understanding of the scenario and influence the decision-making process to help formulate and implement policies, and programmes.



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CANEUS-UN Partnership Emerging Technologies To Support SDG's The objectives of the actions and their outcomes during the period 31-01-2020 to 31-01-2021 included following:

- 1. To reduce the sense that frontier technologies have been overlooking Indigenous peoples as active participants in attaining the SDGs, as opposed to mere recipients. Specifically, issues related to human rights, labour, environment, and anti-corruption are crucial with the emergence of the global data revolution and associated new technologies are a double-edged sword for indigenous peoples.
- To convert the regional collaborative effort using the lessons learned during Covid-19
 pandemic, as scalable and replicable worldwide, aimed to address the technocultural complexities, and solutions that have high relevance to complement
 Indigenous knowledge for economic, social, and environmental dimensions of
 sustainable development.

Year One: 31-01-2020 to 31-01-2021

1. Action 1: Space Data and Indigenous Peoples Empowerment Pilot projects

"A Global Initiative to improve living conditions for Indigenous Populations using earth observation data" was launched and presented at UN COPUOS STSC (UN Committee on Peaceful Uses of Outer Space at their Scientific and Technical Sub-Committee STSC meeting held at Vienna in Feb 2020.

Outcome: The report covering rationale and details of proposed pilot projects https://www.unoosa.org/documents/pdf/copuos/stsc/2020/tech-48E.pdf outlined the challenges and opportunities for UN Member States and stakeholders to codevelop tools and solutions taking into account Indigenous Peoples rights, labour capacity development, environmental challenges and governance.

2. Action 2: "My Planet, My Future: MPMF" exhibit at the UN-CTAD Geneva

In March 2020, just prior to the COVID-19 pandemic, CANEUS partnered with UN-CTAD in Geneva and the UNOOSA to develop and organize "**My Planet**, **My Future: MPMF**" exhibit at the UN building in Geneva to coincide with the UN CSTD (Commission on Science and Technology) Session.

<u>Outcome:</u> The MPMF covered real life case studies on using space technology to support SDG's including environment, trade, and capacity development.

3. Action 3: "UN HLPF (High-Level Political Forum) 2020, NY

CANEUS in partnership with FILAC, GEO, NASA and CI, organized a side-event "Indigenous Peoples-led Use of Earth Observations", at the United Nations High Level Political Forum on July 9th, 2020

https://bit.ly/Report-UN-HLPF-2020 https://bit.ly/30Ga3AW



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Action 3

<u>Outcome:</u> The initiative helped mobilize stakeholders and partnerships to offer sustainable innovations, and access to technologies to address the issues of inequalities relating to technological imbalance, language barrier and gender inclusion.

- It aligned with the UN HLPF 2020 theme "Accelerated solutions for Indigenous Peoples 2030 agendas using EO based solutions".
- 20 experts and 454 participants representing Indigenous communities and space technology sectors, shared methodologies, experiences, and lessons learned that can support key areas of land/ocean/seas.
- The crossdisciplinarity input also offered insight on broader issues, e.g., technology gaps and the pandemics, innovation challenges, need for empowerment of youth, and Indigenous capacity development in decisionmaking, and data sovereignty.
- It specifically helped to identify focused activities, e.g., pilot projects, training programs as well as challenges covering climate change, food security, amongst others.

4. Action 4: "A Global Hackathon challenge "leave no one behind"

CANEUS in partnership with UNOOSA, FILAC, CNES and ESA, created a global challenge at the ActInSpace 2020 hackathon held in November 2020. The aim was to encourage indigenous youths could utilise drones and space technology to develop innovative applications that are locally relevant and enhance the community's way of learning.

 The challenge was to design a solution using one or a combination of satellite-based technology to mitigate the near and long-term impacts on food production of COVID-19 pandemic on indigenous communities.

Outcome: Youth empowerment and gender equality

- 70 Participants representing young Indigenous students and entrepreneurs from 21 countries responded to the global challenge and four teams devised innovative solutions using emerging space technology to compliment Indigenous knowledge.
- The winning team was offered an opportunity to present at the UN Food Systems Summit in Sept 2021.



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5. Action 5: "Study Paper for Global Assessment Report (GAR) 2022"

CANEUS in partnership with UNOOSA and FILAC, led a research study paper, "Integrating Indigenous knowledge and State-of-Art Earth Observation", published in the Global Assessment Report (GAR) on Disaster Risk Reduction 2022, PART IV Chapter– Managing and governing systemic risks – emergent solutions.

<u>Outcome</u>: This peer-reviewed paper reviewed potential of emerging EO in providing simplistic and operational tools for the systemic risk analysis to complement the Indigenous Knowledge covering nature-based solutions.

- It analyzed relevant international frameworks and instruments in the context of role of indigenous communities and the role of emerging EO based tools and solutions in building disaster resilience.
- The study also underlined the gaps and practical barriers that impact the
 exchange between Indigenous and local community knowledge holders, and
 emerging EO based tools and solutions developers and providers.
- It recommended that EO community needs to develop the perspective to integrate emerging EO-based information products and knowledge of indigenous community

6. Action 6: "CANEUS-FILAC 5-year 2021-2025 Cooperation Agreement

CANEUS and FILAC developed and signed a 5-year 2021-2025 cooperation agreement supported by UNOOSA.

<u>Outcome:</u> The agreement helped identify following challenges, and key policy recommendations:

<u>Challenges</u> for integrating emerging technologies and Indigenous knowledge for the implementation of SDGs at National and local levels include:

- The issue of linking emerging technology-based tools with Indigenous knowledge and effective ways to balance such practices.
- The key "Principles" working with Indigenous Peoples, e.g., importance of respect for different knowledge systems and mutual learning from each other.
- The importance of existing tribal and Indigenous data governance protocols and procedures.
- The importance for developing the tools to support the local language needs, and challenges with the "technical terms" which may be discouraging to local practitioner.



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Action 6 (Outcome) Continued:

The knowledge possessed by Indigenous community is valuable and can be further complemented by emerging technology-based solutions that focus on ecosystem and environment with great relevance to needs and knowledge of the indigenous communities. It also underlines the gaps and practical barriers that impact the exchange between Indigenous and local community knowledge holders, and emerging technology-based tools and solutions developers and providers. The technological inequalities appear growing especially due to Covid-19 pandemic and it would be challenging to meet the indicators defined by the SDG's.

Results and Key Policy Recommendations:

The results offer following key measurable impacts by contributing to bridge the technological and gender inequalities.

- 1. Empowering Indigenous communities from 21 countries with emerging technology-based solutions.
- 2. Focused programs through Indigenous Intercultural University to address the accelerated technological inequalities.
- 3. The "leave no-one behind" challenge having long-term impact on sustainable food systems as well empowerment of youth.
- 4. Formulation of dedicated multi-year program for integrating EO and Indigenous Knowledge for accelerating SDG implementation.

The key messages included:

- 1. The knowledge possessed by Indigenous community is valuable and must be documented or archived by employing frontier technologies to collect, assimilate and reproduce it before it disappears due to the developmental pressures coupled with risks posed due to climate change.
- 2. The knowledge possessed by Indigenous community should be complemented to emerging technologies-based solution for SDG implementation.
- 3. The results underline the gaps and barriers impacting technological inequalities which appear growing especially due to Covid-19 pandemic and the challenges to meet the 2030 targets.
- 4. The need to establish mechanisms that protect the collective property rights of indigenous peoples, which are used without their authorization, especially the cultural heritage related to their textiles.



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7. Action 7 UN IATT Report 2021, April 2021

CANEUS science-policy brief to the **UN Interagency Task Team on STI** for the SDGs (IATT) UN presented both technical and policy issues along with empirical evidence acquired from this global partnership's collaborative effort, which were launched, and undertaken during the COVID-19 pandemic

Outcome:

https://caneus.org/Science_Policy_Brief_UN_ATT_April_2021.pdf IATT report on emerging techs 2021.pdf (un.org)

8. Action 8: "UN STI Forum", May 4, 2021

CANEUS in partnership with UNOOSA and FILAC organized a side-event, "Building an effective way forward for Indigenous Peoples to participate and contribute with their knowledge and experience by leveraging the power of Science, technology, and innovation to achieve SDGs".at UN STI Forum, held on May 4, 2021.

Outcome: https://caneus.org/UN_STI_Side_Event_May_4_2021.pdf https://caneus.org/UNSTI_May4__Presentations.pdf https://caneus.org/1_Framework.pdf https://caneus.org/2_Roadmap.pdf https://caneus.org/Report_STI_May_4_2021.pdf

9. Action 9: "UN CSTD 2021", May 20, 2021

CANEUS in partnership with FILAC presented a statement at the 2021 Commission on Science and Technology for Development held in Geneva

Outcome: https://caneus.org/CANEUS Statement CSTD May 20 2021.pdf

10. Action 10: "UN LDC 2021", May 2021

CANEUS contributed to the Zero draft declaration and CSO consultation

Outcome: https://www.un.org/ldc5/civil-society-zero-draft-document
https://www.un.org/ldc5/Second-Consultation-Civil-Society-Representatives



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11. Action 11: "UN FSS 2021: Global Dialogue", May 31, 2021

CANEUS / FILAC / UNOOSA, "Integrating Indigenous knowledge with emerging technologies to enhance sustainability of food systems", Report of Global Dialogue for the UN Food Systems Summit held on May 31, 2021.

Outcome: https://caneus.org/UN-FSS May 31 en.pdf https://caneus.org/UN-FSS May 31.sp.pdf https://caneus.org/1.UNFSS_Background_Paper_May_31.pdf https://caneus.org/Report UNFSS Global Dialogue May 31 2021.pdf

12. Action 12. "UN HLPF 2021: SDG Learning Session", July 7, 2021

CANEUS/UNDESA/ FILAC / UNOOSA/GNDR "Integrating recovery planning from COVID-19, building resilience and strengthening policy coherence towards the SDGs", Special-event at UN HLPF 2021 SDG learning session, Jul 7, 2021.

Outcome:

https://sdgs.un.org/events/integrating-recovery-planning-covid-19-buildingresilience-and-strengthening-policy http://caneus.org/UN_HLPF_2021.pptx

13. Action 13: "UN FSS 2021: Pre-Summit", July 26th, 2021

CANEUS / FILAC / UNOOSA, "Integration of frontier technologies and Indigenous knowledge for food systems transformation" to conceptualize the "Global Research Initiative and Knowledge Repository to integrate Indigenous Knowledge into the Food Systems" Report of side-event at UN Food Systems Pre-Summit held on July 26, 2021.

Outcome:

https://caneus.org/UN Food Systems Pre-Summit Session Concept Note.pdf https://caneus.org/UNFSS_PreSummit_Session_Presentations.pdf

14. Action 14 "UN COPUOS", August 27, 2021

Presentation at UN COPUOS (UN Committee on Peaceful Uses of Outer Space) held at Vienna.

Outcome:

https://caneus.org/COPUOS_Aug_27_2021.pdf



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15. Action 15 "UN Food Systems Summit", September 23, 2021

CANEUS in partnership with FILAC / UNOOSA, FAO, IFAD and other global stakeholders launched a historic initiative "Indigenous Knowledge Research Infrastructure (IKRI) to support the implementation of the UN Food Systems Summit".

Outcome: The "Global Research Initiative and Knowledge Repository to integrate Indigenous Knowledge into the Food Systems" was launched at the UN FSS on 23 September 2021, www.ikri.org

"Indigenous Knowledge Research Infrastructure (IKRI) and UN Global **Compact**

The proposed repository will ensure that Indigenous Peoples and Local Communities preserve their knowledge and practices, especially given the rapid pace of development motivating indigenous youth to migrate to economic growth centers threatening the physical, sociological, and economic setup of indigenous communities.

It will leverage diverse efforts worldwide through a structured framework and partnerships through a workable and replicable new development model that will deliver wide range of nature positive food system transformation.

It will inspire engagement of youths to develop entrepreneurship tools and technology transfer.

Key Issues for UN Global Compact

- Understanding interests and concerns of key stakeholders
- Policy and regulatory aspects of IKRI focusing on intellectual property rights related to indigenous knowledge and protecting interests of indigenous people knowledge while offering benefits of such knowledge to the food systems
- Technical aspects of IKRI such as understanding the requirement of all stakeholders that can be incorporated into IKRI, defining data components of IKRI, ways to tap into existing scattered data from the public/private domain and approaches to collect data from primary sources before such knowledge is lost with time.
- Financing the IKRI
- Protecting indigenous systems from disaster and climate risks, by effective use of technologies such as Earth observation