Workshop on building capacity and scaling up STI actions and adoption of countries' STI4SDGs Roadmaps in Africa

Oct. 12-13, 2023

Roundtable 6: Strengthening Capacities to Access and Use Relevant Open Data - Big Earth Data for SDGs

Co-organized by International Research Center of Big Data for SDGs (CBAS),
International Science Council (ISC),
World Federation of Engineering Organizations (WFEO),
UNESCO International Centre on Space Technologies for Natural and Cultural Heritage (HIST),
CAST-UN Consultative Committee on Disaster Risk Reduction (CCDRR)

Friday, Oct. 13th, 10:45am-12:30am, UN ECA Conference Room, Addis Ababa, Ethiopia

Focus of the session

The SDG Summit in September marked our progress passing the midpoint of UN 2030 Agenda. As highlighted in the 2023 Big Earth Data in Support of SDGs report released during the Summit, the 17 Sustainable Development Goals (SDGs) still face challenges of data insufficiency on SDG indicators hindering the path in front of us to keep advancing the SDGs. The UN has seen the crucial role STI could play and initiated the Technical Facilitation Mechanism to garner the much-needed insights and support from the field of Science Technology and Innovation. Since the release of "Our Common Agenda" by the United Nations, digital technologies have also established critical place on the central stage to systemically address the series of challenges and accelerate the SDGs' progress. However, to fully utilize the potentials of the cutting-edge technology the scientific realm is advancing, and to incorporate them into applications that could generate concrete effects in Africa, we have to accurately identify the challenges we are facing, familiarize with the technological and financial resources many stakeholders can facilitate, increase our capacities and pool our strength through cooperation and sharing to work together for the common Goals.

With these focuses in mind, CBAS fully supports the objectives and visions of the Coalition on Science Technology and Innovation for Africa's Development, launched on May 2, 2023, and is organizing this session with ISC, WFEO, UNESCO HIST and CAST-UN CCDRR to echo and promote the utilization of space technology, specifically the Big Earth Data as a science-based solution, to contribute the STI for SDGs Roadmap in Africa initiated by the TFM and raise the attention of making digital technologies more accessible to African countries, especially the youth and diaspora communities, with the international funders.

The roundtable will highlight: 1) the potential and challenges of science and technology in accelerating the SDGs at the regional level, 2) the urgency of making efforts to reduce the data gap, strengthen the sharing and application of Big Earth Data, and invest in capacity building of space technology for African countries, and 3) the importance of collaboration among African countries in leveraging Big Earth Data to promote the sustainable development.

Objectives

In this roundtable, we aim to:

- Explore the importance of satellite data collection, data analysis, and the need to build a more efficient data sharing and application system and infrastructure.
- Information gaps still exist between the data providers and potential users, new research models need to be innovated and capacities need to be improved for potential African users that intersect with broader communities like the diasporas and youth to conduct research on SDG assessment and monitoring, develop reports and provide policy-making support by obtaining, using big data and new models.
- Demonstrate cases and good practices in Africa (e.g., desert locust monitoring, groundwater storage assessment, cropland water-use efficiency assessment, land cover dynamics mapping, Great Green Wall Big Data Facilitator) with a focus on the infrastructures CBAS has built including the big earth data online platform and the SDGSAT-1 satellite.
- Explore the potential for collaborations among CBAS, African countries, international funders, and UN DESA (e.g., joint project, capacity building, education and training, staff exchange, etc.)

The ultimate intent of the roundtable will be exploring concrete actions to implement the STI roadmap for the SDGs in Africa: building an open and shared platform to bring together regional scientific research data and information to meet the needs of African countries for SDGs assessment and monitoring; establishing a think tank on science, technology, and innovation to advance the SDGs; further expanding the African regional SDG big data network.

Questions

Several guiding questions for the roundtable:

1. Unlocking the Power of Big Earth Data: How can we harness the potential of Big Earth Data to enhance our understanding of geographic spatial dynamics, and what role does it play in advancing SDGs, particularly in African regions?
2. Big Earth Data Impact on Geo disaggregation: What concrete examples, challenges and success stories can we share about the impact of Big Earth Data in improving geo disaggregation analyses and informing sustainable development decisions? For example, the digital challenges associated with studies of historic sites or landscapes of natural and cultural heritage significances in Ethiopia.
3. Bridging Data Gaps for Geospatial Insights: What role does the availability of open-access Big Earth Data and the use of Space Technologies play in addressing data gaps in geographic information and promote the effective sharing and application of remote sensing data to facilitate geospatial analysis for SDGs?
4. Collaboration for Solutions: What collaborative efforts, financial support, and partnerships are needed among African countries, international funders, and stakeholders to leverage Big Earth Data for more informed policy-making in the pursuit of SDGs?
5. What are the potential measures to better incorporate youth and diaspora communities into the STI mechanisms and strengthen their capacities with localized approach to space technology and utilization of Big Earth Data?

Proceedings

Moderator:

- Dr. Richard Osei Bofah, SDGs National Coordinator, Chief Analyst, National Development Planning Commission, Ghana, Accra, Ghana

10:45 – 11:00 Opening Remarks (*5 mins each*):

- Prof. Huadong Guo, Director General, International Research Center of Big Data for Sustainable Development Goals (CBAS)
- Dr. K. N. Gunalan (virtual), Senior Vice President of AECOM, Chair of WFEO UN Relations Committee, President of Atlas Initiative
- Dr. Megha Sud, Science Officer, International Science Council

11:00 – 11:25 Keynotes (*20 mins keynotes + 5 mins Q&A*):

- "Big Earth Data to Accelerate Progress on SDGs (WIP)" by Prof. Huadong Guo

11:25 – 11:55 Speakers Remarks (*5 mins each*):

- Prof. Amos Tiereyangn Kabo-bah, University of Energy and Natural Resources, Dept. of Civil and Environmental Engineering, Ghana
- Dr. Fasil Giorghis, Addis Ababa University, President of ICOMOS Ethiopia, Chair Holder of the Chair of Ura ad Architectural Heritage Conservation
- Prof. Li Jia, Distinguished Professor, CBAS
- Dr. Moses Thiga, DSA Board member and Senior Lecturer, Kabarak University
- Dr. Yong Xie, Director, International Affairs Office, University of Chinese Academy of Sciences
- Prof. Zhengzhong Xu, Associate Director and Professor of Economy Research Department, Chinese Academy of Governance
- Dr. Oluwarotimi Williams Samuel, University of Derby, Senior Lecturer, Lead Investigator, School of Computing and Engineering

11:50 – 12:30 Discussion & Wrap-up:

Discussants:

- Dr. Matiyas Fantaye, Addis Ababa Science and Technology University, the Secretary General of ICOMOS Ethiopia
- Dr. Tibebu Assefa, Addis Ababa University, Treasurer of ICOMOS Ethiopia
- Eng. Amanuel Hailemariam, Ethiopian Association of Civil Engineers
- All speakers above

Other Relevant Links and Information

CBAS Website: http://www.cbas.ac.cn/en/
CBAS Big Earth Data Online Platform: https://sdg.casearth.cn/en
CBAS SDGSAT-1 Open Science Program: https://www.sdgsat.ac.cn/
CBAS Big Earth Data in Support of SDGs Report: http://www.cbas.ac.cn/en/publications/reports/
ISC Website: https://council.science/
WFEO: https://www.wfeo.org/
UNESCO-HIST Website: http://unesco-hist.org/index.php?r=en/index

CAST-UN CCDRR Info:
https://english.ciste.org.cn/InternationalActivities/ECOSOCConsultativeStatus/art/2020/art_1c53e10edc934404a8c5ccdc2371b1f0.html
ICOMOS Website: https://www.icomos.org/en