

## Cover Sheet

<b>Name of the Division</b>	Division for Sustainable Development Goals
<b>Budget (USD)</b>	Around 120000 USD
<b>Brief description of proposal</b>	<p>The United Nations 2030 Agenda and Sustainable Development Goals has set up a comprehensive framework for countries to address their development challenges and re-orient towards a more sustainable path of growth on social, economic and environment dimensions. However, as the SDG progressed past the midpoint, challenges have become more salient in developing countries, especially those countries that are underrepresented by the international community. Small Islands Developing States (SIDS) are on the very front line of suffering from environmental changes like global warming and rising sea levels.</p> <p>To effectively assess and address the challenges SIDS are facing, the power of science and technology is especially needed not only for other countries to accurately support SIDS but also for SIDS to utilize tools that could devise localized methods and solutions to address their own challenges. Hence, an S&amp;T-driven workshop focusing on utilizing big data for SIDS is especially crucial.</p> <p>Since its inception, the International Research Center of Big Data for Sustainable Development Goals (CBAS) has been dedicated to addressing issues related to data gaps, timeliness, and coarse spatial resolution in monitoring and assessing the SDGs through the use of Big Earth Data technologies. To bridge the data gap and enhance the technological and institutional capacities of SIDS, thereby strengthening their evidence-based decision-making capabilities for sustainable development, the Capacity Building Workshop on Utilizing Big Earth Data for the SDGs for SIDS aims to foster the adoption of digital technologies and infrastructure, enhancing the resilience and sustainable development of SIDS.</p> <p>The workshop is expected to happen in Beijing, China lasting for around 12 days, covering diverse topics related to big data in support of SDGs. The trainees will the methods of SDGs indicator monitoring and evaluation, and assist SIDS in promoting SDGs processes of local countries. The expected beneficiaries for this event include Geospatial data experts, SIDS Nation representatives for sustainable development, Policymakers looking for data informed approaches, Science/Sustainability Officers from international stakeholders, UN professionals, etc. with maximum trainees/attendees to be around 25 individuals.</p>

<b>Time frame</b>	28 August-08 September, 2024
<b>Division/Branch</b>	DSDG/ Integrated Policy Analysis Branch and National Strategies and Capacity Building Branch
<b>Focal point</b>	Wei Liu

## 1. Title of the activity

SIDS Capacity Building Workshop on Utilizing Big Earth Data for the SDGs

## 2. Background

The Small Island Developing States (SIDS) encompass 37 United Nations member states and 2 non-member states of the United Nations. Collectively, these nations represent 28% of the developing countries and 20% of the total UN member states. Despite their relatively small land and population sizes, their maritime territories cover one-fifth of the Earth's surface, tasked with managing a significant portion of the world's marine environments. Global warming and rising sea levels render these coastal island nations among the most vulnerable regions in terms of sustainable development, facing pronounced challenges due to environmental changes.

In response to these issues, the international meeting held in Port Louis, Mauritius in 2005 adopted the Mauritius Strategy, which reviews the sustainable development issues of SIDS every five years. The third International Conference on Small Island Developing States (SIDS3), held in Apia, Samoa in September 2014, introduced the SAMOA Pathway—a ten-year action plan emphasizing the priority areas for SIDS and calling for urgent actions to support their sustainable economic, social, and environmental development. Despite considerable efforts over the years, SIDS continue to confront substantial challenges in sustainable development. Consequently, the fourth International Conference on SIDS (SIDS4), co-hosted by New Zealand and the Maldives, will be held from May 27 to 30, 2024, in Antigua and Barbuda. The conference aims to chart the course toward resilient prosperity by establishing a new decade-long action plan to address the unique challenges faced by SIDS and to support the achievement of their development goals.

Since its inception, the International Research Center of Big Data for Sustainable Development Goals (CBAS) has been dedicated to addressing issues related to data gaps, timeliness, and coarse spatial resolution in monitoring and assessing the SDGs through the use of Big Earth Data technologies. CBAS contributes through five main avenues: developing and constructing sustainable development big data platforms, conducting scientific research on SDG monitoring and assessment, designing and operating dedicated sustainable development science satellites, building think tanks to promote technology-driven sustainable development, and providing education and training for developing countries. To bridge the data gap and enhance the technological and institutional capacities of SIDS, thereby strengthening their evidence-based decision-making capabilities for sustainable development, the Capacity Building Workshop on Utilizing Big Earth Data for the SDGs for SIDS aims to foster the adoption of digital technologies and infrastructure, enhancing the resilience and sustainable development of SIDS.

## 3. Target Group:

### Direct Beneficiaries:

SIDS countries and international stakeholders on SIDS related issues, especially for:

- Geospatial data experts;

- SIDS Nation representatives for sustainable development;
- Policymakers looking for data informed approaches;
- Science/Sustainability Officers from international stakeholders;
- UN professionals;
- Etc.

**Key Partners:**

- International Research Center of Big Data for Sustainable Development goals (CBAS)
- China Association of Science & Technology
- CAS-TWAS Centre of Excellence on Space Technology for Disaster Mitigation (SDIM)
- International Society for Digital Earth (ISDE)
- Integrated Research on Disaster Risk (IRDR)
- Peking University
- Nanjing Normal University
- Laoshan National Laboratory for Marine Science and Technology
- Ocean University of China
- Etc.

**4. Nature of Demand**

The 2030 Agenda, unanimously adopted at the United Nations Sustainable Development Summit in September 2015, aims to promote global sustainable development in three dimensions — economic, social, and environmental. However, SIDS still face a series of sustainable development issues, including the threat of climate change and sea-level rise, food security and nutrition, freshwater resources shortage, biodiversity loss, land degradation and so on. Therefore, the sustainable development issues of SIDS have been made priorities of the United Nations for the 2030 Agenda.

In order to resolve the above-mentioned challenges of SIDS, United Nations adopted the Mauritius Strategy and SIDS Accelerated Modalities of Action (SAMOA) Pathway, which addresses the priority areas of SIDS and calls for urgent action to support SIDS in achieving economic, social, and environmentally sustainable development. Especially, SAMOA Pathway emphasized that “SIDS require continued and enhanced investments in education and training programmes to develop human and institutional capacities so as to build the resilience of their societies and economies, while encouraging the use and retention of knowledge in all its forms, including traditional knowledge, within those States and ensuring accountability and transparency in all capacity-building efforts by all parties.” (para 108). In the Technical Workshop in support of the Fourth International Conference on Small Island Developing States (SIDS4), capacity building and training is among ten actions to address sustainable development issues of SIDS.

Several General Assembly Resolutions also highlighted the need for further advancing the UN work on Implementation of Sustainable Development Goals of SIDS. They are:

- GA Resolution on “SIDS Accelerated Modalities of Action (SAMOA) Pathway”, A/69/L.6
- GA Resolution on “Follow-up to and implementation of the SIDS Accelerated Modalities of Action (SAMOA) Pathway and the Mauritius Strategy for the Further Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States”, A/74/381

- GA Resolution on “Follow-up to and implementation of the SIDS Accelerated Modalities of Action (SAMOA) Pathway and the Mauritius Strategy for the Further Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States”, A/77/443/Add.2, para. 14

In the context of this mandated activity, the UNDESA has received expressions of interest from CBAS to initiate the implementation of capacity building and training for SIDS.

5. **Strategy:** (main approach/methodology)

In response to the needs of Alliance of Small Island States (AOSIS) in SDGs and global climate change, the international training workshop is to feature diversified formats for knowledge-sharing on SDGs, including lectures, seminars, and presentations at relevant international conferences. The topics of the training workshop include but are not limited to Big Earth Data processing and analysis (e.g. AI power data-mining and disaster risk reduction), global climate change (e.g. marine/lake environmental monitoring and greenhouse gases sources and sinks quantifying), geographic simulation (e.g. storm surge), and SDG-related applications (e.g. sustainable urban transportation and SDGs comprehensive evaluation and forecast). Hands-on technical sessions, as well as social events, will also be arranged to take full advantage of the two-week training. Online practice for simulation result analysis and visualization will also be considered in the future.

Highlights this year may include:

- Policies and Governance for SDGs;
- Relevant knowledge lectures about SDGs;
- Application of images from SDGSAT-1 satellite.
- Data resources, online platforms, and demonstrations for SDGs;
- Methods and models across domains and disciplines for monitoring and evaluating SDGs, with hand-on technical practice.

The workshop's objective is to strengthen national research capacities to enable informed decision-making in different aspects of the SDGs. Participants from AOSIS countries will receive a scientific and practical guide on SDGs to reduce the threat to the physical and economic security of small islands.

6. **Timeframe:** [dates and time of the event(s)] If the activities are scheduled to take place over a period of more than three (3) months, a detailed timeline and work plan should be provided for the specific activities.

Tentative date of the workshop: August 28- September 08. 2024

Date	Items
August 27 (Tue)	<b>Arrival &amp; Registration</b>
August 28 (Wed)	<b>Morning Session:</b> Opening Ceremony <b>Afternoon Session:</b> Introductory Session

August 29 (Thu)	<b>Morning Session:</b> Sustainable Urban Transportation: Implementation Paths and Case Studies Driven by Spatiotemporal Big Data <b>Afternoon Session:</b> AI powered big earth data processing and mining on SDG Cloud platform
August 30 (Fri)	<b>Morning Session:</b> SDG 2&6 monitoring & evaluation workshop <b>Afternoon Session:</b> Global marine/Lake environmental monitoring under climate change
August 31 (Sat)	<b>Morning Session:</b> Break <b>Afternoon Session:</b> Fieldwork at partner institute
September 1 (Sun)	<b>Morning Session:</b> Break <b>Afternoon Session:</b> Fieldwork at partner institute
September 2 (Mon)	<b>Morning Session:</b> SDG11&15 monitoring & evaluation workshop <b>Afternoon Session:</b> Big earth data for disaster risk reduction
September 3 (Tue)	<b>Morning Session:</b> SDG 14 monitoring & evaluation workshop <b>Afternoon Session:</b> Methods and practices for quantifying greenhouse gases sources and sinks over regional and national scales
September 4(Wed)	<b>Morning Session:</b> Flooding simulation <b>Afternoon Session:</b> Storm surge simulation & SDGs comprehensive evaluation and forecast
September 5 (Thu)	<b>Morning Session:</b> Utilizing a comprehensive strategy based on Big Earth Data to shape a more resilient and sustainable future <b>Afternoon Session:</b> SDGSAT-1 & DESP technical workshop
September 6 (Fri)	<b>Morning Session:</b> Attending FBAS 2024 Opening Ceremony <b>Afternoon Session:</b> Participating in FBAS parallel sessions
September 7 (Sat)	<b>Morning Session:</b> Attending FBAS 2024 Plenary Session <b>Afternoon Session:</b> Participating in FBAS parallel sessions
September 8 (Sun)	<b>Morning Session:</b> Closing Ceremony <b>Afternoon Session:</b> Attending FBAS 2024 Closing Ceremony
September 9 (Mon)	<b>Departure</b>

## 7. Objective:

The workshop will help participants use digital technologies (including cloud computing, Earth Observation, Artificial Intelligence, etc.) as complementary tools for policy making.

## 8. Expected result(s)

- Assist SIDS in improving the methods of obtaining, analysing, and using big data for SDG indicator monitoring and evaluation;
- Promote indicator calculation tools and platforms;
- Sharing public data products and sharing usage methods for SIDS
- Typical case study for SDG evaluation using Big Data
- Etc.

## 9. Main activities

The main activities will include the four arrangements that helps SIDS learn about the content of CBAS, enables SIDS visitors to learn the methods of SDGs indicator monitoring and evaluation, and assist SIDS in promoting SDGs processes of local countries.

The workshop specifically includes:

- Attend the FBAS opening ceremony to deepen the understanding of SIDS visitors about the measures taken to promote SDGs
- Visit domestic research institutions such as Universities and conducting discussions and exchanges
- Organize course that introduces SIDS visitors to the usage methods of SDG big data platform, as well as the acquisition and application of SDGSAT-1 satellite data, shares experience related to SDGs.
- Conduct on-site visits to CBAS to understand the operation of the center

**10. Inputs** (describe the specific inputs that will be provided)

- 2 representatives from UNDESA
- 15 SIDS representatives
- 5 representatives from SIDS stakeholders
- 2 representatives from other UN offices
- 1 TWAS Affiliates

DESA will be responsible for participants’ invitation & logistic support outside of China (i.e. setting up online registration portal through INDICO; setting up dedicated event webpage for the workshop on DESA website; gathering required documents to facilitate participants’ VISA application; trip information; providing UN diplomatic note if needed)

CBAS together with other key partners will provide travel support (in-bound & out-bound flight fares, rooms & boards) to all non-Chinese citizens and staffs from agencies operating outside of China, as well as logistics and conference cost within China.

**11. Venue** (name of city, country)

Beijing, China

**12. Financial Requirements:**

*(Provide a breakdown of costs. Where applicable, the breakdown of costs should include descriptions i.e. airfare, number of days, DSA rate, fees and any other relevant costs.*

**Budget template** *(this is not exhaustive – please add/delete items as necessary)*

Items	Budget	Notes
<b>1.Round-trip ticket</b>	500000 RMB	25000 RMB each person
<b>2.Accommodation and meals</b>	285000 RMB	<b>Accommodation:</b> 650 RMB each person each day <b>Meals:</b> 300 RMB each person each day
<b>3.Transportation costs</b>	10000 RMB	
<b>4.Expert fees</b>	30000 RMB	15 experts, 2500 each expert

<b>5.Venue fees</b>	167500 RMB	
<b>Total</b>	1000000 RMB	
We are going to afford 25 persons in China. No DSA will be provided.		

**13. Division focal points**

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