

PROGRAMME

International Co-Design Workshop on Earth observation in Support of the Sustainable Development Goals – The Case of Urban Areas in Asia

DAY 1 - 16th January 2017

Venue: 2F Meeting Room, Science Council of Japan

09:00 - Registration

09:30 - Welcome Speech

Keisuke Hanaki, Vice-President, Science Council of Japan

09:40 - Introduction to the workshop

Mario Hernandez, Data Task Force Chair and Engagement Committee Member, Future Earth

Session 1: Setting the Scene

10:00 - *Future Earth and the Vision*

Fumiko Kasuga, Global Hub Director, Future Earth

10:20 - *GEO and the Sustainable Development Goals*

Osamu Ochiai, Scientific and Technical Officer, Group on Earth Observations

10:40 - *Integration of Remote Sensing and Socioeconomic Data in Support of the Urban SDGs*

Alex de Sherbenin, ICSU-WDS; The Center for International Earth Science Information Network (CIESIN) - Socioeconomic Data and Applications Center (SEDAC)

11:00 - *Tea Break and group photo*

Session 2: National Perspectives on Data

11:15 *The case of Vietnam*

Tran Tuan Ngoc, Vietnam National Remote Sensing Centre

11:30 *The case of Philippines*

Melliza Templonuevo Cruz, Manila Observatory

11:45 *Regional aspects of how EO can help SDGs*

Lal Samarakoon, Asian Institute of Technology

12:00 *Disaster management in urban area, Megapolice Project in Sri Lanka*

Srikantha Herath, Senior Advisor, Ministry of Megapolis and Western Development, Government of Sri Lanka

12:15 *Sponge City Projects in China*

Guangheng Ni, Professor Tsinghua University

12:30 Q&A

12:45 *Lunch time*

FIRST Group Discussions

including a tea break

14:15 - 1) Data for Detection, Understanding, Responding and Mitigating effects of extreme environmental events in urban areas; 2) Data to make urban areas more resilient against Air Pollution in Urban Area; 3) Engagement
Each group discussion will be designed separately along the overall discussion guideline

Participants will go to their pre-assigned working group

17:00 - Presentation of the different working groups and overall discussion
Each chairperson will present the results of the working group discussion

17:30 Closing of Day 1

FIRST Group Discussions

January 16th, Monday 14:15-16:30

GROUP 1: Making urban areas more resilient to extreme environmental events

Chair: Mario Hernandez, Future Earth

GROUP 2: Data to make urban areas more resilient against Air Pollution

Chair: Shin-ichi Sobue, JAXA and Harris Gunawan,
Indonesia Peatland Restoration Agency

GROUP 3: DIAS as a Platform for Engagement

Chair: Prof. Akiyuki Kawasaki, Assoc. Prof., Earth Observation Data Integration & Fusion Research Initiative (EDITORIA), The University of Tokyo

GROUP1

Room 5-C (2)

How will a final scientific and technical solution look alike? This group will discuss in general (without entering into details) about a final solution that can then be used by Regional and National authorities, scientists and society in order to, significantly reduce the effects that extreme environmental effects caused to humans and associated human settlements, i.e. making urban areas more resilient.

The following issues might arise during the discussion:
- What is the definition of extreme environmental effects? To facilitate the purpose of this workshop we focus mainly on Typhoons, Heavy Rains and Flooding (all this includes: rivers over flooding, inundations, sewage flooding and associated health issues, landslides in mountainous areas, etc.). Intentionally we are not covering earthquakes. If the group proposes to include earthquakes we will then take it as a recommendation but we suggest not to lose too much time discussing earthquakes and associated solutions because earthquakes require a totally different type of solutions.

GROUP2

Room 5-C (1)

The main objective of this group- discussion is to identify areas where Earth Observations and Science can address urban air pollution in Asia. As much as possible covering both issues of pollution originated locally or nationally as well as trans-boundary air pollution.

<Introduction>

Meeting Overview and Objectives (**Shin-ichi Sobue**, JAXA)

From Air Pollution to Peatland Restoration (**Haris Gunawan**, Indonesia Peatland Restoration Agency)

Yellow Sand and PM_{2.5} monitoring in East Asia (**Toshihiko Takemura**, Kyushu University)

Satellite data and SDGs from Social and Economic Development Projects (**Hiroshi Takeuchi**, JICA Research Institute)

Thematic Discussions <Forest Fire and Haze Emission>

Peatland Fires and Mitigation Measures (**Osamu Kozan**, Kyoto University)

Forest Fire Watch by UAV (**Seiji Tanabe**, Fuji Imvac)

Hot Spot Detection and Haze/Aerosol Monitoring Network (**Shin-ichi Sobue**, JAXA)

GROUP3

Room 5-A (1)

<Inter-disciplinary research using DIAS Part>

Towards monitoring and predicting mega-droughts - A model-data integration approach (**Dr. Yohei Sawada**, Post-doctoral researcher, Data Assimilation Research Team, RIKEN Advanced Institute for Computational Science)

Data integration and analysis for extreme weather events - a case study on "Digital Typhoon" (**Prof. Asanobu Kitamoto**, Assoc. Prof., Digital Content and Media Sciences Research Division, National Institute of Informatics)

Collaborative citizen science on biodiversity (**Prof. Washitani Izumi**, Prof., Faculty of Science and Engineering, Chuo University)

Environmental data and socio-cultural anthropology: Experimentation in mediating scales and domains (**Prof. Atsuro Morita**, Assoc. Prof., Graduate School of Human Sciences, Osaka University)

Micro geodata and human flow dynamics
(**Prof. Ryosuke Shibasaki**, Prof., Center for Spatial Information Science, UTokyo)

PROGRAMME

DAY 2 - 17th January 2017

Venue: 5F Meeting Room 5-A, Science Council of Japan

Session 3: Thematic Presentations

09:00 -	<i>US AirNOW as a GEO Initiative</i>	Phil Dickerson , US EPA (TBC)
09:20 -	<i>International cooperation to monitor natural disasters in the Asia-Pacific region (Sentinel Asia)</i>	Yoshiaki Kinoshita , JAXA
09:40 -	<i>Data Integration and Analysis System (DIAS) for SDGs</i>	Akiyuki Kawasaki , Earth Observation Data Integration & Fusion Research Initiative, The University of Tokyo
10:00 -	<i>Earth Observation for Forest and Land</i>	Masatoshi Kamei , RESTEC
10:20 -	<i>Tea break</i>	

SECOND Group discussions

11:15 - Participants will go to their pre-assigned working group

12:30 - Lunch

Session 4: Bringing new perspectives

14:00 -	<i>Sustainability Science and SDGs</i>	Kensuke Fukushi , The University of Tokyo Institutes for Advanced Study (UTIAS) Integrated Research System for Sustainability Science (IR3S)
14:20 -	<i>ASEAN Haze Online</i>	Saroj Srisai , ASEAN

THIRD Group discussions including a tea break

14:40 - Participants will go to their pre-assigned working group

16:30 - Presentation of the different working groups and overall discussion
Each chairperson will present the results of the working group discussion

17:00 - Summary of discussion of day 1 and 2
17:30 (Group chairs will be panelists)

SECOND Group Discussions

January 17th, Tuesday 10:35-12:00

GROUP 1: Making urban areas more resilient to extreme environmental events

Chair: Mario Hernandez, Future Earth

GROUP 2: Data to make urban areas more resilient against Air Pollution

Chair: Shin-ichi Sobue, JAXA and Harris Gunawan, Indonesia Peatland Restoration Agency

GROUP 3: DIAS as a Platform for Engagement

Chair: Prof. Akiyuki Kawasaki, Assoc. Prof., Earth Observation Data Integration & Fusion Research Initiative (EDITORIA), The University of Tokyo

GROUP1

Room 5-C (2)

How will a final scientific and technical solution look alike?
This group will discuss in general (without entering into details) about a final solution that can then be used by Regional and National authorities, scientists and society in order to, significantly reduce the effects that extreme environmental effects caused to humans and associated human settlements, i.e. making urban areas more resilient.
The following issues might arise during the discussion:

GROUP2

Room 5-C (1)

Thematic Discussions <Urban Air Pollution>

Monitoring and Responses in Manila (**Melliza Templonuevo Cruz**, Manila Observatory)

Aerosol Monitoring from Space (**Maki Kikuchi**, JAXA)

Improving Observation Networks and Numerical Models to Meet Atmospheric Environmental Standards (**Seiji Sugata**, National Institute for Environmental Studies)

<Societal Perspective>

Actions based on Observation Data and Epidemic Analysis (**Kayo Ueda**, Kyoto University)

GROUP3

Room 5-A (1)

<Inter-disciplinary research using DIAS Part2>

Sustainable food production in the 21st century (**Prof. Seishi Ninomiya**, Prof., Graduate School of Agricultural and Life Sciences, UTokyo)

Collaboration with GEO through meta-data exchange (**Prof. Toshiyuki Shimizu**, Asst. Prof., Department of Social Informatics, Kyoto University)

Connecting earth observation and health event in developing countries (**Prof. Chiho Watanabe**, Prof., Department of Human Ecology, UTokyo)

Promotion of DIAS use for sustainable water solutions (**Prof. Petra Koudelova**, Asst. Prof., Department of Civil Engineering, UTokyo)

THIRD Group Discussions

January 17th, Tuesday 15:00-16:30

How will a final scientific and technical solution look alike?
This group will discuss in general (without entering into details) about a final solution that can then be used by Regional and National authorities, scientists and society in order to, significantly reduce the effects that extreme environmental effects caused to humans and associated human settlements, i.e. making urban areas more resilient.
The following issues might arise during the discussion:

Air Pollution Risk and Economic Impacts (**Kousuke Terasaki**, Inter Risk Research Institute & Consulting)

Quality of Life for Local Communities (**Masahiro Kawasaki**, Kyoto University)

Leveraging Citizen Science - Possibilities and Challenges (**Yasushi Suzuki**, Japan Weather Association)

<Trans-disciplinary approach using DIAS>

Bringing DIAS into business world, bringing business into DIAS World" (**Mr. Junji Inoue**, Remote Sensing Technology Center of Japan (RESTEC))

Expanding DIAS activities into a private sector (**Shintaro Bunya**, PhD Senior Researcher Science and Safety Division)

Enhanced reservoir operations by DIAS and expectation from the business side (**Dr. Shigeru Nakamura**, R&D Center, Nippon Koei Co., Ltd.)

Data for development, expectation for DIAS (**Dr. Hiroshi Takeuchi**, JICA Research Institute)

From Future Earth Perspectives (**Dr. Mario Hernandez**, Engagement Committee Member, Future Earth)

International Conference on
Energy, Environment and Ecosystems (3E) nexus towards building resilient societies and
implications to Sustainable Development Goals (SDG's) in Asia-Pacific region

A comprehensive overview and importance of integrating 3E (energy, environment and ecosystems) would leads to develop a sustainable society and to establish a research networks to generate the motive of a regional low emissions, material-cycling and nature harmonious sphere in Asia and the Pacific region. This international annual meeting is not only for preferment of low carbon society but also towards educating regional environment and ecosystems and as well as contributing to the solutions of environmental issues, which are implications to Sustainable Development Goals (SDG's) and are foremost to the progress of human wellbeing.

09:00 -	<i>Registration</i>	
09:30 -	<i>Welcome Speech</i>	Kazuhiko Takeuchi , Director, IR3S, University of Tokyo
09:45 -	<i>Guest Speaker</i>	Soichiro Seki Former Vice-Minister, Ministry of the Environment, Government of Japan
10:00 -	<i>Keynote Speaker</i>	Yoshihiro Mizutani Director, ICO, MOEJ
10:15 -	<i>Keynote Speaker</i>	Mario Hernandez Engagement Committee Member, Future Earth
10:30 -	<i>Tea Break and Group Photo</i>	
11:00 -	<i>Keynote Speaker</i>	Kazuhiko Takemoto Director, United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS)
11:15 -	<i>Project Updates</i>	Geetha Mohan IR3S, University of Tokyo, Japan

ABOUT 3E NEXUS

The 3E nexus project has been initiated by the Integrated Research System for Sustainability Science (IR3S), University of Tokyo with the vision of enhancing multinational research collaborations on low carbon development in Asia-Pacific countries. The project targets mainly on capacity development activities to promote Joint Crediting Mechanism (JCM) through the establishment of networks in partner countries such as organizing meetings, workshops and trainings on technologies and evaluation methods of sustainable low-carbon projects both at government and private sectors.

Future Earth - GCP - RESTEC Joint Session on SDG 13 “Climate Action” and 15 “Life on Land”

The 2030 Agenda for Sustainable Development was adopted in September 2015 with 17 Sustainable Development Goals (SDGs) associated 169 targets that stimulate action over the next 15 years in area of importance for humanity and the planet. Among others, “Climate Action” is taken up as SDG 13 which calls for broader efforts and coordination with other goals because climate change will affect various aspects globally. Many other SDGs are relevant to climate change and should be consistent each other and involve diverse stakeholders including private sector. Indeed, SDG 15 “Life on Land” includes forest management which has been discussed among the international community and is considered critical to absorb CO₂ and mitigate climate change.

This workshop focuses on SDG 13 particularly the impacts in urban areas as well as SDGs 15 typically Target 15.1 and 15.2 which are related to forest conservation and management. Forests, covering 30% of the Earth’s surface and containing 80% of biodiversity of land, are key to combat climate change and should be observed by the satellites routinely because of the vastness.

Objectives

- To exchange ideas, information and lessons learned about past, current, and future projects related to SDG 13 and SDG 15.
- To learn about effectiveness of space systems as a tool for monitoring of climate change and forest.
- To discuss how we can collect and integrate observation data from various sources and leverage actual actions to solve climate change.
- To explore more opportunities to realize our ideas to achieve Goal 13 and 15 and the relevant Targets and identify next steps.

13:00 -	<i>Opening Remarks</i>	National Space Policy Secretariat Cabinet Office, Government of Japan
13:05 -	<i>Introduction</i>	Masatoshi Kamei Remote Sensing Technology Center of Japan (RESTEC)
13:10 -	<i>Forest and urban extreme environmental effects</i>	Mario Hernandez Future Earth
13:20 -	<i>Global Carbon Project (GCP) on Global Carbon Budgets and Urbanization</i>	Yoshiki Yamagata National Institute for Environment Studies
13:45 -	<i>Green bond and urban development</i>	Mari Yoshitaka Mitsubishi UFJ Morgan Stanley
14:00 -	<i>Management of Wetland Peat Swamp Forests in Malaysia for Conservation and Sustainable Use – An Integrated Approach</i>	Khali Aziz Hamzah Forest Research Institute Malaysia (FRIM)
14:25 -	<i>Community Inclusion in the Decision Making Process to Prevent Forest Degradation</i>	Haris Gunawan Indonesia Peatland Restoration Agency
14:45 -	<i>Break</i>	
15:00 -	<i>Forest Prevention and Economic Activities</i>	Sumitomo Forestry Co., Ltd. (TBD)
15:15 -	<i>Transboundary approach and Regional Cooperation</i>	Saroj Srisai ASEAN Socio-Cultural Community Department
15:30 -	<i>Space Systems to support SDG 15 - JICA-JAXA Forest Early Warning System in the Tropics: JJ-FAST -</i>	Masato Hayashi Japan Space Exploration Agency
15:45 -	<i>Overall Discussion</i>	
16:30	<i>Adjourn</i>	