



Program Book

会议手册

**International Workshop on
Analysis and Application of Global Land Cover Information
全球地表覆盖分析与应用国际研讨会**

24 – 25 September, Beijing, China
2016年9月24-25日 中国, 北京



Background and Objectives

Background

Sustainable Development refers to "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs." In September 2015, the United Nations General Assembly endorsed "Transforming Our World: the 2030 Agenda for Sustainable Development" as a new development agenda which contains 17 Sustainable Development Goals (SDGs) and 169 sub-targets. A set of 230 global indicators was adopted by the United Nations Statistical Commission (STATCOM) for tracking and reviewing the progress made in the process of implementing the SDGs at national and global levels. The efficient measurement and meaningful monitoring of these indicators has posed a significant challenge for both developing and developed countries as it requires not only accurate, reliable and authoritative statistical and geospatial information, but also innovative approaches for data processing and analysis. This has stimulated intensive discussions and research activities on supporting SDGs with EO and geospatial information. As a result, GEO organized a side event on 'Earth observations in service of global development' during its 12th plenary on Mexico SDGs on 7th November, 2015. In its recently released Prague Declaration, the General Assembly of the XXIII ISPRS Congress called on international communities to work together and promote multi-disciplinary collaboration towards providing reliable geospatial information to support societal transformations towards global sustainability.

Land cover and its change (LCC) over time is fundamental geospatial information which reflects the human domination of the Earth and influences the energy balance, carbon budget, hydrological cycle, etc. During the past few years, a number of LCC data products have been developed at global, national and regional level, that have been widely used for a variety of societal needs. Although they are believed to be essential data sources for deriving and monitoring SDGs indicators, a number of questions or problems remain to be answered or solved before moving into operational implementation. For instance, which SDGs indicators can be measured directly or indirectly? What methodologies (algorithms/models...) need to be developed for collecting, processing, integrating and analyzing data in a consistent and sustainable manner? How to move from experimental setting to operational measurement and reporting? What are the requirements for the collection and processing of LCC data?

Objectives

However, many users, especially those from the developing countries, do have difficulties on understanding the datasets and how to use them. In order to facilitate the understanding and utilization of GlobeLand30 in UN's Member States, especially the developing countries, assist them in the scientific decision-making, and build a solid foundation for measuring and monitoring of critical environmental components of the SDGs and Post-2015 agenda, this international training workshop will introduce the basic knowledge of the new classification methods, as well as the cutting-edge technology and the application of GlobeLand30 datasets.



Background and Objectives

This workshop aims to bring together scientists, researchers, professionals, data providers and users to:

- Exchange recent R&D into the analysis and application of LCC information, in particular that related to the SDGs;
- Explore the utilization of LCC information for deriving and monitoring SDGs indicators;
- Promote cross-border and multi-disciplinary collaboration towards supporting SDGs with LCC information.

Program at a Glance

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24 - 25 September 2016, Beijing, China

Bei Chen Yuan Chen Xin International Hotel

Date	Time	Activity
Sep. 24 (Saturday)	09:00-10:15	Opening session (Chair: Prof. Chen Jun) <ul style="list-style-type: none"> • Welcome Address (Mr. Feng Xianguang, NGCC President) • Dr. Li Pengde(UNGGIM Co-chair, Deputy Director General of NASG): Land Cover Information Supports the UN 2030 Agenda • Dr. Mario Hernandez (ICSU Future Earth Engagement Committee): Integration of EO data with socio-economic data for SDGs • EO in service of SDGs (Dr. Andr Obreg n, GEO)
	10:15-10:45	Group Photo and Coffee Break
	10:5-12:30	Session 1: Multi-scale LCC datasets (Chair: Prof. Jon Mills) <ul style="list-style-type: none"> • Recent development of GlobeLand30 (Mr. Peng Shu, NGCC) • Land Cover Mapping in the Eastern and Southern Africa Region (Ms. Phoebe Achieng Oduor, RCMRD, Kenya) • Detection and analysis of urban and rural areas from GlobeLand30 (Prof Qingming Zhan, Wuhan Univ.) • Operationalizing land cover data products to support ecosystem service assessment in the Hindu Kush Himalayan region (Faisal Mueen Qamer, ICIMD, Nepal) • Land use/land cover mapping using LANDSAT imagery in Iringa region, Tanzania (Mr. John Mutua, CIAT, Kenya)
	12:30-13:30	Lunch
	13:30-15:00	Session 2 Analysis and applications of LCC (Chair: Mr. Davide Barbiero) <ul style="list-style-type: none"> • Global cropland and change (Dr. Wu Wenbin,Chinese Academy of Agriculture) • Monitoring GlobeLand30 for UN application (Mr. Davide Barbiero, United Nations Global Service Centre /Geospatial Information Systems Centre) • Combined land cover changes and habitat occupancy to generalize corridor structures and functional status: A case study in Laljhadi-Mohana Wildlife Corridor Far-western Nepal (Arjun Thapa, Central Depart of Botany Tribhuvan University, Kirtipur, Nepal) • Contribution of the geographical information system in the dynamic cartography of the urban center of Parakou in the North of Benin (West Africa) (Mama Djaouga, University of Abomey-Calavi, cotonou, Benin) <p>Short presentations (each five minutes)</p> <ul style="list-style-type: none"> • The Spatial-temporal Evolution and Comparative Study of Urban Land Cover (Ms. Dong Ruirui, China)

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		<ul style="list-style-type: none"> • Delineating Built-up Areas with Road Network Data: Use of GlobeLand30 for Parameters (Mr. Li Zhiyuan, China University of Geosciences, China)
	15:00-15:15	Coffee Break
	15:15-18:30	<p>Session 3: Supporting SDGs with Geo- information- Thoughts from participants (Chair: Prof. Zhenhong Li)</p> <ul style="list-style-type: none"> • Dr. Wu Wenbin (Chinese Academy of Agriculture): No poverty and Zero Hunger • Prof. John Mills (Univ. New Castle, UK): (Good health and well-being) • Dr. Cao Xin (Beijing Normal University): Land surface water and change • Mr. Davide Barbiero (UN Global Service Centre)- • Prof. Xing Yanqiu (North East Forest Univer, China): Ecological environment • Dr. Ren Huiru (NGCC)- Bridging GlobeLand30 statistics with SDGs indicators • Prof. Zhenhong Li (Univ. New Castle, UK)- • Ms. Phoebe Achieng Oduor (RCMRD, Kenya-- • Dr.Mario Hernandez (ICSU Future Earth Engagement Committee)- • Dr. Andr éObreg ón (GEO secretariat)- • ... <p>Discussion Unit 1: Supporting SDGs with geo-spatial information (Chair: Dr. Mario Hernandez)</p> <ul style="list-style-type: none"> • Which SDGs indicators could be measured directly or indirectly? • What methodologies (algorithms/ models...) need to be developed for collecting, processing, integrating and analyzing data in a consistent and sustainable manner? • How to move from experimental setting to operational measurement and reporting?
	18: 30-20: 00	Dinner
Sep. 25 (Sunday)	08:30-10:30	<p>Discussion Unit 2: Deriving SDGs indicators from Geo-information</p> <p>Participants will be break out into three groups according to their interests and expertise. Each group will examine a sub-set of SDG indicators and identify which SDG indicators can be derived directly or in-directly from LCC and other geo-information, and how could it be implemented</p> <ul style="list-style-type: none"> ♦ Group 1: SDG 1 to 6 (No poverty, Zero hunger, Good health and well-being, ... Clean water and sanitation) ♦ Group 2: SDG 7 to 12 (Affordable and clean energy, Resilient infrastructure, Sustainable cities and communities) ♦ Group 3: SDG 13-17 (Climate action, Life below water, Life on land, Peace Justice and strong institutions, partnership for the Goals) ♦ <p>Breakout groups finalize their report in PowerPoint slides according to Template</p>
	10:30-10:45	Coffee Break
	10:45-12:15	<p>Session 4 Sustainable LCC information for SDGs(Chair: Dr Wu Wenbin)</p> <ul style="list-style-type: none"> ♦ Prof. Li Zhilin (Polytechnic Univ., Hong Kong) -Representation and visualization of



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		<p>SDGs indicators</p> <ul style="list-style-type: none"> ♦ Dr. Chen Lijun (NGCC, China): GEO-led validation of 30-m land cover data products ♦ Hammad Gilani (ICMoD, Nepal) Comparative spatial accuracy assessment of medium resolution global land and forest cover datasets within countries <p>Short presentations (each five minutes)</p> <ul style="list-style-type: none"> ♦ Extraction of rice planting area based on GF-1 image data: Taking Nanchang Country as an example (Liang Hanyue, Chinese Academy of Meteorological Science, China) ♦ Coastal land-cover transition could undermine land-sea management strategies for critical coastal habitats (Mr. Joseph M. Maina, Macquarie University, NSW, Australia) ♦ A Study of Chinese Cities' Urbanization Efficiency Based on High Resolution Land Use and Population Distribution Data (Mr. Cai Yuheng, China) ♦ Dynamic change characteristics of urban land use for urban agglomeration in Wuhan (Ms. Dong Ruirui, China) ♦ Patterns and Drivers of Cropland Abandonment in China: a Study Base on National Household Sampling Survey (Mr. Li Shengfa, CAS, China) ♦ Using bioclimatic stratification model to improve conservation planning in the Asia Upland (De-Li Zhai, CAS, China) ♦ Effect of human water-sediment regulation and its impact on yellow river estuary based on Landsat data (Dr. Yang Haibo, Zhengzhou University, China)
	12:15-13:30	Lunch
	13:30-16:00	<p style="text-align: center;">Session 5 Summary and Wrap up</p> <ol style="list-style-type: none"> 1. Presentations from three Breakout groups (10 minutes each, plus 10 minutes discussion) 2. Discuss the preparation on <ul style="list-style-type: none"> ♦ a Special Issue on ISPRS J. Geo-Information and a Position Paper on n deriving SDGs indicators from LCC and other geo-information ♦ a research proposal for ISPRS initiative and others (Prof. John Mills) ♦ a Dynamic Atlas for SDGs (Prof. Zhilin Li) 3. Summarize workshop outputs, outcomes, next steps

Venue

Beichen Yuan Chen Xin International Hotel

Address:China international science and technology convention and exhibition center C No. 12

Yumin road, Chaoyang Dist. Beijing

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About Beijing



As the capital city of China, Beijing is country's political, cultural and educational center, as well as a transportation hub. It covers an area of 16,808 square kilometers with a population of about 13 million. Beijing is an ancient city, established more than 3,000 years ago. The long and brilliant history has left Beijing many attractions, including the Forbidden City, the Great

Wall, the Temple of Heaven, and the Summer Palace. Beijing is a modern city, too. On the streets of Beijing, high-rise buildings, shopping malls, hotels, restaurants, comprehensive and busy traffic networks keep telling you the stories of its modern achievements.