"GLOBAL LAND COVER AND INTELLIGENT ANALYSIS OF REMOTELY SENSED IMAGE" Session at UNWGIS (United Nations World Geospatial Information Congress)

The First United Nations World Geospatial Information Congress was held in Deqing, Zhejiang Province, China from 19 - 21 November 2018. The Congress was organized by the United Nations through Statistics Division as the UN-GGIM Secretariat (United Nations Committee of Experts on Global Geospatial Information Management), in collaboration with the Government of China through the Ministry of Natural Resources and the Government of Zhejiang Province of China.

Focus of the Congress was the discussion of the advances in geospatial information which are fundamental for enabling a sustainable development that leaves no one behind and guide us towards a better world.

Under the umbrella of ISPRS, the session "GLOBAL LAND COVER AND INTELLIGENT ANALYSIS OF REMOTELY SENSED IMAGES" was organised and was held on Wednesday, 21 November 2018 , 11:00 – 12:30 pm.

The session started with the current state-of-the-art in remote sensing for the generation and update of geospatial information, and presented the mechanisms and applications of AI for Earth Observation. Then the existent High-Resolution Global Land Cover products, focusing on GlobeLand30 as considerable example, were shortly presented. Problems related to the creation of these datasets and their assessment were subject of the discussion. Besides the traditional assesment procedures made by the producers, collaborative validation, involving the activity of different countries in the world was presented as a best practice. The lessons learnt in several years of validation brought to the creation of free and open education material (book, hands-on training material) which was presented and which is able to improve the capacity in all countries, especially the developing ones. Summarising, the session presented the Global High Resolution Land Cover Maps as a whole, from the scientific challenges to the involvement of citizens, using GlobeLand30 as a relevant example.

The session was very well attended and definitely increased awarness about the importance of Global High Resolution Land Cover Maps, showing that, even if there are still problems to solve, a lot has been done and the lessons learnt can be used for going ahead in a collaborative way, involving different countries, their policy makers, their researchers and their citizens.

The session was moderated by Prof. Maria Antonia Brovelli from Politecnico di Milano, Italy.

Presenters and title of their presentations are reported in the following table:

Prof. Wen-zhong Shi, Hong Kong, Head of the Dept. of Land Surveying and Geo-Informatics, The Hong Kong Polytechnic University, lswzshi@polyu.edu.hk	**Monitoring land use change using satellite images and artificial intelligence**
Dr. Peng Shu, Researcher, National Geomatics Center of China, China, pengshu@nsdi.gov.cn	**Operational Updating of GlobeLand30**
Prof. Qingquan Li, President of Shenzhen University , China, liqq@szu.edu.cn	**Spatiotemporal evolution of urban within Guangdong-Hong Kong-Macau Bay Area in 1987-2017**
Prof. Maria Antonia Brovelli, Politecnico di Milano, Italy,	**Global High Resolution Land Cover**

maria.brovelli@polimi.it	**Validation Capacity Building**
Prof. Serena Coetzee, Director of the Centre for Geoinformation Science, University of Pretoria, South Africa, serena.coetzee@up.ac.za	**Validating land cover through mapathons - challenges and opportunities**

Prof. Brovelli presented the 2018 ISPRS Education Initiative "Global High Resolution Land Cover Validation Capacity Building" (principal investigators: the Politecnico di Milano and the National Geomatics Center of China), showing where the material is available: http://geomobile.como.polimi.it/website/ under "projects".

An animated discussion followed the presentations. Questions and comments ranged from education to geoscience, touching also the themes of Land Cover standards and Volunteered Geographic Information for collaborative and sustainable solutions. The general impression of attendees was that the session was very informative and interesting.

In the following pictures, some images of the session (attendees and the speakers with Prof. Chen Jun, leader of the project GlobeLand30).