



Earth Observation for Policy Forum

ESA Agorà, Tuesday 14 May 2019, 14:00 – 17:00

The EO4Policy Forum intends to bring together policy makers and technical experts to inform each other about the challenges and opportunities coming with needs and offers of geospatial information in particular where this can be based on Earth Observation.

Earth Observation from space has seen extraordinary progress in recent years - on the technology side such as the advent of the Copernicus Sentinels and unprecedented ICT capabilities. These developments have a specifically high potential for informing government and international bodies throughout the policy cycle, from shaping and implementation to evaluation and impact analysis. The Forum, jointly organized by JRC and ESA, will be organised around two themes exemplifying the uptake and relevance of EO based information in agriculture and natural conservation policies.

Panel discussions will provide opportunities to exchange viewpoints and address questions regarding current challenges and the future role and uptake of Earth Observation based information in the policy cycle ranging from agenda setting to strategy development, implementation and evaluation. The forum should serve as a pathfinder highlighting how policy making can benefit from the vast offer of information based on Earth Observation technologies and how these information streams should be shaped to meet the challenges of an uptake by policy making

The Forum will be opened by ESA's Director for Earth Observations Programmes Josef Aschbacher, followed by an overview of the results and lessons learned of a recent study on "Copernicus uptake in the European Commission" from JRC's Head of the Food Security Unit Alan Belward and Mauro Facchini, Head of Copernicus Unit in DG Grow of the European Commission. After this setting of the scene, panel discussion will start on agriculture, followed by the panel on biodiversity and environment. The panels will be composed of policy experts (EC, national and international administration) from the two domains.

Agriculture Theme:

Agricultural land has replaced a significant fraction of Earth's natural vegetation and the whole of humanity depends on agricultural products for its survival. Earth Observation applications are omnipresent in agriculture supporting farmers, agricultural businesses, national ministries and intergovernmental organizations with data and information from space. In the spatial dimension, they range from within-field variation for verifying crop condition to scales where cells several kilometers wide are used for continental yield forecasts. The temporal latency and frequency range from a couple of days for pest detection, to several years for the assessment of land degradation.

The agricultural sector and its policies are faced with a number of sometimes antagonistic challenges: food security and safety, the sustainability of the farm holdings, soil conservation, the environmental concerns (water quality, air quality and biodiversity), climate change mitigation and adaptation, water consumption and scarcity and even land tenure.

In this session, the panel will shed light on where Earth Observation already plays a role in the agricultural policy cycles and what are the perceived obstacles or expected breakthroughs for further use.

Environment and Biodiversity Theme:

Human development is intimately linked with biodiversity and the ecosystem services it provides to society. The environment protection and the conservation of biological diversity is critical for a sustainable future. Notwithstanding the biodiversity targets set to 2020 by the Convention on Biological Diversity (CBD), the rate of biodiversity loss is still increasing dramatically as showed by the CBD Global Biodiversity Outlook 4 and the Global Environment Outlook 6 recently published at the 4th UN Environmental Assembly (UNEA). The current rate of extinction of species is considered by scientists to be the 6th mass extinction in Earth's history.

Earth Observation applications are increasingly used in support to environment protection and biodiversity conservation by a broad range of end-users such as researchers, park managers, NGOs, national ministries and intergovernmental organizations. Data and information from space are not only used to monitor conservation areas, map habitats or identify biodiversity patterns, but they also allow to assess pressures from human activities and how they affect the structure, function and composition of ecosystems and consequently the relation between nature and human. In the spatial dimension, Earth observation ranges from within-field variation for detection of individual organisms to scales where cells several kilometres wide are used for continental or global assessments. The temporal latency and frequency range from a couple of days for detecting illegal logging activities, to several years for the assessment of land degradation.

The integration of Earth Observation in the biodiversity policy sector faces a number of opportunities and challenges. While Earth Observations facilitates environmental compliance monitoring and the global availability of the satellite data enhances environmental accountability at all levels, we still suffer from significant knowledge gaps in a number of policy sectors such as in the marine environment.

In this session, the panel will shed light on where Earth Observation already plays a role in the biodiversity policy processes, both at European and international levels, and what are the perceived obstacles or expected breakthroughs for further use.

Earth Observation for Policy Forum

ESA Agorà, Tuesday 14 May 2019, 14:00 – 17:00

Agenda

Introduction Session (14:00 – 14:45):

Welcome - Josef Aschbacher, Director for Earth Observations Programmes, ESA

Copernicus uptake in the European Commission - Alan Belward, Head of the Food Security Unit, JRC, European Commission

Mauro Facchini (TBC), DG for Internal Market, Industry, Entrepreneurship and SMEs (DG Grow), European Commission

Agriculture Panel (14:45-16:00):

- Yakob Seid, Chief Statistician Office – Food and Agricultural Organization of the United Nations
- Arif Husain, Chief Economist – World Food Program
- Pierluigi Lonero, HoU Agricultural Modelling and Outlook – European Commission, DG Agriculture and Rural Development
- Gabriele Papa Pagliardini, Director – Agenzia per le Erogazioni in Agricoltura, Italy

Environment and Biodiversity Panel (16:00 – 17:00):

- Anne Burrill, Advisor to the Director for Natural Capital – DG Environment, European Commission
- Brian O'Connor, Programme Officer – UN Environment World Conservation Monitoring Centre
- Antonello Provenzale, Department of Earth System Sciences and Environmental Technologies, National Research Council of Italy (CNR),

Points of Contact

Overall: Frank.Martin.Seifert@esa.int, Jan.Kucera@ec.europa.eu, Peter.Strobl@ec.europa.eu,

Agriculture: Benjamin.Koetz@esa.int, Wim.Devos@ec.europa.eu

Environment and Biodiversity: Gregoire.Dubois@ec.europa.eu, Marc.Paganini@esa.int