Let us start with an obvious statement. We all need food. That is why politicians and people, in general, are all concerned with food production and we address the issue among others as food security. Food security is one of the 17 Sustainable Development Goals established in 2016. But even before that the G20 recognized the importance of closer monitoring of agriculture and food production. As part of the Action Plan on Food Price Volatility and Agriculture, the G20 Heads of States endorsed in their 2011 Declaration both Global Agricultural Monitoring (GEOGLAM) and the Agricultural Market Information System (AMIS).

What do we mean by agricultural monitoring?

The G20 Ministerial Declaration states that GEOGLAM "will strengthen global agricultural monitoring by improving the use of remote sensing tools for crop production projections and weather forecasting". By providing coordinated Earth observations from satellites and integrating them with ground-based and other in-situ measurements, the initiative will contribute to generating reliable, accurate, timely and sustained crop monitoring information and yield forecasts. GEOGLAM is thus one of the flagships of the Group on Earth observation (GEO) where the GEO members and participating organizations contribute in various ways to implement the declaration.

Global Earth observation community and European contributions

The European Union contributes to the global Earth observation community through its many funding instruments, including the H2020 framework program. Different aspects of agriculture, including the 2011 Declaration, which have been addressed through a number of projects, resulting today in a need to

coordination, connecting the dots. This need to connecting the dots in the agriculture sector is the background for the EO4AGRI project.

EO4Agri - community building through development of a "Knowledge Hub"

EO4Agri is an Earth observation Horizon 2020 project set out to support different sectors in the agricultural value chain and global networks within this field. Such networks are among others the GEOGLAM and AMIS initiative.

EO4Agri has already made substantial studies and identified some of the barriers which exist between the Earth Observation (EO) community and the different parties in the agriculture domain. This is the beginning of the creation of a “Knowledge Hub” on EO for Agriculture.

Many EO solutions and corresponding market demands exist, however, it is fragmented knowledge and activities, thus there is a need to connecting the dots, not only for global initiatives like GEOGLAM but for most related sectors as well!

A “Knowledge Hub” is the result of an activity which aims at collecting relevant data, be it scientific literature, connected projects or success stories and match it to user requirements.

It serves as a tool to connect users with the EO sector in a systematic and scientifically supported way by making the best use of knowledge.

This is achieved by gathering significant resources from domain-experts based on user requirement from the sectors and translate or map them to technical solutions and vice versa. It can be used to identify current gaps, needs and state-of-the-art solutions.

We believe that EO4Agri can play a crucial role in connecting knowledge and activities on a technical/scientifically as well as a community-building level for various domains.

On of the earlier success stories started at the EuroGEOSS workshop in Lisbon July 2019.

EO4Agri at EuroGEOSS

At the EuroGEOSS workshop, EO4Agri approached some key players in the sector during the Agriculture and Food security session. Bente Lilja Bye from Plan4All and David Kolitzus from GeoVille presented the concept of EO4Agri and how it can directly contribute to solve current problems resulted from the fragmentation of the domain by building a community, create visibility and transparency within the sector. Also the idea of the “Knowledge Hub” was presented and well-received among others by GEOGLAM.

Follow-ups and future activities

This effort has been followed up with the GEOGLAM secretariat to fine-tune the next steps and identify complementary needs and efforts. We quickly realized, that a strong common interest indeed exists and that we have a chance to create something meaningful together.

It was decided to follow-up with a targeted session at the GEO Ministerial Summit in Canberra this November. Since community building is key, we also brought GODAN on board to strengthen the impact of this activity even further. A white paper will predate the workshop, further elaborating our approach. Stay tuned!

Further expanding, aiming to inspire other Earth observation communities

The whitepaper and input from the targeted session at the GEO Ministerial will be used as a blueprint of an engagement activity also on other sectors.

In the first step, after intensive deskwork, experts can come up with a good guess of what is needed by a specific sector. Then you need to identify some of the key experts and approaching them with an offer and agree on a set of dedicated workshop and meetings. The food security domain is only the first sector we addressed in such detail, but others are invited to follow and learn from our experiences in the agricultural sector.

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