



In Situ Data Coordination

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GEOGLAM
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GEOGLAM and the Context for In Situ Data

- A decade ago the major constraint to operational monitoring was access to free and open EO data, then the major hurdle became the cost and availability of big data analytics; the next constraint was access to mature, reproducible analytical tools. Great progress has been in all these areas...

Perhaps the last frontier to bridge:

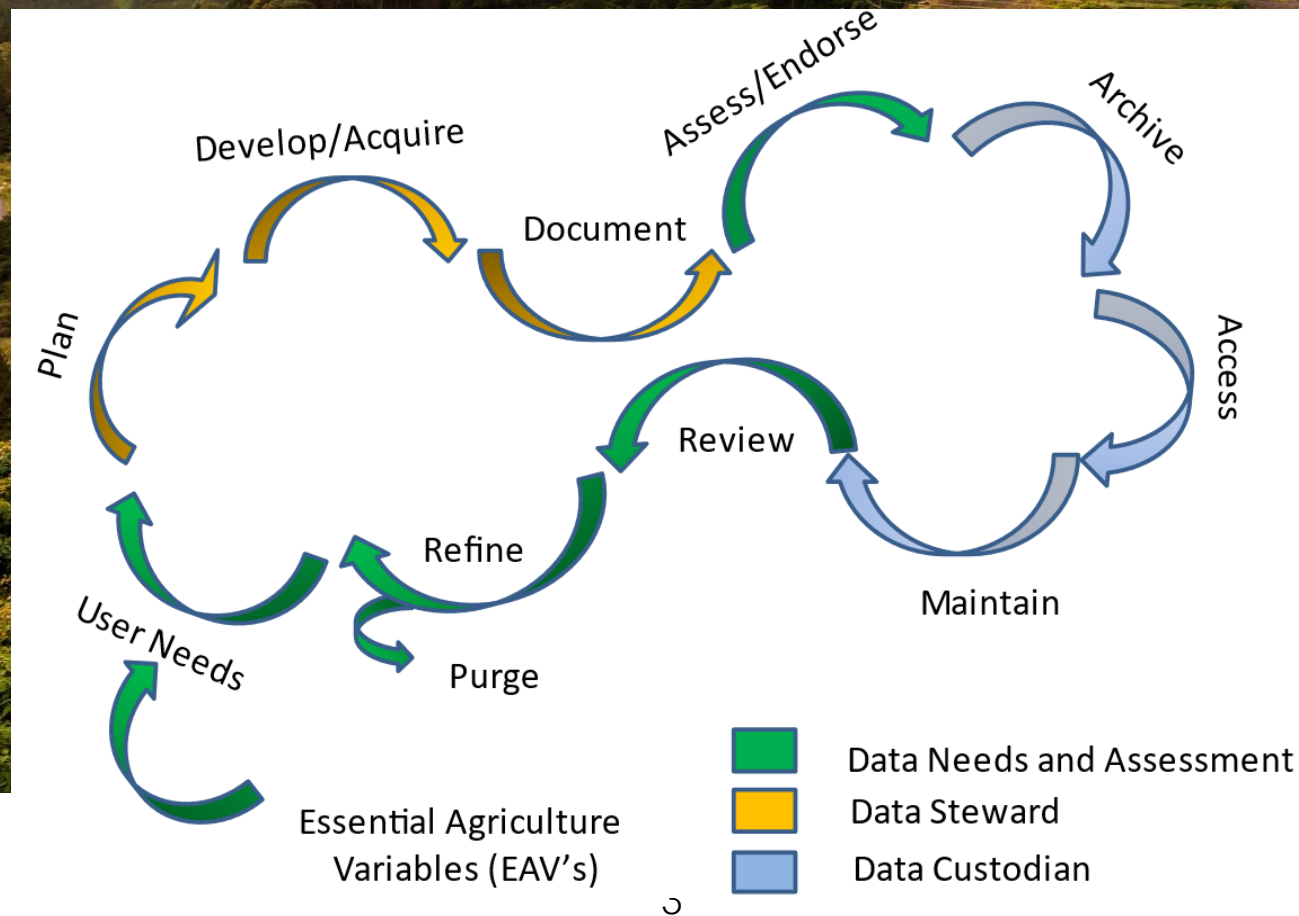
Open access to high quality, well managed in situ data for training, validation and operational implementation

- Current in situ data access is insufficient for the development of systematic operational monitoring capacities required to address our policy priorities
 - Some incremental coordination leveraging our existing activities could have a major impact at relatively low cost
- “the whole can be greater than the sum of the parts”**

In Situ Data Life Cycle

GEOGLAM is working to coordinate in situ data within a management life cycle that is driven by the requirements for the essential variables that are required to address major policy challenges around food security:

Using Climate Mitigation needs for "A" FOLU State and Change to Pilot the Approach



In Situ Data Progress

- GEOGLAM initiated a working group on in situ data in 2021
- Early 2022 an initial workplan and guidance document was developed by the WkGrp and the GEO Secretariat.
- November 2022 GEOGLAM convened a workshop in Geneva to review and refine the workplan
- Key actions were developed, next 3 slides.
- Some actions already in development or complete, within existing resources and capacities, some require incremental support (i.e. funding, staff time, technical resources)

Selected Key Actions - User Needs and Data Acquisition

- Document policy needs and map to EAV requirements
- Gaps assessment for EAVs implementation, including in situ data needs
- Data acquisition best practices (documented in GKH by default)
 - Guidelines, Variable Definitions, Collection Methods, Data Structures, Data Sharing
- Registry of In Situ Data Collection Activities

Selected Key Actions – Data Usability

- Institutionalize, sustain, and update the current reference data repository (WorldCereals)
- Encourage and Enable the community to share data following the open science and open data principles
- Explore business models to strengthen and sustain harmonization hubs (data holdings)
- Develop methods and protocols to automate the review and harmonization of open data

Selected Key Actions – Data Structure and Maintenance Infrastructure

- Inventory of data and assessment of data openness in countries and related existing infrastructure.
- Implement a demo distributed architecture with hosting capability using the open source CKAN solution under the neutral GEO/GEOGLAM umbrella, with an implementation of STAC, and common API to query the data.
- Develop local/national/regional CKAN repositories where necessary and link them with the GEOGLAM one.

Requests for Programme Board

- While many actions are funded and actively being pursued by the GEOGLAM Community, incremental support is required to expedite several activities.
- Help to link with Regional and National repositories is welcome from PB members, as well as interest to co-develop pilot new repositories in countries.
- In situ actions also linked to other GEOGLAM activities (UNFCCC NAP guidance implementation, AFOLU, GKH knowledge resources, etc...) for which support by PB is welcome.