



AGENDA PAPER

FAO Global Soil Partnership International Network of Soil Information Institutions (INSII)	Meeting Number: 7
	Location: Online
	Date: 9-11 November 2021
Agenda Item No	III-a
Agenda Item	GloSIS Development

Background

Global Soil Information System (GloSIS) is being built in a distributed manner to be a federation of national soil information systems. The GSP Secretariat and the GSP Soil Data Facility have been working on the technical aspects of the GloSIS implementation. Certain components and the building blocks should be in place to start with the implementation. The main building blocks of GloSIS are;

i. **GloSIS Nodes (National Soil Information Systems)**

1. GloSIS Nodes are individual soil information systems (National, Institutional or Regional) to be connected to the central node (GloSIS). National Soil information systems will be built using selected software and tools and populated by national soil data (Soil Maps, Soil Profile Databases, Raster Maps - Soil Properties, Threats-).
2. These data should be harmonised at national level first to be compatible with GloSIS specifications. Pillar 4 WG and Pillar 5 WG have been working on the GloSIS Data Exchange Standards (Domain Model). This will take more time than scheduled to be enduser-ready.
3. Considering the delays in development of the data exchange standards, INSII and Pillar 4 Working group decided to adopt a tiered approach (GloSIS 1.0 and GloSIS 2.0) due to;
 - a. GloSIS Domain Model would take more time to be ready;

- b. There are existing soil information systems and high demand for establishing new soil informations systems
 - c. GSP produces country driven global datasets (GSOCmap, GSSmap, GOSCseq, GSERmap, GBSmap) and there is an urgent need to host and serve these datasets at national and global level.
 4. **GloSIS 1.0:** Countries would establish their soil information systems as soon as they wish using existing technologies without waiting for the GloSIS Domain Model. *GloSIS 1.0 implementation would start momentarily.*
 5. **GloSIS 2.0:** GloSIS 1.0 will be updated to 2.0 and fully operational once the data exchange standards and tools are ready.
 6. **GloSIS Discovery Hub**
 - a. Discovery hub will be a data portal converging all national information systems in a single point access.
 - b. Discovery hub is being built also following the 2-tiered approach. The beta version of GloSIS DH v1.0 was deployed and tested with few existing national systems.
 - c. GeoNetwork is selected as a platform and it will be used for the GloSIS Discovery Hub. The initial version of the platform is to be harvesting data from existing systems GSOCmap, GSSmap and the GSOCseq datasets.
 7. **Progress and Status (GloSIS and National Soil Information Systems)**
 - a. **GloSIS 1.0 National Soil Information Systems:** GeoNode will be used for National Soil Information Systems. During the 6th INSII meeting more than 15 countries expressed their willingness to test GloSIS 1.0. “The Geonode Installation Guide” is being prepared which provides step by step Instructions to establish a soil information system.
 - b. 2 GloSIS 1.0 meetings were held with beta testing countries (January 2021 and April 2021). Instructions guide, initial version of GloSIS Template Node and GloSIS DH were introduced.

- c. The instructions guide describes the Initial steps and activities that are required to install each of the essential elements, followed by a more detailed configuration of the setup. Example datasets are provided to allow a new soil information system to be set up to serve national, institutional soil data and information across the Internet.
- d. Since 2015, GSP & FAO have been supporting countries to build their full fledged soil information systems. The following soil information systems were/ are being established within the framework of GloSIS with technical/financial support from GSP, FAO.
- i. CamSIS - Cambodia (**completed**)
 - ii. MASIS - Macedonia (**completed**)
 - iii. SISLAC - Latin America and the Caribbean (**completed**)
 - iv. SuSIS - Sudan (**completed**)
 - v. AfSIS - Afghanistan (**completed**)
 - vi. LeSIS - Lesotho (**completed**)
 - vii. ArSIS - Armenia (**completed**)
 - viii. LibSIS - Liberia (**under development**) - TCP
- GCP /GLO/031/ROK (GSP Project)**
- ix. BaSIS Bangladesh (**ongoing**) -
 - x. BuSIS - Bhutan (**ongoing**)
 - xi. KSIS - Kyrgyzstan (**ongoing**)
 - xii. LaoSIS - (**ongoing**)
 - xiii. MoSIS - Mongolia (**ongoing**)
 - xiv. MySIS - Myanmar (**ongoing**)
 - xv. NeSIS - Nepal (**ongoing**)
 - xvi. SSIS - Sri Lanka (**ongoing**)
 - xvii. ViSIS - Viet Nam (**ongoing**)

Key issues

- NA



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Required action

- NA

Resource implications

- NA

Preparation and consultation

- Mr Yusuf Yigini (GSP Secretariat), Ms Fenny van Egmond (SDF)

Attachments

- [GloSIS 1.0 Template Node Instructions Guide](#) (draft)
- [GloSIS DH](#) (development server)
- [GloSIS Design Document \(Conceptual design of the Global Soil Information System infrastructure\)](#)