



Food and Agriculture
Organization of the
United Nations

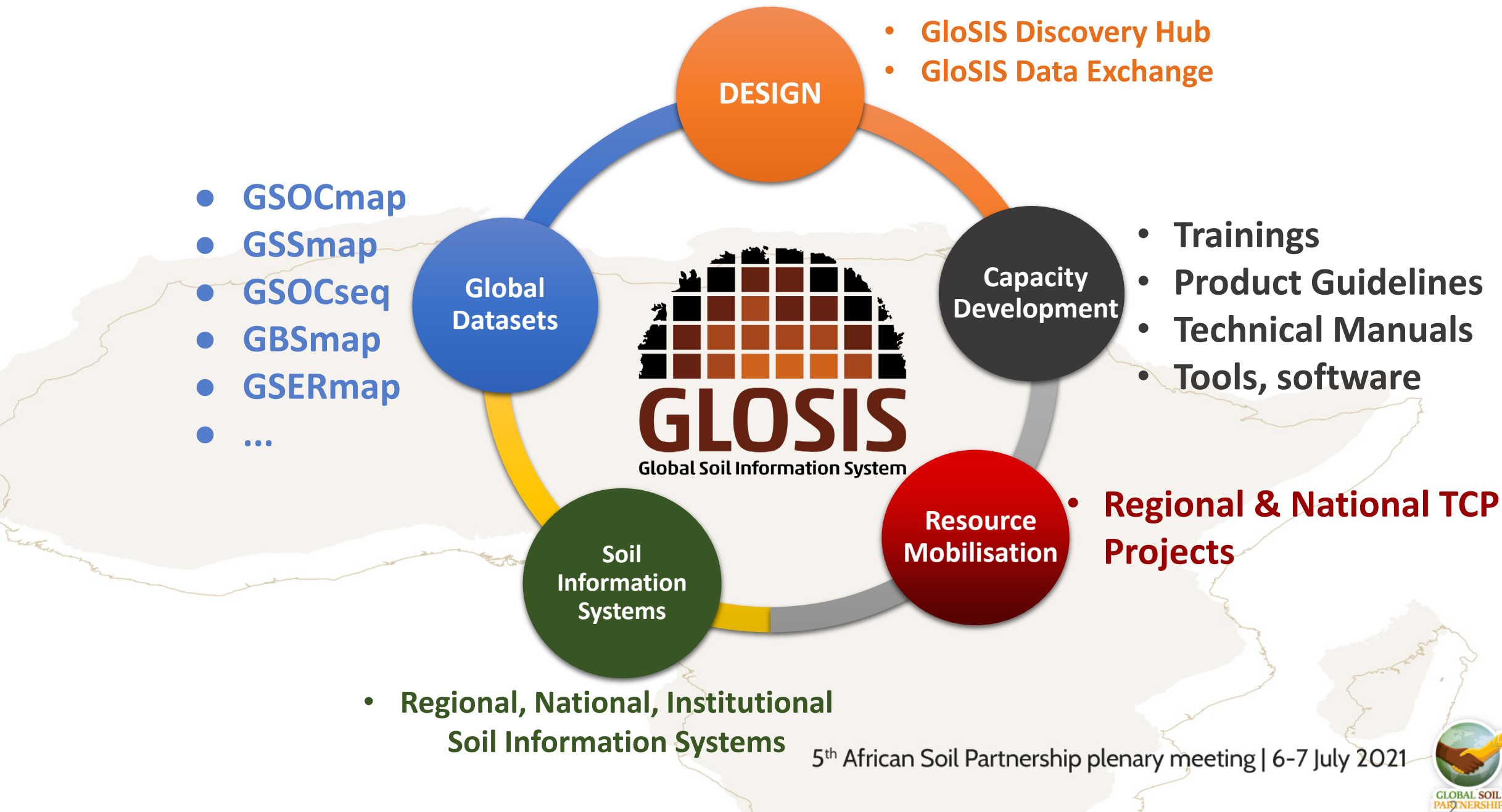
5th African Soil Partnership plenary meeting

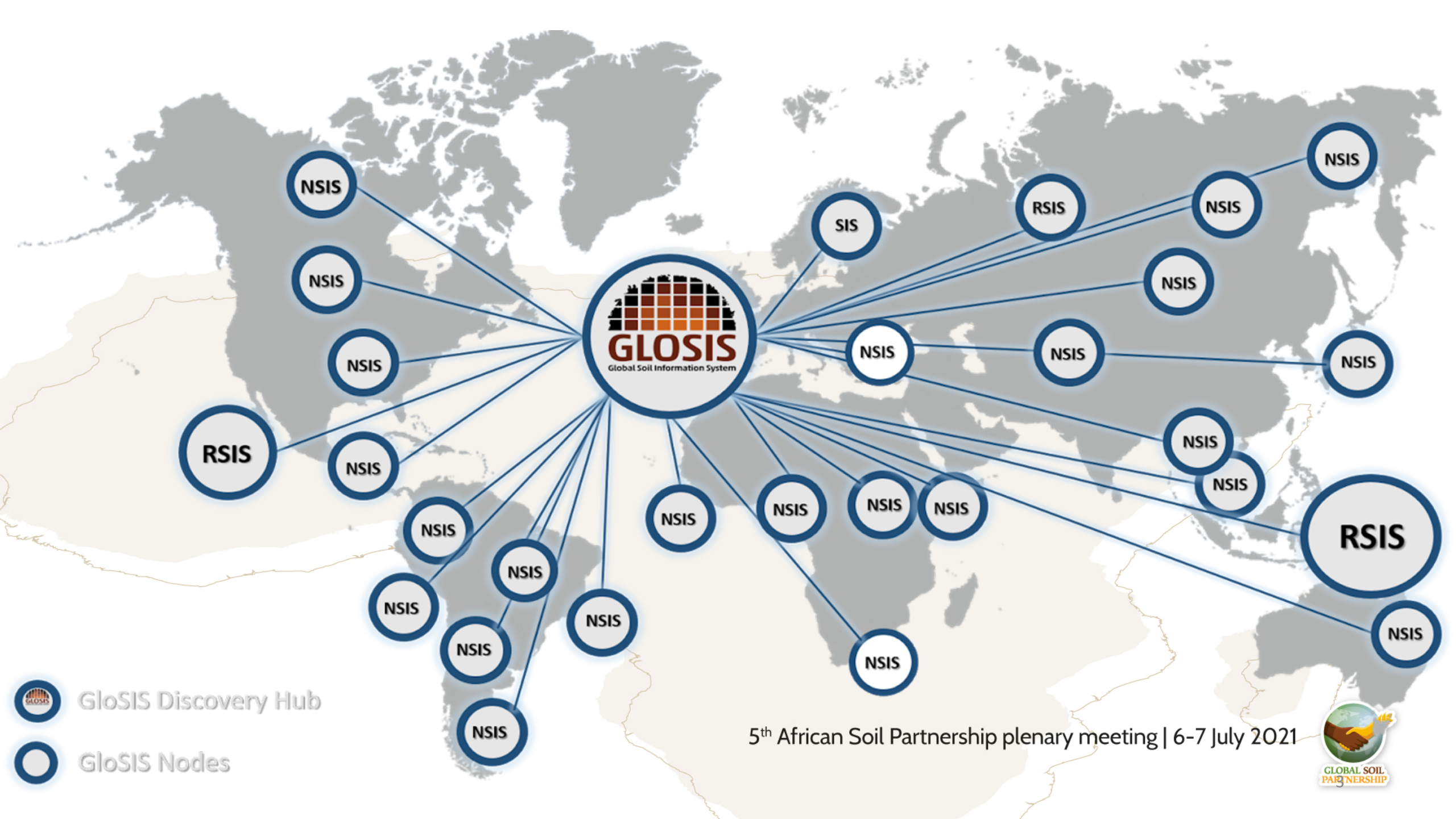
VIRTUAL MEETING
6-7 JULY 2021

Soil Information & Data

Yusuf Yigini, Isabel Luotto
GSP Secretariat







GLOGIS
Global Soil Information System

-  GloSIS Discovery Hub
-  GloSIS Nodes

5th African Soil Partnership plenary meeting | 6-7 July 2021



How do we build GloSIS?





DESIGN

- **GloSIS Nodes (National, Regional SIS)**
- **GloSIS Discovery Hub**
- **GloSIS Data Exchange**

5th African Soil Partnership plenary meeting | 6-7 July 2021



Long & short term goals

GloSIS 1.0 (*ongoing*)

Short-term goal: Help countries in organizing and sharing their existing data.
Create a SIS that increases findability and accessibility of data

NSIS 1.0 and GloSIS DH 1.0

GloSIS 2.0 (*under development*)

Fully fledged platforms (NSISs & GloSIS DH) for harmonized data storage and exchange with several add-ons/plugin using standards and the latest IT solutions for optimal functionality.

NSIS 2.0 and GloSIS DH 2.0

5th African Soil Partnership plenary meeting | 6-7 July 2021



	GloSIS 1.0	GloSIS 2.0	Notes
Data Online, Findable, Searchable	Yes	Yes	aim is F.A.I.R
Data Types	Point, Polygon, Raster, csv	Point, Polygon, Raster	
National nodes	Yes	Yes	GeoNode first (v1), later dedicated code (v2)
Common Discovery Hub	Yes	Yes	GeoNetwork first (v1), later dedicated portal (v2)
(Crossborder) Data standardisation; reusability and data preparation	No	GloSIS Data Exchange	allows standardisation of data (machine to machine), prerequisite for harmonisation

GloSIS 1.0 Beta Phase – Testing Countries



You are here



- We named the technologies to be used for NSIS and GloSIS DH
- We introduced GloSIS GeoNode Instructions Guide
- We Introduced the NSIS Software
- We introduced requirements for beta testing (Checklist - Software, Hardware, Staffing)
- We set our short term goals for beta testing
- + **GloSIS Beta Testing Countries:** *Bolivia, Canada, **Cape Verde**, Fiji, **Gambia**, Indonesia, Israel, Italy, Mongolia, Morocco, **Niger**, Papua New Guinea, Philippines, **Senegal**, **Sudan**, Tunisia, Turkey, Ukraine, **Zimbabwe**, ASP CESRA*

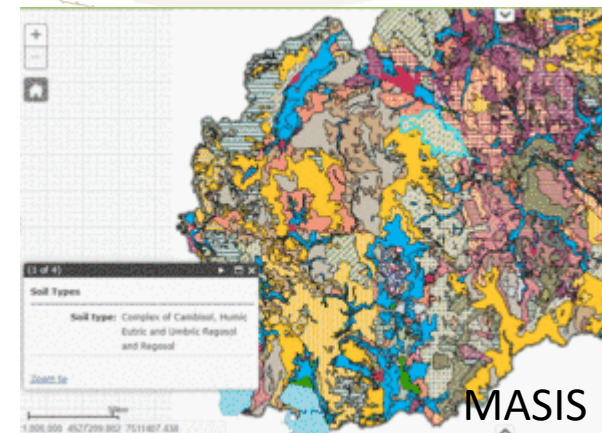
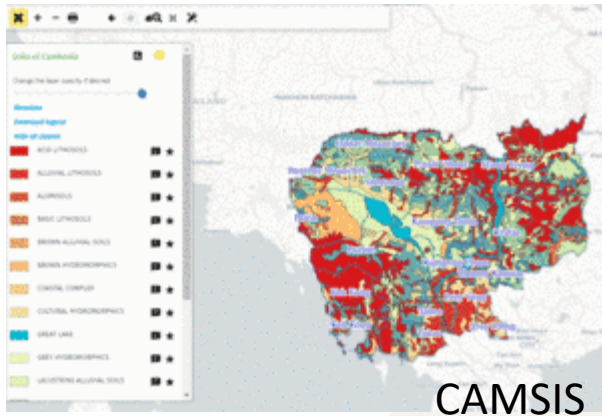
5th African Soil Partnership plenary meeting | 6-7 July 2021



National Soil Information Systems (NSIS)

Completed

In the pipeline



- **Sudan (SuSIS)**
- Macedonia (MaSIS)
- **Lesotho (LeSIS)**
- Afghanistan (SISAf)
- Cambodia (CamSIS)
- Latin America (SISLAC)
- Armenia (ArmSIS)

- **Liberia**
- Bangladesh
- Bhutan
- LAO PDR
- Kyrgyzstan
- Mongolia
- Myanmar

- Nepal
- Philippines
- Sri Lanka
- Vietnam
- Thailand
- Indonesia
- Serbia
- Asian Soil Information System (ASIS)

- + **GloSIS Beta Testing Countries:** *Bolivia, Canada, **Cape Verde**, Fiji, **Gambia**, Indonesia, Israel, Italy, Mongolia, Morocco, **Niger**, Papua New Guinea, Philippines, **Senegal**, **Sudan**, Tunisia, Turkey, Ukraine, **Zimbabwe**, ASP CESRA*



5th African Soil Partnership plenary meeting | 6-7 July 2021



GloSIS – Country Driven Global Data Products

5th African Soil Partnership plenary meeting | 6-7 July 2021

Country Driven Global Datasets



GSOCmap v1.0 (2017) ... V1.5 (2019) ...V.1.5 (2020)



GSSmap

V1.0 (October 2021)



GSOCseq

V1.0 (September 2021)



GBSmap

V1.0 (TBD)



GSERmap

V1.0 (TBD)

Kick-off

25%

50%

75%

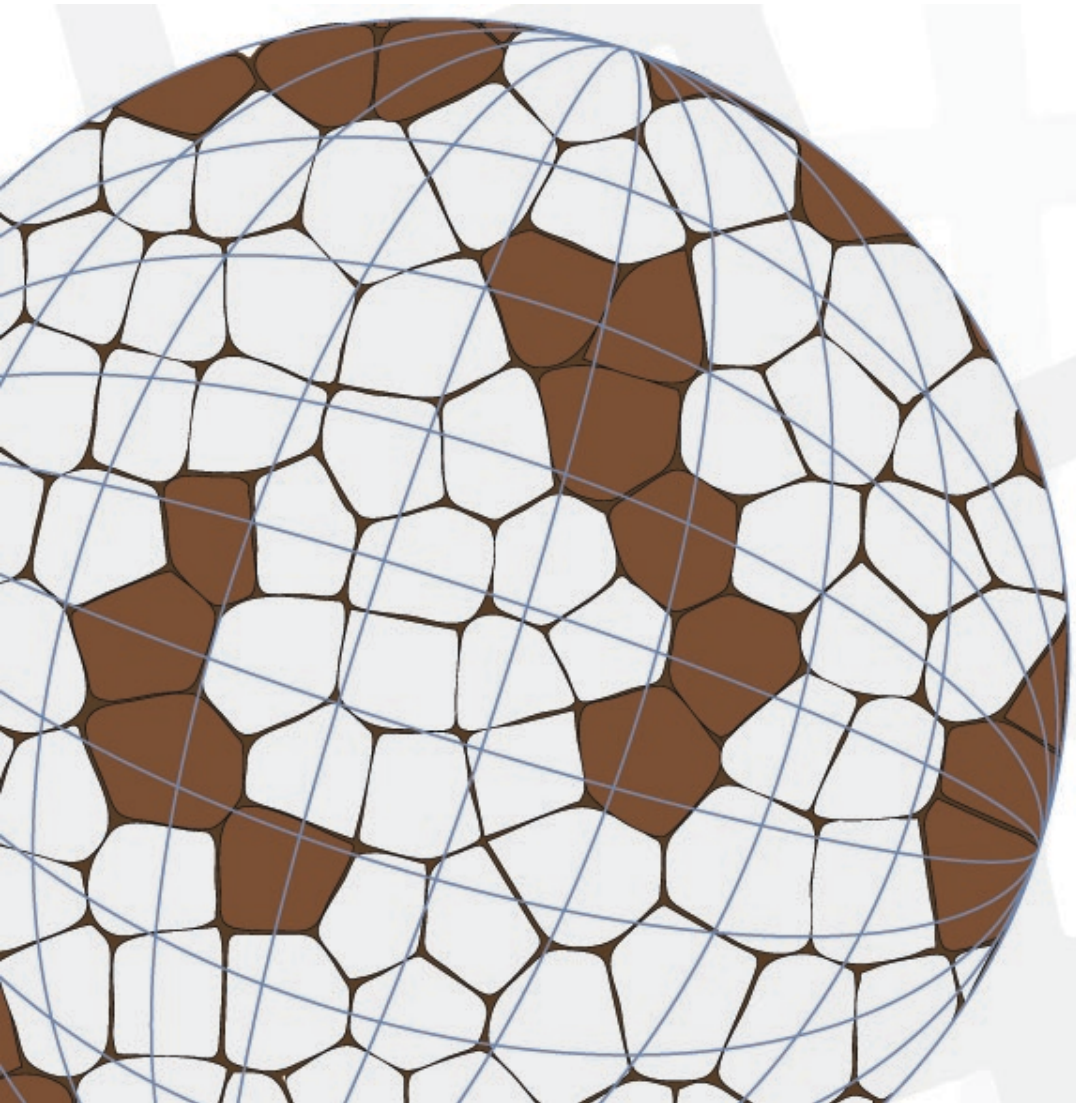
100%

5th African Soil Partnership plenary meeting | 6-7 July 2021



Capacity Development In the Region

- Capacity development is the key process element for developing country-driven global products in the African region;
- Strengthens confidence, skills, knowledge, and resource mobilisation;
- Minimises an over-reliance on outside experts;
- Ensures **harmonisation** and **interoperability**;
- Increases the **engagement** (FAO – Member Countries and the GSP);
- Introduces **state-of-art technologies to the community** (New techniques, digital solutions...)



GSSmap

Global Soil Salinity Map

5th African Soil Partnership plenary meeting | 6-7 July 2021



Progress with Salinity Mapping in Africa (June 2021)

- Country-driven process

- Capacity building

- Training sessions – two weeks online training (47 experts trained in 2020)
 - Individual sessions – about 10 days (between Nov 2020 and June 2021)
 - Resource mobilization for information update (TCP proposals – Tanzania, Madagascar. Mali currently drafting)

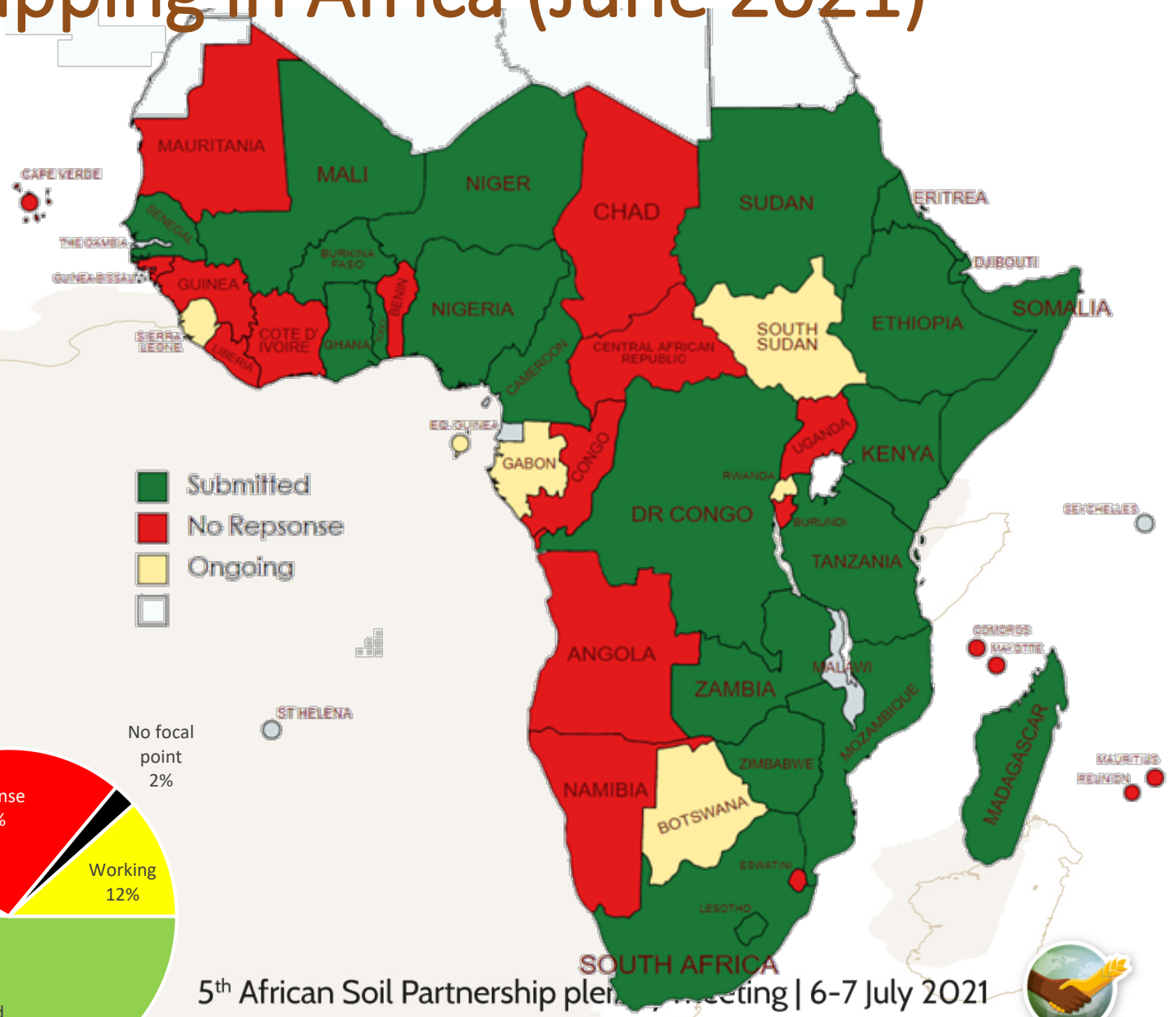
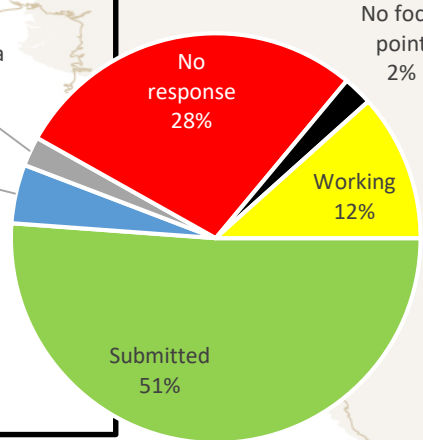
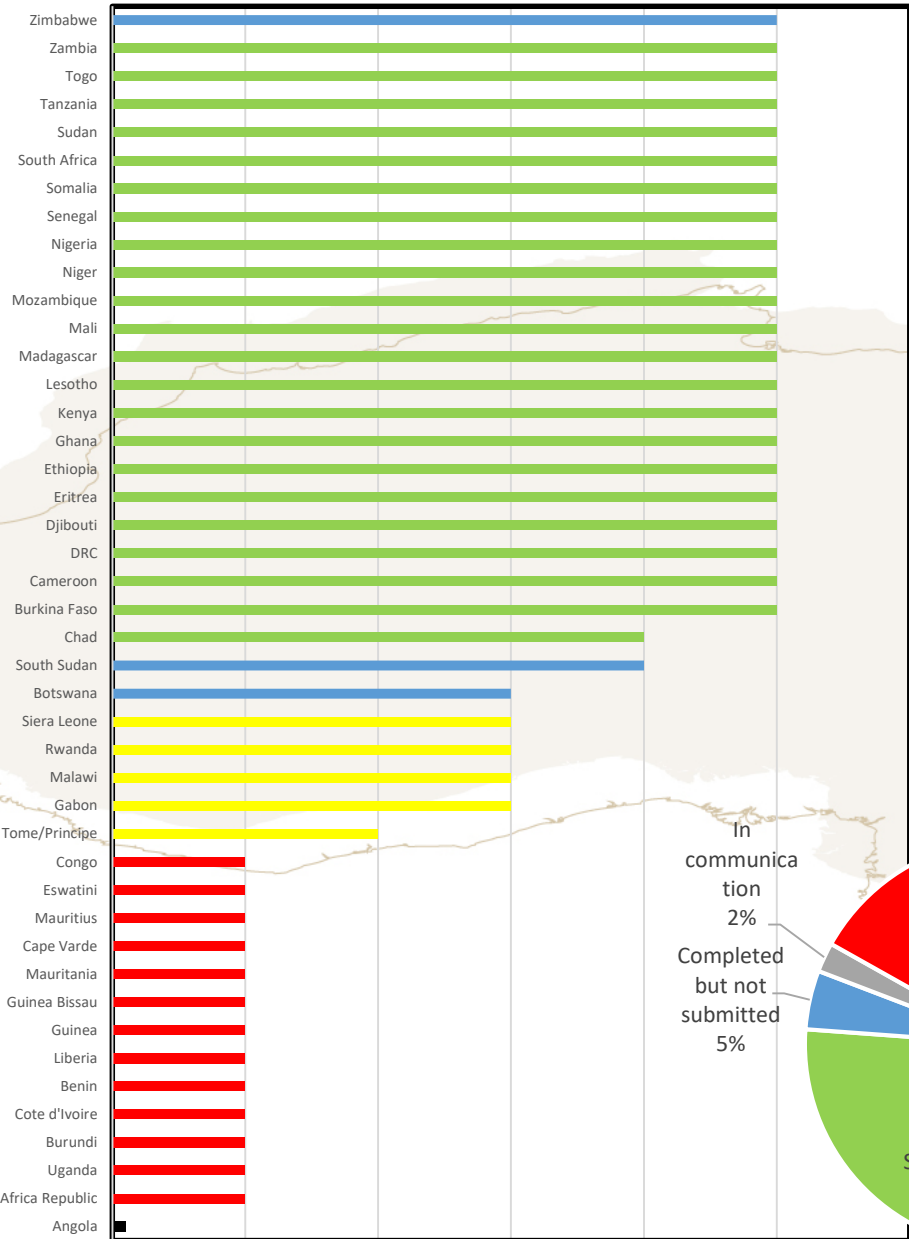
- Status of GSSmap contribution

- 22 countries have completed submissions
 - 2 countries have completed the maps but not yet submitted (Chad and South Sudan)
 - Others are work-in-progress

5th African Soil Partnership plenary meeting | 6-7 July 2021



Progress with Salinity Mapping in Africa (June 2021)



5th African Soil Partnership plenary meeting | 6-7 July 2021



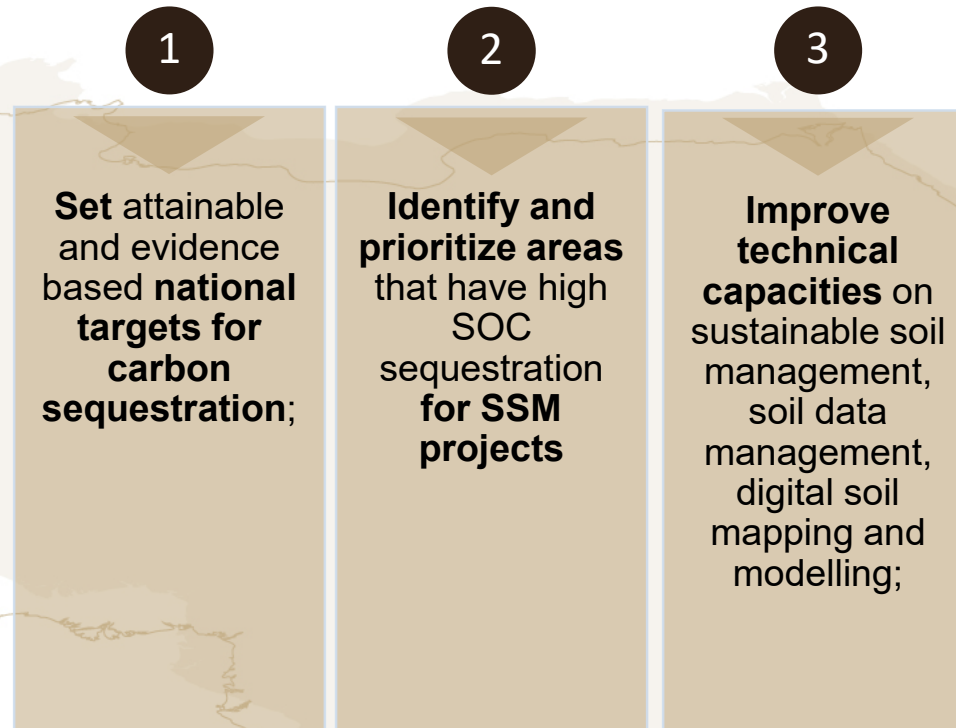


Food and Agriculture
Organization of the
United Nations

Global Soil Organic Carbon Sequestration Potential Map GSOCseq



The Global Soil Partnership (GSP) has started the GSOCseq initiative to:



5th African Soil Partnership plenary meeting | 6-7 July 2021



The Global Soil Partnership (GSP) has started the GSOCseq initiative to:

- **Set** attainable and evidence based **national targets for carbon sequestration**
- **Provide a data-driven knowledge** base to fulfill:
 - multilateral environmental agreements (e.g. Paris Agreement...)
 - international and national commitments (e.g. Carbon Neutrality, EU by 2050, China by 2060)
 - SDGs, specifically the Goals on zero hunger (SDG 2), climate action (SDG 13), and life on land (SDG 15)
 - development and implementation of the Koronivia Joint Work on Agriculture (KJWA)

1

Why
GSOCseq?

5th African Soil Partnership plenary meeting | 6-7 July 2021



The Global Soil Partnership (GSP) has started the GSOCseq initiative to:

Identify and prioritize areas that have high/low SOC sequestration potential to:

- Implement SSM projects effectively;
- Support the provision of incentives to farmers implementing SOC-centered SSM practices under the RECSOIL umbrella program.

2

Why
GSOCseq?

5th African Soil Partnership plenary meeting | 6-7 July 2021



The Global Soil Partnership (GSP) has started the GSOCseq initiative to:

Improve technical capacities on sustainable soil management, soil data management, digital soil mapping and modelling to:

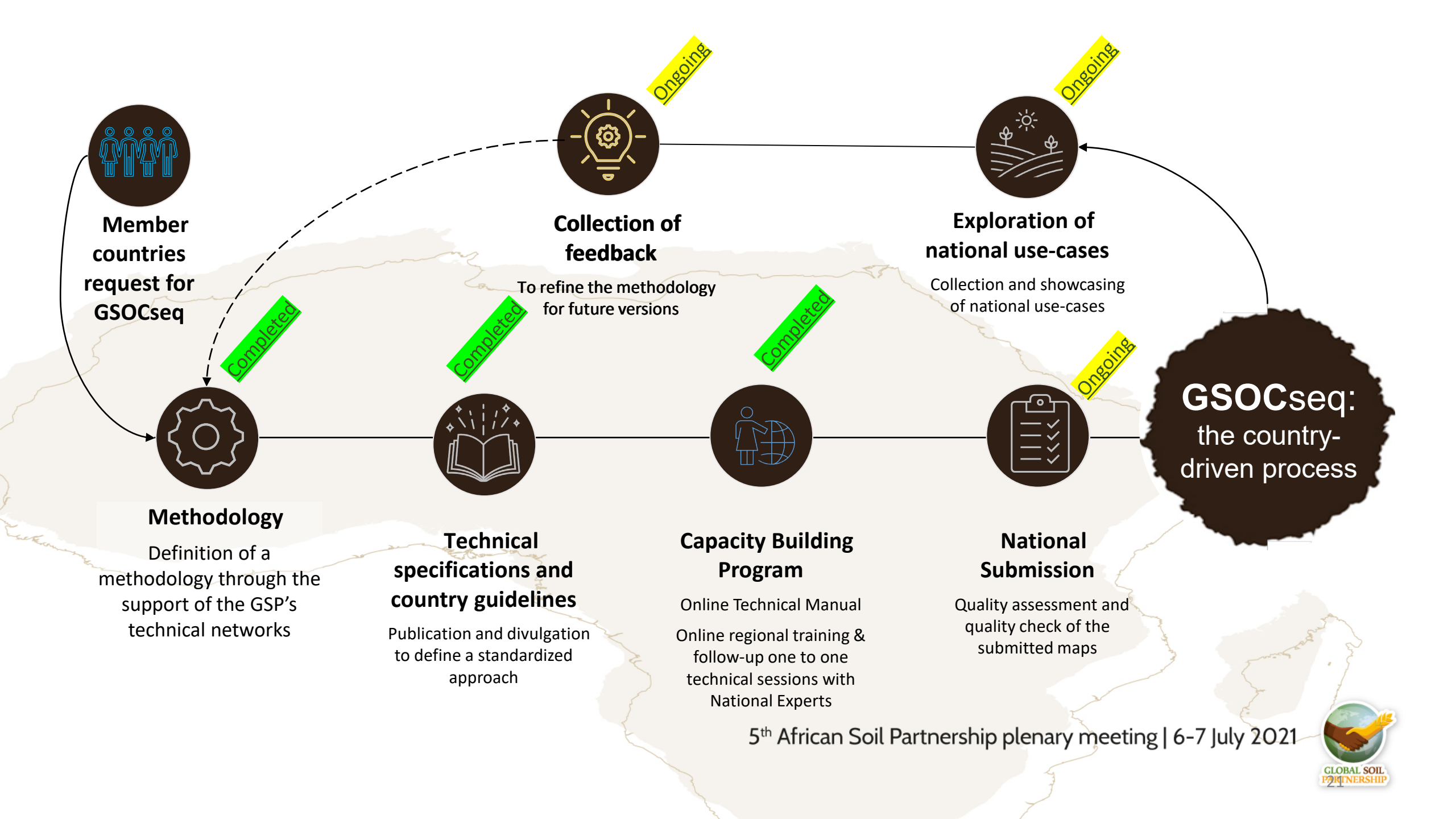
- Support the scaling up of state-of-the-art methodologies in soil carbon modelling and mapping
- Support countries in leveraging their national data and local expertise to the fullest
- Create a common ground for effective knowledge exchange

3

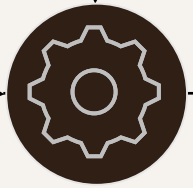
Why
GSOCseq?

5th African Soil Partnership plenary meeting | 6-7 July 2021





Member countries request for GSOSeq



Methodology
Definition of a methodology through the support of the GSP's technical networks



Technical specifications and country guidelines
Publication and divulgation to define a standardized approach

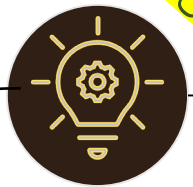


Capacity Building Program
Online Technical Manual
Online regional training & follow-up one to one technical sessions with National Experts

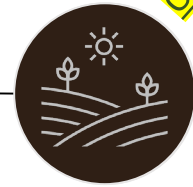


National Submission
Quality assessment and quality check of the submitted maps

GSOSeq: the country-driven process



Collection of feedback
To refine the methodology for future versions



Exploration of national use-cases
Collection and showcasing of national use-cases

Completed

Completed

Completed

Ongoing

Ongoing

Ongoing

5th African Soil Partnership plenary meeting | 6-7 July 2021





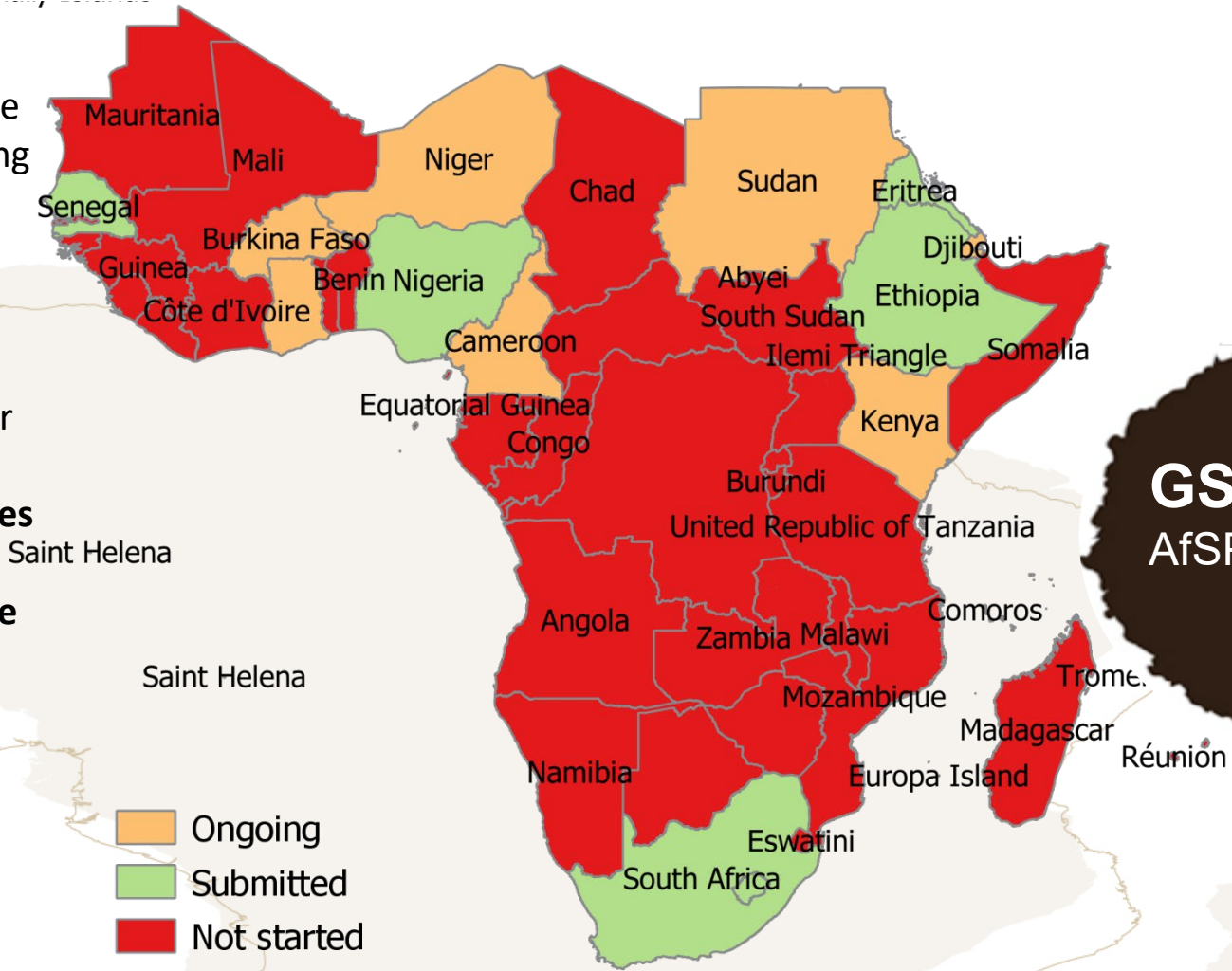
National Experts from the AfSP have been actively involved in the drafting phase of the methodology



- **Two Regional African online trainings** on SOC modelling and mapping were held in December 2020 and February 2021
- **92 participants from 20 countries** took part in the trainings
- **10 Countries have leveraged the remote support platform** for technical guidance



7 countries from the AfSP have submitted so date



**GSOSeq:
AfSP overview**

5th African Soil Partnership plenary meeting | 6-7 July 2021





Food and Agriculture
Organization of the
United Nations

5th African Soil Partnership plenary meeting

VIRTUAL MEETING
6-7 JULY 2021

