

**High-Level Dialogue on The Imperative for Soil  
Information Systems to Achieve the CAADP  
Productivity Goals**

**Report of a Side Event of the 17<sup>th</sup> CAADP-  
Partnership Platform**

**Held on 24<sup>th</sup> November, 2021**

## **Introduction**

The degradation of soil fertility is a key constraint to food security in Africa. A large portion of Africa's soils are inherently low in fertility due to age, soil formation factors, and parent material. The major cause of soil fertility degradation is the continuous nutrient mining arising from the age-long traditional farming practices that gave little consideration to a nutrient replacement, erosions, heavy salt deposits, and the imbalance displacement of soil nutrients. To be able to achieve a food-secure continent, Africa must give good attention to soil management and have a soil information system to monitor the rate of degradation in a specific location at a specific time. The soils serve as the source and sink of plant nutrients, and it is the home to millions of microorganisms. It is also the major bank for carbon deposits, a function that is vital to human survival in the face of climate change.

In the last decades, Africa organizations, as well as several development partners, came up with programs that developed some soil information packages. This approach led to several soil information packages at small scales, using different methodologies for sampling and analysis, as well as data presentation. The harmonization of the different soil information packages into a coherent instrument for multiple uses is not feasible; preventing broad-based utility and benefits.

Soils4Africa project is developing an open-access Soil Information System (SIS) for Africa. The SIS will provide a pool of information that will meet the needs of the different users of soil information in Africa. The Soils4Africa project will take a clue from the European Land Use/Cover Area frame Survey (LUCAS) approach. Central to the delivery of the SIS is the establishment of a robust sampling and analysis methodology that will be user-friendly and simple enough to be replicated by other stakeholders that may want to expand the soil information system in Africa.

The Forum for Agricultural Research in Africa (FARA) organized a side event during the CAADP-PP to give room for the presentation of the Soils4Africa project to the Africa Union, SROs, and AFAAS as well as other supernatural organizations in Africa. This webinar aims to seek the endorsement of high-level policymakers in Africa for the entrenchment of the SIS within the CAADP framework and promotion among stakeholders as a vital continental resource for further development.

## **Objectives**

The main objective of the webinar was to engage the African high-level stakeholders' group in a discussion on the importance of the SIS and to seek endorsement from the high-level policymakers. As a vital contribution to the achievement of the CAADP productivity goals for African agriculture. It also contributed to the high-level discussion on a possible partnership model for sustaining the SIS for Africa.

## **Webinar Proceedings**

### **1. Opening Remarks by FARA Board Chair, Dr. Alioune Fall**

Dr. Alioune Fall the Board Chair of FARA welcomed everyone to this important webinar and gave a brief statistic of the current state of the African soil and its impacts to the smallholder farmers and African families. He asserted that “Managing African soil has attained a threshold that demands a holistic intervention to avert the upcoming problems around soils in Africa”. Again, he stated that the Soil Information System being developed will play a vital role in the upcoming Soil Initiative for Africa (SIA). FARA is rallying its partners in Africa and across the globe to develop this initiative at the request of the Africa Union Commission. The development of the initiative is gaining momentum, and the Soil Information System will form a vital component of the Soil management system dashboard.

He suggested that the Soil Initiative for Africa (SIA) should plan to expand the Soil Information System for broader utility and provision of much-needed information at a lower operational level for direct benefits to the farmers and other stakeholders. This suggests that FARA and its partners developing the Soil Initiatives for Africa should broker a strong partnership with the Soils4Africa project team for joint development of the tools and the initiative for the benefits of Africa.

### **2. Opening Remarks by Marta Iglesias, The Senior Project Officer at the European Union Commission**

Marta Iglesias began her open remark by thanking the organizers for the wonderful opportunity to be part of this important webinar. She placed her sentiments that; Food and nutrition security and sustainable agriculture was the first common priority area for collaboration in R&I between Africa and Europe, as part of the existing AU-EU High-Level Policy Dialogue on Science, Technology, and Innovation. In 2014, the FNSSA working group jointly developed a 10 years roadmap, which is since 2016 being implemented by stimulating joint AU-EU research and innovation activities. Soils4Africa project is part of the portfolio of projects and activities funded under the EU-Africa partnership. Just to mention that 95% of our food is produced on soils. It is the starting point for sustainable food systems, safe value chains, and the health of people and nature. However, soils worldwide are rapidly deteriorating due to soil erosion, nutrient depletion, loss of soil organic carbon, soil sealing, and other threats, affecting soil productivity and the ecosystem services that a healthy soils delivers. In Europe, only 1/3 of our soils can be considered healthy. To conclude: It is important to have robust soil information systems in place to identify solutions and pathways for soil health, based on the diversity of our natural environments and societal circumstances as well as dietary cultures or traditional agricultural systems. The EU will continue to support this existing EU-Africa FNSSA partnership, contributing to exchange knowledge, promoting sustainable agriculture practices, and improving access to sustainably produced, nutritious

and safe food, including enhancing income growth for farmers and other food-related stakeholders and promoting rural development.

**3. Opening Remarks by H.E. Amb. Josefa Sacko; AU-DARBE Commissioner for Agriculture;**

**Delivered by Prof. Afeikhena Jerome, *Special Advisor to the Commissioner for Agriculture, Rural Development, Blue Economy, and Sustainable Development.***

Prof. Afeikhena read the Commissioner's speech on her behalf, and stressed her interest to be part of this important webinar but was unable to attend in person. However, the commissioner delegated him to represent her in the webinar. He welcomed all participants on behalf of H.E. Amb. Sacko to the webinar, and stated that; this is the first site event in the 17th CAADP partnership platform with the focus of ending hunger in Africa by 2025 through a resilient food system. He expressed the importance of SIS and alluded that; the subject of soil information systems is pertinent to achieving the CAADP productivity goals. Prof. Afeikhena stated that the commissioner is well informed of the ongoing effort by FARA and its forum members in developing the Soil Initiative for Africa (SIA) and that their expectation of the Soil Initiative for Africa is to have a robust mechanism to drive coherent management of the African soils. The commissioner in her writing stated that the Department of Agriculture, Rural Development, Blue Economy, and Sustainable Environment (DERBE) is convinced that "FARA is the appropriate forum with the required partnership capacity to run this agenda for the continent.

He further added that the subject of soil information is central to the commission's desire to have a Continental Soil Management System to drive the stoppage of land degradation and foster sustainable intensification. The Soils4Africa Project thus is essential to Africa agriculture.

He concluded by saying that the commissioner is an ardent believer in the power and beauty of partnerships; therefore, she encourages more extensive partnerships among organizations and groups involved in developing the Africa soil management system for the benefit of all Africa stakeholders. On this note, he declared the webinar opened on behalf of the commissioner.

## **Presentation of Soils for Africa and Soil Information System**

**By: Dr. Mary Steverink-Mosugu, *Coordinator Soils4Africa project***

**Title: A Soil information System for Food Security & Sustainable Intensification in Africa (Soils4Africa)**

### **Highlights of presentation**

Sustainable intensification of agricultural production in Africa requires up-to-date soil information to make informed decisions on management and interventions. Hence the limitations of the existing soil information are based on data from 1960-1980 and also include recent data through the **AfSIS project**. The different methodologies for sampling and analyses: **standardization and harmonization** of legacy data is still a challenge. Therefore: **the** EU asked for the development of a new system, based on the EU LUCAS approach. The following are the highlight of the Soils4Africa project;

- The project is set to feature a community of practice (CoP) involving the broad stakeholder group.
- The general methodology for the Soils4Africa project is simple to ensure replicability.
- The development system is based on the EU LUCAS (Land Use, Coverage Area frame Survey) approach.
- The Soils4Africa SIS is a robust system with rich underlying data and methodology that will grow over time in resolution and coverage. The project has already developed use cases in consultation with prospective users for policies, knowledge generation, and operational users for soil fertility maintenance, fertilizer blending and marketing, etc.
- The soils4Africa project has completed its 1<sup>st</sup> output by mapping out the agricultural lands in Africa. It was realized that Africa has a total land size of 30.937 million Km<sup>2</sup> and the available land for agriculture is about 8.79 million Km<sup>2</sup> representing 28.5% of the total available land in Africa.
- Finally, the project is in the 2<sup>nd</sup> year and it has started its field campaign with the methodology that is jointly developed by European and African partners. The Soil4Africa project at this point requesting the endorsement statement from the AU and other organizations, and the inputs on a possible partnership model for sustaining the SIS for Africa.

## **Endorsement Statements**

### **1. AGRA**

Dr. Tilahun Amede, the head of resilience, Climate, and Soils at AGRA gave the endorsement statement on behalf of AGRA management. He gave a brief account of what AGRA is doing around soils in the recent past and the growing partnership with FARA. He emphasized the need to stop soil mining and establish an appropriate soil management system for the continent. A veritable SIS is needed but the challenge is how to convert this SIS into a practical tool to support the farmers. Possibly, we could all explore the possibility of converting it to a simple agricultural extension and advisory service instrument and decision guide. AGRA will be willing to partner in this regard. On this note, AGRA endorses this project and it is very keen to work with all stakeholders to ensure that the SIS becomes a continental instrument that is used by all stakeholders including the farmers.

### **2. FANARPAN**

The endorsement statement of FANARPAN was presented by Dr. Simba Simbanda the then leader of Nutrition sensitive agriculture. Dr. Simba talked about the challenge of climate change, food and nutritional security, and sustainable agriculture. The need to provide food for the growing population is begging for urgent action to halt soil degradation and enforce sustainable land management practices. At FANARPAN the African soil is considered to be an essential natural resource to support global food production and support other ecosystem services. The African soil is indeed under the pressure of increasing population and the ensuing higher demand for food and fiber. FANARPAN will love to engage further with Soils4Africa; hence it endorses the SIS.

### **3. CCARDESA**

Dr. Baitisi Podisi acknowledged the importance of soil in Africa as the bedrock for agriculture and he fully endorsed the SIS in Africa on behalf of The Centre for Coordination of Agricultural Research and Development for Southern Africa (CCARDESA).

### **4. ASARECA**

Dr. Warinda Enock, the Executive Director of the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA) endorsed the SIS for Africa. Dr. Warinda stated that one of the major problems in the 14-member state where his organization operates is the conservation of the soil. He expressed the eagerness of the stakeholders to see the system running and generate the needed contribution to sustainable agriculture in the East and Central Africa sub-region.

### **5. African Soil Partnership**

The chair of the African Soil Partnership, Prof. Victor Chude said, that Africa's need for a robust Soil Information System is long overdue and it is essential for progress in our craving for sustainable intensification of agriculture, towards food, and nutritionally secured continent. The SIS will aid the development of coherent soil and land use policies and technical action, first, to halt the pace of land degradation, and effectively manage our soil, which is a non-

easily renewable production asset. The ongoing work to develop the Soil Information System for Africa by the Soils4Africa project to provide a robust tool for broad-based utility is commendable. The development of its simple methodology for subsequent interventions and robustness will make it a great public asset for the continent. As the chairman of the Africa Soil Partnership, I endorse this effort and will lend our cooperation to ensure its fruition towards fulfilling the CAADP productivity goals.

#### **6. FARA Board Chair Dr. Fall Alioun**

In his conclusion, Dr. Alioune Fall affirmed the endorsement of FARA and its constituency for the Soil Information System and support its use and continuous development as the central soil system in Africa.

#### **7. Commissioner, H.E. Amb. Sacko**

“I, therefore, want to add my voice to that of others to appreciate the development of this soil information system and express the endorsement of the Soil Information System as a central instrument for use on the continent. I am well informed that this Soil Information System is being developed with a robust base for interoperability with other soil information systems, for broader utility and benefits to Africa stakeholders”.

#### **Conclusion**

Over 315 Stakeholders in African agriculture registered for the webinar. Several organizations also participated in various discussions. Apparently, the SIS that is currently under development by the Soils4Africa project is well endorsed by the key organization in Africa agriculture and pledged their partnership support. It is evidenced that the project’s stakeholder’s engagement activity will need to bring the developers of soil information systems together for dialogue on the methodology for continuous use.