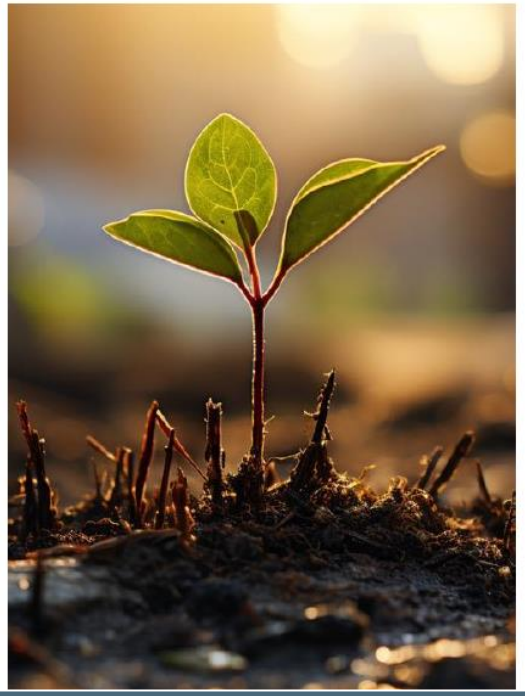
AUDA-NEPAD
AFRICAN UNION DEVELOPMENT AGENCY

African Union

AFRICA FERTILIZER & SOIL HEALTH SUMMIT 24



Soil Initiative for Africa

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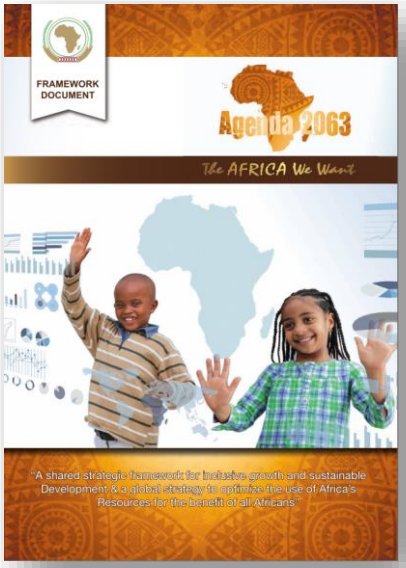
Ag. Director of Research and Innovation, FARA

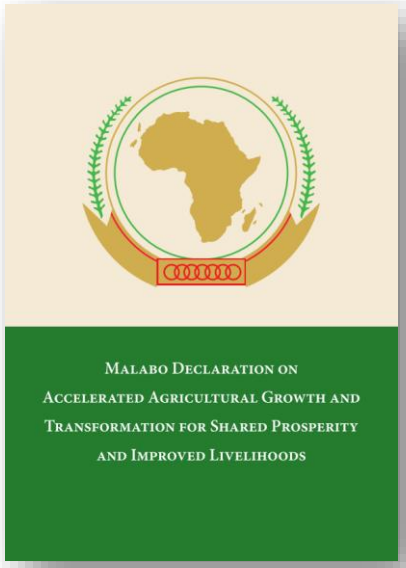
Soil Initiative for Africa

Africa: Priority to increase agricultural productivity

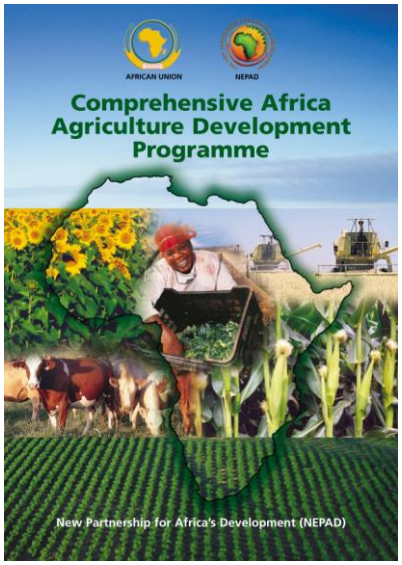
Agenda 2063



Malabo Declaration



Comprehensive Africa Agriculture Development Programme (CAADP)



Agenda 2063:

- **Double agricultural (total factor) productivity** (PA 1.5.1)
- At least **30% of agricultural** land under **sustainable land management** practice (PA 1.7.2)

Context: Fertilizer and Soil Health Crisis

Soil Fertility Crisis

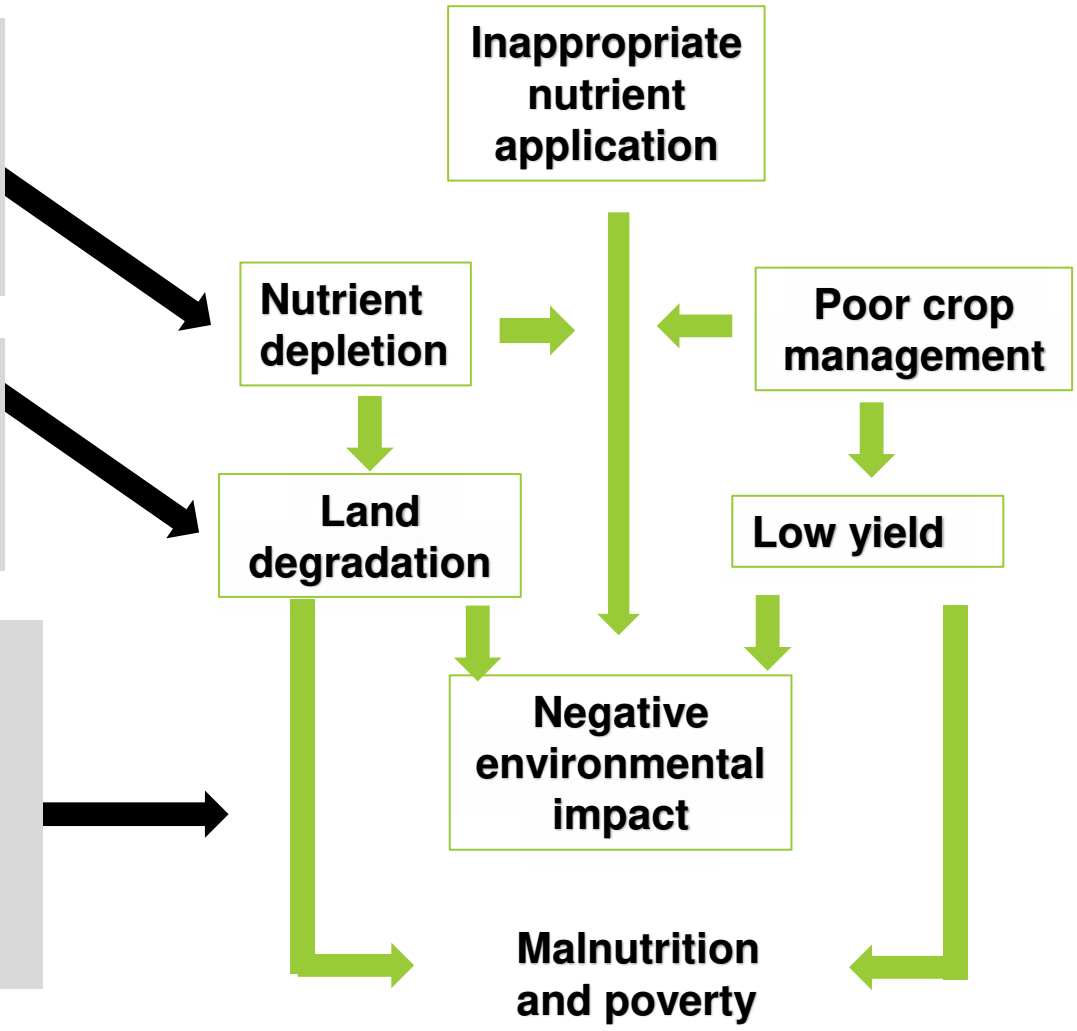
- Negative Nutrient Balance in croplands, average of -40kg NKP/ha. The soil nutrient losses cost $ 4-10 Billion/yr.
- Overgrazing in the livestock system

Acute land degradation

- 65% of cropland are degraded. Land degradation cost $68 Billion/yr
- Higher risk of non-responsive soil

Cause and Effect

- Increase in extensive farming practices
- Increase in carbon and biodiversity losses
- Reduced ecosystem services
- Increase in Green house gas emission (Biomass burning)
- Aggravated effects of climate change.



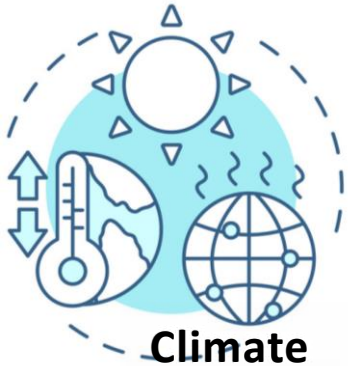
Fertilizer issues in Africa Agriculture

1. **Availability and affordability of fertilizer.**
   a) **Issues with fertilizer distribution.**
   b) **Inconsistency in fertilizer subsidy program.**
   c) **Heavy reliance on imported fertilizer.**
2. **Yield response to fertilizer use on farmers field.**
   1. **knowledge of specific nature and properties of soil.**
   2. **Soil testing / information on available nutrients etc.**
3. **Fertilizer quality.**
4. **Fertilizer financing for private sector in fertilizer value chain.**

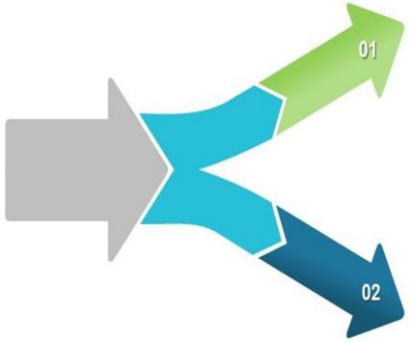
Mutual Reinforcement of Soil Degradation and Climate Change

Biggest and most urgent challenge for humanity

Soil Degradation



Climate Change



Food production
Food security
Nutritional security
Economic growth

- Reduce carbon sinks
- More emissions

- Heat stress
- Rainfall variability

- Natural resource integrity
- Incidence of new pest & disease
- Disruption in ecosystem functions
- Etc.

SIA and Action Plan Development Process

Soil Initiative for Africa Framework + Technical theme documents

4 studies commissioned to review state of knowledge and identify opportunities and priorities

Background white paper

Drafted from summary synthesis of technical theme documents and other relevant resources

Action Plan

- Guided by theme documents and expert knowledge
- Stakeholder consultations and review
- Alignment with the SIA framework

Process supported and coordinated by the Technical and Policy Workgroups

Soil Initiative for Africa

Vision

Africa's soils are **healthy and resilient**, supported by a robust **African-led soil management system** with sound institutions, policies, programs, investments, partnerships, and services that supports and **empowers land users** across Africa to use practices that **restore and sustain soil health**, significantly increase agricultural productivity, income, prosperity, and resilience to vagaries of climate change

Soil Initiative for Africa

Priority investment areas:

1 Optimize Integrated Soil Health and Water Management Planning And Implementation

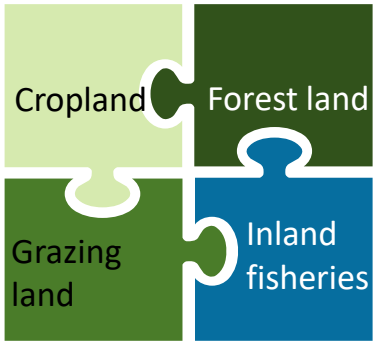
a. Improve water retention and availability, prevent soil erosion and landslides, reduces flood risk, sequesters carbon, and protect biodiversity habitat

b. Protection and restoration of wetlands, peatlands, and mangroves

c. Croplands - sustainable and productive use of a range of agricultural inputs i.e., organic and inorganic fertilizers, improved seeds, bio-stimulants, etc.

d. Inland fisheries - fishponds constructed on suitable soils for optimal productivity.

e. Coastal agriculture – addresses producing saline air and water, the inundation and erosion of coastal land, as well as the effect of upstream activities.

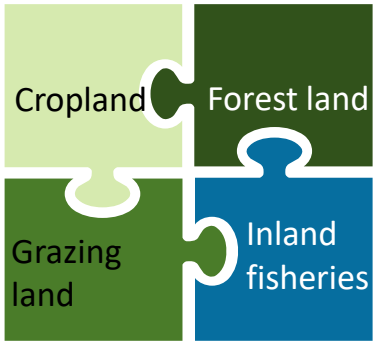


Soil Initiative for Africa

Priority investment areas:

2 Build human, institutional, and social capital for research, development, education, extension, and support for sustainable soil management

a. Farmers and communities as drivers of change in soil management.
b. Smallholder farmers to be supported to invest in soil management as part of their farming enterprise.
c. Need to strengthen soil-science-related human capital for farmers, extension agents, researchers, etc.
d. Expanding and upgrading the quality of training in formal, informal, in-service, and extension training
e. Strong institutional capacity needed to implement the SIA system.



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Priority investment areas:

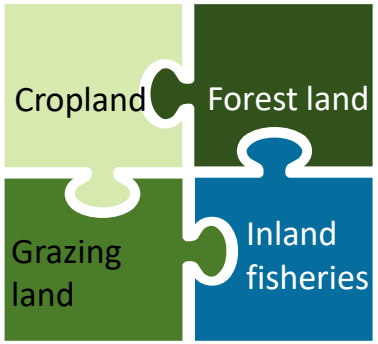
3 Optimize data and information for decision making, planning and monitoring

a. Support the development of a veritable Soil Information system to inform land use and monitor soil status across Africa.

b. Ensure Soil information standards; harmonization of various data sources, and interoperability of key data sources.

c. Develop tools and instrument for decision support on soil use and management at different levels.

e. Encourage the development of national, regional, and Continental soil information system to support fertilizers blending



Soil Initiative for Africa

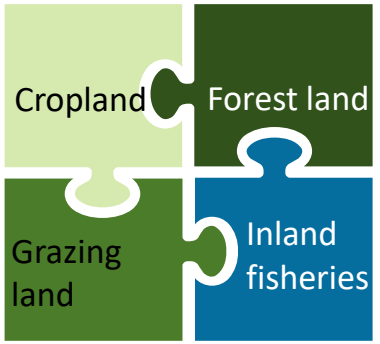
Priority investment areas:

4 Ensure Enabling Policy, Legal and Regulatory Frameworks for Soil Management

a. Effective, coherent, supportive policy environment to inform appropriate land uses and management.

b. Establish policy instrument to set targets and thresholds, provide incentives and regulation.

c. Establish an effective science-policy interface for continuous generation of technologies



The SIA Theory of Change

Soil Initiative for Africa

Theory of Change

1. How we work

Soil Initiative for Africa is an Africa Union Initiative developed to practically implement the African Fertilizer and Soil Health Action Plan.

Implementation will use the subsidiarity principle

Priority Action

1.Optimize integrated soil health and water management planning and implementation.
2. Build human, institutional, and social capital for research, development, education, extension, and support for sustainable soil management.
3. Optimize data and information for effective planning and monitoring.
4. Ensure enabling policy, legal and regulatory frameworks.

2. The toolkit

Partnerships & Community Engagement
Ensure broad-based partnership with all stakeholders using the Innovation systems approach

Thought leadership and Foresight
Astute thought leadership from the best brain to device actions to respond to issues in a proactive manner.

Training and Education
Capacity development of all and sundry to deliver outcomes. Expanding tertiary capacity for training soil scientists; extension and

Research for Technology Development
Research programs developed to ensure consistent technology development in response to emerging issues,

Advisory services, policy & Advocacy
Coherent policy development, coupled with advocacy for adoption and implementation as well as support for advisory services.

3. The portfolios

A dashboard to track progress with metrics drawn from existing related efforts, wherever possible.

An African Soil Information System, leveraging and facilitating decision making.

An African community of practice network on soils.

Education and training from the local to regional to international level to share experience and research on successful approaches.

•Defining and practicalizing how fertilizers will fit within the soil health and management system

Addressing how to engage and involve the local and international private sector.

4. The change we seek

1. **Collective action and global solidarity** for a soil health management system in Africa.
2. Reverse the current scenario on soil degradation through better **coordination, cooperation, and leadership.**
3. **Farmer empowerment as an** action for SIA
4. **Dashboard and investment platform** for monitoring progress and assessment of Africa's soil health.
5. Science-based soil health practices scaled to millions of land users.
6. Continental framework for policies, programs, and investment in soil health across entrenched in CAADP / Agenda 2063.
7. Galvanizes coherent action using the innovation systems approach for service delivery, lesson-learning, business development, and organization of stakeholders.
8. Ensures national-level implementation in accordance with national priorities.

The SIA Theory of Change

1. How we work

The SIA Theory of Change

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Soil Initiative for Africa

Key Philosophies for Change

Leadership and Coordination

- AUC leadership of the SIA
- Coordination mechanism to liaise and connect with existing partnerships.

Financing mechanism

- Mobilize resources to promote initiative initiatives that enhances soil health in Africa.
- Advocacy for public budget allocations to finance local and national fertilizer and soil health efforts

Domestication

- Africa owned and Africa led processes
- Use CAADP processes to mainstream SIA into the existing planning processes at all level (RECS, SRO, National Systems).

Aligned with existing continental frameworks and instruments viz., Agenda 2063, Post Malabo objectives, goals, and indicators

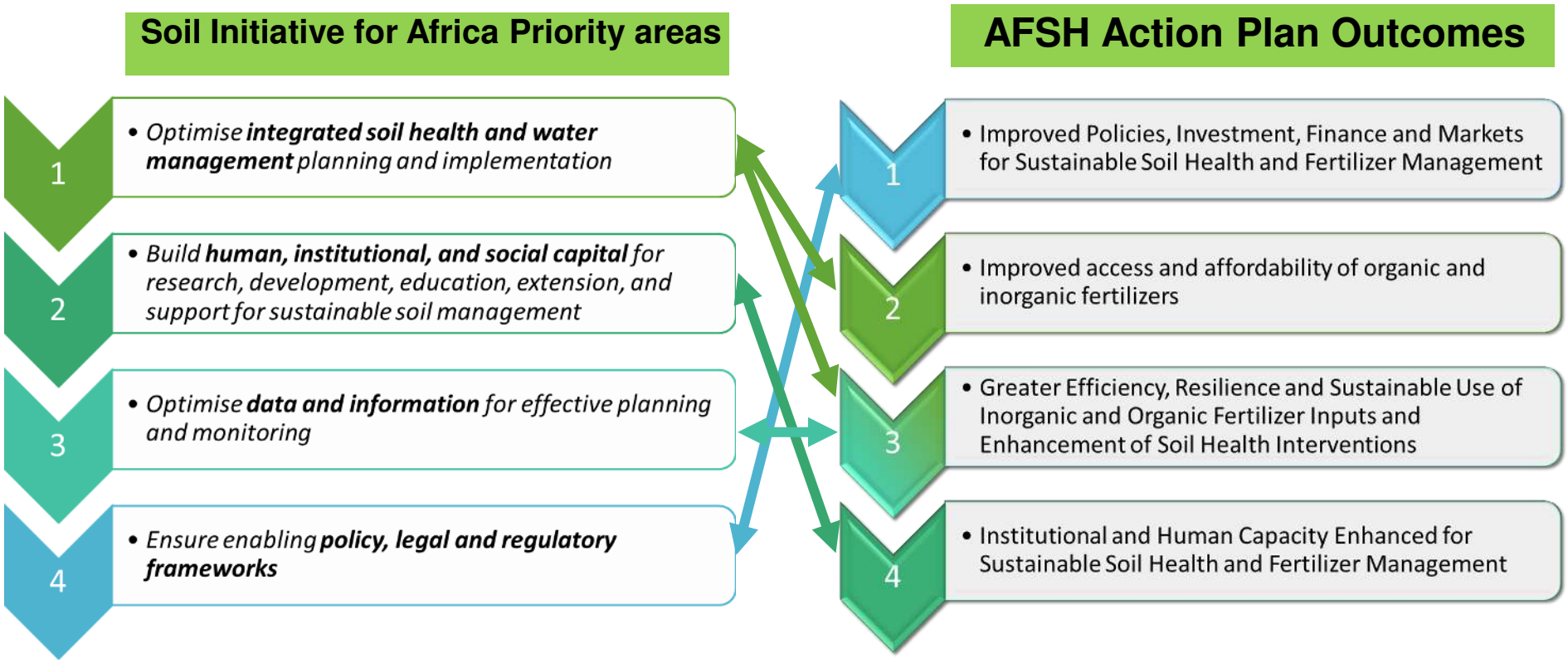
Soil Initiative for Africa

Implementation Principles

- Emphasis on Scaling.
- Focusing on Farmers' and the civil society Capacity to innovate.
- Foster effective multi-stakeholder partnerships
- Communication and awareness.
- Monitoring, Evaluation, Accountability, and Learning.
- CAADP Biennial Review process

Soil Initiative for Africa

Alignment of SIA and AFSH Action Plan



Thank you for listening

Obrigado Merci Asante sana شكرًا لك