



Summary of the Africa Fertilizer and Soil Health Action Plan (2024-2034)

To address Africa's soil health and fertilizer challenge and meet the goals of its multiple development agendas, the African Union (AU) hosted the Africa Fertilizer and Soil Health (AFSH) Summit from the 7th to 9th of May 2024 in Nairobi, Kenya. A key outcome of the AFSH Summit was the 10-year AFSH Action Plan which details actions to address the major constraints to agricultural growth related to soil health and efficient and effective fertilizer use. This brief provides an overview of the AFSH Action Plan, detailing its 10-year goals and the outcomes, outputs and summarised actions of its results chain. It also describes the proposed means for implementation with a focus on leadership and coordination, stakeholder engagement and partnerships, and monitoring and evaluation.



Africa's soil health and fertilizer challenge

The Africa Fertilizer Summit, held in Abuja, Nigeria, in June 2006, identified the critical need to increase the use of fertilizer and complementary inputs to stimulate sustainable agricultural productivity growth and economic development and to reverse declining soil fertility. However, 18 years later, Africa has still not reached the target of 50 kg per hectare of fertilizer consumption that was set in the Abuja Declaration. Despite increased local manufacturing, Africa remains overly dependent on imported fertilizers, particularly non-phosphate-based fertilizers. This reliance is largely due to fragmented intra-continental markets, inadequate transport and distribution infrastructure, and a lack of harmonised regional trade policies. Africa's heavy dependence on fertilizer imports renders it vulnerable to global market shocks. For example, the global fertilizer crisis had a disproportionate impact on Africa, resulting in a 25% decline in fertilizer consumption from 2019 to 2022. This decline is projected to reduce the continent's food production by 30 million metric tonnes of grains, an amount that could feed over 60-90 million people for a year.

Simultaneously, Africa's agricultural productivity has been severely constrained for decades by widespread land and soil degradation. Crop productivity levels remain at about 30% of global averages. About 75%-80% of the continent's cultivated area is reportedly degraded, with a loss of 30 kg to 60 kg of nutrients per hectare per year. This annual loss is valued at US\$ 4 billion and affects more than 485 million people (65% of the population) on the continent. Alarming, projections suggest that more than half of the currently arable land may be unusable by 2050.

A decline in soil health significantly reduces the capacity of soils to respond to the use of yield-increasing inputs such as fertilizers and improved crop varieties, and greatly increases the vulnerability of smallholder farmers and communities to the impacts of climate shocks. Furthermore, insecure tenure of land and water limits farmers' access to resources to invest in sustainable production.

The soil degradation and fertilizer crisis has contributed to rising food insecurity and malnutrition over the last ten years and as a result the continent is more dependent on global markets to meet its food demands, making it more vulnerable to external food system shocks. For example, the COVID-19 pandemic, the Ukraine-Russia conflict, and the escalating climate change crisis have intensified Africa's food security challenge. These global shocks have highlighted the vulnerabilities of Africa's fragile, import-dependent food systems, sparking a renewed focus on eradicating hunger and malnutrition. With the rapid rate of expansion of Africa's population (greater than 2% per annum), immediate action is needed to accelerate agricultural growth and meet the food demands of a population projected to reach 2 billion by 2040.

Sustainably increasing Africa's agricultural production without increasing the area of land under cultivation will be key to improving food and nutrition security, reducing and reversing land and soil degradation, improving livelihoods, improving resilience to climate change, and protecting and improving biodiversity richness. To achieve this, it is acknowledged that there is a need to adopt an Integrated Soil Fertility Management (ISFM) approach, as mineral fertilizers alone cannot reverse land degradation nor sustainably enhance the productivity of Africa's soils.

The ISFM approach incorporates integrated production systems that use efficient fertilizers, including mineral, organic, biofertilizers, and biostimulants, as well as reused and recycled nutrient sources. The use of improved seeds and efficient water use in irrigation are also crucial elements.

Africa has set multiple goals related to increased agricultural productivity and production, environmentally sustainable and climate resilient production, improved water productivity and security, biodiversity conservation, and sustainable natural resource management under Agenda 2063, the Comprehensive Africa Agriculture Development Programme (CAADP), the Malabo Declaration, Africa's Climate Change Strategy, and more. A central requirement to achieving these goals is to improve soil health in all agricultural subsectors across the continent through a combination of sustainable agricultural practices.

In alignment with the continent's overarching development agenda, the AFSH Action Plan provides a roadmap for urgent action on soil health and effective and efficient fertilizer use to stimulate agricultural productivity growth and contribute to ending hunger and poverty in Africa.

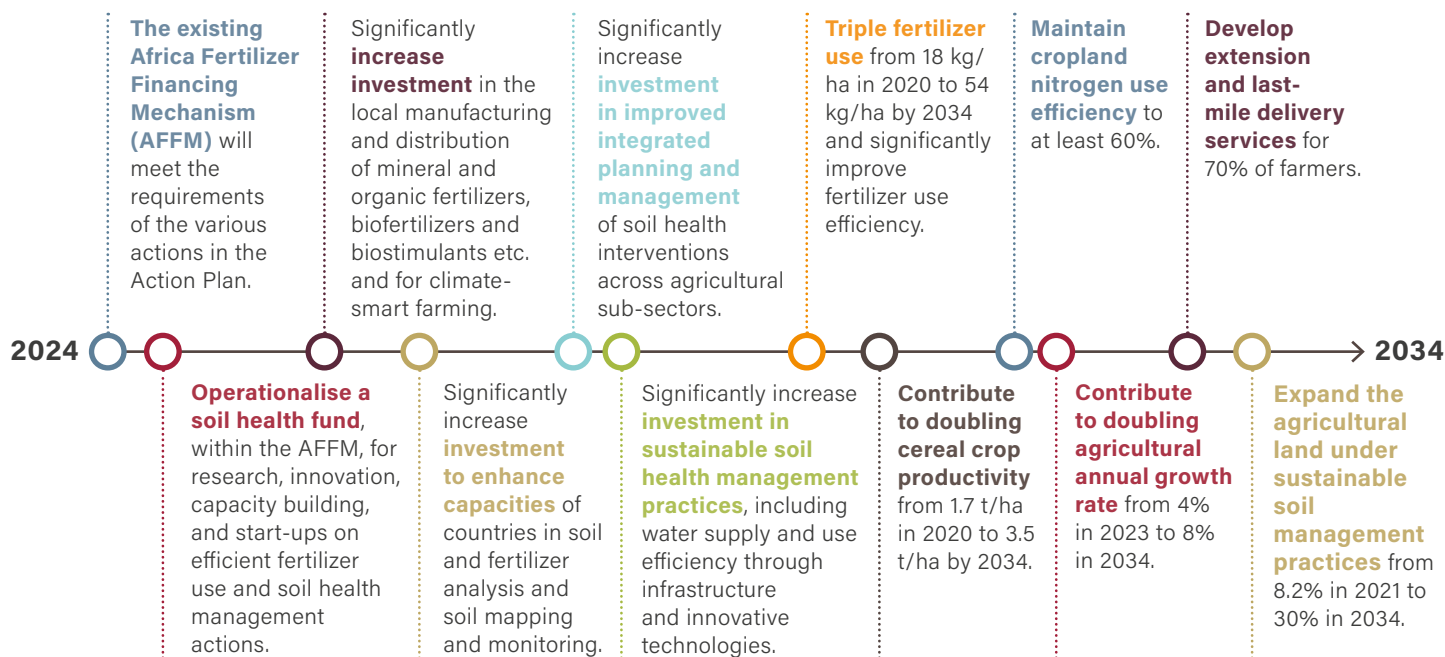


The AFSH Action Plan results chain and first 10-year goals

The AFSH Action Plan presents the priority actions for the next 10 years to be implemented in the context of the Soil Initiative for Africa Framework. The objectives of the AFSH Action Plan are to:

- Increase access, affordability, and use of sustainable soil management practices, including efficiently using organic and mineral fertilizers.
- Enhance capacity for soil health and sustainable soil management, including strengthening extension for the sustainable management and efficient use of organic and mineral fertilizers.

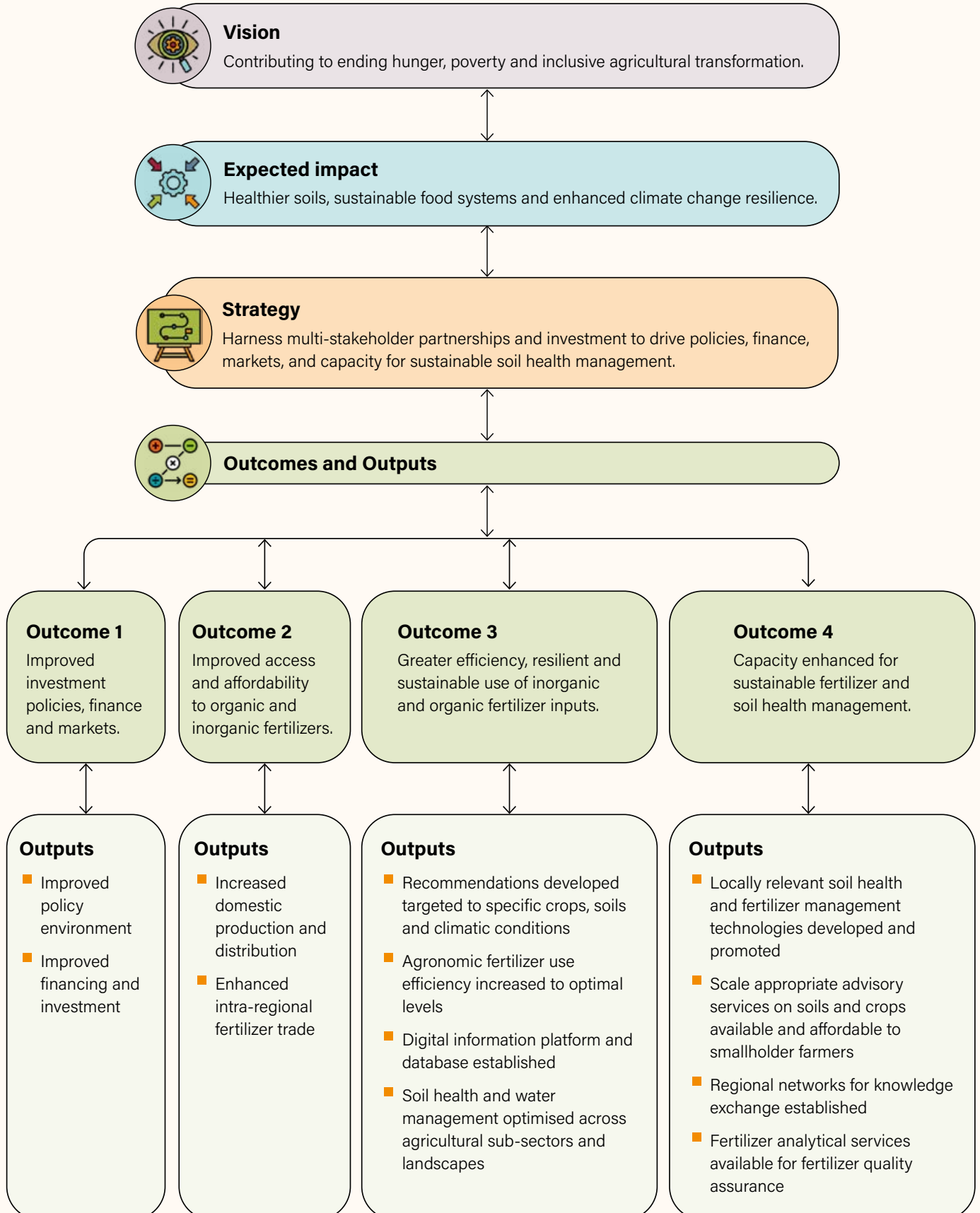
It is expected that the following will be achieved in the first 10 years of implementation:





AFSH Action Plan results chain

The AFSH Action Plan results chain includes the Vision and the Expected Impact to be generated by implementing the Strategy and actions under the Outputs of the four Outcome areas.





Outcomes, outputs and actions

OUTCOME 1: Improved policies, investment, finance and markets for sustainable soil health and fertilizer management

OUTPUT 1.1 Improved policy environment

- **Action 1.1.1** Develop context-specific, continent-wide guidelines for the formulation and implementation of relevant national policies that enable sustainable soil health and efficient fertilizer management.
- **Action 1.1.2** Harmonise national policies and regulatory frameworks on fertilizer efficiency and soil health solutions to ensure cross-sectoral coherence and promote regional and continental trade.
- **Action 1.1.3** Support smallholder farmers to access viable commodity markets and support improved security of land tenure and use rights to enable individual investments in efficient fertilizer use and soil health.
- **Action 1.1.4** Enact policies and regulation to support/promote the use of recycled organic fertilizer and soil improvers.
- **Action 1.1.5** Identify areas of high agricultural or ecological importance for protection, restoration, and sustainable management to improve soil health.

OUTPUT 1.2 Improved financing and investment

- **Action 1.2.1** Widen the scope of the Africa Fertilizer Financing Mechanism (AFFM) to improve the production, procurement, distribution, and efficient use of organic and mineral fertilizers, and soil health interventions.
- **Action 1.2.2** Incentivise enhanced private sector investments in low-carbon fertilizer production, research and development, trade and farmer

advisory services, towards “smart farming” that better matches various fertilizer types/ formulas with local soil types.

- **Action 1.2.3** De-risk farmer investments in yields and soil health of current and targeted food security crops.
- **Action 1.2.4** Support financing of infrastructure and logistics assets to improve availability of organic and mineral fertilizers, biofertilizers and biostimulants, and reused and recycled nutrient sources, and access to food markets for farmers.
- **Action 1.2.5** Strengthen the soil health fund for research, innovation, and start-ups on efficient fertilizer use and soil health actions, including private sector investments, under the AFFM.
- **Action 1.2.6** Incentivise the building up of local infrastructure for composting or anaerobic digestion of organic wastes to produce compost, including the decentralised composting options.
- **Action 1.2.7** Deploy innovative incentive support mechanisms for Member States’ greater use of technology to improve the efficiency of existing subsidy programmes, with the end goal of encouraging soil health investments by smallholder farmers.
- **Action 1.2.8** Establish the minimum threshold for the optimal functioning of AFFM and convene a partner’s roundtable by the end of 2024, to mobilise the required resources.
- **Action 1.2.9** Promote gender-sensitive finance, technical support and information to enable women to implement sustainable soil health practices.



OUTCOME 2: Improved access and affordability of organic and mineral fertilizers

OUTPUT 2.1: Increased domestic production and distribution

- **Action 2.1.1** Boost local production and blending of mineral fertilizers and lime using locally available raw materials.
- **Action 2.1.2** Enable small- and medium-sized enterprises, especially by youth and women, oriented to the production, distribution, and efficient use of mineral fertilizers.
- **Action 2.1.3** Support research and development to produce organic fertilizers, biofertilizers and biostimulants, and reused and recycled nutrient sources and novel fertilizers with low carbon, including green ammonia.

- **Action 2.1.4** Strengthen access, including to women and youth, through market linkages and promote agro dealerships.
- **Action 2.1.5** Repurpose subsidies for manufacture and develop effective transportation networks.

OUTPUT 2.2 Enhanced intra-regional fertilizer trade

- **Action 2.2.1** Leverage the African Continental Free Trade Agreement (AfCFTA) to increase intra-Africa fertilizer trade and enact sovereign guarantees agreements between importers and manufacturers.

OUTCOME 3: Greater efficiency, resilience and sustainable use of mineral and organic fertilizer inputs and enhancement of soil health interventions

OUTPUT 3.1 Recommendations developed targeted to specific crops, soils and climatic conditions

- **Action 3.1.1** Develop digitally enabled context-specific efficient fertilizer and soil health advisory recommendations.
- **Action 3.1.2** Develop and deploy standardised and appropriate tools for assessing soil fertility, soil health, and context-specific sustainable soil management and nutrient requirements.
- **Action 3.1.3** Bundle fertilizer and soil health recommendations with climate information services to reduce and address the risks associated with climate variability.

OUTPUT 3.2 Agronomic fertilizer use efficiency increased to optimal levels

- **Action 3.2.1** Promote integrated soil fertility management practices to enhance crop response.
- **Action 3.2.2** Promote context-specific solutions for the use of the right sources of nutrients at the right rates, time, and place.
- **Action 3.2.3** Promote access and affordability of liming for ameliorating acidic soils to enhance crop productivity and fertilizer use efficiency.
- **Action 3.2.4** Promote context specific climate-smart agriculture innovations to ensure the cost-effectiveness of investments in fertilizer use, while mitigating the effect of climate change and variability.

OUTPUT 3.3 A digital information platform and database established

- **Action 3.3.1** Establish and operationalise continental, regional, and national soil health monitoring and soil information systems.
- **Action 3.3.2** Establish and operationalise a soil health, fertilizer, crop, and climate dashboard for decision support on sustainable soil management.
- **Action 3.3.3** Establish and operationalise analytical and decision support tools to guide investments at farm, national, regional, and continental level.

OUTPUT 3.4 Soil health and water management optimised across agricultural sub-sectors and landscapes

- **Action 3.4.1** Promote integrated soil and water conservation, planning, and management across agricultural sub-sectors and landscapes/ watersheds.
- **Action 3.4.2** Promote investments in smart irrigation as part of integrated water resource management for enhancing nutrient use efficiency and soil health conditions for climate change resilience.
- **Action 3.4.3** Promote context-specific sustainable agricultural practices to support increased biomass, crop, and animal production in croplands, rangelands, forest lands and inland fisheries.

OUTCOME 4: Institutional and human capacity enhanced for sustainable soil health and fertilizer management

OUTPUT 4.1 Locally relevant soil health and fertilizer management technologies developed and promoted

- **Action 4.1.1** Strengthen regional and national research and education institutions and capacity in soil health and sustainable soil management.
- **Action 4.1.2** Strengthen national extension systems and public-private partnerships for soil health and efficient fertilizer advisory integrated with other farmer services (input and output markets, finance) to improve the quality of support to smallholder farmers
- **Action 4.1.3** Build the capacity of national research and development and extension systems that will need to support and enable the implementation of the activities specified in the Action Plan.
- **Action 4.1.4** Review and upgrade tertiary training programmes for soil science and agronomy to include subjects relevant to sustainable soil management and efficient fertilizer use.
- **Action 4.1.5** Develop a database coupled with a decision support system to promote locally, nationally and regionally relevant fertilizer and soil health management technologies.
- **Action 4.1.6** Strengthen informal and in-service training modalities to strengthen research, extension, and implementation expertise on sustainable soil management.

OUTPUT 4.2 Scale appropriate advisory services on soils and crops available and affordable to smallholder farmers

- **Action 4.2.1** Build, strengthen, and standardise soil analysis capacity of laboratories to rapidly and accurately analyse large sample volumes.
- **Action 4.2.2** Establish public-private partnerships to foster innovation towards scalable, affordable, and localised soil and crop-specific advisory.

OUTPUT 4.3 Regional networks for knowledge exchange established

- **Action 4.3.1** Establish regional research and development networks for the exchange of knowledge and technologies within the continent and with the North-South-South (global) regions.
- **Action 4.3.2** Establish and convene a biennial Continental Fertilizer and Soil Health Summit.

OUTPUT 4.4 Fertilizer analytical services available for fertilizer quality assurance

- **Action 4.4.1** Build, strengthen, and standardise the fertilizer analysis capacity of national and regional laboratories in accordance with fertilizer quality standards.

Implementation framework



Leadership and coordination

The African Union Commission (AUC) will have ownership of the AFSH Action Plan. The AUC and AUDA-NEPAD will coordinate the different stakeholder organisations within and outside the continent to ensure effective implementation of the AFSH Action Plan. In carrying out its coordination role with regards to implementation of the AFSH Action Plan, an AU Secretariat will, amongst others, have the following responsibilities:

- Establish the modalities for knowledge management, risk management, monitoring and evaluation for each of the implementing stakeholders.
- Support the domestication of the AFSH Action Plan into continental, regional, and national processes for development and investment planning.
- Support and facilitate effective communication and advocacy to generate public awareness, involvement, support, and ownership of the AFSH Action Plan by the African population and all relevant stakeholders in its execution.
- Establish a Monitoring, Evaluation, Accountability, and Learning process to track progress in the implementation of the AFSH Action Plan.

Details of how a coordination mechanism would function and how all the above processes will be managed, coordinated, and carried out will be developed during the implementation of the AFSH Action Plan.



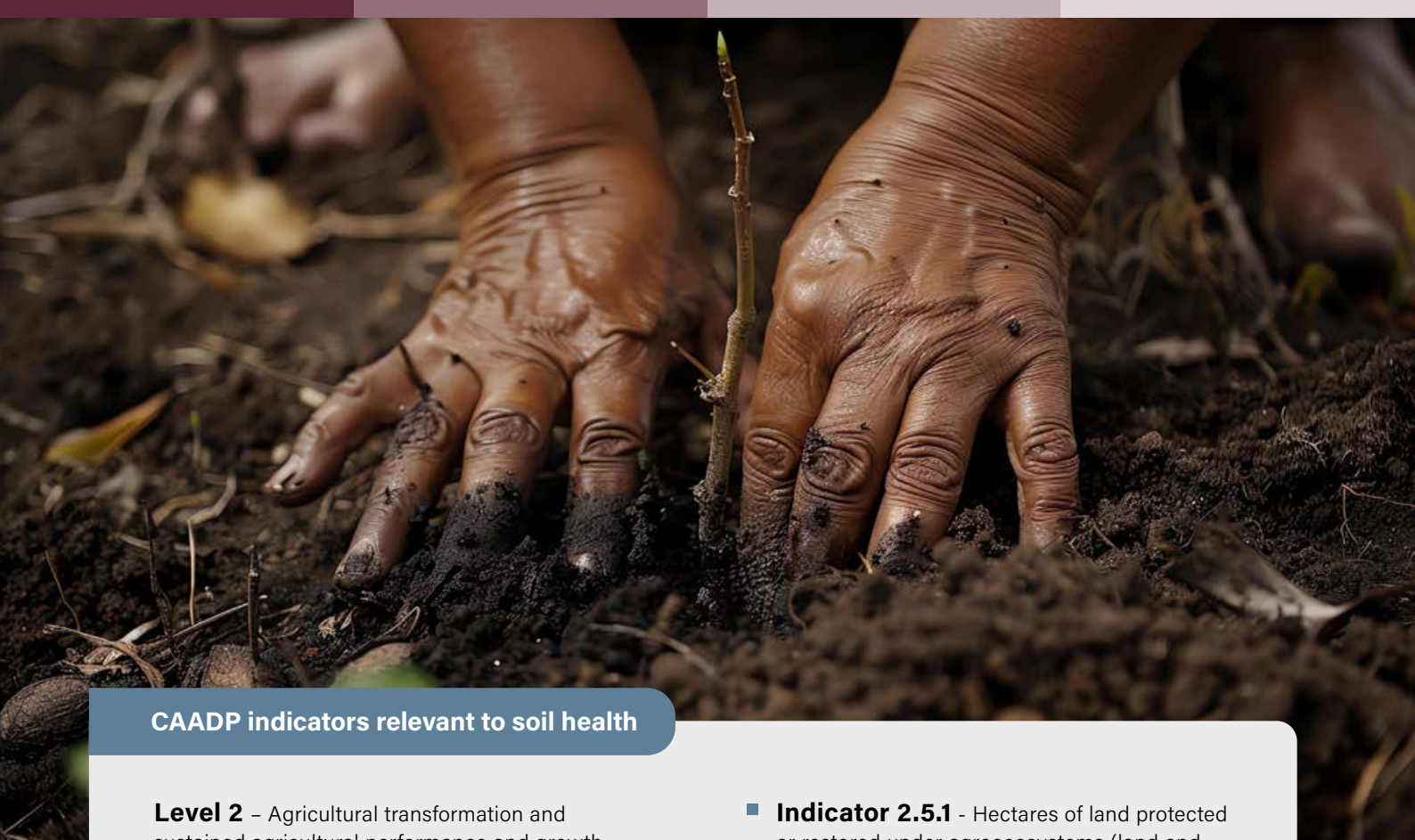
Stakeholder engagement and partnerships

Stakeholders at the continental, regional, national, and local levels will be engaged through effective partnerships. The Guidelines for Non-State Actor participation in CAADP processes will be utilised to guide the effective establishment of partnerships and support accountability in the implementation of the AFSH Action Plan. Responsibilities will be devolved to stakeholders with the required capacity to deliver the outputs.



Monitoring, evaluation, accountability, and learning

Implementation of the AFSH Action Plan will be incorporated into the AUC CAADP monitoring and evaluation system, including incorporation into the digital CAADP Biennial Review (BR) dashboard. Appropriate indicators will be defined with an emphasis on leveraging existing indicators as far as possible. This will require additional support to the CAADP processes to accommodate the requirements to support country-level domestication, monitoring, evaluation, accountability, and learning. The monitoring plan will include tracking of private sector contributions.



CAADP indicators relevant to soil health

Level 2 – Agricultural transformation and sustained agricultural performance and growth

- **Result area 2.1** – Increased agriculture production and productivity
 - **Indicator 2.1.5** - Change in input use (fertilizer; mechanisation; seed and other purchased inputs)
- **Result area 2.5** – Sustainable natural resources management (environmental resilience)

- **Indicator 2.5.1** - Hectares of land protected or restored under agroecosystems (land and water, agro-forestry, agro-ecology)
- **Indicator 2.5.6** - Percentage increase in hectares under sustainable land and water management annually disaggregated by country, land-use type, and target area



Phased implementation

The AFSH Action Plan will be implemented in two phases:

Phase 1: Preparatory 18-month post-summit phase (June 2024-November 2025). The Inception Phase will be used for defining and establishing the coordination mechanism, aligning implementation with future developments under Agenda 2063 and CAADP, establishing necessary partnerships and alliances, capacity building, piloting some interventions, and more. In line with continental

coordination, country-specific action plans will be developed with the engagement of public-private partners and development stakeholders. Phase 1 will be essential for final planning, budgeting, and resource mobilisation.

Phase 2: The main implementation phase will take place from January 2026 to December 2034.