

Capability Statement

**SOIL HEALTH**



**Welthungerhilfe’s strategy prioritizes soil health as one of the most important leverage points to advance zero hunger, livelihoods, biodiversity, and climate resilience. Our soil health approach aims at enabling biodiversity and maximizing climate resilience in addition to optimizing soil fertility.**

**THE CHALLENGE**

Soils are paramount to food and nutrition security, livelihoods, water security, biodiversity, and climate resilience (climate change adaptation and mitigation). Consisting of minerals, organic matter, water, air, nutrients, living organisms and roots, they provide the basis plant and animal production, regulate water cycles, host about 30% of terrestrial biodiversity worldwide, and accumulate soil organic carbon. On the African continent, soils provide the basis for over 90% of food production and hold great potential to sink carbon and adapt and mitigate to climate change. However, 65% of Africa’s productive land is considered degraded, resulting in estimated production losses valued at over \$9 billion annually. The main drivers of soil degradation include unsustainable agricultural practices such as monocropping, tillage, overgrazing and excessive use of fertilizers, pesticides and water, as well as deforestation, urbanization and industrial construction. Soil degradation is amplified by the climate crisis, which reinforces wind and water erosion.

Welthungerhilfe (WHH) welcomes the Nairobi Declaration, which the African Union adopted at the African Fertilizer and Soil Health Summit in 2024 and which aims at reversing land degradation and restoring soil health on 30% of degraded soils in Africa by 2034, as well as ensuring food and nutrition security, livelihoods and climate resilience for a quickly growing population.

**WELTHUNGERHILFE’S STRATEGIC APPROACH**

WHH invests in healthy soils as one of the highest-impact leverage points available for a sustainable and resilient food system transformation. WHH has been working on optimizing soil health since 1962, promoting sustainable, resilient and regenerative agricultural practices, agroforestry and reforestation, and restoring of degraded lands.

We leverage multi-stakeholder partnerships to define viable public and private solutions to scale soil health, including agricultural advisory services, soil analyses, soil organic carbon sequestration approaches and payment for ecosystem services to provide financial incentives for farmers who contribute to soil health. We advance soil health in conjunction with programs focused on land rights, gender equity, inclusive and equitable governance, and social accountability. WHH’s evidence and experience shows that soil health must pay off for farmers both tomorrow and today: through improved agricultural yields, increased climate resilience, and sustainable food and nutrition security, and an income that allows a decent living.

WHH’s soil health portfolio spans across 17 countries, including 9 countries in Africa. The 16 projects in Africa reach a total of 492.000 participants with an average project budget of 2,2 million EUR.

**SNAPSHOT SOIL HEALTH PORTFOLIO IN 2024<sup>1</sup>**

	<b>No. of countries working on soil health</b>	<b>17</b> (9 in Africa)
	<b>No. of active projects with a soil health component</b>	<b>30</b> (16 in Africa)
	<b>Total budget of projects with a soil health component</b>	<b>70 million EUR</b> (36 million EUR in Africa)
	<b>Average budget of projects with a soil health component</b>	<b>2,3 million EUR</b> (2,2 million EUR in Africa)
	<b>No. of direct participants in projects promoting soil health</b>	<b>649.000</b> (492.000 in Africa)
	<b>Average project duration</b>	<b>39 months</b> (35 month in Africa)

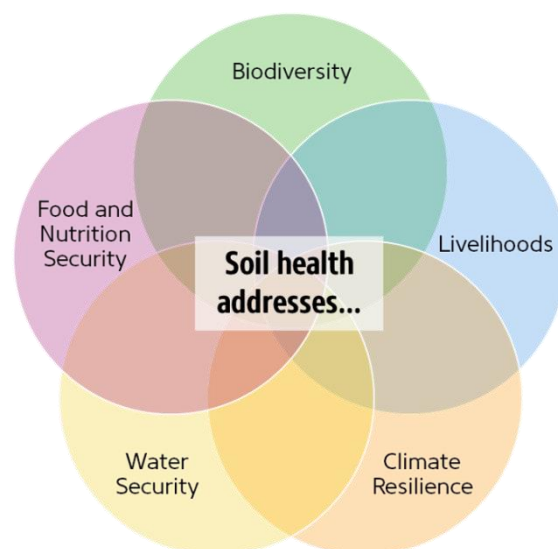
<sup>1</sup> Snapshot of Welthungerhilfe’s Soil Health Portfolio as of August 2024.

## KEY INTERVENTIONS AND RESULTS

Our interventions are based on multi-stakeholder approaches and develop and scale solutions that are locally and nationally owned. These solutions include strengthened research and governmental extension services, market system and enterprise development for input, extension, certification and output market services, as well as farmer-to-farmer and cooperative approaches.

- We support national extension services and research organizations with conducting soil laboratory analyses to support farmers in taking informed decisions on plant selection, fertilizer management and controlling appropriate soil pH levels.
- We promote farming techniques that build on locally available resources and respect planetary boundaries. We promote microdosing of organic and inorganic fertilizers where farming systems lack essential nutrients and where overall biomass production is insufficient, such as in (semi-)arid areas and/or when land users do not have access to livestock.
- To support soil health, i.e. water infiltration, soil carbon sequestration, nitrogen availability and to reduce soil erosion, we promote agroforestry and integrated regenerative farming approaches.
- In western Kenya, over 180.000 farmers have been trained on sustainable agricultural land management (SALM) practices and > 1.000.000 agroforestry tree seedlings have been planted since 2015.
- The farmers we work with have restored degraded land on more than 48.000 verified hectares through (SALM) practices in the frame of the PROSoil Project together with the GIZ. These practices lead to a sequestration of 2,5-4 t Co<sub>2</sub> per ha in tree and soil organic carbon. These carbon credits have been certified<sup>2</sup> and are expected to be sold on the voluntary carbon credit market in 2024.

- SALM practices have improved agricultural harvests (49% maize, 27% beans), cash net income, water infiltration, and erosion control while helping farmers to adapt to increased climate variability.
- In Ethiopia, > 37.500 ha of forests have been put under sustainable management playing a significant role in protecting soil erosion in the highlands of the Amhara region. Moreover, through the rush flood Dry Valley Rehabilitation and Productive Use approach, we have protected 280-hectare land from degradation and soil erosion. The project has benefited more than 26.000 land users in the Afar region.



## NETWORKS & PARTNERS

Welthungerhilfe partners with many system actors, representing civil society, the private sector, research, and government:

- WHH is a **Champion of the Vision for Adapted Crops and Soils (VACS)**, a global movement initiated by the U.S. Department of State that seeks to build a resilient food system grounded in diverse, nutritious, and climate adapted crops grown in healthy, fertile soils by building supply and demand for diverse crops and promoting sustainable land use with opportunity crops.
- **Memberships:** Working Group member on agriculture in the Global Food Security Cluster by the FAO, member of the Advisory Council to Special Initiative “Transformation of Agricultural and Food Systems Globally” of the Federal Ministry for Economic Cooperation and Development in Germany (BMZ); member of the global Agroecology Coalition
- **Public partnerships:** GIZ, IFDC, CGIAR (AfricaRice; CIP, ICRAF, ICRISAT, IITA), FAO, IFAD, others
- **Private partnerships:** Agrocares, CropNuts, SCCS, Boomitra and others
- **Key Conferences and Summits:** African Fertilizer and Soil Health Summit of the African Union, African Food Systems Forum, UN Food Systems Summit, Climate Conference of the Parties, UNCCD World Day to Combat Desertification and Drought



## CONTACT

### Dr. Hendrik Hänke

Senior Advisor Agriculture, Food Systems and Natural Resource Management, [hendrik.haenke@whh.de](mailto:hendrik.haenke@whh.de)

Sector Strategy, Knowledge & Learning Unit  
Deutsche Welthungerhilfe e.V., Friedrich-Ebert-Str. 1, 53173 Bonn, Germany

<sup>2</sup> <https://verra.org/methodologies/vm0042-methodology-for-improved-agricultural-land-management-v2-0/>