

Finapp S.P.A.: Soil Moisture Monitoring for Precision Irrigation Over Large Fields

Smart soil moisture monitoring for improved water-use efficiency, crop performance, and climate resilience.

Finapp Soil Moisture Probe uses cosmic ray technology to provide real-time soil moisture monitoring across large agricultural areas. The technology supports evidence-based irrigation planning, sustainable water management, and climate-resilient agricultural development.



Finapp S.P.A.
Andrea Sala

Commodities

Maize, Wheat, Cassava, Common bean,
Soybean, Cowpea, + 3 more

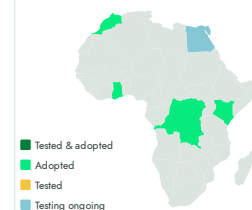
Sustainable Development Goals



Categories

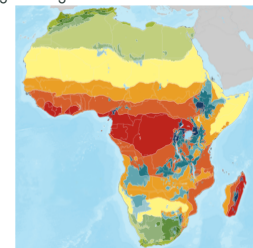
Production, Pre-production, Equipment,
Water management

Tested/adopted in



Where it can be used

This technology can be used in the colored agro-ecological zones.



Target groups

Development institutions, Farmers,
Governments, Sellers, Manufacturers,
Researcher center, + 2 more



This technology is **pre-validated**.



Scaling readiness: idea maturity
9/9; level of use 7/9

Inclusion assessment

14

10

18

Climate impact

7

Problem

- Up to **40%** of agricultural freshwater resources can be lost through inefficient irrigation.
- Drought and water stress can reduce staple crop yields by **30% to 80%**.
- Climate variability increases the need for effective water management and adaptation tools.
- Limited soil moisture information constrains efficient irrigation planning and resource management.

Solution

- Improve water-use efficiency through real-time soil moisture monitoring.
- Increase agricultural productivity through better irrigation management.
- Support climate adaptation with seven-day irrigation forecasts.
- Strengthen evidence-based water resource management.

Key points to design your project

Finapp Soil Moisture Probe helps governments improve irrigation efficiency, strengthen climate resilience, and promote sustainable water management while contributing to **SDG 2, SDG 6, SDG 13, and SDG 15**. Successful implementation should:

- Prioritize water-scarce and drought-prone production areas.
- Integrate the technology into national irrigation and climate adaptation programs.
- Strengthen farmer training, extension services, and irrigation advisory systems.
- Build partnerships with Finapp and key implementation partners.
- Monitor water-use efficiency, crop productivity, and adoption to support evidence-based scaling.



Patent granted, Trademark



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Last updated on Aug 12, 2026 printed on Aug 12, 2026

Enquiries e-catalogs@taat.africa