

# Soil Information Workflow: 8 steps to develop a Soil Information System (SIS)



**ISRIC - World Soil Information**  
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Soil Information Workflow turns data into insights, helping professionals make smarter, sustainable decisions.

ISRIC-World Soil Information provides a structured approach to collect, organize, and serve soil data, helping users establish efficient soil information systems. It supports better soil management and informed decision-making through a series of eight essential steps, from needs assessment to data serving.

This technology is **pre-validated**. 9·7 Scaling readiness: idea maturity 9/9; level of use 7/9

Gender assessment 👍 4

Climate impact 👍 6

Commodities

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Sustainable Development Goals

2 ZERO HUNGER

13 CLIMATE ACTION

15 LIFE ON LAND

Categories

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Policies

Tested/adopted in

Where it can be used

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

Target groups

Development institutions, Governments, Researcher center, Soil scientists

### Problem

- **Soil Degradation Crisis:** 65% of Africa's productive land is degraded due to desertification, affecting 45% of the continent.
- **Africa's soils are deteriorating:** Due to factors like organic matter loss, declining fertility, nutrient imbalance, pollution, soil biodiversity loss, increasing acidity, and erosion.
- **Key drivers:** include overgrazing, deforestation, and unsustainable farming practices, leading to soil degradation that threatens biodiversity, ecosystems, and productivity.

### Solution

- **Building a Soil Information System (SIS):** Develop an integrated system to store, analyze, manage, and disseminate soil data to improve soil health and monitor deterioration.
- **SIS Profile Development:** Create a SIS profile that aligns with use cases and includes a viable business model for long-term sustainability.
- **Step-by-Step Design Process:** Follow a structured workflow for designing and building the system to ensure effective implementation and functionality.

### Key points to design your project

This technology provides a comprehensive approach to building or enhancing a Soil Information System (SIS), enabling effective soil data collection, analysis, and dissemination.

To develop or improve a SIS in your country, follow these key steps:

- Define the vision and objectives of the SIS.
- Collaborate with ISRIC and CABI to create a SIS roadmap.
- Collect, store, and organize soil data efficiently.
- Use modeling for soil mapping and decision-making.
- Share data through accessible online platforms.
- Provide training for effective system use and interpretation.

By adopting this approach, you can address soil challenges, enhance agricultural practices, and promote sustainable land management.

## 50,000—100,000 USD

Workshop cost varies based on specific needs

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IP

Open source / open access



<https://e-catalogs.taatafrica.org/gov/technologies/soil-information-workflow-8-steps-to-develop-a-soil-information-system-sis>

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