

**Terms of reference**

**Development of In-Country Private Sector Capacity for Assembling, Operating, and Maintaining the Zainer Technology**



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## 1. Introduction

The Soil Values program is a regional initiative funded by the Netherlands Directorate-General for International Cooperation (DGIS). It is implemented by a core consortium of IFDC, SNV, and Wageningen University & Research (WUR), in close collaboration with knowledge partners including AGRA, CIFOR-ICRAF, IITA, ISRIC, and IWMI. The program addresses persistent soil fertility challenges in the Sahel (Burkina Faso, Mali, Niger, northern Nigeria) and strategic countries (Ghana, Côte d'Ivoire). Soil Values aims to facilitate sustainable management of soil fertility and health to improve agricultural production in an environmentally sustainable way and increase the resilience of smallholder farmers in the Sahel women, men, and youth to climate change and the resulting shocks.

One of the key technological innovations promoted under Soil Values is the Zainer a motorized implement that mechanizes the traditional zai practice. The practice is a time-honored technique for reclaiming degraded land widely used in Burkina Faso, Niger, and Mali. It concentrates water and organic matter, thereby improving soil fertility and resilience in arid environments. However, manual implementation is highly labor-intensive (around 330 hours/ha) and limits large-scale adoption.

By drastically reducing labor requirements and increasing yields, the Zainer contributes directly to the program's expected results: enabling smallholder farmers (including women) to reduce the yield gap, improving resilience to climate shocks, and promoting sustainable management of agricultural lands. To ensure the technology is adopted at large scale, it is essential to build the capacity of local private sector actors SMEs, workshops, and cooperatives.

To address this challenge, the Zainer was developed. This motorized agricultural implement mechanizes the creation of zai planting pits, significantly reducing labor time (approximately 60 hours/ha) and increasing yields. As part of the Soil Values Program, scaling the Zainer is identified as a strategic lever for climate adaptation and land restoration.

Despite the strong potential of the Zainer technology to improve land restoration and climate resilience, its large-scale adoption remains constrained by limited local technical capacity, inadequate maintenance services, weak supply chains for spare parts, and insufficient private sector engagement. In many target areas, farmers and cooperatives lack access to qualified service providers capable of assembling, repairing, operating, and maintaining the equipment. Without a sustainable ecosystem of local technical and business service providers, the long-term scaling and

sustainability of the technology may remain limited. Indeed, widespread adoption, however, requires strengthening a local ecosystem capable of assembling, maintaining, operating, and providing services around this technology. The present Terms of Reference set out the scope of a dedicated assignment to build this in-country capacity in Mali, Niger and Nigeria, ensuring that the technology can be acquired locally, sustained, and serviced locally as adoption grows.

## **2. Objective general**

The overall objective of this assignment is to build a sustainable, in-country private sector ecosystem capable of assembling, distributing, operating, and maintaining the Zainer technology in Mali, Niger and Nigeria, so that Zainers can be sourced within the country and users can access and service the equipment locally well beyond the lifetime of the Soil Values program.

## **3. Specific Objectives**

The assignment specifically aims to:

1. Identify a network of local SMEs able to assemble, sell, and service the Zainer in each target country,
2. Equip technicians, operators, and entrepreneurs with the technical and business skills required to deliver reliable Zainer services on a commercial basis,
  1. Develop, translate, and disseminate user-friendly illustrated technical manuals and operational guides in French and relevant local languages covering assembly procedures, safe operation, troubleshooting, maintenance schedules, and repair protocols.
  2. improve access to mechanized zai services for smallholder farmers;
  3. promote inclusive business models benefiting women and youth;
  4. strengthen local entrepreneurship and job creation around agricultural mechanization;
  5. Lay the foundations for durable supply, maintenance, and after-sales support chain that continues to serve farmers after the assignment ends.

## **4. Scope of work**

The selected service provider will carry out the following activities, grouped under the three sub-objectives set out in Section 2.

### **A. Identification of a local service-provider network**

**S-1** Identify and select candidate SMEs and mechanics' workshops in each target country with the potential to assemble, sell, and service the Zainer, based on a stakeholders mapping, rapid capacity-needs assessment covering technical capability, equipment, premises, and commercial track record.

### **B. Technical and business capacity building**

**S-2** Develop and disseminate illustrated technical manuals in French and relevant local languages, covering assembly procedures, safe operation, troubleshooting (engine, auger), and maintenance schedules.

**S-3** Train technicians and mechanics of SMEs and workshops in the assembly, safe operation, and preventive and corrective maintenance of the Zainer.

**S-4** Train SMEs in the management of a mechanized-service business, including pricing and costing

### **C. Foundations for a durable supply and after-sales chain**

**S-5** Establish working linkages between service providers and upstream suppliers of Zainer components, spare parts, and consumables to secure reliable in-country supply.

**S-6** Set up a light-touch monitoring system to track network performance — units assembled and sold, hectares serviced, maintenance interventions, and end-user satisfaction — and feed lessons back to the Soil Values consortium. Work in close collaboration with the MEL team.

## **5. Expected Outputs**

By the end of the assignment, the following outputs are expected, corresponding to the three groups of activities defined in Section 3:

### **A. A network of Zainer service providers established and operational**

**O-1** 1 selection report covering all 3 target countries, setting out the selection criteria, pre-analysis of candidate SMEs and mechanics' workshops, assessment of their willingness to become Zainer resellers and service providers, and the resulting shortlist of candidates per country.

**O-2** 15 entities formally — 1 SME and 4 mechanics' workshops per country in Mali, Nigeria, and Niger — to assemble, sell, and service the Zainer.

## **B. Local technical and business capacity in place to deliver Zainer services**

**O-3** At least [30] technicians and mechanics from the 15 entities trained and certified to assemble, operate, and maintain the Zainer to agreed quality standards.

**O-5** At least [30] staff from the 3 SMEs trained in mechanised-service business management, pricing, and costing.

**O-6** 1 set of illustrated technical manuals produced in French and at least 3 relevant local languages (one per country), covering assembly, safe operation, troubleshooting, and maintenance, and in active use by all 15 providers.

## **C. A functioning supply and after-sales chain underpinning long-term scaling**

**O-7** Working supply linkages established for each of the 3 SMEs with upstream suppliers of Zainer components, spare parts, and consumables.

**O-8** 1 light-touch monitoring system in place — developed with the MEL team — tracking units assembled and sold, hectares serviced, maintenance interventions, and end-user satisfaction across the 15 entities, with results feeding back to the Soil Values consortium.

## **6. Monitoring, Evaluation and Learning (MEL)**

The service provider shall establish a monitoring and learning system to track:

- number of SMEs/cooperatives supported;
- number of technicians trained and certified;
- number of Zainers assembled, operational and sold ;
- number of hectares serviced;
- number of women and youth engaged;
- business performance of supported enterprises;
- customer satisfaction levels.

The MEL system should include:

- baseline assessment;
- regular field monitoring;
- performance tracking tools;

- lessons learned documentation;
- final evaluation report.

### **7. Certification Mechanism**

Participants successfully completing the training program should receive certificates of competence based on defined technical performance criteria and practical assessments.

### **8. Sustainability Strategy**

The service provider should propose mechanisms to ensure long-term sustainability, including:

- local ownership of the technology;
- establishment of spare parts supply systems;
- development of profitable business models;
- continuous technical support mechanisms;
- creation of local maintenance hubs;
- integration with existing agricultural mechanization systems.

### **9. Gender and Youth Inclusion**

The assignment shall ensure meaningful participation of women and youth in all training, business development, and service delivery activities. Specific measures should be proposed to reduce barriers to participation and improve access to mechanized services for vulnerable groups.

### **10. Expected Deliverables**

The service provider is expected to submit the following deliverables to IWMI over the course of the assignment. Deliverables map directly to the outputs defined in Section 4.

- **D-1** Inception report — within 4 weeks of contract signature, setting out the detailed work plan, methodology, country-level approach, team composition, risk register, and timeline for all subsequent deliverables.
- **D-2** Selection report (O-1) — covering all 3 target countries, with selection criteria, pre-analysis of candidate SMEs and mechanics' workshops, assessment of their willingness to become Zainer resellers and service providers, and the shortlist of candidates per country.

- **D-4** Technical and training manuals (O-6) — illustrated manuals covering assembly, safe operation, troubleshooting, and maintenance, produced in French and at least 3 relevant local languages (one per country), in print and digital form.
- **D-5** Technical training completion report (O-3) — covering the technicians and mechanics trained and certified across the 15 entities, with participant lists, curriculum, assessment results, and certification status.
- **D-6** Business training completion report (O-5) — covering staff of the 3 SMEs trained in mechanized-service business management, pricing, and costing, with participant lists, curriculum, and assessment results.
- **D-7** Supply-chain linkages report (O-7) — documenting the working linkages established between each of the 3 SMEs and upstream suppliers of Zainer components, spare parts, and consumables, including supply agreements or letters of intent where available.
- **D-8** Monitoring system and baseline report (O-8) — describing the light-touch monitoring system developed with the MEL team, the indicators tracked (units assembled and sold, hectares serviced, maintenance interventions, end-user satisfaction), and the baseline values established across the 15 entities.
- **D-9** Documentation of field activities through high-quality photo and video materials illustrating training sessions, demonstrations, field operations, and stakeholder engagement activities
- **D-10** Final assignment report — synthesizing results against all outputs, lessons learned, risks and mitigation, and recommendations for sustaining the in-country Zainer ecosystem beyond the assignment.

All deliverables shall be submitted in English in editable electronic format. Each deliverable is subject to review and approval by IWMI and IFDC before being considered final.

## **11. Required Qualifications**

The service provider should demonstrate strong technical, operational, and institutional capacity to successfully implement the assignment. Specifically, the service provider should possess:

1. Proven experience in agricultural mechanization, equipment fabrication, operation, maintenance, and scaling of agricultural technologies;
2. Demonstrated expertise in vocational, technical, and practical skills training, particularly in agricultural machinery operation, repair, and maintenance;

3. Proven experience in capacity building, facilitation, and training delivery for SMEs, cooperatives, technicians, and private sector actors;
4. Strong experience in SME development, business incubation, entrepreneurship support, and private sector acceleration programs;
5. Good knowledge and practical understanding of climate-smart agriculture, land restoration, and sustainable agricultural systems;
6. Proven experience working in Sahelian agricultural contexts and familiarity with the socio-economic and environmental conditions of the region;
7. Demonstrated experience in monitoring, evaluation, and learning (MEL) systems, including data collection, performance tracking, reporting, and documentation of lessons learned;
8. Availability of qualified multidisciplinary experts, including technical specialists, business development experts, trainers, and monitoring and evaluation specialists;
9. Strong organizational, coordination, and project management capacities for implementing multi-stakeholder field activities;
10. Ability to develop user-friendly technical materials, operational manuals, and training tools in French and, where relevant, local languages;
11. Excellent communication, facilitation, and stakeholder engagement skills, including multilingual facilitation capacity in French and local languages being considered an added advantage.

## **12. Proposal Requirements**

Interested service providers should submit:

- technical and financial proposals;
- implementation methodology;
- detailed workplan;
- team composition and CVs;
- evidence of similar assignments;
- references and previous work samples.

### **13. Risk Mitigation**

The service provider shall identify potential operational, technical, financial, and environmental risks related to the assignment and propose appropriate mitigation measures.

### **14. Reporting and Coordination**

The service provider will work under the technical supervision of the Soil Values Program Coordination Unit and collaborate closely with national implementing partners.

Regular coordination meetings and progress reporting shall be conducted throughout the assignment.

### **15. Timeline and Milestones**

The assignment shall run for a maximum of 8 months, starting on 1 July 2026 and ending no later than 28 February 2027. The service provider is expected to mobilize immediately upon contract signature and to deliver the assignment in the following indicative phases:

**Month 1** (July 2026) — Inception: mobilisation, country-level work planning, and submission of the inception report (D-1).

**Months 2–3** (August–September 2026) — Identification and selection: rapid capacity-needs assessment, pre-analysis of candidate SMEs and mechanics' workshops in Mali, Burkina Faso, and Niger, and submission of the selection report (D-2).

**Months 4–5** (October–November 2026) — Materials development: production of illustrated technical and training manuals in French and the relevant local languages (D-4).

**Months 5–6** (November–December 2026) — Capacity building: technical training of technicians and mechanics, and business training of SMEs, with submission of the corresponding completion reports (D-5, D-6).

**Months 6–7** (December 2026–January 2027) — Supply chain and monitoring: establishment of upstream supply linkages and roll-out of the light-touch monitoring system, with submission of the supply-chain linkages report (D-7) and the monitoring system and baseline report (D-8).

**Month 8** (February 2027) — Closure: consolidation of results, lessons learned, and submission of the final assignment report (D-9).

The service provider may propose adjustments to the above phasing in the inception report, provided the overall 8-month duration and the end date of 28 February 2027 are respected.

**How to apply:** Interested applicants can share the above through email to : [akoffi@ifdc.org](mailto:akoffi@ifdc.org) and [csmitherman@ifdc.org](mailto:csmitherman@ifdc.org) with a subject line of “**Application to Zanier scaling**” or online via: <https://ifdc.org/2026/06/05/request-for-proposals-zainer-scaling/>

**Deadline for applications:** June 19<sup>th</sup> CoB UTC.

