Terms of Reference
Feasibility Study on Mechanization service provision under sorghum syndicate partnership with Dansha Aurora and Setit Humera Farmer’s Cooperative unions

Background

The 2SCALE program 2019-23 builds on achievements and lessons learnt from a first phase (2012-18, www.2scale.org). It aims to be a flagship program for the Netherlands’ food security policy and one of the leading catalysts of inclusive agribusiness in sub-Saharan Africa.

2SCALE is designed to incubate and accelerate inclusive agribusiness development in target countries in Africa (Burkina Faso, Côte d’Ivoire, Ethiopia, Ghana, Kenya, Mali, Niger and Nigeria). Public-private partnerships (PPPs) are the core implementation modality to achieve the objectives of the program. 2SCALE’s strategy is three-pronged:

1. Incubating inclusive business: through PPPs, 2SCALE works together with private enterprises to develop agribusiness models that promote inclusiveness, develop (new) competitive edge, and have potential for scaling. PPPs support value chain development and agribusiness cluster formation. Local networks, also called agribusiness clusters (ABCs), are instrumental to the 2SCALE program to ensure better access to services, and to strengthen innovative and bargaining capacities of smallholder farmers. 2SCALE partners with African and multinational agri-food companies as drivers to increase productivity and to improve efficiency and sustainability of supported ABCs and value chains. Specific attention is given to youth and women to integrate value chains (as farmers, laborers, entrepreneurs, service providers), and to low income / “base of the pyramid” (BoP) consumers that represent the largest market for food products in sub-Saharan Africa.

2. Replicating inclusive business: through PPPs, 2SCALE supports the replication of most successful business models, in different settings (regions, industries), with the same or different private partners.

3. Facilitating sector transformation and policy alignment: 2SCALE also supports partnering enterprises to drive sector transformation and policy alignment for critical bottlenecks that cannot be solved by the actors within the focus PPPs, and which affects a number of actors in the sector simultaneously.

2SCALE is funded by the Netherlands Ministry of Foreign Affairs, and implemented by a consortium led by the International Fertilizer Development Center (IFDC) and comprising the Base-of-the-Pyramid Innovation Center (BoPInC) and the Netherlands Development Organization (SNV). The Partnerships Resource Center (PrC) supports the consortium as a strategic and knowledge partner.
Among other lead partners, 2SCALE in Ethiopia works with Setit Humera and Dansha Aurora Farmer’s cooperatives Unions in North western Ethiopia in Western Zone of Tigray regional state. In this zone 2SCALE has been supporting sorghum commercialization as one of the interventions to tackle the mono-cropping culture to Sesame production. In the last three years different sorghum varieties have been promoted to target local markets; these include the Advanta seed variety (PAC 537) as Sorghum for human consumption and the Deber variety for brewery in particular taking into account the demands of Meta Abo Brewery / Diageo as an off-tacker.

These two farmers’ cooperative unions have experience in sesame export including bulking and cleaning, and supply of Sorghum to local markets mainly to Diageo for brewery, and to local and national governments for emergency markets. In addition, as any other cooperative unions in Ethiopia apart from supplying members produce to markets, they are also involved in supply of industrial goods, credit provision, transport and warehousing services and organizing training and field demonstrations on agronomic practices.

**Rationale for the assignment**

Improving productivity of smallholder farmers is one of the key interventions prioritized in the Diagnosis and Design (D&D) workshop held for the sorghum partnership in Ethiopia. Accordingly, introduction of improved seed, fertilizer application and production agronomics is planned under the 2019 action plan of the PPP. While approving the planned interventions, members of the regional governance meeting spotlighted strategic advisory on facilitating access to mechanization services to ease the laborious and traditional sorghum production for women and encourage youth participation in sorghum production.

Mechanization of agriculture is the top development agenda in the country to efficiently produce (optimize production) and reduce pre- and post-harvest losses. In general, the production loss is estimated at 30% due to the inefficient handlings in agriculture. Recognizing this fact, agricultural development in Ethiopia is gearing towards facilitating access to mechanization services to smallholder farmers. Recently, the Agricultural Transformation Agency has signed a memorandum of understanding with 10 pilot mechanization service centers throughout the country. Due to the sense of urgency for mechanizing agriculture to increase productivity and number of holders in the agricultural sector, the 10 mechanization centers are a drop in an ocean for Ethiopian Agriculture. Unfortunately, smallholder farmers under the sorghum partnership cannot get mechanization services from those 10 pilot service centers as they are not located in the partnership area.

Following the strategic direction of facilitating access to mechanization services from the governance meeting, the business champion in partnership with 2SCALE started scanning the business environment: demand and supply of mechanization machineries. The unions noted the business opportunity of availing mechanization services for smallholder farmers and their demand. But it is not in their financial capacity to acquire the required machinery right away. Then, both the unions indicated the need to collaborate with financing institutions. In terms of the supply of the machineries fortunately, Mamay Mihret PLC, a supplier of different mechanization machineries, has started demonstration of the machineries in the same location to create demand. In a discussion with the supplier on the possibilities, it came out that KAZA
capital goods lease financing S.C is one of the lease financing institutions in Tigray region that is established to extend financial services for SMEs. Accordingly, a visit was paid to KAZA to understand the working modalities, possibility of financing the business champion in acquiring the mechanization machineries. KAZA Capital goods lease finance shown interest to lease finance mechanization machineries for the unions. However, to materialize the financing, KAZA requires a feasibility study of the rental mechanization service provision business through cooperatives. Hence, the study is required to identify preferred machineries for sorghum production and develop a service provision business model to the cooperatives who will provide the mechanization services to smallholder farmers on a rental basis. And finally develop a bankable business plan to convince KAZA to finance the cooperatives in acquiring the mechanization machineries.

2SCALE therefore proposes to contract a consultant to conduct the feasibility study and develop the business plan. This SoW covers this consultancy assignment.

Objectives

- Undertake a feasibility study on rental mechanization service for smallholder farmers by cooperatives.
- Assess the gender division of labor along the sorghum value chain functions and identify the key sources of drudgery for men, women and youth and their preferred options for mechanization and or use of other technologies/practices to eliminate/reduce the drudgery
- Identify mechanization machineries demanded by smallholder farmers, compatible to the area’s sorghum production (soil type, other relevant parameters) and its availability.
- Assess the gender-responsiveness of proposed mechanization options
- Develop an inclusive business model of rental mechanization service business which is gender and youth responsive.
- Develop a bankable business plan and loan proposal with the environmental and social impact assessment

Specific Tasks

1. Review secondary data pertinent to the feasibility study with sources acknowledged.
2. Undertake a review of enabling conditions, privileges, and policies on agricultural mechanization and mechanization hire services.
3. Design checklists and/or questionnaires for primary data collection on mechanization service demand, modalities of the service provision from at least 5 FGD (2 Women only FGD and 1 youth only FGD) and KIs with a gender lens.
4. Compile (secondary sources and FGD) the production foregone gain (loss) due to traditional farming practice/additionality of mechanization in sorghum production.
5. Identify the demand for available mechanization machineries (types of machineries) for sorghum production and the timing of machineries demand.
6. Recommend at least 3 suppliers and technology specifications with rational base (suitability to the agro-ecology of the intervention area, cost, durability, after sales service, ...) for each type of machinery identified.

7. Identify current/potential competitors’ strength and weakness (competitors’ analysis).

8. Identify critical challenges and opportunities of mechanization service in general and access to the service by women farmers.

9. Conduct the economic analysis with different scenarios and recommend the most legible investment possibility.

10. Assess the environmental and social impact of mechanization and propose mitigation measures.

11. Recommend a suitable marketing strategy for the union.

12. Organize a workshop (validation) to deliberate on the key findings of the study and incorporate relevant comments afterwards

13. Develop a bank loan proposal.

14. Compile and submit a final report on the findings of the studies.
Deliverables

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<tr>
<th>Deliverable</th>
<th>Format</th>
<th>Deadline</th>
<th>Comment</th>
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<tbody>
<tr>
<td>Inception Report</td>
<td>Word file</td>
<td>July 25, 2020</td>
<td>A report containing research questions, Methods for data collection and justification, Sampling strategy, Implementation work plan and timetable and Final report outline)</td>
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<tr>
<td>A practical feasibility study report with recommendation and clear analysis for at least three suppliers of each available machinery identified</td>
<td>Word file</td>
<td>Sept 10, 2020</td>
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<tr>
<td>Separate report on social and environmental impact assessment and mitigation measures</td>
<td>Word file</td>
<td>Sept 10, 2020</td>
<td></td>
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<tr>
<td>Bankable loan proposal with inclusive rental business model</td>
<td>Word and excel file</td>
<td>Octo 30, 2020</td>
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Team composition

The consulting firm should create a team composed of specialists in agricultural mechanization, business modeling and strategy, and investment finance specialist. The consulting firm should be a professional organization with demonstrated work experience and a competency certificate from the Ethiopian Management Institute. The lead consultant should have at least 10 years of relevant experience in the field of agribusiness, agriculture, business, or financial investment analysis. Besides, in order to assure the quality the final report, the lead consultant should allocate at least 50% of the time for the assignment. The lead advisor on environmental impact should have a relevant competency certificate from the Ethiopian Environment Protection Authority and/or a relevant institution.

Payment frequency

This assignment payment will be made in three instalments.

- First payment, 30% of the total agreed amount after submission of the final inception report
- Second installment, 30% of the agreed amount, upon submission of final feasibility, and environmental and social impact assessment reports after comments from 2SCALE and the unions are properly incorporated
• Final installment of 40%, when all the activities including the business plan are successfully accomplished.

Roles and responsibilities

The selected consultant will closely work with the 2SCALE team in Ethiopia during the time of the study. The 2SCALE team will follow the progress and can provide relevant information as required. All contacts with Dansha Aurora and Setit Humera Unions should be well aligned with 2SCALE.

Request

• Technical Proposal
• Team composition and CVs
• Price offer for the task (should clearly indicate the cost breakdown for all work to be done. Please note that the budget breakdown should be detailed)
• Submission procedures: As we strictly follow the COVID 19 mitigation measures, we encourage online engagement with service providers as opposed to direct interactions thus all documents must be shared with the below email addresses by taking into account the following:
  o CVs and Technical proposals (word files)
  o Scanned copy of price offers stamped and signed

Deadline for submission

• 22nd June 2020, up to Mid-day, 12:00AM

Address for submission

• email address for bid document submission: ifdcethiopia@ifdc.org
• Kindly indicate on the subject line “Bid submission for Mechanization feasibility study”
• For technical enquires you can reach us through: yaseffa@2scale.org