



National Soybean Research Center
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REQUEST FOR PROPOSAL (RFP)

Feed the Future Innovation Lab for Soybean Value Chain Research (SVCR IL) (Soybean Innovation Lab – SIL)

Managing Program

Mechanization: Development of Mechanized Equipment for Soybean Production in sub-Saharan Africa – Year 2

About SIL

The Feed the Future (FTF) Innovation Lab for Soybean Value Chain Research (SVCR IL) is part of the strategic investment by the U.S. Government to make transformative changes in the food systems of target partner countries. FTF is the overarching U.S. government initiative on global hunger and food security. FTF programs work in close partnership with target countries to develop innovative agriculture advancements that break the poverty and hunger cycles. For a further overview of the U.S. FTF initiative, please visit www.feedthefuture.gov. SIL, initiated in 2013, is currently funded through 2027. SIL operates in 30 countries and 202 locations.

Background

SIL's Mechanized Thresher Solution involves a turnkey platform that supports the local production of SIL's Multi-Crop Thresher (MCT) as well as business development activities for MCT manufacturing companies and thresher service providers. The MCT platform of products and services supports practitioners seeking to replace the drudgery and inefficiency of hand threshing soybean, which dominates almost all of soybean harvesting in SSA from commercial farms and international research stations to smallholder farmers.

SIL is soliciting applications from individuals or organizations to develop equipment relevant to small agricultural equipment manufacturing businesses in sub-Saharan Africa.

1. SIL is specifically supporting the development of a soybean thresher, mechanical planter, and pull-type harvester.
2. Applicant will also make recommendations and develop a plan on how small-scale manufacturers can fabricate locally. This will include material sourcing in a chosen market, manufacturing processes, and supply chain development.
3. Applications should include student entrepreneurship or apprenticeships.

Geographic Focus

The preferred focus countries are Ghana and Senegal. Other countries will also be considered.

Applicant Eligibility

This RFP will support the Consultative Group for International Agricultural Research (CGIAR) institutions, Non-governmental organizations (NGOs), the private sector, university institutions, and members of the National Agriculture Research System (NARS) institutions, as defined by FAO (<http://www.fao.org/3/Y4349E/y4349e05.html>): “NARS are defined, in a given country, as encompassing all institutions public or private devoting full time or partially their activities to agricultural research and committed to a national research agenda.”

The lead applicant and principal investigator must have experience in the production of equipment, designs, and CAD for agricultural equipment for small-scale manufacturers. Projects funded under this RFP must be led by a principal investigator (PI) already based at the lead institution.

Funding Amount

The selected projects will be funded up to \$20,000, depending on the scope of work, over up to 12 months. The public and private sectors are encouraged to submit proposals.

Time length

The duration of the grant is up to one year. Smaller, more target project periods with more limited budgets or shorter timelines are also acceptable.

Capacity Strengthening

The research team winning the award will undergo training and then employ the [Innovation-to-Impact \(i2i\)](#) learning platform and management system, which will support their implementation of the Product Life Cycle (PLC) framework. Capacity building is a critical theme that each project must address. Research proposals should demonstrate capacity building plans both at the individual level and at an institutional level.

Cross cutting themes

The cross-cutting themes of gender and youth responsiveness and resilience are a central focus of SIL. As noted above, the target product profiles selected must seek to address gender and youth-based constraints and show potential for economic inclusion for women and youth. Applicants must designate a team member with the relevant background and expertise in gender and youth inclusion to guide the team in these focus areas.

Finally, applicants should be prepared to join the SIL community on monthly researcher conference calls, biannual advisory board meetings, and annual researcher retreats.

Proposal Submission Deadline

SIL will continue the support of this program over the next five years through an annual competitive grant program. Only proposals that adhere to the following guidelines will be fully considered. Proposals need to be emailed to soybeaninnovationlab@illinois.edu by **September 8th, 2023**, and the maximum proposal length is two single spaced pages, not including the budget. Proposals must be written in English. Questions about this RFP should be emailed to clarkk@missouri.edu.

Proposal Instructions

Proposals will be accepted for these projects or other relevant projects identified by the applicants:

1. SIL has designs for a 4-row tractor-pulled planter that can be fabricated locally. SIL will support an educational institution or business to build a manufacturing process around the planter. This includes material sourcing in a chosen market, manufacturing processes, and supply chain development. Applicants may also submit proposals based on other planter designs. Applications should include a component that engages students or apprentices to become agricultural mechanization entrepreneurs as fabricators, distributors, or service providers.
2. SIL has a multi-crop thresher design that is open source and is seeking a proposal that will develop a two-wheel tractor and thresher design that allows both to be powered by the same engine and enables the transport of the thresher by the two-wheel tractor. Applications should include a component that engages students or apprentices to become agricultural mechanization entrepreneurs as fabricators, distributors, or service providers.
3. SIL is seeking designs for a thresher that can be fabricated locally in sub-Saharan Africa and has a high rate of output for soybean threshing (minimum 1000 kg seed/hour). The thresher should be designed in a way that the operator can stand on the ground to feed the machine, and the thresher should be able to be pulled by a draft animal, three-wheeled motorcycle, or tractor. The design will be open source (not patented or licensed) outside of the country of the designer's origin.

Successful proposals need to follow the following outline:

- 1. Introduction**
 - a. Describe your program
 - i. Goals
 1. Long term
 2. Over the next year
 - ii. Successes
 - iii. Challenges
 - iv. Sources of support
- 2. Program Description**
 - a. What will take place?
 - b. Theory of Change?
 - c. What will be the outcomes?
 - d. Describe your materials and methods when using the grant funds.
 - i. This should match your budget and budget justification.
 - e. Describe how you will measure progress.
 - f. Be specific and outline key metrics.

- i. Project deliverables – Include a separate section for project deliverables that includes outcomes, milestones, and deliverables. Include a timeline for attainment of objectives and production of deliverables that include final milestones with specific and measurable outcomes.
- g. Cross cutting issues – Include a section describing activities, teams to address gender and youth issues.
- h. Select suitable performance indicators from the FTF Handbook of Indicators that are applicable to the activities of your project and data collection plan. <https://agrilinks.org/post/feed-future-indicator-handbook>.
- i. What is the monitoring, evaluation, learning and adapt plan?
- j. Describe a plan for how the program will be sustained without donor funding.

3. Budget

- a. The budget needs to include separate budget lines for salaries, benefits, supplies, services, domestic travel, international travel, and indirect costs.
- b. Your budget total needs to include indirect costs.
- c. Please provide a budget justification and a list of leveraged support for the program.