Terms of Reference (TOR) for engaging External Agency to undertake Endline survey and report on Crop Residue Management in Kaithal and Kurukshetra districts, Haryana

About Us

S M Sehgal Foundation is a rural, grassroots implementing NGO that operates across 13 states of India, reaching over 5.9 million people and counting. The organization's mission is to achieve positive social, economic, and environmental change across rural India. It works to address critical issues concerning food security, water security, and good governance, with a focus on the empowerment of women and children. The foundation brings together a dedicated team of experts who create sustainable programs and work directly alongside rural communities to better manage their water resources, increase their agricultural productivity, strengthen and articulate their vision for village development, and transform the lives of youth and schoolchildren. S M Sehgal Foundation has five main program areas: Agricultural Development, Water Management, Local Participation and Sustainability, Transform Lives *one school at a time*, and Outreach for Development.

As part of its project on "Promoting sustainable agriculture with effective Crop Residue Management (CRM)", the foundation is seeking to hire an agency to conduct endline survey and report for paddy crop residue management in select villages of Kaithal and Kurukshetra districts of Haryana.

Broad Tasks and Deliverables

1. Conduct endline survey in the intervention villages of Kaithal and Kurukshetra, Haryana.
2. Attend brainstorming and review meetings to discuss methodology and sampling design with team members of SMSF (biweekly).
3. Create detailed endline study report mapping key indicators to assess the impact of the project.
4. Provide raw data and interview transcripts, along with audio-visual attachments and/or photographs as necessary.

Project Overview

In October and November every year, smoke engulfs India's Indo-Gangetic Plains (IGP) due to the burning of rice stubble by farmers, especially in the states of Haryana and Punjab. The IGP, also known as the "Food Bowl of India," spreads across the states of Haryana, Punjab, Uttar Pradesh, Bihar, and West Bengal. In this region, approximately 12 million hectares are accounted for rice-wheat crop rotation. The stubble is left behind after harvesting with Combine Harvesters, and farmers burn it in the field because manually removing it is not cost-effective. However, crop burning harms soil health, human health, and the environment. To address this issue, SMSF implemented a project to provide

sustainable solutions for crop residue management, with a focus on improving soil health and crop productivity.

The primary objectives of the project were:

1. Promoting adoption of good agricultural practices including sustainable management of crop residue with no burning.
2. Demonstrating technologies and better practices to improve crop productivity.
3. Building capacities of farmers and communities at large on alternatives to crop residue burning.

Objective of the Survey

To this end, SMSF seeks to engage an external agency to undertake an endline survey of the project. The rationale for conducting an impact evaluation for this project stems from the critical need to systematically assess the effectiveness of development initiatives. Impact evaluations play a pivotal role in enhancing the efficiency and impact of development projects by providing evidence-based insights into their outcomes. The objective of conducting an endline survey, is to gain an understanding the changes that have taken place with respect to crop residue management practices in the identified districts that can be attributed to the project interventions. The endline survey will include key stakeholders of the project, and the results of the endline survey will not only help assessing the success of the project, but will also contribute to informed decision-making for future development and policy-making.

This survey is expected to provide information on following vital indicators:

- Community, social and demographic variables such as age distribution, gender characteristics, literacy levels, caste & religion, educational levels etc.
- Economic variables like income levels and sources, land holding pattern in the community, number of small and marginal farmers, agricultural practices and cost-benefit analysis of lead crops.
- Status of women participation in agriculture and allied activities, as well as in non-agriculture activities
- Environment variables such as soil organic carbon status changes, spatial / imagery proof / showing the trend of CRB, shift in pre and post-monsoon CRM solutions adopted to address CRB, Modelling changes in PM2.5 exposures, and trends of gas emission / residue burning over the past five years in the selected geography.
- Changes with respect to impact indicators to assess the overall impact of the project.
- Availability and adoption of farm machines such as Super Seeder, tractors owned or rented out; current rental models, types of tractors, and other machinery used in CRM.

- Government schemes/ services available and availed by the people in the project locations.
- Provide information and recommendations.

Objectives	Activities
Promote good agriculture practices and build an economic case for sustainable crop residue management	Soil testing analysis and discussions with farmers on soil health and its importance
	Demonstration and capacity building of farmers on good agricultural practices in Wheat and Paddy
	Promotion of crop diversification
	Leveraging government resources in terms on facilitating subsidy to other farmers on super seeder machine
	Demonstration and capacity building of farmers on CRM using cost and time effective technologies
	Demonstration of short duration variety of paddy to enable crop-residue management
	Organization of trainings and workshops for farmers to showcase the direct and indirect benefits of CRM in consultation with research and academic institutions
	Development of IEC material for wider dissemination of project interventions and their intended purposes
Engage with all stakeholders in the villages including men, women and children, local, research extension institutions, academia among others to create a sustainable change	Empowerment of women through formation of Women Leadership Schools in each village, as a model for strengthening their knowledge and participation
	Formation of environment clubs in local village schools to educate children on importance of soil and water conservation, and ill effects of crop-burning

Interested research agencies should submit their technical proposal outlining the methodology and the financial proposal at the earliest.

The selected organization will be provided with baseline data which needs to be matched for endline.

Project Intervention Locations:

100 villages of Kaithal and Kurukshetra districts, Haryana.

Duration of the study:

Three-months from the date of signing the agreement.

Submission Criterion:

1. Proposal for the study – to include objectives, methodology, timeline, team credentials and budget.
2. Credentials of the organisation and projects handled.
3. The agency should have relevant thematic experience of working in the social sector (at least 5-6 years), specifically on Sustainable Agriculture Development and expertise in the application of digital tools. Experience of working with non-profit organisations and international donors is desirable.
4. The selection of research agency will be done considering the soundness of the technical proposal along with the feasibility of the financial proposal.
5. The costs allowable will be limited to reasonable, allocable, and necessary costs.
6. Interested agency should submit their technical and financial proposal by May 15, 2025 to cs.mehra@smsfoundation.org