



Terms of Reference (TOR)

Onboarding Agency for developing “Safety and ergonomics: Modifications and Upgradations in Existing Climate-Resilient Agriculture and Allied Technologies”

Title	To Develop “Safety and ergonomics Modifications and Upgradations in Existing Climate-Resilient Agriculture and Allied Technologies”
Timeline	12 Months
Expected area of expertise	<ul style="list-style-type: none">• Expertise Agri & allied technologies, machineries along with basic knowledge of product design and manufacturing.• Expertise in Safety Features• Expertise in Ergonomics
Email and website	https://forms.gle/EH9cxuBe8najqkAT8 (Contact Procurement for Form Link)

About SELCO Foundation:

SELCO Foundation's mission is to create a platform of solutions that uses sustainable energy as a catalyst to link environmental sustainability and poverty alleviation. With holistic development as the primary focus, the organization strives to create equitable societies where all communities have access to essential services. SELCO Foundation's Agri & Allied program focuses on empowering farmers and rural communities through sustainable agriculture practices, thereby creating an impact in terms of improved energy-efficient technology, increased crop yields, enhanced livelihoods, and reduced carbon footprint. To know more about SELCO Foundation, visit www.selcofoundation.org.

1. Background of the Project:

India's agriculture sector, the backbone of the country's economy, faces significant challenges in productivity, efficiency, and sustainability. A prominent factor contributing to these challenges is the technology gap, which hinders the sector's potential to meet the growing demands.

Adapting energy-efficient machinery and technology can significantly reduce energy consumption, environmental impact, and costs, while improving agricultural productivity and sustainability to help the farmers in their wholistic growth in agricultural ecosystem.

Safety and ergonomics program aims to provide R&D support to the companies/enterprises/ end-users across India to design, test and develop test an existing/novel

machine, equipment and/or technology addressing the current gaps in the Agri & Allied sector that can benefit farmers and rural entrepreneurs in India

In many livelihood sectors, especially those involving micro or small-scale technologies such as food processing machines agriculture machines, etc., **safety is often deprioritized**. Machines are frequently poorly designed or lack essential safety features, but since safety incidents occur only sporadically, **there is a dangerous complacency**. This mindset tolerates risk as a trade-off for productivity or lower upfront cost.

2. Goals and objectives:

The proposed projects primarily focus on the development and enhancement of existing products and technologies through rectification, modification, and testing, tailored to specific user requirements. A total of 20 technologies, spanning across various sectors, are to be developed. These technologies emphasize improvements in safety, ergonomics, and aesthetics, ensuring they are user-friendly, efficient, and visually appropriate for the end-users—especially in rural and underserved contexts.

- Improve safety and ergonomics in 20 existing technologies.
- Complete development of 20 technologies in 12 months.
- Conduct thorough testing and demonstrations to validate safety and usability.
- Incorporate user feedback to refine designs.
- Deliver field-ready, user-friendly solutions tailored to real-world needs

3. Scope of Work

The expert/ consultant will have to assess, recommend, and support the implementation of workplace and machine safety and ergonomic modifications to minimize risk, prevent injury, and build an optimized workspace for small and marginal farmers and business owners in value chains like Paddy, microbusinesses like roti making, and similar livelihood interventions where the machine serves a primary source of income.

We are seeking to onboard a strategic agency partner to conceptualize and execute the program from start to finish, delivering a comprehensive end-to-end solution.

To assess, enhance, and institutionalize safety measures in machines used for livelihood activities, ensuring risk mitigation, user-cantered design improvements, and a culture of safety across the ecosystem.

Core Problems:

1. **Lack of Safety Culture:** Safety is not embedded in the design, usage, or procurement culture. It is only addressed *reactively* after an incident, not *proactively*.
2. **Cost-Driven Manufacturing:** Manufacturers often resist adding safety features, citing increased production costs, especially when catering to price-sensitive markets.
3. **Low Awareness & Training:** Users often lack the technical knowledge to recognize risks or to operate machines safely. This includes both end-users and field-level technicians.
4. **Poor Design Feedback Loop:** Most machines aren't designed with users in mind, especially women or differently-abled users. The result is a mismatch between real-world use and design assumptions.
5. **Poor workplace safety and ergonomics:** Most workplace does not have a proper provision such as ventilations, ease of access to machine, poor user posture, Poor safety guidelines.

What's Needed:

- **Safety-by-Design:** Safety should be a non-negotiable design principle. This includes guards, emergency shutoffs, ergonomic features, and intuitive controls.
- **Contextual Safety Assessment:** Before recommending or scaling any machine, it needs to be tested *in the context of actual use*, identifying possible hazards specific to livelihood applications.
- **Training & Manuals:** Clear, visual, multilingual training aids and safety SOPs should be made integral to any machine deployment.

4. The Consultant Responsibilities:

1. Safety Audits & Risk Assessments

- Conduct a comprehensive safety and ergonomic audit of scaled and existing machine, equipment, technology is lacking safety, ergonomics or inefficient in design with around **20 technologies aimed for one year. - Tentative List of technology is given below in Table 1.**
- Identify mechanical, electrical, ergonomic, and operational hazards.
- Evaluate compliance with basic national and international safety norms (if any).

- Evaluate workstations, tools, equipment, and workflow for ergonomic design.
- Engage with staff through interviews or surveys to understand issues or pain points.
- Recommend practical, cost-effective improvements.
- Provide training and awareness sessions to staff and management.
- Support and lead safety and ergonomics guidelines with SELCO Foundation, including labelling, posters and videos.
- Support the implementation of recommendations for tech upgradations
- Develop or revise safety and ergonomic policies in the existing machines and equipment/solutions in alignment with national and international standards of safety protocols.
- Support the creation of safer and ergonomically designed machines that demonstrate innovative solutions to a pressing safety and ergonomics challenges in the machines and field test it.

Table 1. LIST of technologies (Tentative and may change)

Location: The machines to be accessed at locations across Karnataka, Maharashtra, and Tamil Nadu.

Chilli Pounding	Chakli Making	Shankarapalle sweet	Camphor making	Roti rolling conveyor belt
Vermicelli Machine	Poultry coop	Ladoo roller	Milking machine	Height adjustable table
Hydroponics system	Puffed rice	Oil cake machine	AgarBatti making	Dal Processor
Multipurpose toolbar	Oil extractor	Kodubale preparation	Pottery making	Dough Kneading

2. Design Analysis & Recommendations

- Work with design/engineering teams to identify and recommend safety improvements (e.g., guards, emergency switches).
- Review prototypes or existing machines for risk factors related to user demographics (gender, age, skill level, environment).
- Generate design briefs and specifications for “safety retrofitting” of current machines.

3. User-Centered Field Studies

- Conduct field observations and interviews with users to understand real-world safety issues, behaviours, and coping mechanisms.

- Document unsafe workarounds or misuse resulting from poor design or lack of training.

4. Safety Protocols & SOP Development

- Develop Standard Operating Procedures (SOPs) and safety checklists tailored for each machine type.
- Ensure SOPs are visual, multilingual, and accessible to low-literacy users.

5. Training & Capacity Building

- Conduct awareness sessions for end-users, field staff, and vendors.
- Develop safety awareness modules and integrate them into existing technical training programs.

6. Ecosystem Engagement & Manufacturer Interface

- Liaise with manufacturers to advocate for safety-by-design principles and explain the cost-benefit of safe machinery in adherence to safety
- Create safety benchmarking tools for vendors, aiding in procurement decisions.
- Document case studies of injury or near-miss incidents to push for evidence-based improvements.

5. Deliverable

The consultant is expected to provide the following:

1. **Inception Report** – Detailing methodology, work plan, and timelines for 20 technologies (within 1 week of contract start).
2. **Workplace Audit Report** – Findings from safety and ergonomic assessments (week 3).
3. **Risk Assessment Matrix** – A categorized list of risks with severity and priority rankings.
4. **Recommendations Report** – Including short, medium, and long-term ergonomic and safety interventions (week 4).
5. **Draft Safety and Ergonomics Guidelines for Improvements**– Aligned with relevant legislation and Indian standards.
6. **Training Materials and Session Delivery** – At least two training sessions and accompanying materials.

7. **Final Report** – Including implementation guidance, policy documents, and training outcomes (end of contract).

- Safety audit reports for a minimum of 20 machine types.
- Design recommendation briefs for at least 15 high-risk machines.
- SOPs and safety manuals for priority machines.
- Training materials and reports from at least 3 training sessions.
- A safety integration roadmap for vendors and procurement teams

6. Requirements:

- Ability to manage the project end-end with minimal assistance.
- Adherence to the timeline for each deliverable.
- Proven experience in handling the similar contracts & projects.
- Good experience in workplace safety and ergonomic assessments.
- Familiarity with Indian workplace safety laws and international best practices
- Strong communication and facilitation skills.
- Strong portfolio showcasing relevant previous work.
- High level of self-motivation, commitment, and dedication to meet deadlines.
- Excellent interpersonal skills with experience in coordinating with diverse stakeholders.
- Flexible to travel in rural and remote areas depending on the need and requirement.
- Knowledge of Agri & allied technologies and machineries along with basic knowledge of product design and manufacturing.
- Experience in project coordination using Microsoft office, Google Sheets and Docs.
- Ability to work collaboratively as part of a team, delivering content that meets SELCO Foundation's brand standards and guidelines.
- Background in industrial safety, mechanical engineering, human factors design., Occupational Health, Ergonomics, Safety Engineering, or related field.
- Experience in informal sector, grassroots technology, or livelihood contexts.
- Strong field engagement skills and ability to translate technical insights into practical solutions.

7. Reporting and Documents:

- The Consultant will report to POC in SELCO Foundation with regular updates as per agreed schedule.
- All relevant files, including editable versions of the deliverables, need to be provided by the agency/company/organization.

- Kindly mention your name, address, contact information along with correct bank details and signature in the proposal and quotation.
- Please ensure you have a valid GST Number, irrespective of your registered company
- SELCO Foundation is open to onboarding multiple agencies/company/organization who may be interested and/or have expertise in working in a specific geography.
- Agency/ Organization/ Company having experience handling similar projects, assignments, contracts & challenges.
- Agency/ Organization/ Company having dedicated resources (include infrastructure + HR) team to handle this assignment with high level of commitment and with minimal assistance.

8. Financial Proposal:

Sample Format for Financial Proposal it can be modify by the Consultant as per there financial proposal.

Financial Proposal Breakup			
S.No	Budget Specific as per Deliverables	Cost	Total Cost
1	Field Data Collection		
2	Data Analysis		
3	Draft Report Submission		
4	All Report		
5	Training & Capacity Building		
6	Travel Accommodation and miscellaneous		
7	GST %		
	Total		

9. Timelines:

The agency / company/ organization will be onboarded for this project period of **12 months**, during which the agency is required to complete and deliver all the assigned tasks. The

period mentioned is subject to changes based on the project's complexity and scope of the work.

			Week																																								
Week	Activities	Deliverables / Milestones	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
1	Kickoff meeting with key stakeholders	✔ Inception Report (methodology, schedule for the travel and auditing.																																									
	Review of existing safety and ergonomic documentation																																										
	Site visit and planning																																										
2	Full workplace audit (observation, staff interviews, equipment review)	✔ Travel details, people interviewed, machines checked																																									
	Ergonomic workstation assessments																																										
3	Risk identification and analysis	✔ Workplace Audit Report																																									
	Drafting of Risk Assessment Matrix	✔ Risk Assessment Matrix																																									
4	Formulation of recommendations (short, medium, long-term depending on the machines and usages)	✔ Recommendations Report																																									
	Presentation to management																																										
5	Design of labels and other safety documents for the machines	✔ Labes and list of checklist for safety and ergonomic considerations and implementation.																																									
7	Training the stakeholders in safety aspect and the reasoning.	✔ Training about safety for the stakeholders and also help in the Fabrication support with vendors/ design team for clarifications and ideas																																									
	Advisory support for implementation of the design and planning																																										
8--30	Expert opinion and support for implementation/ Execution of the safety, ergonomics process.	✔ Fabrication support with vendors/ design team for clarifications and ideas																																									
31-40	Overlook at the revamped/developed machine/workspace/designed prototypes and help in reviewing it for final approval before scaling or manufacturing.	✔ Final Report (includes machine updated safety documents, training guidelines, labels, instructions for usages, placement, colour coding, and ergonomics recommendations)																																									

10. Payment Terms:

Fixed as per the agreement between consultant and SELCO Foundation. Please provide your proposal and quotation for the above-mentioned program requirements. Capture Timelines and Split cost wherever possible.

- Costs quoted should be as per actuals and should include all expenses.
- Deliverable based payment release

11. Terms and conditions:

- If performance concerns arise, we may need to explore alternative partnerships to ensure the project's success.
- The machines to be accessed at locations across Karnataka, Maharashtra, and Tamil Nadu.

12. To apply

Interested organizations, with relevant experience (please include samples and/or references of the previous similar work as proof of experience) and based out of India are requested to reach out with a detailed proposal giving a brief on the methodology and the process they will uptake for this project, including budgets (with break-ups and explanation), timelines and milestones and submit the same to google form <https://forms.gle/EH9cxuBe8najqkAT8> on **before 06th June, 2025**.

Any further queries please write to procurement@selcofoundation.org with a subject line: **“Safety and Ergonomics: Modifications and Upgradations in Existing Climate-Resilient Agriculture and Allied Technologies”**

Note: The application will be evaluated on a rolling basis.

Refer Terms and Condition:

- 1. Sub-contracting:** In the event that the Consultant requires the services of subcontractors to perform any obligations under the Contract, the Consultant shall obtain the prior written approval of the Foundation. Any rejection or non-performance of the subcontractor shall not, in and of itself, entitle the Consultant to claim any delays in the performance, or to assert any excuses for the non-performance, of any of its obligations under the Contract, and the Consultant shall be solely responsible for all services, obligations and deliverables performed by its subcontractors
- 2. Quality Assurance**
The data submitted to Selco Foundation should be accurate, complete, reliable and relevant. Consulting agency shall establish additional layers for data cleaning and submission.
- 3. Financials & Reporting**
TDS will be deducted on the fixed amount as per Income Tax Act and Rate of Percentage. In accordance with the Central Board of Direct Taxes circular No. 7 of 2022 dated 30th March, 2022 in relation to the clarifications with respect to Section 114AAA of the Income-tax Rules, 1962, failure to link Aadhar number to the PAN card and/or failure by any person, who falls within the income tax bracket or

otherwise, to file tax returns in relation to payment of TDS for any service (in accordance with Section 206AB and 206AA) and/or an inoperative PAN card will result in a 20% tax deduction.

4. Indemnification

Both parties shall indemnify and hold its Trustees, Directors and representative officers, employees, agents harmless from and against any and all claims, demands, actions, losses, liabilities, charges, damages, costs and expenses (including but not limited to reasonable attorney's fees) arising out of or resulting from (1) any claims arising in connection with activities undertaken by both parties in connection with the project or (2) Consultant's gross negligence or willful misconduct or breach of any undertaking, covenant, representation or warranty contained in this agreement and/ or the actual infringement of any patent, trademark, copyrights, trade secret or any other intellectual property right of the third party.

5. Patent, Copyright and other Proprietary Rights

- (i) Except as is otherwise expressly provided in writing in the Contract, the Foundation shall be entitled to all intellectual property and other proprietary rights including, but not limited to, patents, copyrights, and trademarks, with regard to products, processes, inventions, ideas, know-how, or documents and other materials which the Consultant has developed for the Foundation under the Contract and which bear a direct relation to or are produced or prepared or collected in consequence of, or during the course of, the performance of the Contract. The Contractor acknowledges and agrees that such products, documents and other materials constitute works made for hire for the Foundation.
- (ii) Subject to the foregoing provisions, all documents, reports, recommendations, documents, and all other data compiled by or received by the Consultant under the Contract shall be the property of the Foundation, shall be made available for use or inspection by the Foundation at reasonable times and in reasonable places, shall be treated as confidential, and shall be delivered only to the Foundation's authorized officials on completion of work under the Contract
- (iii) The Consultant will treat all information given to him/her as information with proprietary value and will not disclose the same to competitors or any outsiders. The Consultant will not at any time, except under legal process, divulge any trade or business secret relating to the Foundation or any customer or agent of the Foundation, which may become known to him by virtue of his position as consultant, save in so far as such disclosure shall be necessary in the interest and for the benefit of the said Foundation and will be true and faithful to the Foundation in all dealings and transactions whatsoever relating to the said Foundation.
- (iv) Reports or other data that are developed specifically for the performance of this Contract shall be the property of the Foundation and the Consultant shall deliver reports and data to the Foundation as per the milestones. Dissemination of the reports and any information from the said contracts shall be done with written approval from the Foundation.

- 6. Publicity, use of name & Logo of the Foundation:** The Consultant shall not advertise or otherwise make public for purposes of commercial advantage or goodwill that it has a contractual relationship with the Foundation, nor shall the Consultant, in any manner whatsoever use the name, emblem, logo or official seal of the Foundation or that of SELCO in connection with its business or otherwise without the written permission of the Foundation.

7. Observance of Law:

- (i) **Observance of Law:** The Contractor will comply with all applicable laws, rules, regulations and statutory requirements and amendments thereof, in the manufacture and distribution of products and supplies and in providing services to the Foundation and during the term of Agreement.
- (ii) **Child Labour-** The Contractor will, its parent entities, partners or subcontractors nor any of its subsidiary or affiliated entities (if any) is engaged in any practice inconsistent with the rights set forth in the Child Labour (Prohibition and Regulation) Act of 1986, which, inter alia, requires that a child shall be protected from performing any work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social development.
- (iii) **Forced Labor-** The Contractor will not engage in any activity that will result in forced or compulsory labor under applicable laws including the Bonded Labour System (Abolition) Act, 1976,
- (iv) **Abuse of Labour-** Contractor will act in accordance with applicable laws and regulations and will not violate the rights of labourers as stated in The Factories Act, 1948 and similar legislations.
- (v) **Working Hours, Overtime, Wages and Other Benefits-**Working hours, wages and benefits shall be provided by the Contractor to its staff and employees in accordance with applicable laws including the Minimum Wages Act, 1948.
- (vi) **Declaration of blacklisting-** Contractor represents and warrants to SELCO that, as on the date of signing of this Purchase Order, it is neither blacklisted/ debarred nor it is under a declaration of ineligibility by Central / State or Semi-Government Organization/Department or Institutions and Public Sector Undertakings in India and abroad Contractor further undertakes to duly inform SELCO in the event it is blacklisted subsequent to execution of this Purchase Order/Work Order.
- (vii) **Compliance with Anti-bribery Laws:** Contractor and each of its directors, officers, employees, agents or other (collectively referred to as " Contractor ") represent and warrant that it shall not either directly or on behalf of SELCO Foundation give, offer, promise to offer, or authorize the offer, directly or indirectly (proxy bribing), anything of value (such as money, shares, goods or service, gifts or entertainment) to government officials, government customers, potential government customers or foreign government officials including officials of any public international organizations or officials of any political party either in India or abroad ("Officials") with an Intent to influence any act or decision in his or her official capacity Induce the Official to do or omit to do any act in violation of his or her lawful duty to obtain any improper advantage, or Induce to use such Official 's influence improperly to affect or influence an act or decision.
- (viii) The Contractor shall not provide any offering, promising, giving or receive, solicit or accept a financial or other advantage, or any other thing of value, with the intention of influencing or rewarding the behaviour of a person in a position of trust to perform a public, commercial or legal function to obtain or retain a commercial advantage.
- (ix) Contractor understands and acknowledges that any non- adherence to the warranty as stated herein above will be violation of the provisions of the Indian Prevention of Corruption Act,1988 and other applicable laws and legislations ("Anti-bribery Laws").
- (x) In addition, Contractor agrees to promptly report to SELCO Foundation of any incident of breach or potential breach of this section.

- (xi) Compliance with Sexual Harassment of Women (Prevention, Prohibition & Redressal) Act, 2013 (PoSH): The Contractor shall agree to adhere to the mandates prescribed under the Sexual Harassment of Women (Prevention, Prohibition & Redressal) Act, 2013, which requires all workplaces to have a Policy and Internal Committee to address complaints of sexual harassment that women may face at the workplace.

8. Termination:

Either party may terminate this contract by giving a notice in writing to the other party stating their intention to terminate the same on the expiration of Seven (7) days from the date of such notice. In addition, the Foundation may also terminate this contract forthwith in the event of any fraud, misconduct or neglect of duties on the part of the Consultant. Any notice to be given hereunder shall be sufficiently given to the Consultant if forwarded by registered post or by Courier Service to the last known postal address of the Consultant and shall be sufficiently given to the Foundation if similarly forwarded to the registered office. Upon the termination of this contract and payment of the said fees due up to such termination, and payment of all disbursements and out-of-pocket expenses incurred up to the date thereof (provided the same have been incurred after obtaining prior approval), the Consultant shall deliver all deeds, documents and paper in his possession relating to the business of the Foundation or as the Foundation shall direct, and shall continue to afford him all reasonable assistance for concluding pending matters at the date of such termination without making any charge thereof.

9. Force Majeure:

- (i) *Force majeure* as used herein means any unforeseeable and irresistible act of nature, any act of war (whether declared or not), invasion, revolution, insurrection, terrorism, or any other acts of a similar nature or force, *provided that* such acts arise from causes beyond the control and without the fault or negligence of the Consultant
- (ii) In the event of and as soon as possible after the occurrence of any cause constituting *force majeure*, the affected Party shall give notice and full particulars in writing to the other Party, of such occurrence or cause if the affected Party is thereby rendered unable, wholly or in part, to perform its obligations and meet its responsibilities under the Contract. The affected Party shall also notify the other Party of any other changes in condition or the occurrence of any event which interferes or threatens to interfere with its performance of the Contract. Not more than fifteen (15) days following the provision of such notice of *force majeure* or other changes in condition or occurrence, the affected Party shall also submit a statement to the other Party of estimated expenditures that will likely be incurred for the duration of the change in condition or the event of *force majeure*.
- (iii) On receipt of the notice or notices required hereunder, the Party not affected by the occurrence of a cause constituting *force majeure* shall take such action as it reasonably considers to be appropriate or necessary in the circumstances, including the granting to the affected Party of a reasonable extension of time in which to perform any obligations under the Contract.
- (iv) If the Consultant is rendered unable, wholly or in part, by reason of *force majeure* to perform its obligations and meet its responsibilities under the Contract, the Foundation shall have the right to suspend or terminate the Contract on the same terms and conditions as are provided for in this Contract.

10. Both the Foundation and the Consultant fully and freely intend to create an independent Contractor relationship under this Contract. Nothing herein shall be deemed to establish a partnership, joint venture, association or employment relationship between the parties. Both parties agree that the consultant has the right to sole and exclusive control over the manner and means employed in performing their activities under this Contract.

11. Settlement of disputes:

- (i) The Parties shall use their best efforts to amicably settle any dispute, controversy, or claim arising out of the Contract or the breach, termination, or invalidity thereof.

Any dispute, controversy, or claim between the Parties arising out of the Contract or the breach, termination, or invalidity thereof, unless settled amicably, within sixty (60) days after receipt by one Party of the other Party's written request for such amicable settlement, the matter shall be referred by either Party to arbitration in accordance with the Arbitration and Conciliation Act, 1996. The venue of the arbitration shall be at Bangalore. Likewise, the jurisdiction will vest with courts in Bangalore.