

## Request for Proposals

# Agricultural Waste & Residue as Textile Fibre Feedstock: Analysis of Geographical Scope and Potential for Use at Scale

Laudes Foundation is **inviting proposals from an independent organisation or consortium to conduct an assessment of the availability and viability of agricultural waste and residue<sup>1</sup> to use as feedstock for production of textile fibres at scale.**

Complete proposals must be submitted by **5.30pm IST on Friday, 17 April 2020**. More details are given below.

## Introduction

Laudes Foundation<sup>2</sup> is an independent foundation here to advance the transition to a just and regenerative economy. We do this by supporting brave action that will inspire and challenge industry to harness its power for good. Action that inspires industry, to work collaboratively to create solutions and tools. And action that challenges industry, holding it to account and incentivizing change.

Founded in 2020, Laudes Foundation is part of the Brenninkmeijer family enterprise and builds on six generations of entrepreneurship and philanthropy. Laudes Foundation is taking forward the industry-changing work of C&A Foundation and is working persistently and collaboratively to drive change at the systems-level while also working to influence capital and transform industry.

Under the fashion vertical of the foundation, one of the focus areas is to work towards making the global material mix sustainable through the Materials programme. **The Materials programme is commissioning an assessment of the availability and viability of agricultural waste & residue to use as feedstock for production of textile fibres at scale.** Some initial research on identifying technical innovations<sup>3</sup> using agricultural waste & residue as feedstock has been conducted. **This study is intended to build on the research and propose recommendations on specific waste and residue that is feasible to be diverted to the textile industry at scale. The study shall:**

- Provide a detailed analysis of quantity of agriculture waste & residue (i) generated and (ii) available & viable for use as feedstock for textile fibre production<sup>4</sup>;
- Map geographic hubs for sourcing such agriculture waste & residue; and
- Provide actionable recommendations for streamlining supply chain & logistics to enable scale up of agriculture waste & residue feedstock for use in textile fibre production.

The request for proposals presents a brief description of the expected outcomes of the study, the background and context, scope, purpose, expected deliverables and indicative timelines, along with consultant qualifications and projected level of effort.

**We anticipate the study to be completed and submitted to Laudes Foundation by Friday, 31 July 2020.**

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<sup>1</sup> Agricultural waste & residue, for the purpose of this study, is any waste from food and non-food crops that is produced on-farm (stocks, leaves, crop residues etc.) and near-farm (post-harvest loss, waste from primary processing etc.) as well as any waste that is potentially burnt by means of crop-burning activities on farm.

<sup>2</sup> Read more on: [www.laudesfoundation.org](http://www.laudesfoundation.org)

<sup>3</sup> At the beginning of this study, Laudes Foundation will provide the selected research consultant an initial list of innovations that have been identified as technologies that can use agriculture waste & residue to produce textile fibres

<sup>4</sup> For example: Analysing the amount of waste that exists from a particular crop in terms of whether it can be utilized for textile fibres, how much of the waste can be utilized, the logistics and costs of transporting or processing the waste, and viability of such an exercise

## Background & Context-Setting

Given the current unsustainability in the material mix, and the environmental and social impacts of processing/producing fibres such as polyester and viscose from non-renewable sources, it is important to find ways in which new and alternative feedstocks for fibres can be brought into the material mix and scaled up.

Studies indicate that both the agriculture and the fashion sector are highly interlinked, and initial research into sustainable alternatives for fibres made from agricultural waste & residue shows that there is great potential in tapping into agricultural waste streams as they can be processed into viable alternatives<sup>5</sup>. This linkage is an integral aspect as it allows for greater industrial symbiosis<sup>6</sup> and supports the industry in driving innovation, improves livelihoods of those in the supply chain, and has potential positive environmental impacts.

Supporting the research, are numerous innovators and enterprises operating at different scales that have developed technologies to process agricultural waste & residue into fibres, many of these technologies have been identified through the work of our partner Fashion for Good. Their work, and our initial research has highlighted the need to bring viable innovations to scale and examine the barriers that hold them back. For instance, through some technologies and processes, innovators can use agricultural waste & residue to create different types of fibres ranging from natural bast fibres to cellulose, and in some cases biological alternatives to fossil-fuel based synthetics. The alternatives that these innovators provide also show potential in addressing growing issues such as climate change. As an example, innovations that are able to utilize crop residue that would instead be burnt could potentially support the mitigation of climate change, air pollution, and even support with additional income for farmers. However, while the innovations show potential to create a regenerative, restorative, and just material system – there are multiple industry- and market-level barriers that hold them back from being able to produce alternatives that are scalable and competitive on both price and quality.

## Scope & Purpose

One of the biggest questions that remains is around the feedstock that is available for use in textiles in terms of (i) what waste exists where, (ii) in what form and, (iii) in what quantities. These looming questions need to be answered through both qualitative and quantitative analyses (including literature review). **This study is being commissioned to understand the ways to address some of the key gaps in the industry such as the lack of information & data on:**

- Data around the demand for alternatives made from agriculture waste & residue
- Quantity of agriculture waste & residue generated in different regions
- Quantity of waste & residue that could potentially be diverted to create textile fibres
- Mapping of potential agricultural waste & residue sourcing hubs
- Ways in which waste & residue is currently utilized or disposed and costs/value received for it by farmers, as well as the unintended consequences of diverting waste to be utilised as feedstock for textile fibres
- Financial viability of enabling the agricultural waste & residue generated towards feedstock for textile fibres
- Logistics and transportation footprint for the waste to be utilised as feedstock
- Technologies/infrastructure that currently exist (both on- and near-farm) to process agricultural waste and residue (including information around their maturity) and actionable recommendations on interventions to scale such technologies

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<sup>5</sup> Read more on the interlinkages between fashion and agricultural waste & residue on:

<https://www.fibre2fashion.com/industry-article/7805/agro-residues-beyond-waste-potential-fibers-for-textile-industry>,  
<https://aboutbiosynthetics.org/feedstock-to-fashion/>

<sup>6</sup>Industrial symbiosis is the process by which wastes or by-products of an industry or industrial process become the raw materials for another. Application of this concept allows materials to be used in a more sustainable way and contributes to the creation of a circular economy. Read more on: <https://fissacproject.eu/en/what-is-industrial-symbiosis/>

The study is being commissioned with the aim of redefining value and driving industry collaboration around utilizing agricultural waste & residue as feedstock for fibres. The goal is to develop a report that delves into agricultural waste & residue as a source of feedstock for textile fibre and provides actionable insights, lessons and recommendations based on the findings. **Areas of focus for the study are limited to:** South Asia [including India, Bangladesh, Pakistan, and Sri Lanka], and South-East Asia [Including Indonesia, Vietnam, Thailand and Cambodia].

## Expected Deliverables\* and Indicative Timeline\*\*

The main activities and timetable for this study are set out below:

Activity	Deadline
Deadline for applicants to submit clarifying questions to Laudes Foundation [Please send questions to Karan Kumar and Lakshmi Poti via <a href="mailto:materials@laudesfoundation.org">materials@laudesfoundation.org</a> with the subject line “Questions for Agricultural Waste & Residue as Feedstock RFP”]	Wednesday, 8 April 2020
Proposal submission	Friday, 17 April 2020
Evaluation & shortlisting of proposals and contracting of selected applicant	Apr-May 2020
Kick-off meeting	Friday, 1 May 2020
Submission of Inception report	Wednesday, 20 May 2020
Submission of Report of initial findings <sup>7</sup>	Thursday, 18 June 2020
Submission of (i) Draft report [with findings] and (ii) Database [with analysed information on the crop mix and region wise waste & residue quantum figures]	Wednesday, 15 July 2020
Submission of (i) Final report including a list of actionable recommendations and insights [submitted report must be proof-read and designed with graphics for dissemination]	Friday, 31 July 2020
<i>*Selected applicants will be expected to submit deliverables in a timely manner (within previously agreed timelines) to Laudes Foundation</i>	
<i>**Timelines and deadlines may be subject to change/modification based on reviews and progress checks.</i>	

The consultant will report to the Materials programme of Laudes Foundation on all issues related to the analysis, contracts, fees and expenses, and deliverables and commenting / responses processes.

## Consultant Requirements and Level of Effort

The expected level of effort for the study is approximately 50-60 working days. This is an estimate – the level of effort proposed must be aligned with the proposed methodology.

Proposals are invited from applying organisations that can bring in a range of expertise including:

- Proven experience in:
  - Agriculture and crop analysis
  - Technical expertise in materials for textiles
  - Outcome based qualitative and quantitative research

<sup>7</sup> Laudes Foundation recognises the need for flexibility due to the ever-changing situation presented by the global outbreak of COVID-19, and can (if deemed necessary) accommodate modifications in terms of field visits and data collection that is not desk-based once proposals have been submitted and shortlisted.

- Financial and commercial analysis
- Systems-level analysis
- A strong network of stakeholders with relevant experience, and theoretical + practical knowledge that can be part of an empanelled group of experts
- Excellent verbal and written skills in English, with proven experience in technical report writing
- No conflict of interest with Laudes Foundation

Please submit a technical and financial proposal as two separate files (per details given below) to **Karan Kumar and Lakshmi Poti** via [materials@laudesfoundation.org](mailto:materials@laudesfoundation.org) with the subject line “**ORG NAME: Agricultural Waste & Residue as Feedstock\_Proposal**” by **5.30PM (IST) on Friday, 17 April 2020**.

Please ensure you use the following naming conventions for each file of the proposal:

- *03042020\_APPLICANT ORG NAME\_Technical Proposal\_Agricultural Waste & Residue as Feedstock*
- *03042020\_APPLICANT ORG NAME\_Financial Proposal\_Agricultural Waste & Residue as Feedstock*

### **Technical Proposal**

A **narrative proposal** of no more than 8 pages (excluding annexes) and including the following sections:

- Understanding of the TOR and the requirements of the study
- Detailed approach and methodology, along with frameworks for qualitative and quantitative analysis, as well as tools of analysis
- Key deliverables and timeline of the study
- A detailed stakeholder & expert list with information about their expertise and relevance to the study [an initial list will be required in the proposal]

As **annexures** – please include:

- Key personnel and staffing, and relevant expertise/experience of the staff
- Relevant expertise and experience of empanelled experts
- Two sample research reports authored by the team lead (these will be treated as confidential and used for the purpose of selection)
- Organisational credentials highlighting relevant experience, and specific expertise via previous projects and collaborations
- Organisational networks in relevant sectors

### **Financial Proposal**

The financial proposal should include a line-item budget and budget narrative with cost estimates in **Euros (€)**. The financial proposal must be prepared as a separate file and should contain personnel costs, rates, costs for empanelled experts, and a break-up of professional fees along with any estimated out of pocket expenditures.