

Request for Proposal (RFP)

1. Introduction

The Ashoka Centre for a People-centric Energy Transition (ACPET) is a transdisciplinary centre under the International Foundation for Research & Education (IFRE). ACPET's vision is to guide the global south, particularly India, towards a sustainable, secure, and equitable energy transition. India's energy transition to meet its net zero commitment while powering its economic growth is expected to trigger major changes across the energy sector. Our project portfolio spans various sectors, all united by the goal of placing a people-centric approach at the core of policymaking to ensure a just and equitable transition to clean energy.

2. Project Overview:

The “Transforming Life and Livelihood of Coal Mine Communities” (Trans-mine) project was initiated to explore and address the issues faced by the community around discontinued and abandoned coal mines. In India, over 100,000 hectares of land remain unutilized due to the cessation of coal mines. Over 299 regions have witnessed the closing of mines, contributing to approximately five million job losses. Communities around the coal mines are heavily dependent on its operation for their life and livelihoods. Closing these mines has a drastic change in their ecosystem. A similar story exists at the discontinued coal mine in Rajhara area of Jharkhand, a rural state in eastern India. ACPET designed empirical research for promoting people-centric mine closures. Field surveys were conducted to identify challenges faced by local communities. Subsequently, a list of key interventions was developed to address the identified issues.

2.1 Interventions:

Three interventions have been identified for on ground implementation from the bucket list of ideas. The first two are currently in the implementation phase, while the third will be introduced after assessing its socio-economic feasibility. These initiatives are -

- a. **Solar-Based Lift Irrigation System:** The intervention aims to improve agricultural irrigation by harnessing solar energy, ensuring farmers in the abandoned coal mine area of Rajhara have reliable access to water. This initiative also strives to breathe new life into underutilized land, transforming it into productive agricultural spaces.
- b. **Farmer Producer Organization (FPO):** This intervention is designed to enhance farmers' incomes in areas where coal production has ceased. By focusing on capacity building, promoting gender equity, and facilitating knowledge sharing, ACPET envisions to effectively strengthen both the forward and backward linkages of the agricultural sector in the Rajhara Coalfield region.
- c. **Clean Cooking Practices:** Intervention is proposed to introduce healthier cooking alternatives, aiming to reduce health risks associated with coal residue commonly used as cooking fuel in communities near coal mines. This initiative will help improve indoor air quality and overall health within the community.

2.2 Objective:

In this RfP, ACPET invites proposals from agencies to support evaluations of the field interventions using primary surveys and other techniques, at Rajhara. This data will enable ACPET to comprehensively assess the effectiveness of these interventions by capturing key insights around,

- a. Effectiveness and sustainability:
 - Evaluating the effectiveness of each intervention in addressing key issues faced by communities around discontinued mines.
 - Assessing the financial requirements for the long-term sustainability of these interventions.
- b. Impact on society:
 - The transformation of the village ecosystem following the mine's discontinuation.
 - Impact of interventions in improving the livelihood of the impacted community.
 - Change in perception and awareness about clean technologies and community acceptance based on pre-intervention conditions.
- c. Policy recommendations:
 - Significance of a People-Centric Approach in Mine Closure
 - The scalability and potential for long-term adoption of each intervention across similar regions.

3. Key Research Questions:

- i. How has the **Solar-Based Lift Irrigation Project** led to improvement in the livelihood of the mining community in Rajhara?
 - a. How will the Solar-Based Lift Irrigation Project enhance agricultural livelihoods in the post-mining landscape of Rajhara?
 - b. What effects will the project have on groundwater levels, and in what ways will it tackle water scarcity challenges in Rajhara's mining region?
 - c. How does the mining community perceive, accept, and benefit from the use of renewable energy in irrigation?
 - d. How will this initiative help develop a resilient and self-sustaining agricultural ecosystem in Rajhara's post-mining landscape?
- ii. How is the **Farmer Producer Organisation** expected to improve the agricultural scenario in the abandoned coal mines of Rajhara?
 - a. How is the Farmer Producer Organization (FPO) expected to improve both forward and backward linkages within the agricultural sectors in Rajhara?
 - b. What does the current landscape of agriculture look like regarding productivity, farming practices, gender dynamics, and market access?

- c. How is the FPO anticipated to boost the livelihoods of the community and create a vibrant business ecosystem in the abandoned coal mines of Rajhara?
 - d. What are the challenges faced by farmers in transitioning to organized collective farming practices? How can these challenges be addressed within the context of coal mine communities?
- iii. How will the implementation of clean cooking practices impact the health and socio-economic life of communities that primarily rely on traditional cooking fuels?
 - a. What is the current landscape of cooking practices regarding fuel types and usage patterns? What are the health effects of various traditional fuels, particularly on women and children?
 - b. How do different clean cooking alternatives compare in terms of accessibility, affordability, adaptability, and the technical support needed for effective community adoption?
 - c. What is the community's readiness to transition to clean cooking solutions, taking into account their levels of awareness, willingness to pay, and access to clean cooking technologies?
 - d. What are the potential health, social, and economic outcomes of moving to clean cooking methods, especially in relation to gender dynamics and time-labor implications for women and children?

4. Research Objectives:

The goal of this evaluation is to analyze the three interventions mentioned earlier. The agency will assess each intervention based on social, environmental, financial, and technical factors. The work will include, but is not limited to, the following:

- i. To evaluate the benefits derived from the **Solar-Based Lift Irrigation Project** while also considering the technical and social challenges encountered by the community in its implementation.
 - a. To analyze how former mining communities adapt to agricultural practices and assess their perceptions toward the transition from fossil fuel dependency to renewable energy-based livelihoods.
 - b. To carefully investigate the efficiency of water usage and water quality, as well as the implications for the underground water table.
 - c. To identify and highlight successful strategies for economic diversification in regions traditionally reliant on coal.
 - d. To assess the anticipated maintenance costs, potential technical challenges, and overall user satisfaction with regard to solar irrigation systems.
 - e. To evaluate the agricultural and economic landscape by examining soil quality and water quality, documenting cultivation practices, analyzing changes in crop diversity, exploring gender-specific roles in irrigation, and establishing baseline income levels for farmers.
- ii. To assess the socio-economic impact of the **Farmer Producer Organisation (FPO)** along with any improvement in community ties post-implementation.

- a. Assess how the establishment of the FPO enhances agriculture for residents of Rajhara, including forward and backward linkages in the agricultural supply chain and connections with markets, input suppliers, and consumers in the area.
 - b. Examine the barriers farmers face in adopting collective farming models in the post-mining landscape of Rajhara.
 - c. Explore strategies to overcome these challenges and promote successful implementation of the FPO in the context of a community transitioning from mining to agriculture
 - d. Document the current agricultural practices, crop types, yields, crop preferences, gender dynamics, and any traditional practices that may exist.
 - e. To evaluate the FPO model's impact on the economic stability of farming households and the enhancement of resources and market opportunities in the post-mining landscape of Rajhara.
- iii. To assess the impact of current cooking practices among the community and draw a comparative analysis across various alternatives for **clean cooking**.
- a. To document current cooking practices by identifying types of fuels used, cooking methods, devices, and seasonal variations in fuel usage.
 - b. To evaluate the health impacts of traditional fuels by assessing health conditions related to indoor air pollution and quantifying the impacts of particulate matter from various traditional fuels.
 - c. To conduct a comparative analysis of clean cooking options by evaluating factors like accessibility, cost, time saved, ease of adaptability, and potential health improvements with clean cooking adoption
 - d. To analyze economic and labor costs by establishing baseline costs of traditional fuels, including collection time and labor, and examining gender roles in fuel collection and cooking tasks.
 - e. To assess awareness, accessibility, and technical support for clean cooking options by measuring community awareness, access to options like LPG and biogas, and availability of necessary maintenance resources.

5. Scope of the Work:

- i. The agency is expected to deploy a core study team with the following composition.
 - a. Team Leader (Ph. D or master's in social sciences/Anthropology/Climate sciences/environment studies with a minimum of 15 years of development sector survey research experience, with both quantitative and qualitative research experience) for designing and implementing the project, including a visit to the mine sites.
 - b. Core team member (master's in social sciences/Anthropology/Climate sciences/environment studies; with 8 – 10 years development sector research experience, with a special focus on qualitative research experience) who will support the core research team in the design, execution of survey and visit the mine sites, analysis, and reporting.
 - c. Programmer for CAPI programming and quantitative data analysis (master's in computer applications, with experience of minimum 5 years for quantitative surveys for both CAPI program designing and data analysis). There can be separate professionals proposed for CAPI programming and data analysis.
 - d. Field Manager (minimum 10 years of survey management and quality control experience)

- e. Research Assistants as required (with a minimum of 2 years experience conducting FGDs, KII, and other PRA methods). The RA is expected to undertake qualitative data collection, analysis, and reporting with the help of the core team.
- f. Supervisors and enumerators are responsible for field data collection.
- ii. The agency should propose a suitable approach and methodology for data collection, using a mixed-methods design. The proposed sampling methodology section below includes a tentative sample size for both quantitative and qualitative research.
- iii. Develop an Inception Report detailing the proposed methodology, sampling plan, selected sample villages, and qualitative data collection plan. Draft the survey questionnaires and the discussion guides for FGDs and KII and the Team details (core team and field team).
- iv. The agency will be responsible for designing the questionnaires and discussion guidelines for FGDs, KIIs, and other qualitative data collection methods.
- v. The agency is expected to consider the following two frameworks for the evaluation process. The **IDEA** (Inclusion, Diversity, Equity, Adaptability) framework and the **AARQA** (availability, accessibility, reliability, quality, and affordability) framework will capture the social dimensions of each intervention, promoting a just and equitable approach by ensuring that all community members, especially marginalized groups, benefit from these initiatives. These are the proposed frameworks, but the agency can suggest a more suitable one.
- vi. All survey tools are required to be pilot tested on the ground in a non-sample coal mine location, reviewed by the ACPET project team, and finalized incorporating comments and suggestions.
- vii. The final tools (qualitative and quantitative) will have to be translated into the local language (Hindi or as it is on the ground) for survey administration and duly checked back with the English version of the questionnaire for accuracy and appropriateness of translation).
- viii. Crisp field manuals must be developed to support the training and fieldwork operations.
- ix. The field supervisor and enumerators for the quantitative survey should be graduates, conversant with the local language/dialect, and experienced in CAPI surveys.
- x. The quantitative survey will be undertaken using face-to-face CAPI methodology. Thus, the development, testing, and finalization of the CAPI programs will be the responsibility of the Agency. The CAPI program must be sufficiently tested in-house and pilot-tested in non-sample locations before finalization and deployment in a multi-lingual format. The CAPI program will capture GPS locations for all surveys.
- xi. Each of the qualitative interviews will be undertaken with the help of a moderator and a facilitator, who will be conversant with the local language/dialect. The FGDs and group discussions (as appropriate) will include identification and information on being beneficiaries under the intervention of respondents before the discussion is undertaken. To the extent possible, the discussions will be recorded on audio. Each discussion will have a transcript and a translation.
- xii. Mobilization, selection, and training of field personnel will be the responsibility of the Agency. Training will be separately undertaken for quantitative and qualitative research. The ACPET project team may participate in the training sessions.

- xiii. The agency will develop survey protocols for primary data collection and monitored by the agency. Field-level photographs will be collected as part of the data collection and used as visual support in the study report.
- xiv. The plan for quality check – type of check, purpose, and numbers – must be informed well in advance and reported as part of the fieldwork progress report.
- xv. The progress of fieldwork has to be reported weekly in an agreed template. Field check tables have to be designed to track the key indicators throughout the data collection phase and reported weekly in the agreed template.
- xvi. Raw data for the quantitative survey has to be submitted to ACPET once a week. ACPET will undertake a quick assessment and provide feedback on the data every week to streamline processes in the field and undertake corrective actions as required.
- xvii. The raw qualitative data has to be saved on a shared Google document so that the ACPET team can go through the interviews and provide suggestions.
- xviii. The agency has to provide a tentative data collection plan and inform of updates to the plan if the plans are modified.
- xix. The agency has to develop data cleaning protocols and finalize them as per review by the ACPET project team.
- xx. The findings of the qualitative survey and the quantitative survey will be presented to the ACPET project team for input and review if any additional analysis is required before the reports are written.
- xxi. Draft reports have to be developed using both quantitative and qualitative data, supported by graphics and photos, with executive summaries and recommendations. A basic visual statistical representation of the data and certain descriptive statistics-based data insights, need to be provided by the agency. The shared documents should be in editable format as well.
- xxii. The final report will be developed incorporating the comments and suggestions of the ACPET project team.
- xxiii. Submission of final quantitative data (in Excel/.csv) and all final transcriptions of qualitative discussions must be included in the final deliverable.

6. Proposed methodology for sampling:

- i. **The Solar-Based Lift Irrigation Project (Ex-Post):** Implemented in Rajahara, Nawabazar block of Palamu District, Jharkhand, India, it has just over 53 Acres of commanding land. The pipeline is one thousand meters long and has ten outlets in total. The project is expected to benefit approximately forty families in the area. The sample should include 100% of the population who benefited from the intervention, i.e., all the families benefiting from the Solar-Based Lift Irrigation Project.
- ii. **Farmer Producer Organizations (Ex-Post):** This project is implemented around the Rajahara mines in the Nawabazar block of Palamu District, Jharkhand, India. In total, three villages are covered by this project. The benefits of FPO establishment are expected to reach beyond FPO members to entire village ecosystems. It is suggested that the selection

- of households follow a stratified approach (the agency can suggest an alternative methodology).
- a. Sample needs to include both members and non-members of FPO formed in the Rajahara coal mine region.
 - b. The members of FPO can be randomly drawn and must not be less than 30% of total FPO members. The non-members can be drawn randomly from the village population but must not be less than 30% of the panchayat population.
- iii. **Clean cooking for mining community (Ex-Ante):** Will be implemented in Rajahara, Nawabazar block of Palamu District, Jharkhand, India. The agency is expected to select villages/hamlets surrounding the abandoned mine site – within a 5 – 10 km radius. The following points need to be kept in mind in the process of sampling:
- a. It is suggested that households in the selected village/town be selected using multi-stage sampling (the agency can suggest an alternative methodology).
 - b. Clusters will be formed to define the population of the study site. Clusters are to be defined based on certain parameters. The parameters are defined below for reference.
 - c. Simple Random Sampling of the households in each cluster to select at least 30% of the entire population.
- iv. Parameters to define clusters may be as follows:
- a. **Proximity to Polluting Fuel Sources:** In Rajahara, the study on indoor air pollution from cooking fuels focuses on Goliyas, a mix of coal dust and cattle dung. Households closer to coal mines or polluting fuel sources will likely use coal dust and similar fuels more frequently.
 - b. **Access to Clean Energy Subsidies:** Households with subsidized access to LPG or cleaner fuels are expected to use Goliyas less often. To target traditional fuel users, these households using only LPG will be excluded from the study. Data on exclusive LPG users may be readily available.
 - c. **Socio-Economic Status (SES):** SES factors like income, education, and employment influence access to cleaner fuel alternatives. Clustering by SES can highlight differences in reliance on Goliyas and access to pollution-mitigating resources.

7. Key Deliverables:

The key deliverables would include the following:

- i. The evaluation agency is expected to provide a survey inception report containing a secondary review of literature, the research framework, methodology, timeline, and sources of data collection, along with a chapter plan of the study report.
- ii. Quantitative and qualitative tools (questionnaires and discussion guidelines)
- iii. Raw data files in Excel and .csv formats.
- iv. Transcriptions of all qualitative findings.
- v. Draft report (with interim findings, graph representation of quantitative results, data collection instruments used, etc.)
- vi. Final report in hard and soft copy in printable format along with three case studies for respective intervention.
- vii. Final findings of the study are to be provided in the form of a ppt. as well.

- viii. Strategic roadmap for enhancing intervention effectiveness, expanding reach, and strengthening socio-economic viability.
- ix. One consolidated book on people-centric mine closure.
- x. The agency is expected to organize a public event for the report launch.

8. Project Timeline:

- i. The Evaluation process is expected to begin in the first week of **December 2024**.
- ii. Inception report must be submitted within **15 days** of project allocation. Including – an activity-based schedule and a short-term delivery plan
- iii. Monthly programmatic reporting along with updated project documentation.
- iv. The first draft of the report with interim findings, methodology, and Instrument for data collection is expected by **10th February 2025**.
- v. The Evaluation Process must be concluded by **10th March 2025**.
- vi. The final report on the findings should be submitted on **20th March 2025**.
- vii. The Public event for the launch of the report is expected in the **last week of March 2024**.
- viii. For any inquiries regarding this RFP, please contact Mr. C Surendran at +91 9911195954.

9. Copyright

ACPET/IFRE will own the copyright to this study. This will include data, photographs, reports, and any other material created and collected as per the mandate of this study. All the information received for the duration of this assignment from IFRE/ACPET must be treated with confidentiality and must not be shared without prior written permission.

10. Procedure for application and proposal submission

IFRE/ACPET proposes to hire an experienced research agency/Consultant to conduct this mixed methods study through a competitive bidding process. The agency/consultant must present the proposal in two parts:

- i. **Technical:** This shall provide the technical specifications like study design, methodology, geography, sample size, qualitative data collection proposed, plan of analysis for qualitative and quantitative data, plan of data validation, and proposed timeframe along with capability document/experiences of similar assignments.
- ii. **Financial:** This shall mention the expected budget for accomplishing the complete work with a head-wise breakup. The cost breakdown of consultancy fees and logistics for field visits with taxes must be included in the proposal.

The following set of documents are required to be enclosed as part of the application.

- i. Detailed Proposal - Technical and Financial
- ii. Experience with similar assignments.
- iii. CVs of the persons to be involved in the assignment.

The technical proposal should be written within ten pages. In addition, the curriculum vitae of the core team members, and relevant experience of the firm in the last 10 years should be annexed to the technical proposal. The technical proposal should not contain any financial information. The technical proposal should include the following.

- i. Understanding of the terms of reference
- ii. Proposed methodology
- iii. Proposed work plan
- iv. Activities and time frame
- v. Deployment frequency in person days unit.

The technical proposal will be evaluated out of a total score of 100 marks initially. A minimum of 70 percent technical score will be required to participate in the financial bid.

The financial proposal is to be submitted as a separate document. Financial bids of only those firms scoring a minimum of 70 percent technical marks will be opened in front of agency representatives.

A soft copy of the technical and financial proposal (duly signed on all pages by a representative of the) must be submitted to the points of contact mentioned in Section 13 of the RfP.

11. Marking Criteria:

The study will be awarded based on a Quality and Cost-based evaluation, with 75% weightage for the technical score and 25% weightage for the financial score.

The technical score (initially out of one hundred total marks) will be evaluated based on the following:

- i. 40 marks on responsiveness and appropriateness of the proposed methodology and work plan.
- ii. 40 marks on the proposed team; (15 marks on the Team Leader, 10 marks on the Core team member, 5 marks each on the Research Associate, Field Manager, and Programmer). Although not marked, the proposal will state the number of persons deployed for qualitative and quantitative data collection.
- iii. 20 marks for relevant experience (qualitative and quantitative survey on development sector surveys, with preference on energy transition studies and surveys done in mining regions) in the last 5 years.

Methodology (formula) for evaluation of cost:

Quality and Cost Based: The lowest financial proposals (Fm) receive a financial score (Sf) of 100 points. The financial scores of the other financial proposals will be calculated as follows:

$Sf = 100 \times Fm / F$ (F being the proposed price of the consultants)

12. Submission Guidelines

- i. Proposals must be submitted by **2nd December 2024**
- ii. The subject line of the e-mail should read “Trans-Mine: Impact Assessment of Interventions on the Mining communities of Jharkhand”.
- iii. All proposals should be sent electronically to acpet@acpet.ashoka.edu.in.
- iv. The following should be copied in the email application:
 - Mr. Vaibhav Chowdhary, Director, ACPET and PI, Trans-mine Project (vaibhav.chowdhary@ashoka.edu.in)
 - Mr. Animesh Ghosh, Research Fellow, ACPET (animesh.ghosh@ashoka.edu.in)
- v. For any inquiries regarding this RFP, please contact Mr. C Surendran at +91 9911195954.
- vi. Bid opening date: **3rd December 2024, 3 pm**

13. Terms of Payment:

- i. 40% upon submission of Inception Report
- ii. 25% upon submission of 100% raw data sets and second field progress report
- iii. 25% on acceptance of the Draft Report
- iv. 10% on acceptance of Final report and submission of final quantitative and qualitative data sets/transcriptions.

14. Terms and Conditions:

- i. Timely Completion: The project timeline is till 30th March 2025. The vendor/partner shall complete the agreed-upon work plan within the stipulated timeframe.
- ii. All-Inclusive Pricing: The budget must cover all costs, including fees, travel, lodging and boarding, taxes, and all statutory expenses. No additional charges are accepted post-contract.
- iii. Requirements from vendor/partner: The vendor/partner must be registered under the Indian Companies Act, 2013, or the Limited Liability Partnership (LLP) Act, 2008.
- iv. Valid PAN card and GST registration are mandatory.
- v. Minimum three years of experience in executing similar projects in Jharkhand or neighboring states in India.
- vi. Successful completion of at least two projects of similar nature and complexity in the last five years.
- vii. Average annual turnover of at least thirty lakhs in the last three financial years.
- viii. Preference will be given to vendors/partners with established operations and presence in Jharkhand or neighboring areas, preferably with similar work.
- ix. Demonstrated technical capability to execute the specific work required in Rajhara, including relevant activity and skilled personnel anywhere in India, preferably in Jharkhand.
- x. Submission of all relevant certificates, project completion reports, and financial statements as proof of meeting the above criteria, if required.

Note: The exact requirements may be adjusted based on the specific nature of the work and local regulations in Rajhara of Palamu District of Jharkhand.

15. Conclusion:

ACPET is committed to facilitating people-centric energy transition practices and improving the livelihood of the Rajahara village community. We look forward to receiving your proposals and working together to evaluate the Impact of the interventions as mentioned. Thank you for your interest in contributing to sustainable and equitable energy transition through clean energy technology.