

Terms of Reference

Data Collection and Management for Understanding School Enrollment Decisions in Traditionally Marginalized Communities

Introduction and Background

With approximately 39% of all school-age children out of school, Pakistan has the world's largest population of out-of-school children, severely hampering development in all sectors. Despite policy reforms, low enrollment persists, leading to the 2024 declaration of an education emergency in Pakistan. *Reformers, researchers, and policymakers need better strategies to identify and prioritize effective policies to address this persistent crisis.* Policymakers globally face challenges prioritizing reforms and interventions that provide substantial benefits. The complex nature of developmental needs makes it difficult to understand the feasibility of reforms, efficiently use resources, ensure policy coherence, and identify potential interventions.

Pakistan's education system faces challenges that hinder access to education. Pull factors like poverty compel families to prioritize their financial needs over education. Push factors such as student disengagement and incoherent policies, lead to higher dropout rates. Not all policies that impact student enrollment, such as transportation and safety, are directly related to education.

The Project

The Equity Equation Project (EEP): Predictive Modelling of Policy Impact on School Enrollment is a research project under the Data and Research in Education - Research Consortium (DARE-RC) FCDO-funded programme. To address Pakistan's persistent crisis of over 26 million out-of-school children, policymakers, governments, and donors need to analyze complex data to understand how proposed policies and interventions impact access. This EEP project seeks to revolutionize education planning in Pakistan by combining cutting-edge technology with on-the-ground realities through a high-fidelity computational model. The platform will provide a virtual model of the Pakistani education system, where policymakers can test new policies and see their impact on student access, creating a library of policy outcomes to guide evidence-based decisions.

This project conceptualizes and prototypes an agent-based model (ABM) to integrate various data from the most recent census and surveys to simulate the outcomes of proposed policies on educational access. The ABM will inform policymaking in impactful and nuanced ways that support increased school enrollment, leading to the most effective use of resources. The model will examine policies on identified factors and adjacent sectors like transport, housing, and social protection, providing evidence for effective allocation and planning.

The EEP project is a year-long project initiated in January, 2025 and ending in December, 2025. The lead organisation of EEP is Pakistan Alliance for Science and Mathematics (PAMS) – a not-

for-profit organization - that has conducted research, piloted innovations, and provided technical support to the government entities since it commenced formal operations in September 2018.

Objectives of the Assignment

The primary purpose of this call is to contract a community-based organization to conduct primary data collection to feed into the agent-based model (ABM). This will include obtaining the relevant permissions and the collection and management of survey, mapping, and interview data.

Scope of Work

The scope of this work focuses on 3 tools of data collection in the **Lahore division**:

- **Household Survey:**

Representative sample of households in sampled communities (2 Union Councils) respond to questions on household demographics and opinions on education access. The survey will identify the prevalence and weight of key barriers, support mechanisms, and decision-making dynamics that influence school enrollment, attendance, dropout, and re-entry among children in the Lahore division. The draft survey tool is attached in Annex-1.

- **Educational Journey Mapping:**

Journey mapping is a qualitative tool for understanding participants' lived experiences and how these experiences shape their interactions and decision-making, ensuring relevance to the context and the needs of the research. This Educational Journey Mapping (EJM) is designed to collect narrative-based data to understand how decisions about school enrollment are made in families. The goal is to surface family-level decision-making processes, critical incidents, support systems, and barriers that shape educational access and continuity. Insights from these mappings will directly inform the decision-making logic in simulation models. The draft education journey mapping protocol is attached in Annex-2.

- **Community Mapping**

Community Mapping uses mixed methods to collect narrative-based data to understand how location and space impact family decision-making on school enrollment. The goal is to elucidate how communities operate in and understand their location and space, identifying supports and barriers to school enrollment that shape educational access. Further details are available in the attached tool in Annex-3.

A summary on the tools' format and administration is provided below:

Stage	Method	Data Formats	Number of Communities	Number of Participants in each community	Administration
1	Household Survey	Survey-demographic and descriptive/Likert, GIS locations of households	2 Union Councils	400 Households (Total 800 Households)	<ul style="list-style-type: none"> • One-on-one • Visits to the home • Approximately 1 hour
2	Qualitative Journey Mapping	Drawings, audio recordings	2 Union Councils	10 participants (Total 20 participants)	<ul style="list-style-type: none"> • Done in groups • One leader and 4 enumerators for each group • Requires a location with tables and chairs • Approximately 45 minutes for each group
3	Mixed Methods Community Mapping	GIS, audio recordings, photographs	2 Union Councils	10 participants (Total 20 participants)	<ul style="list-style-type: none"> • One-on-one • Requires walking the community • Approximately 1 hour

Specific tasks to be accomplished by the organization

The survey organization will be responsible for:

1. **Permission to work in the field:** Obtaining the necessary No Objection Certificates (NOCs) for data collection in the Lahore division. This includes household surveys as well as collecting GIS data.
2. **Fieldwork plan:** Preparing a comprehensive fieldwork plan indicating dates for visiting each community and collecting data. The organization should decide how to divide the administration of the three tools in the field (e.g. combining tools collection on the same day or splitting them)
3. **Recruitment and training enumerators:** Recruitment and training of enumerators and staff for fieldwork, digital data collection on tablets and management, including post-entry cleaning and production of data. The enumerators must be able to conduct activities in the field in local languages – Urdu and Punjabi. Digital collection of data is essential. PAMS will provide support for training on the enumeration of the protocols, identification and selection of participant families.
4. **Random selection of participants:** Preparing a plan to randomly select participants from the predetermined union councils.
5. **Support in field:** Providing technical support for enumerators to ensure on-time and accurate collection of data
6. **Arrangements in the field:** Managing logistical arrangements, including transportation, required stationary, tablets, digital tools and field team security

7. **Piloting the tools:** The tools will need to be piloted and suggestions for improvement in the format/structure and administration of the tools will need to be provided
8. **Quality assurance:** Quality assurance of collected data and adhering to ethical protocols.
9. **Data collection:** Recruiting and collecting data from participants. The data collection includes digital household survey responses; voice-recordings and pictures from the journey mapping; GIS coordinates, voice recordings and pictures from community mapping
10. **Data upload:** Uploading data from fieldwork daily.
11. **Monitoring data collection:** Monitoring the quality of data collection. The organization will remain in close coordination with PAMS providing it regular updates and seeking approval for key activities.

PAMS will support the survey organization by:

1. Supporting the training of enumerators for the protocols
2. Supporting the identification and selection of participants
3. Monitoring data collection progress and providing feedback

Budget and Timeline

The timeline for data collection is 4 weeks, from end of-June 2025 to end of-July 2025.

Expected Outputs

The following key outputs are expected for this survey:

1. Inception report describing the detailed methodology, field plan, and timelines for data collection and composition of each data collection team.
2. Detailed field work with dates of visits
3. Soft copy of collected data and cleaned data.

Selection Criteria

The organization should possess the following qualifications and expertise:

- Demonstrated 5 years' experience in data collection (household surveys and GIS mapping exercises) and community engagement
- Having experience of previously conducted minimum five projects of similar nature like household surveys, GIS mapping, qualitative research, and community engagement
- Experience in monitoring field teams and uploading data.
- An NoC applicable to Lahore division will be necessary. Current engagement in the Lahore division will be an added advantage

Proposal Requirement of Organizations Competing

All competing firms need to provide Technical and Costs proposals at the following email address, no later than 17th June, 2025, CoB.

Proposals need to be emailed to: info@mathsandscience.pk

Technical Proposal

The technical proposal should cover the following information in clear, concise and plain English:

- Methodology, approach, field plan digital tools to be utilized and workplan (with timelines) under the ‘Scope of Work’ described above.
- Team structure and resumes of all team members along with their potential roles and responsibilities in the project, educational background and only data collection/field work relevant experience
- Examples of similar projects/assignments conducted by the organization

Cost Proposal

A cost proposal, giving a detailed breakdown of costs in PKR, expected to be incurred for delivering this assignment.

Please give a cost proposal that:

1. Includes an itemized breakdown of costs for each of the 3 components individually: household survey, educational journey mapping, and community mapping
2. Includes separate management costs associated with each component

Proposals that do not include itemized costs of each component will not be considered.

Attachments with Email

Annex 1: EEP Survey Draft

Annex 2: Education Journey Mapping Protocol Draft

Annex 3: Community Mapping Protocol Draft