



# The Office of the Chief Economist of the South Asia Region

## Randomized Controlled Trials in the South Asia Region: A Stock-Taking Exercise<sup>1</sup>

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*The South Asia Region at the World Bank has been using Randomized Controlled Trials (RCTs) to identify effective policies to overcome development challenges, especially in labor markets, gender equality, and climate resilience. Since 2014, innovative interventions to improve outcomes have been, or are being, assessed across 30 RCTs, of which 15 are currently ongoing. The gender and sector focus—especially on education, labor markets, and agriculture—appears well-aligned with the South Asia Region’s strategic priorities on labor market outcomes, gender equality, and climate resilience.*

### Introduction

A number of Randomized Control Trials (RCTs) has been conducted by the World Bank’s South Asia Region. This note takes stock of the 30 RCTs completed or ongoing in the region, based on inputs received from country management units and regional Human Development and Sustainable Development global practices (annex 1). The reference period is approximately from 2014 until September 2023.

This note shows that the South Asia Region’s RCTs since 2014 align well with the Region’s priorities of jobs, female labor force participation, and climate. More than one-third of RCTs include a gender focus, almost one-quarter has an agriculture or climate focus, and one-third are about labor force participation or entrepreneurship. By assessing the impact of specific components of a project or informing the policy dialogue, all RCTs have been conducted in the context of World Bank operations. An accompanying excel file summarizing the sources, details and main findings of the RCTs is available [here](#).

### Focus of RCTs in South Asia

**Country coverage.** Since 2014, 30 RCTs have been undertaken, of which 15 are completed and the remaining 15 are ongoing and at different stages (table 1). All the countries in the region except for Bhutan and Maldives are covered by at least one RCT but two-thirds of the RCTs have been conducted in India and Pakistan. Pakistan and Sri Lanka have the largest shares of RCTs still ongoing.

**Table 1: Number of RCT according to their status and country focus**

| Country      | Status    |           | Total     |
|--------------|-----------|-----------|-----------|
|              | Completed | Ongoing   |           |
| Afghanistan  | 2         | 0         | 2         |
| Bangladesh   | 2         | 2         | 4         |
| India        | 2         | 7         | 9         |
| Nepal        | 1         | 1         | 2         |
| Pakistan     | 6         | 5         | 11        |
| Sri Lanka    | 2         | 0         | 2         |
| <b>Total</b> | <b>15</b> | <b>15</b> | <b>30</b> |

<sup>1</sup> This note was prepared by Maurizio Bussolo, Jean Nahrae, and Jonah Rexer (all SARCE).

**Thematic coverage.** The most active implementers of RCTs have been the Human Development Global Practices and the Gender Innovation Lab (GIL, table 2). One-third of the RCTs have focused on gender, especially in the context of labor market participation and entrepreneurship. RCTs that were not on gender-related topics were most common in education and agriculture.

**Table 2: Number of RCT by Theme and gender focus**

| Theme/Sector       | Focus on gender |           | Total     |
|--------------------|-----------------|-----------|-----------|
|                    | No              | Yes       |           |
| Education          | 7               | 2         | 9         |
| Labor markets      | 1               | 5         | 6         |
| Climate Resilience | 4               | 0         | 4         |
| Entrepreneurship   | 2               | 2         | 4         |
| Agriculture        | 3               | 0         | 3         |
| Health             | 2               | 0         | 2         |
| Fiscal             | 1               | 0         | 1         |
| Poverty            | 0               | 1         | 1         |
| <b>Total</b>       | <b>20</b>       | <b>10</b> | <b>30</b> |

### Main findings of RCTs in South Asia

**Education.** RCTs covered school funding, curriculum, school governance, and digital technologies.

- **Funding.** Two studies on school funding and inputs highlighted how private responses undermined the effectiveness of funding increases. In India, school grants improved students’ test scores, but only where they were unanticipated. In Pakistan, school grants increased test scores only when they were provided to all schools in a village.
- **Curriculum.** Two studies focused on pedagogy (the ongoing TARL evaluation in Pakistan) and curriculum. The completed RCT for a “growth mindset” curriculum in Bangladesh shows improved motivation and aspirations, although more for boys than girls.
- **Governance.** Two studies on school governance found some improvements in teacher behavior but no impact on test scores. One is a multi-arm community accountability experiment with school committees in Pakistan, the other is a school management (PSI) reform in Sri Lanka.
- **Digital technologies.** One experiment in Pakistan to encourage girls by SMS to return to school in the wake of COVID-19 lockdowns substantially increased enrollment and test scores of girls.

**Labor markets.** All but one of the six RCTs on labor markets dealt with women’s engagement with these markets and all but one of the six RCTs deal with the digital economy, either by focusing on gig workers or using online portals as the mechanism to connect workers and employers. One has been completed, the others are still ongoing.

- **Gender discrimination in leadership positions.** Gender discrimination in India, in the form of discrimination by subordinates, has been shown not to be a barrier for women to obtain leadership positions (such as managers). In an online experiment, workers report to a fictitious manager who could be a male or female. The feedback provided by the manager in terms of praise or criticism has the same effect (a slight increase in effort) whether the manager is a man or a woman.
- **Informational frictions.** Three studies focus on potential barriers to female labor force participation that may come from informational frictions and all of them are still ongoing. A study in Pakistan examines whether the language used in online job advertisements

deters qualified female candidates from applying. A study in India examines whether encouraging female job seekers in India to sign up for a free phone-based job portal or “app” called “MEET” can help them find a successful match in the labor markets. A study in Bangladesh evaluates the impacts of access to a digital jobs platform and skills training on labor market outcomes for female domestic workers.

- ***Social norms and other barriers to participation.*** In Pakistan, a firm-level wage subsidy intervention to promote women’s employment is ongoing and used to test whether firms will hire more women and whether gender attitudes of managers will become more progressive after experiencing working with a woman hired under the wage subsidy. A completed study in Sri Lanka also used a wage subsidy to micro enterprises but found only temporary impacts on hiring and no impact on profits.

**Climate resilience.** Two studies, of which one has been completed, evaluate agricultural interventions in Bangladesh and India. The completed study finds that a demonstration campaign was an effective intervention to improve outcomes. Two studies, one on the impact of climate-resilient infrastructure in Pakistan and one on climate attitudes in Bangladesh, are still ongoing.

- In ***Bangladesh***, demonstration kits for a flood-resistant seed variety durably increased technology adoption. An ongoing study in Bangladesh assesses whether promoting extra-curricular climate science education in secondary schools increases attitudes about climate change and interest in, and effort on, STEM topics.
- In ***India***, an ongoing study assesses the impact of advice on crop choice on agricultural outcomes.
- In ***Pakistan***, an ongoing study assesses whether the SFERP public works program, focusing on climate-resilient community infrastructure, has affected local labor markets and welfare outcomes of households in the regions receiving the programs.

**Other areas.** Three studies on other topics have been completed and show promising results on health and poverty initiatives targeting both the urban and rural poor. Other ongoing studies examine a range of topics, including skills training for microentrepreneurs, climate initiatives, agriculture and food security, and tax enforcement capacity.

- ***Entrepreneurship.*** Four studies focus on entrepreneurship, all of which are ongoing. These include skills training, business services, and financial access for women entrepreneurs in Afghanistan, as well as three studies on “soft skills” training in India. Two of these projects target non-farm entrepreneurs, while a third targets middle-school students with educational content.
- ***Health.*** Of the two studies that focus on health, one is completed and another ongoing. A program on child nutrition involving community health workers in informal settlements of Karachi, Pakistan, finds significant improvements in height and weight for age. The ongoing project evaluates financing for antenatal health facilities in India.
- ***Agriculture and food security.*** Three studies focus on agriculture, one of which is completed. In Nepal, the Agriculture and Food Security (AFSP) project—which consisted of Farmer Field Schools for technology dissemination and adoption and Behavior Change Communication to enhance nutrition—increased agricultural income and food security.

Ongoing studies in India and Nepal evaluate the impact of agricultural extension services on technology adoption and farm productivity.

- **Fiscal.** An ongoing study in Pakistan assesses whether providing information to taxpayers (both individuals and firms) about either the enforcement capacity of the tax authorities or the public goods funded by the tax revenues shift the tax morale vis-a-vis a control group.
- **Poverty.** A completed intervention assessed the impact of a ‘big push’ package for ultra poor women in Afghanistan and found significant and large increases in their consumption, assets, psychological well-being, and empowerment.

## **Annex 1**

This note was assembled using submissions from the Human Development and Sustainable Development Global Practices, including information sent by Stefano Paternostro and Ximena Del Carpio on behalf of Nicole Klingen and by Joachim Vandecasteele, Oliver Braedt, Isis Gaddis and Jayati Sethi on behalf of Dina Umali-Deininger. Inputs were also received from the country directors’ offices, including information sent by Sara Gustafsson on behalf of Faris H. Hadad-Zervos, by Gailius J. Draugelis on behalf of Najy Benhassine.