Country Research Team
Tanzania
RISE will conduct an extensive research project that examines the effects of nationwide reforms that the Government of Tanzania is undertaking in an effort to improve learning for students in its primary and secondary schools.

A multidisciplinary team of researchers with close ties to the region and expertise in education-focused analysis will conduct the project. The aim is to gain insights that lead to better education for students in Tanzania, and in other nations where learning levels need to improve to give the next generation the basic skills they need to lead better lives.

In 2014, the Government of Tanzania initiated large-scale education policy reforms. The reforms were aimed at addressing the educational crisis in Tanzania, where basic reading and math skills remain low - even as the country has increased investment in schooling, and made striking progress toward achieving universal primary education. The RISE Country Research Team aims to understand what made such far-reaching reforms possible, how key components of the reforms can be sustained; whether and how the reforms work to improve skills of students in Tanzania; and what insights can emerge to inform effective ways to improve students' learning elsewhere.

“Tanzania is a valuable country to study because tracing the positives and negatives of such a big push approach to education reforms will be important for understanding the possibilities for improving learning throughout the developing world,” said Lant Pritchett, RISE Research Director. “Tackling the problem of deteriorating performance and learning allows a promising opportunity to explore efforts that can turn around and accelerate the growth in learning.”

The Tanzania Country Research Team is composed of 12 researchers who bring expertise in economics, education, psychology, political science and public policy, as well as close ties to the region. They are affiliated with institutions worldwide, with principal bases in Washington, D.C., and Dar es Salaam.

“Tanzania offers an interesting case study of reform that is relevant to other countries also planning to undertake ambitious reform,” said James Habyarimana, a key team researcher, and a Provost’s Distinguished Associate Professor at the McCourt School of Public Policy at Georgetown University.

The six-year-long, £4.2 million research project will examine the combined effects of a wide variety of interactive reforms that were intended to engage parents, voters, teachers, head-teachers and administrators at all levels. These systems-level reforms include:

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**Most illiterate 12-Year-Olds are in school**

<table>
<thead>
<tr>
<th></th>
<th>12-year-olds who can't read a sentence (%)</th>
<th>Of illiterate 12-year-olds, % in school</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tanzania</td>
<td>86</td>
<td>89</td>
</tr>
<tr>
<td>Girls</td>
<td>83</td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>89</td>
<td></td>
</tr>
</tbody>
</table>

Source: @JustinSandefur based on Pratham (ASER) and Twaweza (Uwezo) surveys
• Creating and publicising school rankings.
• Offering annual incentives for the most-improved schools.
• Offering incentives to motivate teachers.
• Providing teacher training to help identify and support low-performing students.
• Providing principals (headteachers) with financial and management training.

"Taken individually, the initiatives might not be sufficient to improve learning outcomes on their own, but, taken together, they present a plausible theory of change," said Deon Filmer, another key team researcher, and lead economist in the Development Research Group of the World Bank, where he is the co-director of the 2018 World Development Report, which, for the first time, will focus on education. "Ultimately, from the Tanzania experience, we hope to gain understanding that can lead to meaningful improvement in learning, which is central to enhancing human welfare and reducing poverty throughout the world."

"The Tanzanian government has made education a leading priority, which makes RISE’s undertaking particularly timely," said Kitila Mkumbo, key research team member and Permanent Secretary in the Ministry of Water and Irrigation.

"Previous education projects in Tanzania have usually addressed a specific entity in the education sector," he said. "Due to its multifaceted and systems-based approach to studying education problems, the RISE project is uniquely placed to examine how various initiatives and support systems in education in Tanzania can be galvanised to promote learning outcomes for children – and, at the same time, to sustain high enrolment and completion rates."

Please contact information@riseprogramme.org for additional information, or visit www.riseprogramme.org.

RISE is supported by:
RISE in Tanzania: Non-technical research overview

The RISE in Tanzania project aims to understand whether and how policy reforms intended to emphasize learning outcomes work to change education at a national level. The research team will conduct a six-year research project on "what works" to learn about the catalysts that have made a national reform movement possible in Tanzania, to look at what forces sustain or impede reform, and to understand the underlying mechanisms that bring about improved learning that might be transferable to other contexts.

The Tanzania Country Research Team will conduct a multidisciplinary analysis of the Government of Tanzania’s recent and ongoing education policy reforms. The analysis will focus on system-level effects and relationships that underpin change.

The government’s reforms are aimed at addressing a crisis in education, evidenced by a rapid decline in student achievement in the country between 2006 and 2012. During this period, the pass rate on leaving exams taken by primary school students declined from 70 percent to 31 percent.

However, since 2012, both primary school and secondary school pass rates have improved. At the primary level, the pass rates improved to 50.6 percent in 2013, 57 percent in 2014, 67.8 percent in 2015, and 70.4 percent in 2016.

While the recent progress in raising pass rates is promising, learning levels remain low. According to the Uwezo Tanzania Learning Assessment Report 2017, only about 35 percent of Standard 3 students and 70 percent of Standard 7 students can pass a literacy and numeracy test appropriate for Standard 2.

The team will address these three key questions:

1. Does the pivot to learning-outcome-based incentives for schools and teachers yield improvements in student learning?
2. How did incentives for political actors, such as politicians and active members of the civil society, create opportunities for the launch of such a system-wide reform?
3. How do elements of the reform itself contribute to sustained momentum?

The team’s research will focus on five potential levers for change:

1. Changing the accountability environment.

The reforms aim to strengthen incentives for all stakeholders – schools, teachers, district and regional administrators – to improve learning.

**Education Context in Tanzania**

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**RISE Vision Document 1**

**RISE in Tanzania**: Non-technical research overview

- Between 2006 and 2012, primary school pass rates plummeted from 70 percent to 31 percent. Tanzania has seen a subsequent improvement in primary school leaving exam pass rates, which reached their 2006 levels (70 percent) once again in 2016.

- Secondary school pass rates fell from 89 percent in 2006 to 43 percent in 2012. Since then, the pass rate has partially rebounded, from 57 percent in 2013 to 68 percent in 2016.

- However, learning levels remain low. According to a recently released Uwezo learning assessment, only about 35 percent of Standard 3 students and 70 percent of Standard 7 students can pass a literacy and numeracy test appropriate for Standard 2.

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RISE in Tanzania: Non-technical research overview

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outcomes by publicising national assessment results, which are linked to reputational (and possibly monetary) rewards.

**Official school rankings:** The schools’ performance will be listed under a “stop light” system, with billboards and publications highlighting the best schools as “green,” the borderline-acceptable schools as “yellow,” and failing schools as “red.” The rankings – distributed to parents and the general public – will make the schools’ relative standing clear. Key questions:

- What is the effect of providing official rankings of primary and secondary schools to the public?
- Does information dissemination help increase accountability of stakeholders?

**School Incentive Scheme:** The best-improving schools, based on pass rates, receive a grant, to be used as they see fit, in high-profile regional and national events. Key questions:

- Does providing monetary incentives help improve student outcomes?
- Do schools use their funds effectively for improvements?

2. **Building a coalition to enact and sustain reform.**

The success of the reform programme will depend on the ability of political leaders to maintain a coalition of various stakeholders. Given Tanzania’s decentralised education system, local government leaders and other large groups of local stakeholders (such as teachers), need to have aligned incentives with those at the national level to push forward reform rather than block it. The key question:

- Does the reform programme’s accountability system help build a coalition and to align local and national stakeholder interests to sustain reform?

3. **Motivating teachers.**

Teachers are one of the most crucial inputs into the education system, and understanding what works to motivate them is imperative. The initial iteration of the reform programme allowed for a large influx of income to teachers by clearing a backlog of unpaid wages, along with promises to improve accountability in this regard. The key questions:

- Do teacher salaries impact teacher motivation and change indicators such as absenteeism, increased time-on-task and willingness to master their teaching material?
- Do teacher salaries impact teacher accountability and involvement in change?

4. **Re-orienting the education system to focus on basic skills and remedial education.**

Education systems in developing countries often fail to provide foundational competencies and numeracy to many students in early grades, which prevents students from accumulating knowledge in later years. Two key initiatives from the initial reform programme package address this problem:

**National reading, writing, arithmetic (3R) assessment and training:** Launched in late 2013, the initiative sampled a set of primary school students for skills measurement and also trained 12,300 teachers on 3R teaching skills.

**Student Teacher Enrichment Program (STEP):** The STEP initiative provides teacher training for remedial education, which focuses teachers’ attention on the poorest performing students to give them the basic tools that are prerequisites to learning at higher levels. The key question:

- Can investments in basic skills teaching and assessments improve outcomes?

5. **Improving school financing and management practices.**

Management and funding have been identified as important issues. This reform programme includes two initiatives that specifically address bottlenecks:
School management toolkit: This initiative provides management tips and strategies for headteachers. Key questions:

• Does information on improving management with a “light touch approach” help head-teachers manage their schools better?

• Does this better management have an effect on teacher motivation and student learning?

Capitation (per-pupil) Grants: Per-pupil funding grants were introduced to provide school management with resources to buy books, learning aides, and school supplies, but have been marred by problems such as non-delivery and waste. The reform programme aims to ensure timely and equitable disbursement of the funds, and to implement a monitoring system. Research so far has suggested that solely increasing inputs is not an effective lever for change. The key question:

• Does increasing funds for inputs, such as textbooks, have a complementary effect when introduced with other interventions?

In a second phase, researchers will use the evidence collected in the first phase to analyse bottlenecks to the efficacy of the government’s reform efforts. For example, this could include any issues related to dissemination of the schools’ ranking information, implementation of better management practices, or delivery of teacher training.

In this phase, the team will work alongside the government and implementation agencies to provide experimental evidence on a second generation of interventions aimed at improving student learning outcomes.
The Tanzania team proposes using an education reform adopted by the Government of Tanzania, Big Results Now in Education (BRNED), to explore system effects and relationships. This came about after a rapid decline in student achievement in the county: a 2011 study found that only 30% of students could read a basic Kiswahili story and do basic math. Between 2006 and 2012, the pass rate for the Primary School Leaving Examination (PSLE) declined from 70 to 31 percent, and the pass rate for the Certificate of Secondary Education Examination (CSEE) declined from 89 to 34 percent. To stem and reverse this trend, nine specific government initiatives aimed at fast tracking the improvement of the quality of education service delivery are introduced via BRNED.

The team views the systems-level theory of change underlying the BRNED initiatives under five mechanisms: (a) changing accountability environment, (b) building a coalition to enact and sustain the reform, (c) motivating teachers, (d) re-orienting the education system to focus on learning outcomes and (e) improving school financing and management practices.

Taken together, the BRNED initiatives present a plausible theory of change for improving learning outcomes: strengthening incentives to produce learning outcomes, boosting teacher morale, increasing the focus on basic and remedial education, and providing schools with managerial and physical inputs needed to respond. As evidence thus far has suggested, individual initiatives focused only on single inputs or outputs have mostly been insufficient to improve learning outcomes. BRNED provides an excellent springboard to take a systems-view on education in Tanzania because the reforms were jointly and simultaneously implemented by an array of stakeholders, drawn from both state and non-state institutions. These reforms engage actors at various levels: parents and voters, head teachers, teachers, and district and regional administrations. The suite of BRNED reforms provides each of these stakeholders with stronger incentives and improved means to achieve results.

Such an ambitious reform entails not only a shift in resources but also a change in the responsibilities between different stakeholders in the school system. Going beyond the new allocation of resources, the impact of the different policies will not necessarily be equally shared across schools and pupils. Thus, equity concerns arise and it is important to measure if different types of children benefit differently from the reforms. To this end, the team proposes to collect detailed demographic and socio-economic data during the household surveys, as well as school facilities and access to resources during the school surveys.

In short, their research program aims to answer the following two questions at the heart of systems reform:

1. Does BRNED’s pivot to learning-outcome-based incentives yield improvements in learning?

2. How did incentives for political actors create opportunities for the launch of such a system-wide reform as the BRNED initiative, and how do elements of the reform itself contribute to sustained momentum?

More specifically, the reforms fall under four themes that will be studied individually:

A) Information

1. Official school ranking: rank all government primary and
secondary schools, classify performance in a stop light system and disseminate the information.

2. **School incentive scheme:** annual monetary and non-monetary incentives for most improved schools.

**B) Teachers**

1. **Teacher motivation:** monetary and non-monetary incentives for primary and secondary school teachers.

**C) Basic training**

1. **National 3R assessment:** add an early learning assessment under the 3R assessment program with randomly selected schools.
2. **3R teacher training:** implement teacher training programs in 40 out of 136 low-performing districts.
3. **Student teacher enrichment programme (STEP):** train teacher on how to identify and support low performing students.

**D) School management and finance**

1. **School improvement toolkit:** train head-teachers of primary and secondary schools on best practices in school management.
2. **Capitalization grants:** Timely disbursement of sufficient grants and equalization of funding per student per district

The team will use the rich existing datasets from Tanzania, including household surveys (Living Standards Measurement Study and the National Panel Survey) for 2008-2015, and school surveys (Service Delivery Indicator survey) for 2011 and 2014. Student outcomes data will come from nationally representative datasets tracking literacy and numeracy, as well as two modules from the World Bank’s SABER instruments (Early Child Development and Engaging the Private Sector). They will also engage in primary data collection via surveys to track key outputs and deliverables of the BRNED initiatives, the impact on learning and intermediate outcomes, such as accountability relationships.

<table>
<thead>
<tr>
<th>Theme</th>
<th>Program/Question</th>
<th>Research method</th>
<th>Source of Variation</th>
<th>Source</th>
<th>Parents</th>
<th>Teachers</th>
<th>School</th>
<th>Admin</th>
<th>Existing data</th>
</tr>
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<tbody>
<tr>
<td>1. Pressure to perform: (A) School Ranking and (B) School Incentive Scheme</td>
<td>(A) Ex ante incentive effects</td>
<td>DD and RDD</td>
<td>Beliefs: exposure to information, distance from cut-off</td>
<td>Exposure, beliefs, attitudes, behaviour</td>
<td>Exposure, beliefs, attitudes, effort</td>
<td>Exposure, beliefs, management, expenditure, resources, enrolment and transfer</td>
<td>Exposure, beliefs, attitudes, behaviour</td>
<td>NSCTA, SDL, Uwezo</td>
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<td></td>
<td>(B) Ex post reward effects</td>
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<tr>
<td>2. Political economy</td>
<td>(A) Electoral pressure and Results</td>
<td>RDD</td>
<td>Performance</td>
<td>Attitudes, Voting behaviour</td>
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<td></td>
<td>(B) Relationships of accountability between local and central government.</td>
<td>Matching &amp; Qualitative Methods</td>
<td>Local support for CCM</td>
<td>Representativi on school boards</td>
<td></td>
<td></td>
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<td>Behaviour</td>
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<td></td>
<td>(C) Shaping and sustaining reform</td>
<td>Qualitative Methods</td>
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<td>3. Teacher morale</td>
<td>(A) Pay outstanding salary claims</td>
<td>Observetorial</td>
<td>Outstanding claims</td>
<td>Attitudes towards government; effort</td>
<td></td>
<td></td>
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<td>4. Back to Basics</td>
<td>(A) 3R and (B) STEP teacher training</td>
<td>Matching &amp; Qualitative Methods</td>
<td>Phased in roll-out and unequal implementation</td>
<td>Exposure, Knowledge, practice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Exposure, Knowledge, practice</td>
</tr>
<tr>
<td></td>
<td>(B) Time release of school capitalisation grant</td>
<td>Observetorial &amp; Qualitative</td>
<td></td>
<td>Expenditure, receipt of grant</td>
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</tbody>
</table>

Table 1: Summary of BRNED initiatives, our research questions, evaluation strategies, and data collection

Note: See data section for detailed explanation of each data source.
Source: Tanzania Technical Proposal

Please contact information@riseprogramme.org for additional information, or visit www.riseprogramme.org

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