

ኢ.ል.ም.ኢ.  
የኢትዮጵያ ልማት ምርምር  
ኢንስቲትዩት(ኢ.ል.ም.ኢ.)



**EDRI**  
Ethiopian Development  
Research Institute (EDRI)

# Raising Learning Outcomes for All through Education System Research in Ethiopia

Tassew Woldehanna (Department of Economics, Addis Ababa  
University and Senior Research Fellow, EDRI)

RISE Program Annual Conference

15 -16 June 2017

Center for Global Development, Washington, DC



 UNIVERSITY OF  
CAMBRIDGE  
Faculty of Education

  
Research for Equitable Access and Learning

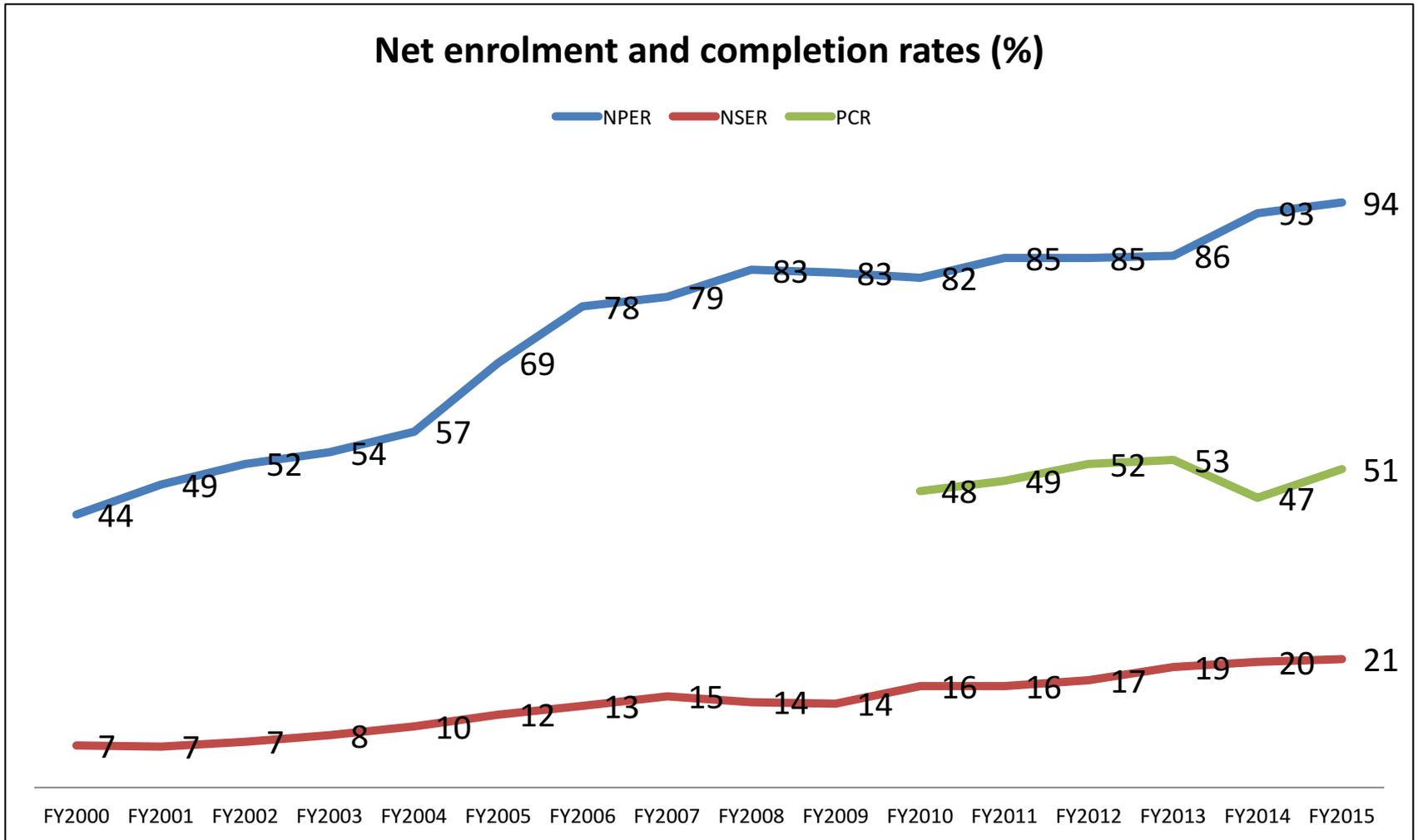
# Introduction

- Education is recognized as one route to achieve economic transformation in Ethiopia and reach lower middle income by 2025
- There is strong political will in Ethiopia to improve the quality of education,
  - a quarter of the total national budget allocated to education
  - the General Education Quality Improvement Package (GEQIP)
- This has led to a remarkable improvement in access,
- Despite these efforts quality of education is not improving, rather show signs of declining

# Introduction....

- The National Learning Assessment (NLA) results show that there has been very low achievements in reading, comprehension, math, science, English ...
- Evidence from Young Lives, corroborated by National Learning Assessment data, suggests that average learning levels have declined in recent years in Ethiopia
  - linked to system expansion and inclusion of children from more diverse backgrounds in the classroom (Rolleston, 2016).
  - Per pupil spending remains low, with non-salary expenditure as low as \$2 per pupil annually at primary level

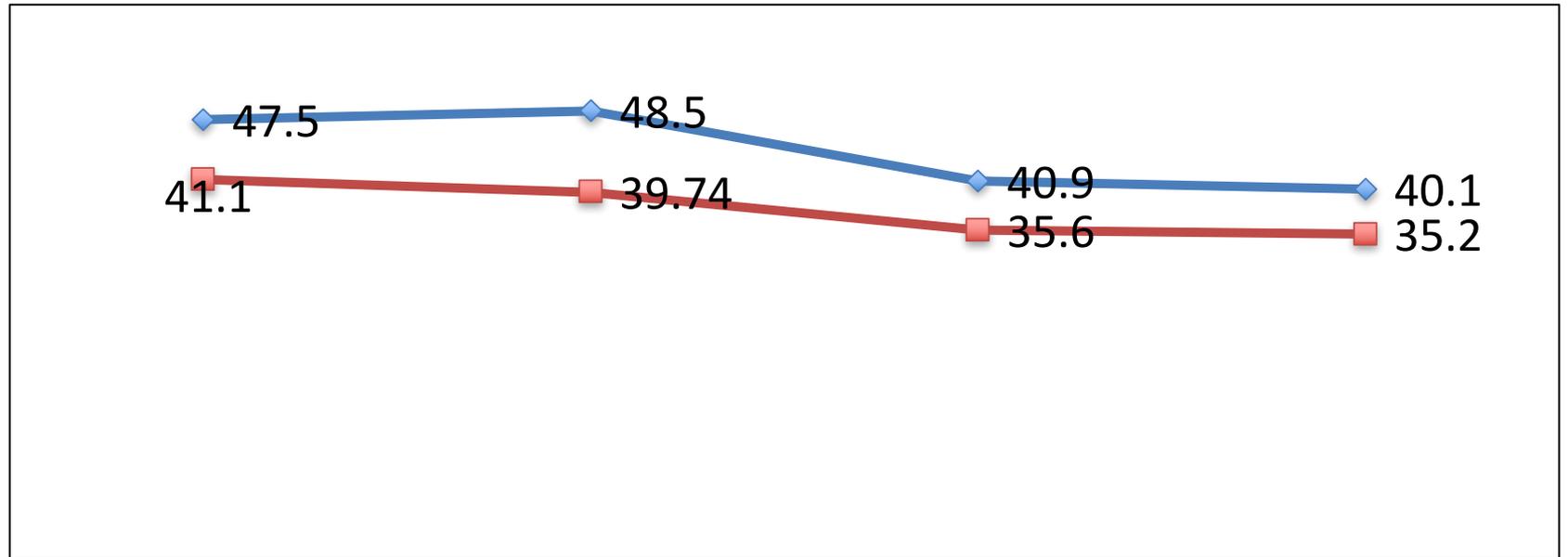
# Net enrollment and completion rate (%)



# Grade 4 & 8 NLA result

Trends in composite mean score (%) of grade 4 & 8 -Ethiopia

◆ Grade 4 ■ Grade 8



FY2000

FY2004

FY2007

FY2011

# NLA result show learning declined or stagnating

- Overall achievement scores is that National mean score of subjects for all grades was less than 50% - achievement level set by MOE
- Grade 10 mean score of all subjects was 36%; and grade 12: 47.8%
- In grade 10, only 13.8% scored 50% and above; and in grade 12: 34.9%
- National learning results of grades 4 and 8 have actually reduced slightly over time, esp. math

# Inequality in learning

- Comparisons across sub-groups indicated that there is inequality in learning,
  - boys performed better than girls
  - Wide disparities among regions – less in emerging regions
  - Urban schools outperformed rural schools
- Therefore, RISE Ethiopia focuses on low and inequitable learning as a starting point

**YL result:** Reading the same letters, words and sentences in mother tongue of by 12 years old children (%) in 2006 and 2013

	Y2013	Y2006
Percentage of children who can't read anything	14	10.1
Percentage of children who can read letters	9.9	14.6
Percentage of children who can read a word	10.9	14.6
Percentage of children who can read a sentence	65.2	60.7
Sample size (No. of children)	1857	968

**YL result:** Percent of 12 years old children who correctly answer the same maths question in 2006 and 2013

	Y2013	Y2006	% score in 2013 lower than in 2006
Percentage of correct answers in Maths Test (Average Raw Score)	37.2	56.5	34.2
Percentage of children who can solve correctly: $2 \times 4 =$	70.9	83.3	14.9
Percentage of children who can solve correctly: "Which of these is equal to 342?"	56	64.2	12.8
Percentage of children who can solve correctly: "Which of these is the name for 9740?"	68.8	75.9	9.4
Percentage of children who can solve correctly: "52-7?"	50.1	59.4	15.7
Percentage of children who can solve correctly: $243 + 176$	46.4	59.3	21.8
Percentage of children who can solve correctly: "It takes Chris 4 minutes to wash a window..."	45.6	54.3	16.0
Percentage of children who can solve correctly: "A piece of rope 204 cm is cut in 4 equal pieces..."	27.4	42.9	36.1

# learning outcomes of 15 year olds in 2009 & 2016

## Children who correctly answered Maths item (%) at age 15 (Inter-cohort Comparison)

	2009	2016
Q.1. "45÷15"	39.7	43.2
Q.2. Reading a pie chart.	32.6	28.6
Q.3. Approximating annual sales from weekly data.	21.2	23.1

- When Maths test scores are compared (using similar questions asked in 2009 and 2016), there is **no significant improvement in children's ability to answer the 3 similar items correctly on average (4.3% vs 4.5%)**
- While there is a **slight increase in the children correctly answering questions 1 and 3**, there is a **decrease in correct responses for question 2.**
- More than a third of the children were not able to answer any of the 3 questions on average. (36.6% vs 35.9%)
  - In-equality of learning (but narrowing)**
  - Half of the children from the bottom tercile did not answer any of the 3 questions correctly (compared to **22%** of children from the top tercile).
  - Lower performance for female and rural than for male and urban, respectively

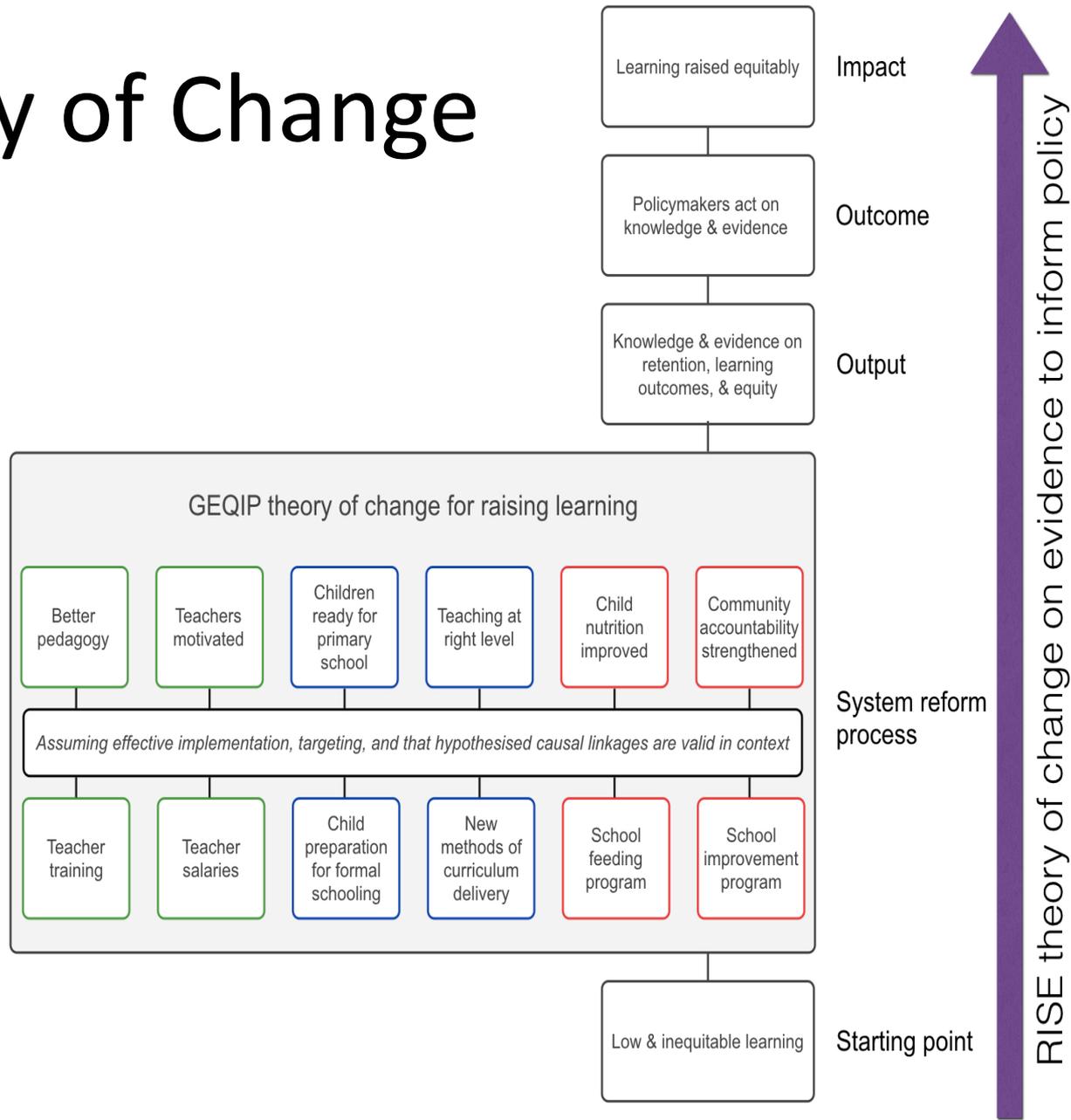
# Introduction....

- the Government has sought to achieve improvements in learning outcomes by strengthening the GEQIP
  - Focusing directly on reforms to **improve educational quality** and on the **institutional developments**
- GEQIP is now at the end of its second phase, with the possibility of rolling through into a third phase

# Introduction....

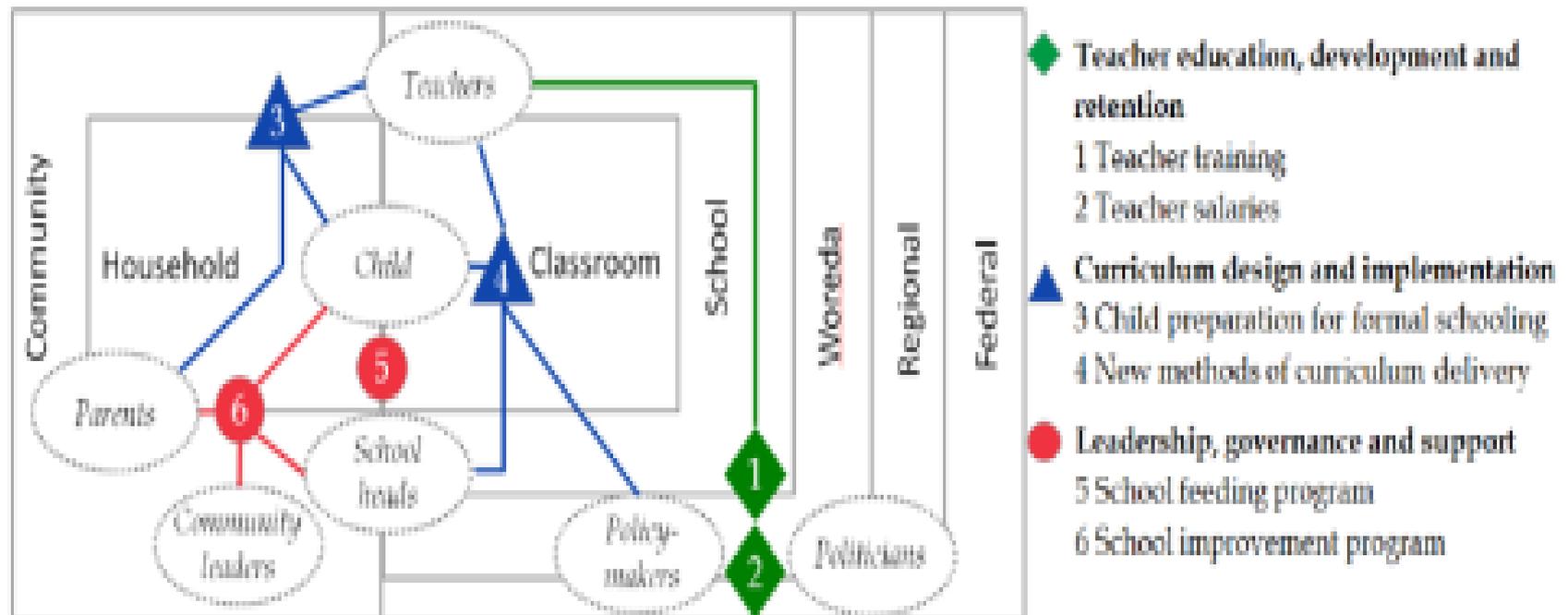
- To date, there is not yet a rigorous systematic assessment of the impact of GEQIP on raising learning outcomes equitably
- This requires a better understanding of the education system and identify the impediments to raise learning outcomes for all
- Therefore, the RISE Ethiopia group will assess the implementation and impact of reforms associated with **GEQIP II** (2013/14 -2017/18) and with **GEQIP III** (2016/17- 2021/22) on student learning outcomes

# Theory of Change



# Accountability relationships for GEQIP-related reforms (using RISE conceptual framework)

Figure 1: Key relationships of accountability within Ethiopia's education system



General Education Quality Improvement Package (GEQIP)					
Teacher training	Teacher salaries and benefits	Child preparation for formal schooling	New methods of curriculum delivery	School feeding program	School improvement program
	Objective	Research questions			
Understand	To understand how GEQIP has been designed and implemented	<ol style="list-style-type: none"> <li>1. How are different actors involved in designing the reform, and what has influenced their decisions of the design?</li> <li>2. To what extent has the intended design of GEQIP reforms been implemented?</li> <li>3. How has the design and implementation been affected by how actors understand and respond to the incentives, opportunities and barriers that they encounter in implementing GEQIP reform initiatives?</li> </ol>			
Evaluate	To evaluate the GEQIP reform initiatives in raising learning outcomes equitably	<ol style="list-style-type: none"> <li>4. What is the effect of GEQIP reform initiatives on raising learning outcomes?</li> <li>5. What is the effect of GEQIP reform in initiatives on equitable learning?</li> </ol>			
Inform	To inform how and why reforms have had the observed effect, and so to inform future policy developments in Ethiopia and internationally	<ol style="list-style-type: none"> <li>6. How and why has it had the identified effects – and where and when are these effects apparent?</li> <li>7. What lessons can be learned from how GEQIP reforms were designed and implemented to inform the on-going implementation of GEQIP 3, as well as other education programme developments such as ESDPV/ ESDPVI, and progress on the 15 year road map?</li> <li>8. How can the successes and failures of GEQIP inform the development of educational reforms in other country contexts?</li> </ol>			

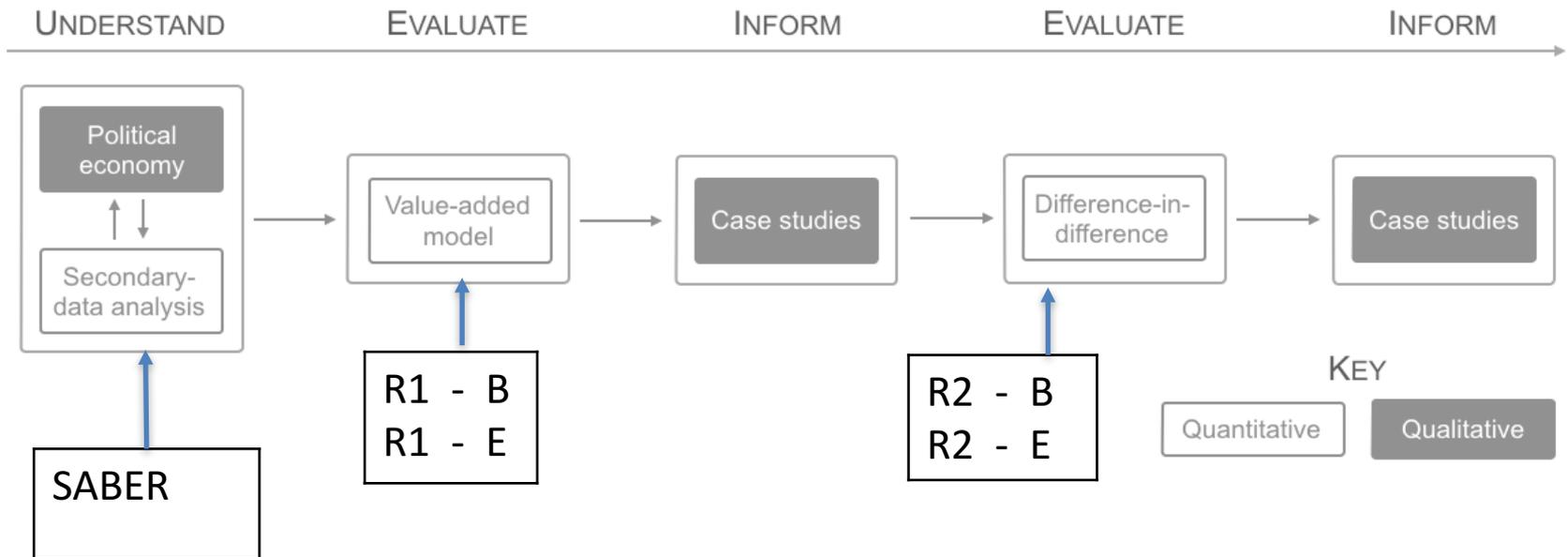
# Sampling

- Our sampling approach will aim to represent four categories of regions in the country:
- The regional states are defined based on the language people speak.
- In general, we will sample the following four groups
  - 1. Addis Ababa (representing the urban regions)
  - 2. Afar (representing the pastoralist emerging regions, which is more accessible due to security issues in Somali)
  - 3. Benshanguli-Gumuz (representing other emerging regions that have received less attention historically, and is somewhat geographically isolated)
  - 4. Tigray, Amhara, Oromia, and SNNP (representing the more developed four regions, and locations where the majority of Ethiopian children live).
- we include households, children, schools and communities selected from each of these categories, with a total of seven regions

# Sampling

- In survey R1 – B, we sample 135 schools, each with 30 children drawn from Grade 1 and 30 children drawn from Grade 4.
- This would yield a sample of 4,000 children in Grade 1 and 4,000 children in Grade 4; 8,000 children in total.
- In the early years of primary school, there is approximately a 1:1 ratio of girls to boys so we would have approximately 4,000 girls and 4,000 boys in the sample.
- These children are re-interviewed in R1 – E, R2 – B and R2 – E. • The sample is drawn from seven regions representing each of the main groupings

# Mix of quantitative and qualitative methods



# 'Understand' GEQIP reforms

- System diagnostic: mapping features and actors of reforms associated with GEQIP, and how these reforms are supporting or impeding learning. The system diagnostic will be **repeated in year six** of the research **to see if policy environment has improved** .
- Analysis to 'understand' the education system: review of key documents and interview key informants to understand more fully the political economy in which the education system is embedded, including who was (was not) involved in the design and implementation of the strategies, in what ways.
  - assess the extent to how GOV was addressing equity concerns in design and implementation, and the effect of this
- Secondary data analysis: add a broader assessment on the current status of educational conditions, including with respect to who is in school and learning, and how different characteristics of the education system are associated with this.

# ‘Evaluate’ the impact of GEQIP reform initiatives on raising learning outcomes equitably

Survey date	Survey name	Cohort A	Cohort B
September- October 2018	R1 – B	Beginning Grade 1	Beginning Grade 4
May-June 2019	R1 – E	End Grade 1	End Grade 4
September- October 2021	R2 – B	Beginning Grade 4	Beginning Grade 7
May-June 2022	R2 – E	End Grade 4	End Grade 7

‘Inform’ future practice: identify conditions for outcomes and pinpoint system-level changes to replicate these

- In-depth qualitative case studies including interviews at Federal, woreda, school and community levels

# Dissemination and stakeholders

- The state executive (EPRDF, Parliament, Prime Minister office - - Politician/Policy makers
- Federal MoE- responsible for the formulation GEQIP –Management
  - GEQUIP coordination committee
  - Director of EMIS planning and resource mobilisation
  - The Program Coordination and Monitoring and Evaluation Unit
  - Financial management unit
- Ministry of Finance and economic cooperation, MoFEC
  - Provide block grant
- Regional government (politician/policy makers)
- Regional BoFED
- Regional Bureaus of education (Regional BoE)
  - Regional GQUIP coordination
  - Zonal education bureau (ZEB)
  - Woreda education bureau (WEB)
- Woreda (gets block grants)
- Schools grant provided by the federal government (Frontline service providers)
- Communities (clients, but also involved in school management)
- Citizen, parents, student (Clients)

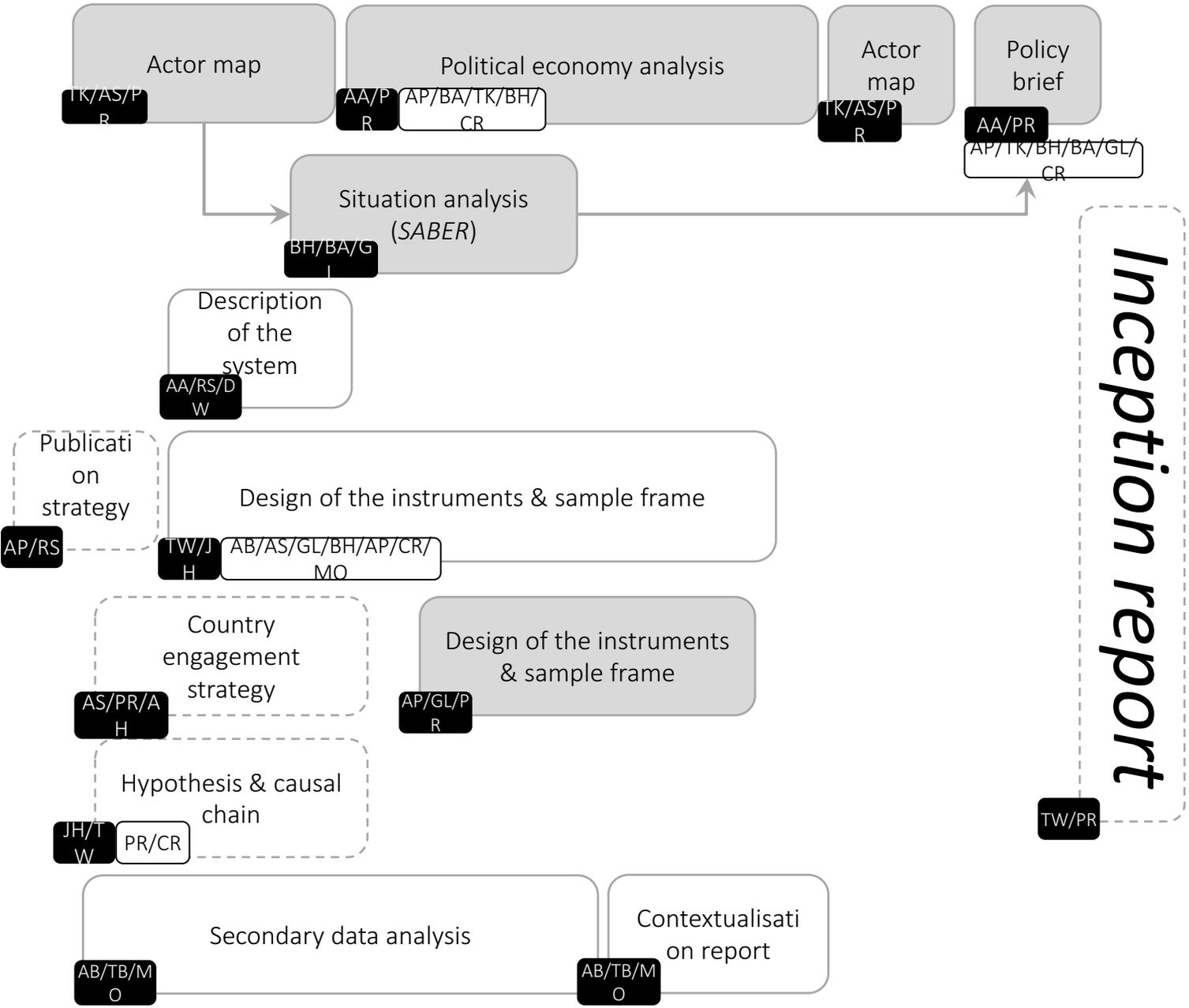
Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

# RISE

**Key**

- Qualitative cluster
- Quantitative cluster
- Other outputs
- Issue lead
- Issue support

- AA Amare
- AB Alebel
- AH Aklilu
- AP Alula
- AS Admasu
- BA Ben
- BH Belay
- CR Caine
- DW Darge
- GL Girma
- JH John
- MO Moses
- PR Pauline
- RS Ricardo
- TB Tessa
- TK Tirussew
- TW Tassew



**Inception report**