WORLD BANK GROUP

Facing Forward: Schooling for Learning in Africa

Regional Study on the Quality of Basic Education

Tokyo

3 September 2018

Purpose and scope of the study

Scope

- All sub-Saharan African countries have committed to Sustainable Development Goal 4
- Prioritize basic education of quality (grades 1-9)

Focus

- Science: “What works”
- Service delivery: “How to implement”
- Countries can learn from each other
- Should develop the culture of continuous improvements

Audience

- Ministries of Finance; Ministries of Education
- Development partners; Research institutions

What can we learn from this study?

1. Compares countries by education progress, learning and challenges

2. Deep dive in areas: student progression, teachers, budgets, capacity gaps

3. What are the implications for the region?

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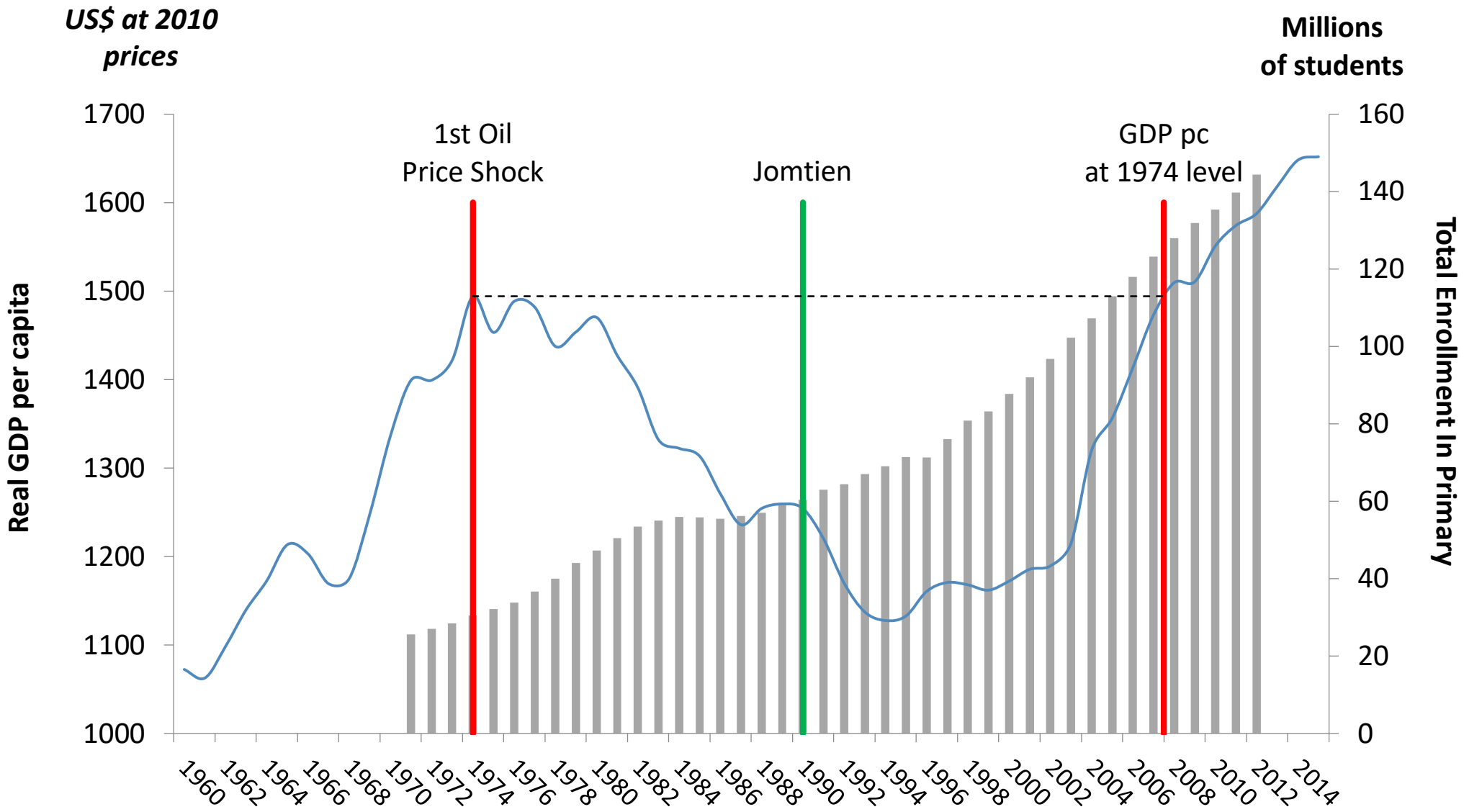
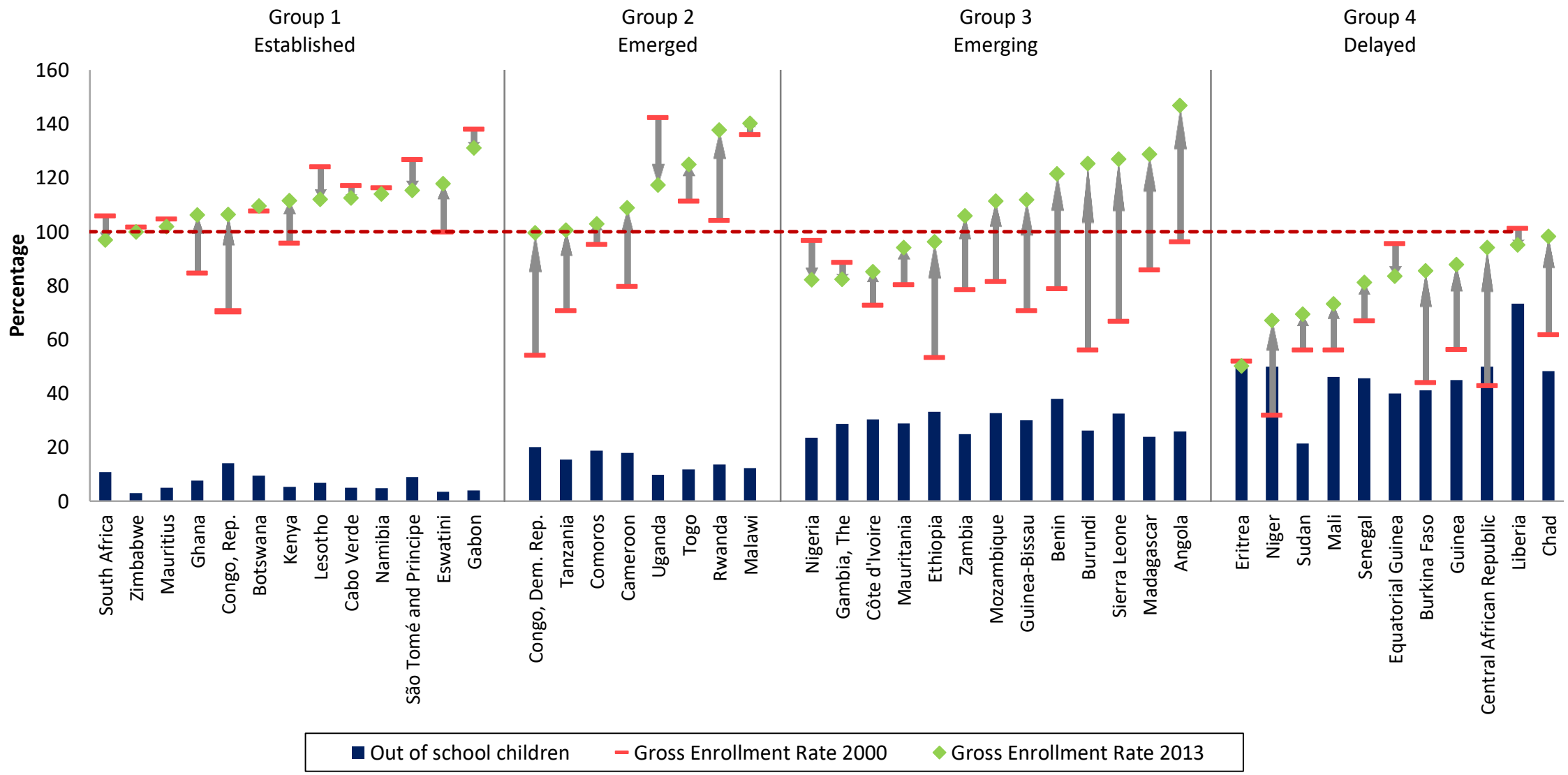
Real GDP per capita and Primary-School Enrollment in Sub-Saharan Africa, 1960–2014



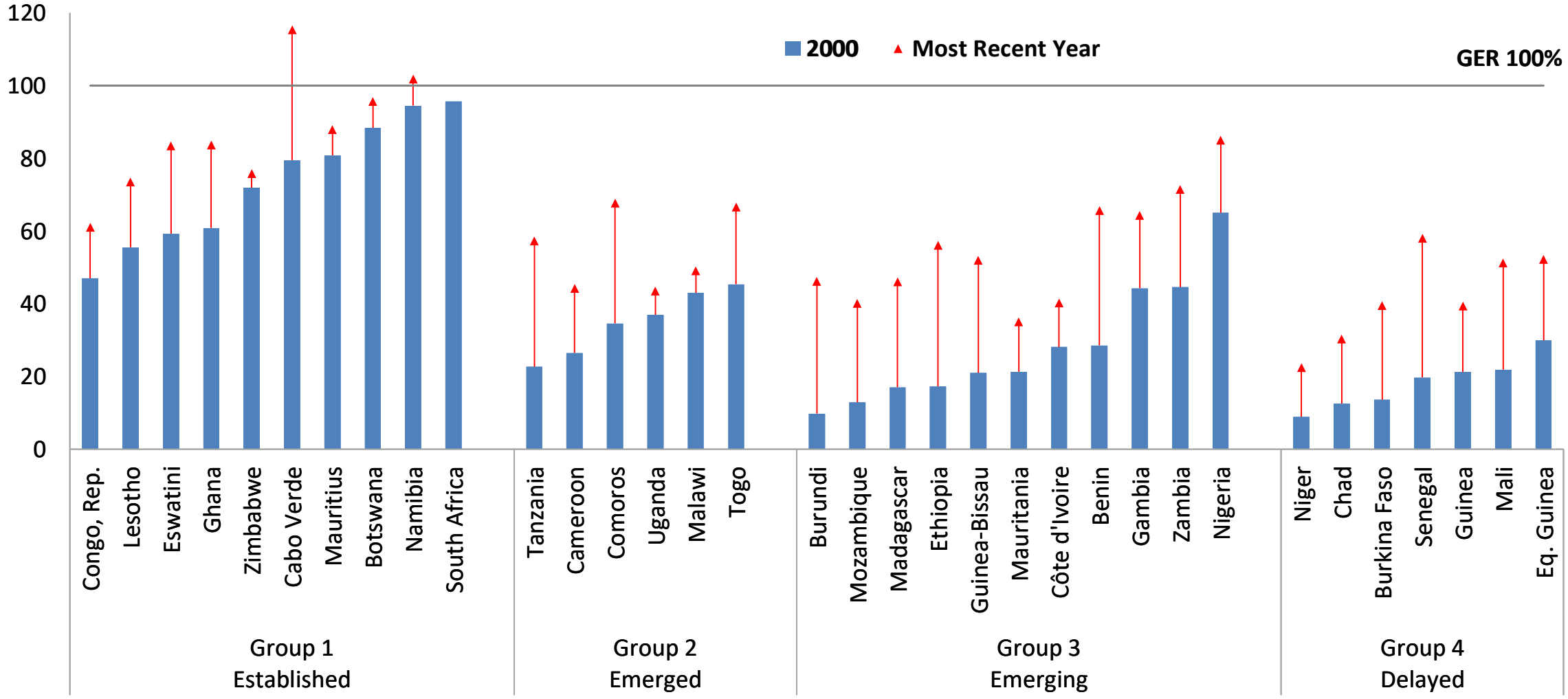
Four groups of countries based on progress in primary education



Four Country Groups: Geographical spread

Country Groupings	Established	Emerged	Emerging	Delayed
Countries				
Primary GER	110	117	108	81
Lower Secondary GER	87	55	55	42

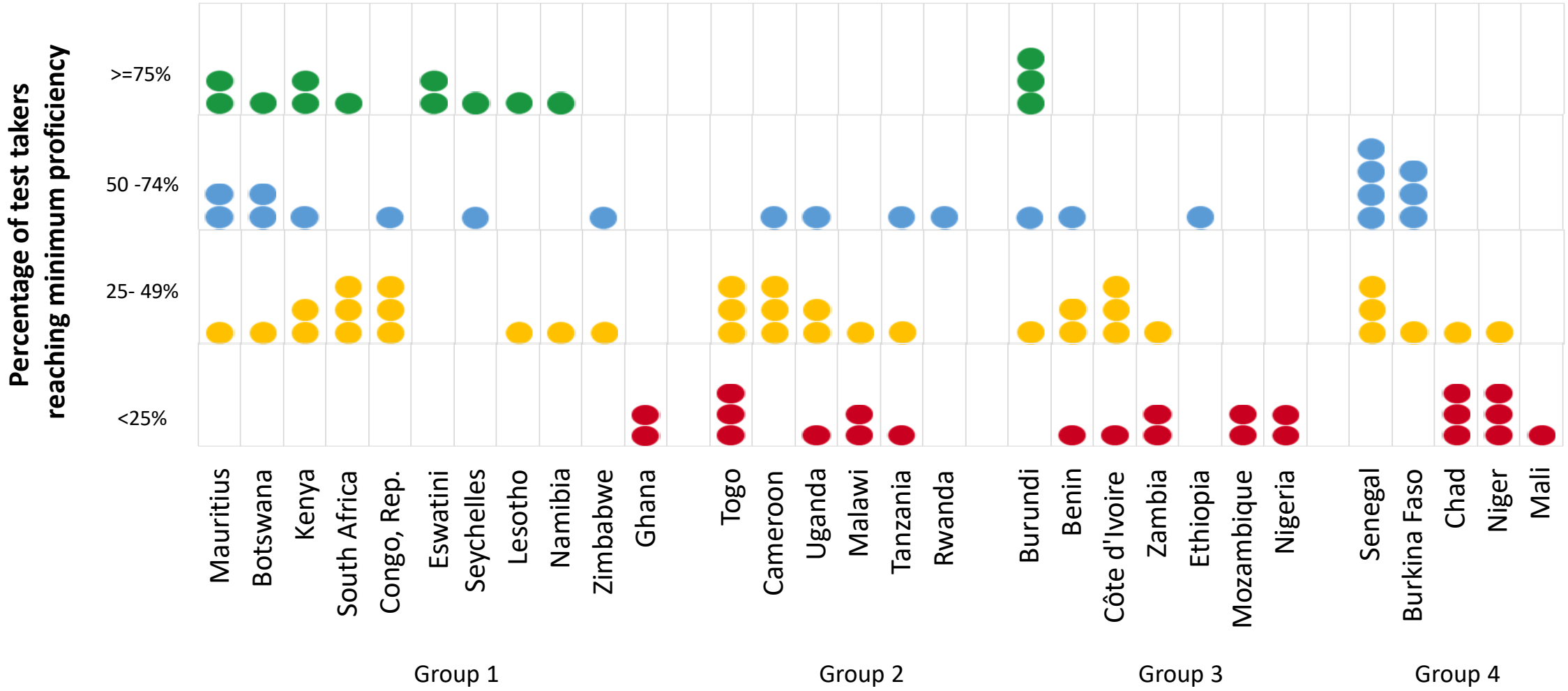
Progress towards Lower secondary education (GER)



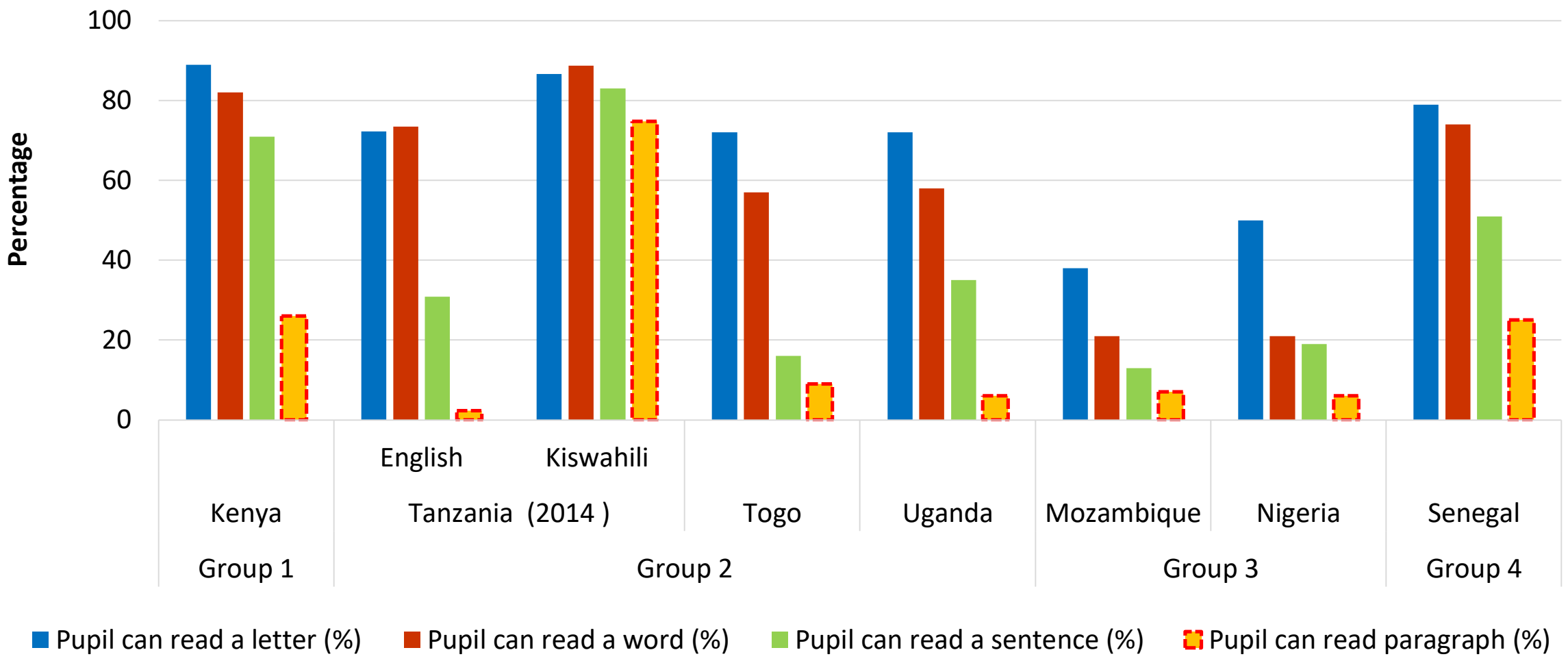
Few students reach minimum proficiency levels in reading or math

Countries in Group 1 and Burundi perform better

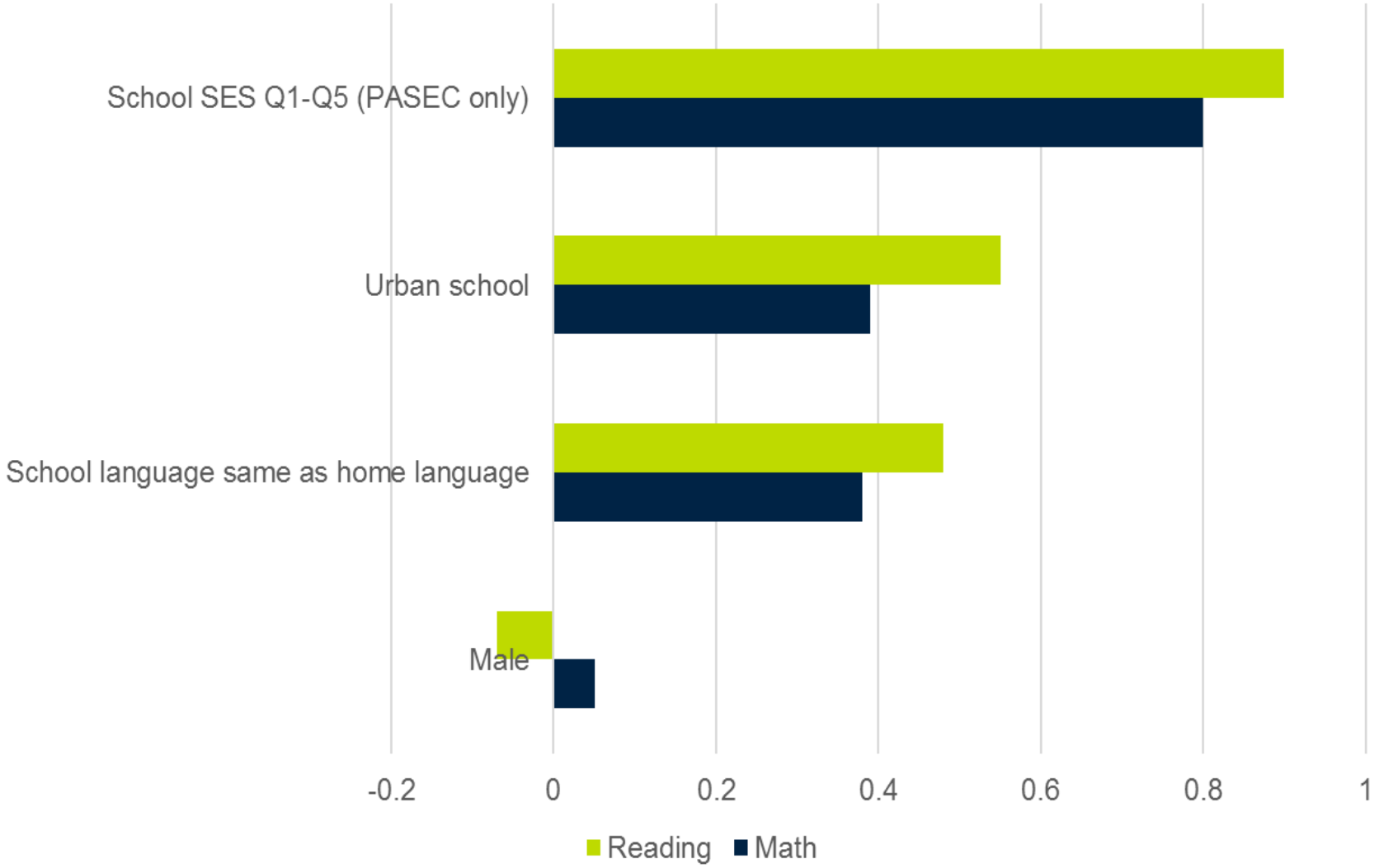
(each dot represents an international or regional assessment in Reading, Math, and Science from early grade to lower secondary, and adult literacy)



At the end of 4th grade, fewer than 30 percent of children can read a paragraph (except Tanzanian children in Kiswahili)

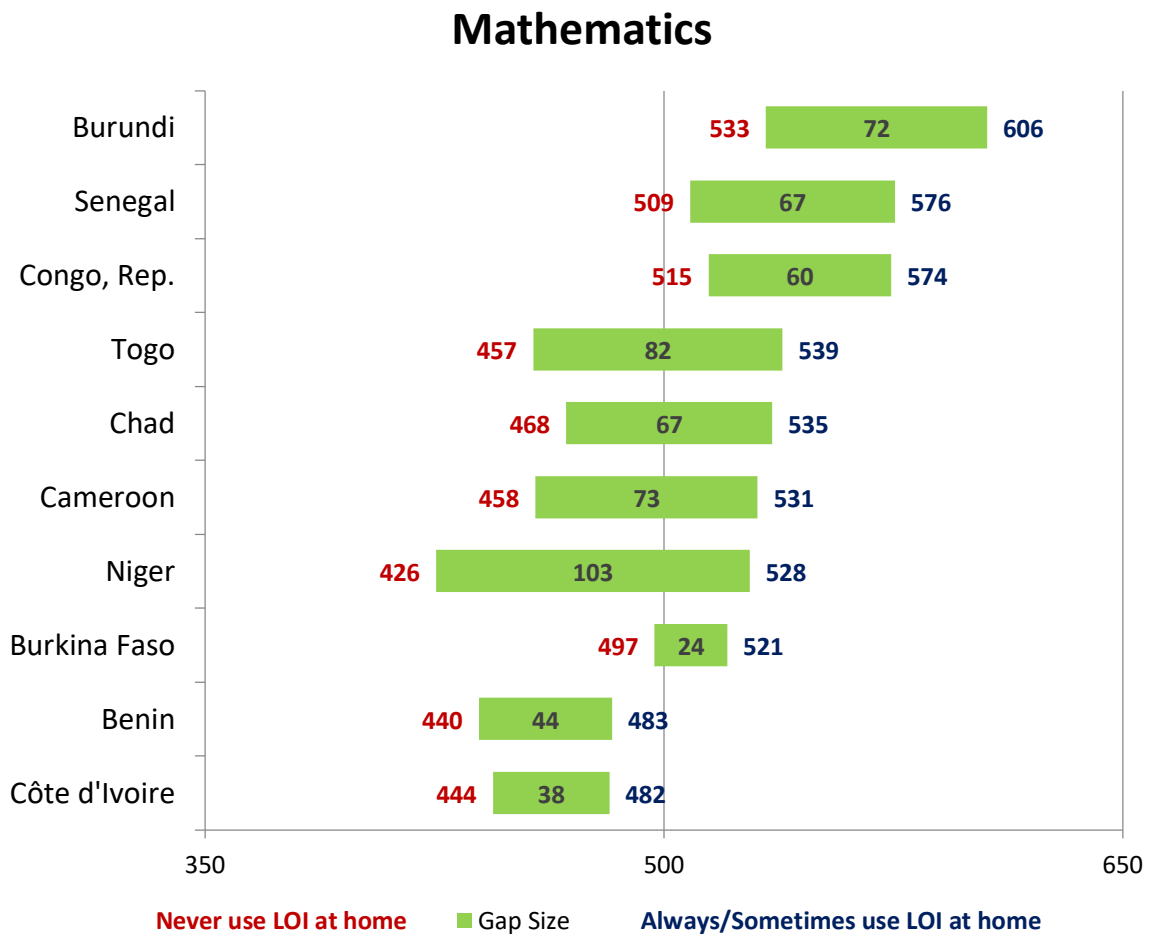


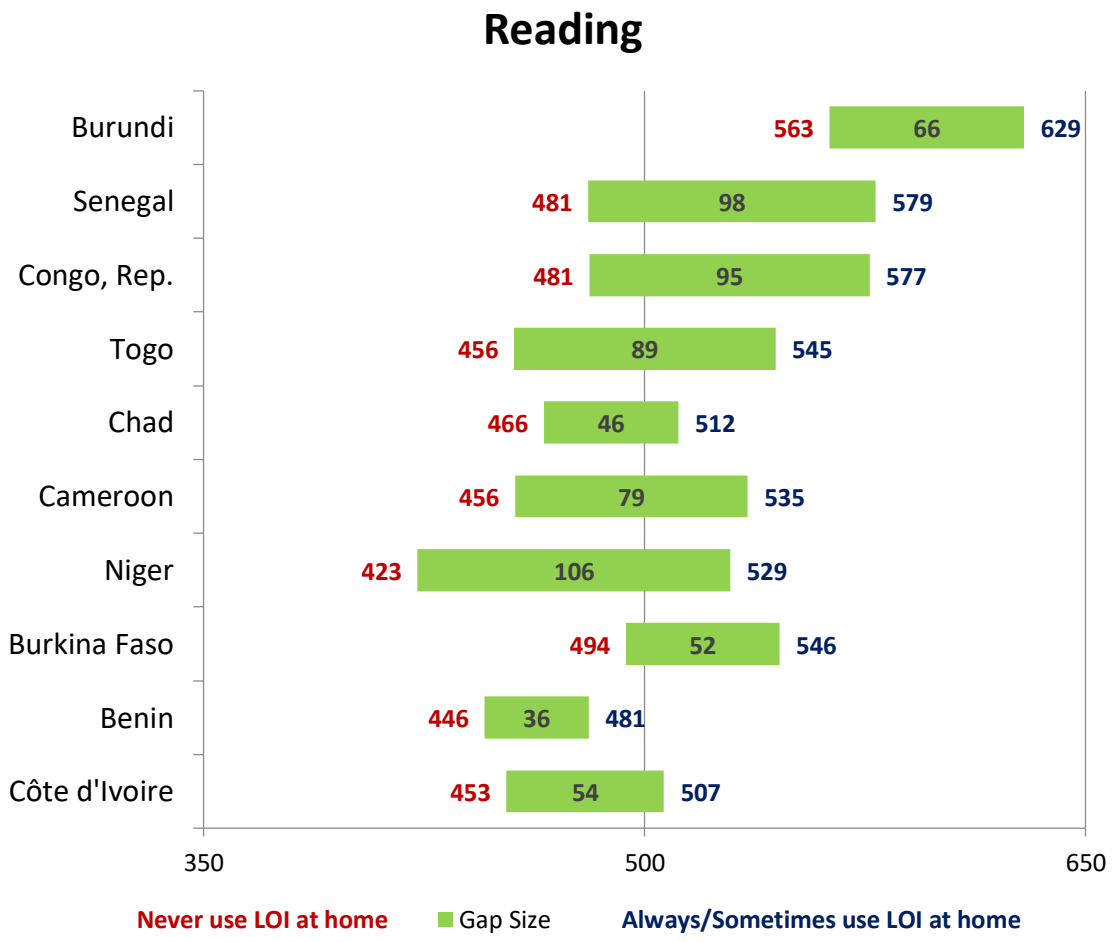
Inequalities: Largest effects for school SES, school location and language of instruction (average effect sizes, PASEC & SACMEQ)



Language used in school and at home: Wide gaps in learning in grade 2

PASEC Grade 2: Average scores and score gap between students instructed in the home language and in another language





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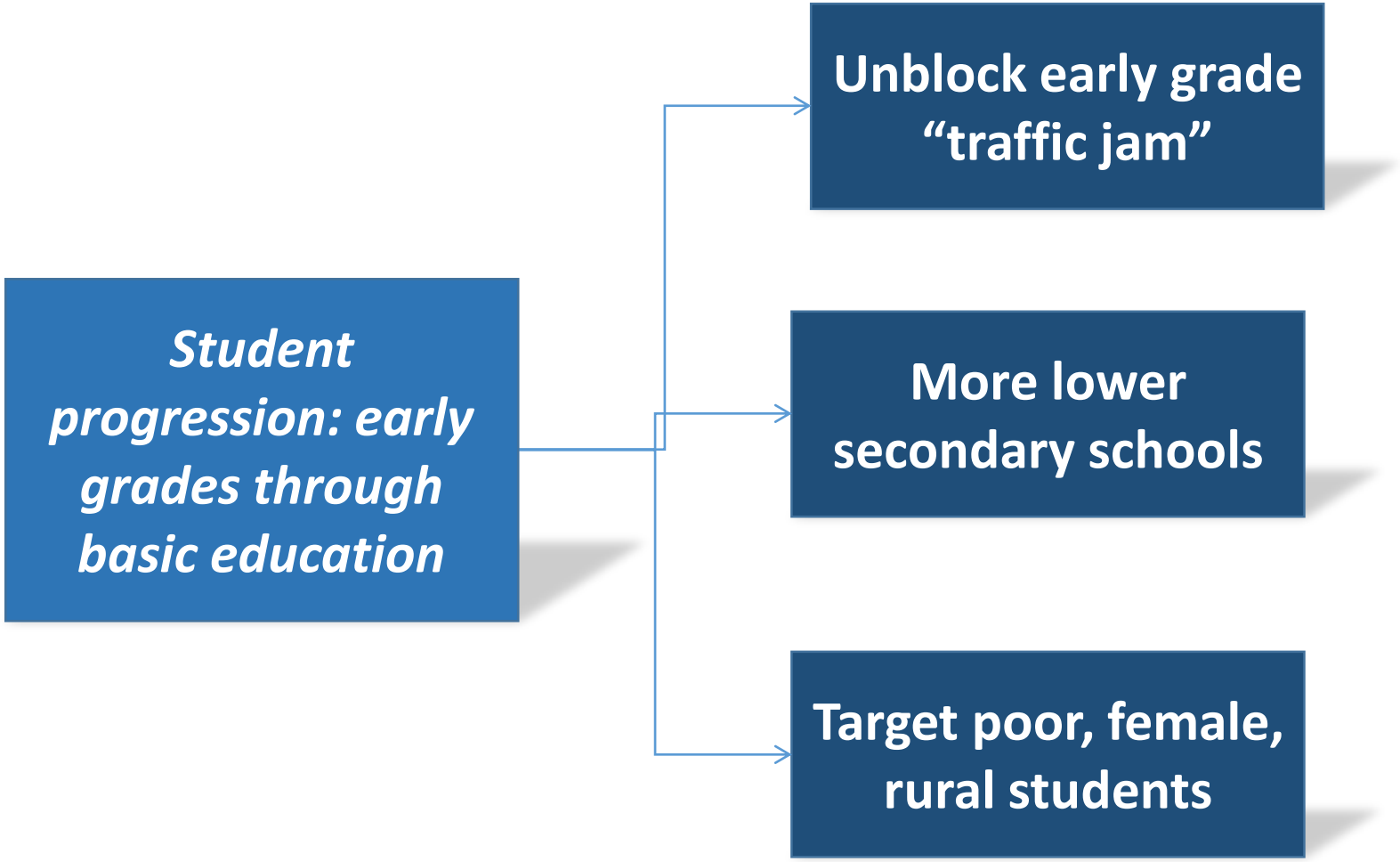
1. Student progression with learning



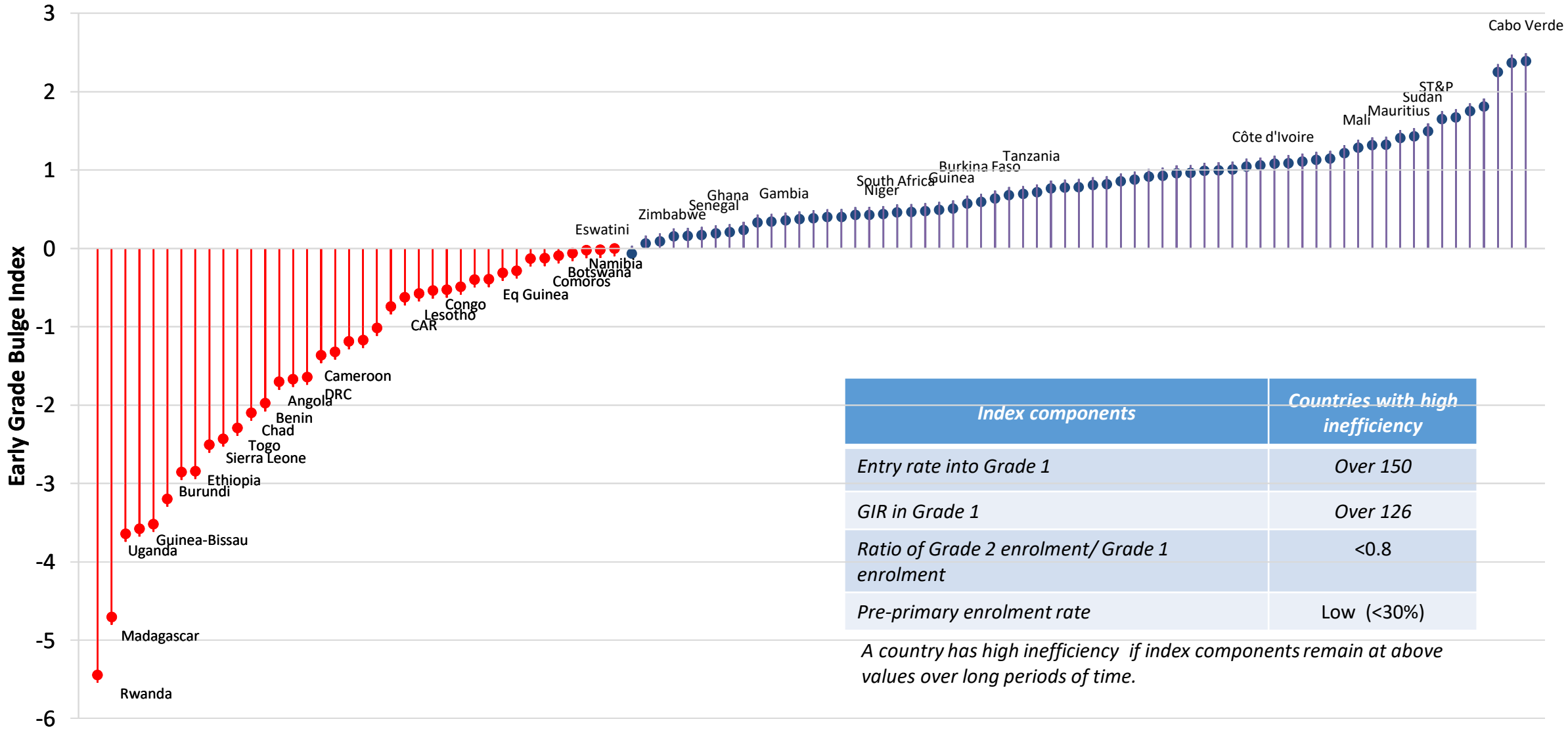
Address early grade "traffic jam": three inter-related factors

- **Lack of progression through primary cycle**: Children attend irregularly, informal repetition higher than official repetition

- **Very poor learning environment**:
  - Class sizes are large in early grades
  - Teachers unprepared to teach reading and numeracy
  - Insufficient materials

- **Language of instruction may not be appropriate**
  - Children encounter a "reading mountain"
  - If they don't master early literacy skills by end of grade 2 and reading comprehension by end of grade 4, they will not progress

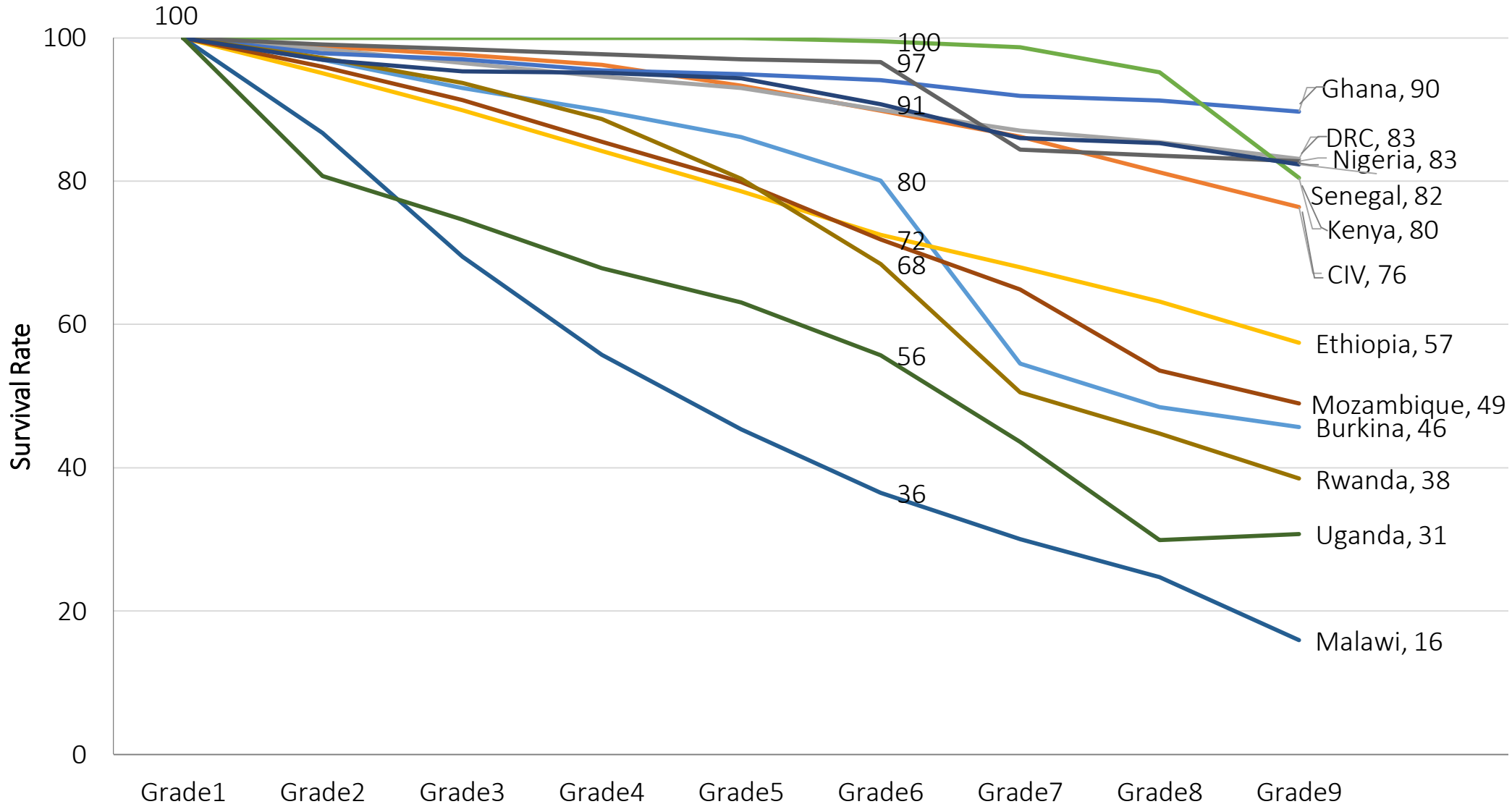
Index shows over-enrollment in Grade 1 in SSA countries - Groups 2& 3



Index components	*Countries with high inefficiency*
Entry rate into Grade 1	*Over 150*
GIR in Grade 1	*Over 126*
Ratio of Grade 2 enrolment/ Grade 1 enrolment	<0.8
Pre-primary enrolment rate	Low (<30%)

A country has high inefficiency if index components remain at above values over long periods of time.

Survival rates through grade 9



Address demand, supply and structural barriers to retention (1)

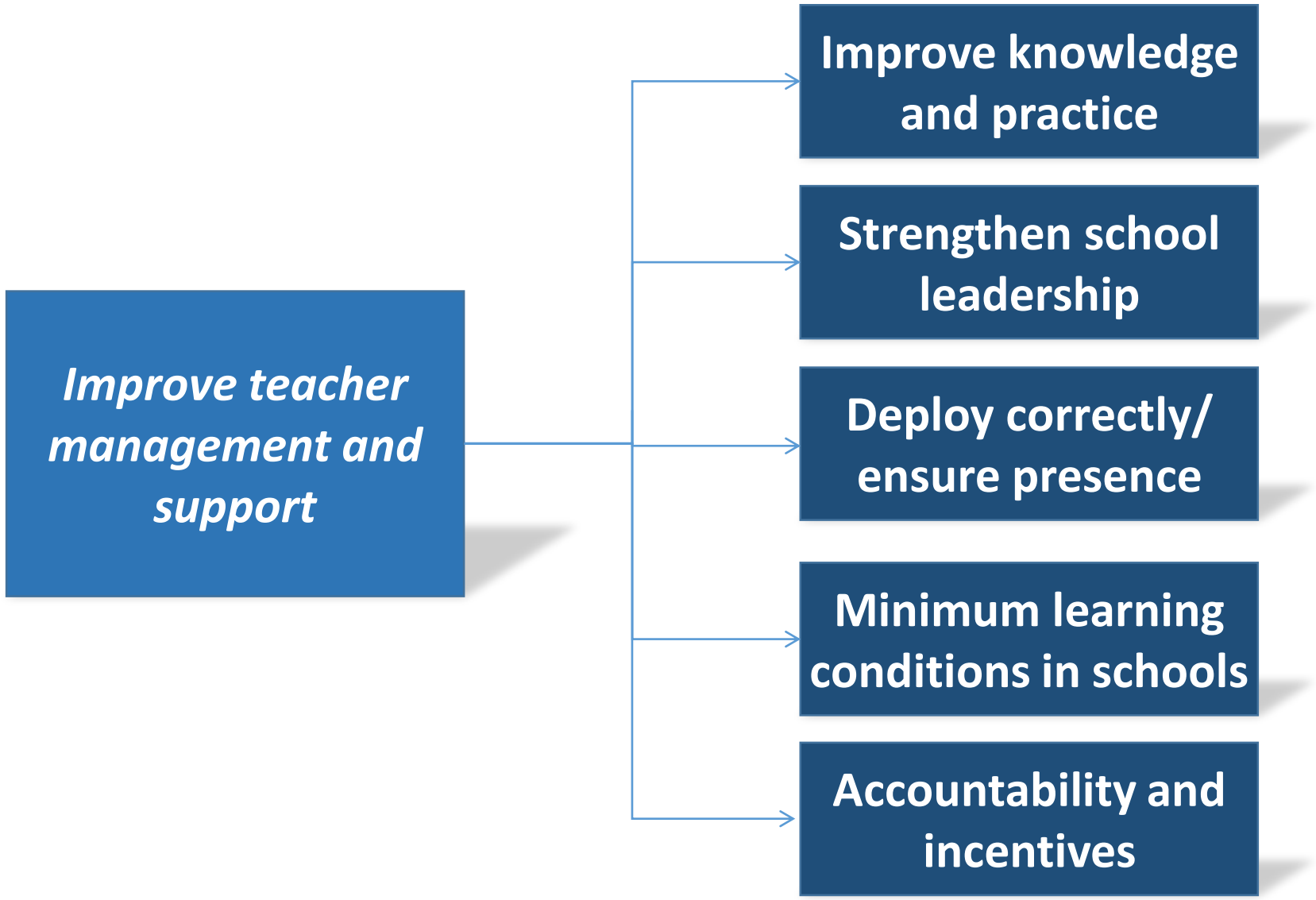
Demand side:

- Reduce costs for schooling (CCTs, scholarships)
- Barriers for girls (safety, addressing child marriage and early pregnancy, adequate sanitary facilities in schools)
- Barriers for nomadic populations, refugees, disabled, other vulnerable populations

Structural:

- Eliminate high stakes exams between primary and lower secondary

2. Teachers: Improve management and support



“Leakages” in Teacher Management at Multiple Points

Teacher recruitment

Teaching attracts the more educated

But pre-service preparation is inadequate

And teacher knowledge remains modest

Teacher deployment

- Allocations vary widely across schools
- Control of allocations and transfers is weak
- Curriculum specialization worsens problems

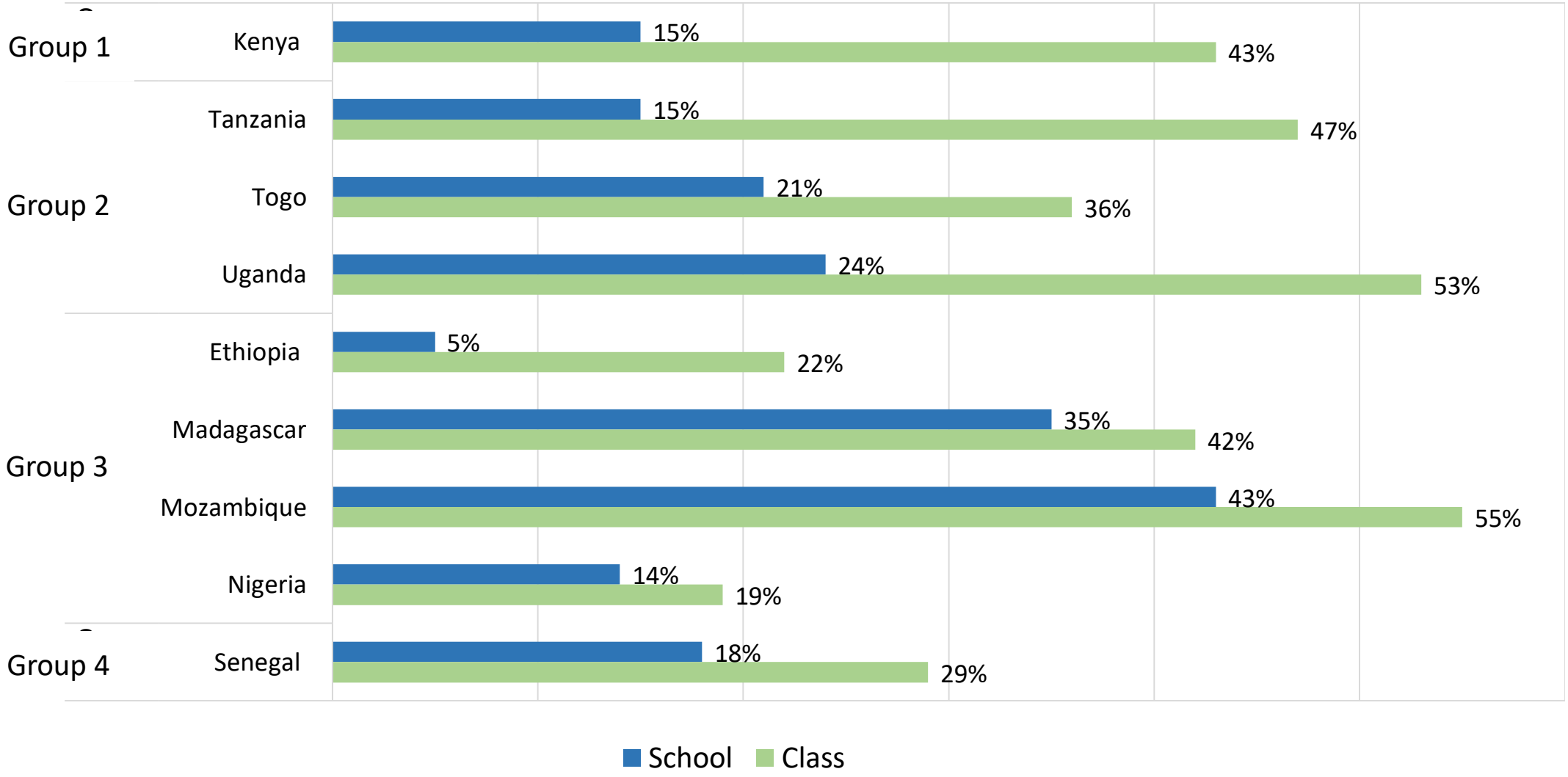
Teacher absenteeism

- Teachers are absent from school and from the classroom (“orphaned” classrooms)
- Problems stem from issues with leave policy and weak school level management

Teaching and learning in the classroom

- Teachers lack ongoing support to improve teaching
- Material and other conditions are unconducive

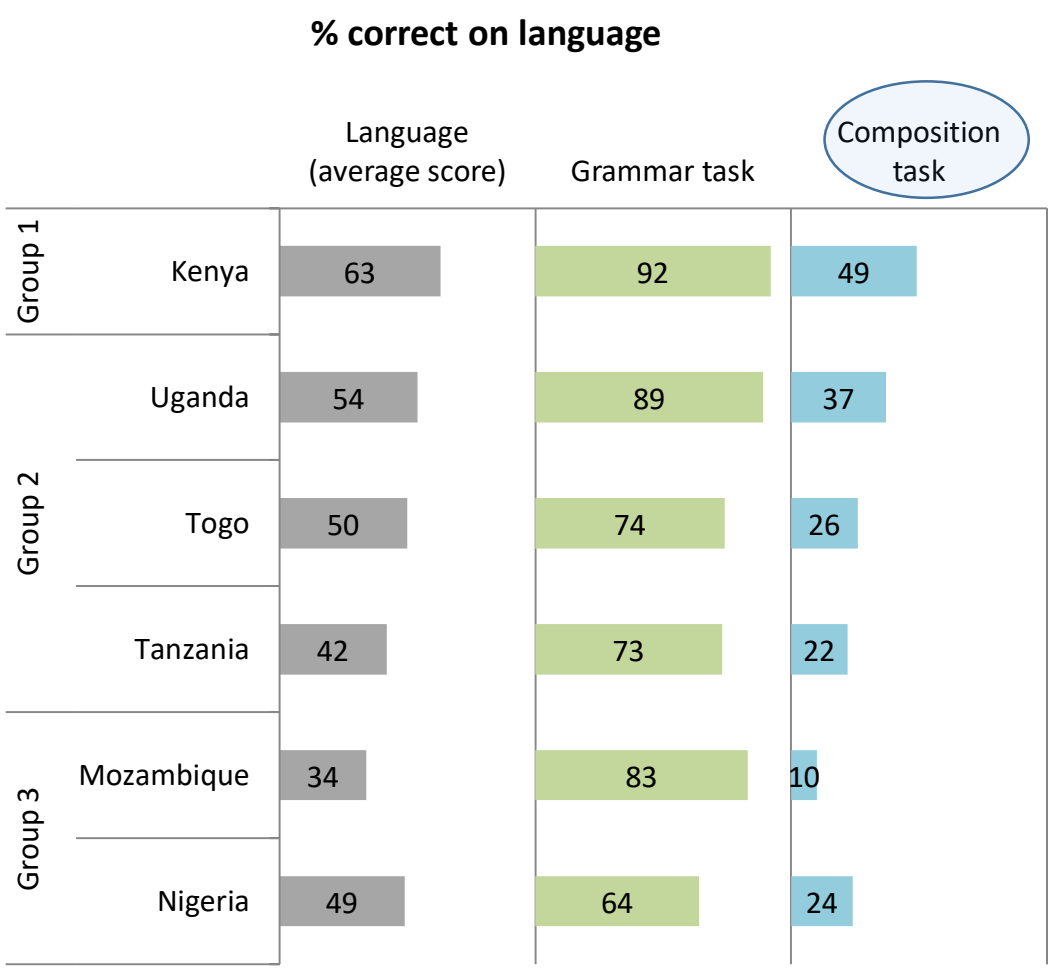
Large shares of teachers are absent—not just from school but especially from class

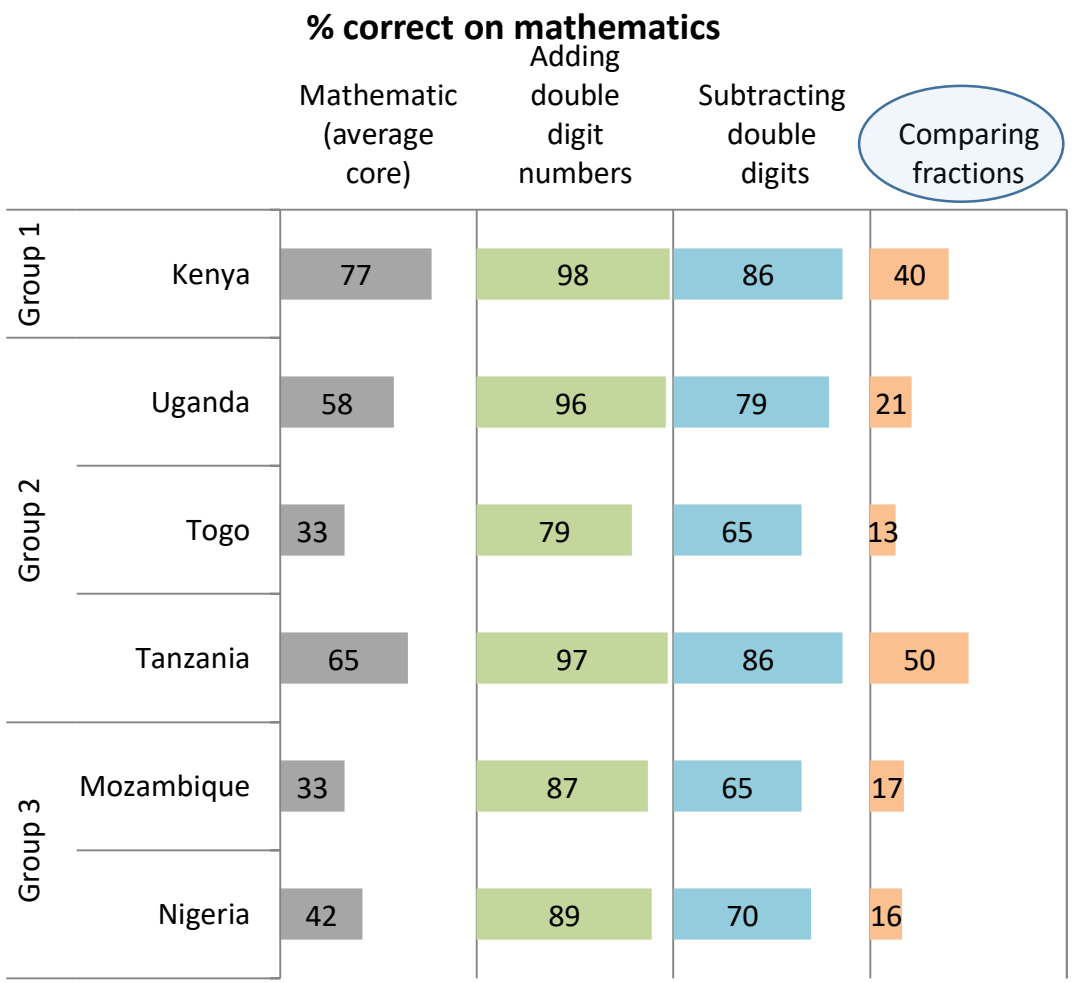


Source: Service Delivery Indicators Surveys of primary schools, 2013-14, based on enumerators' school visit reports

Teacher knowledge lags in the more advanced tasks

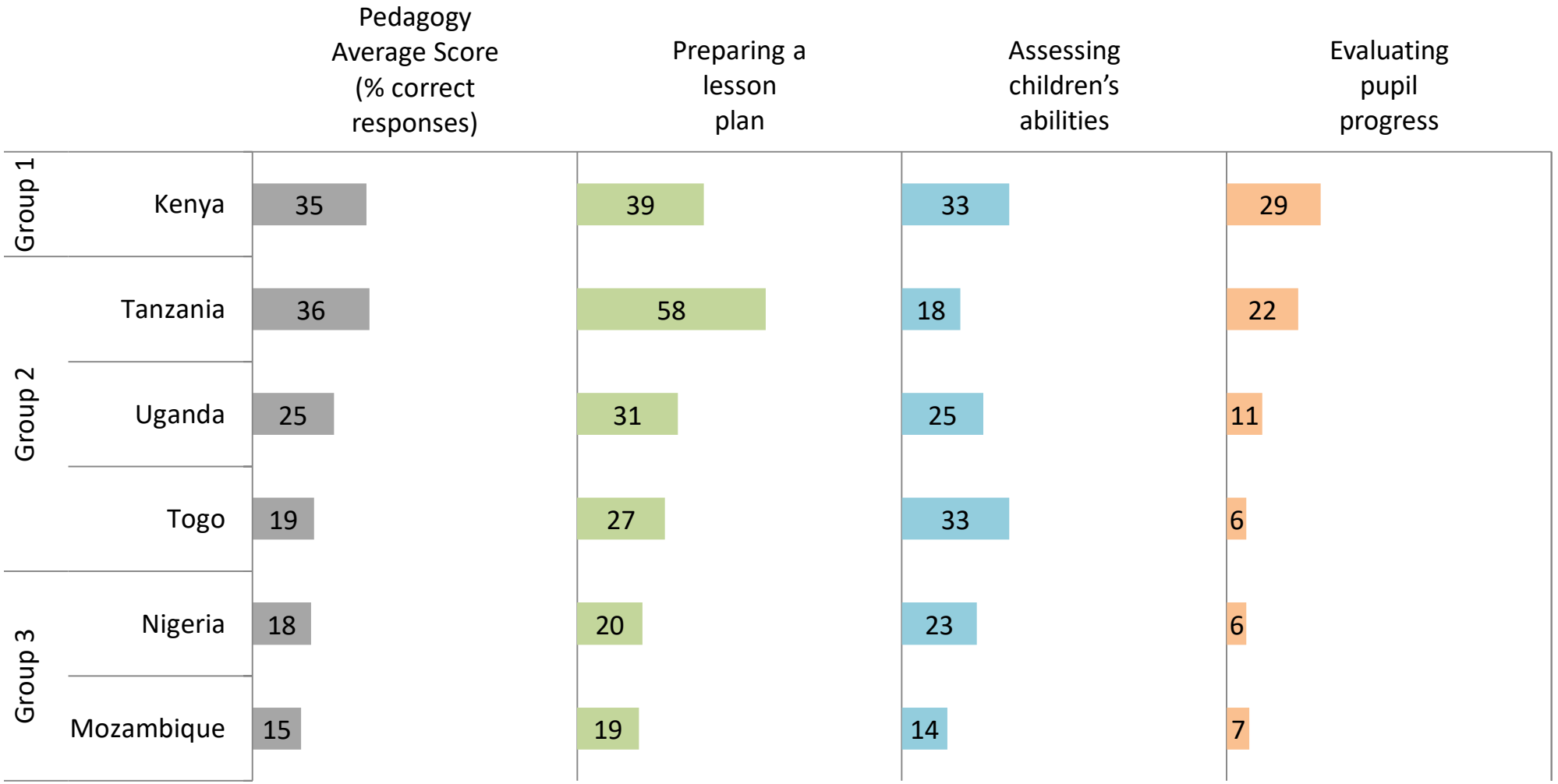
SDI surveys 2012–2016, grade 4



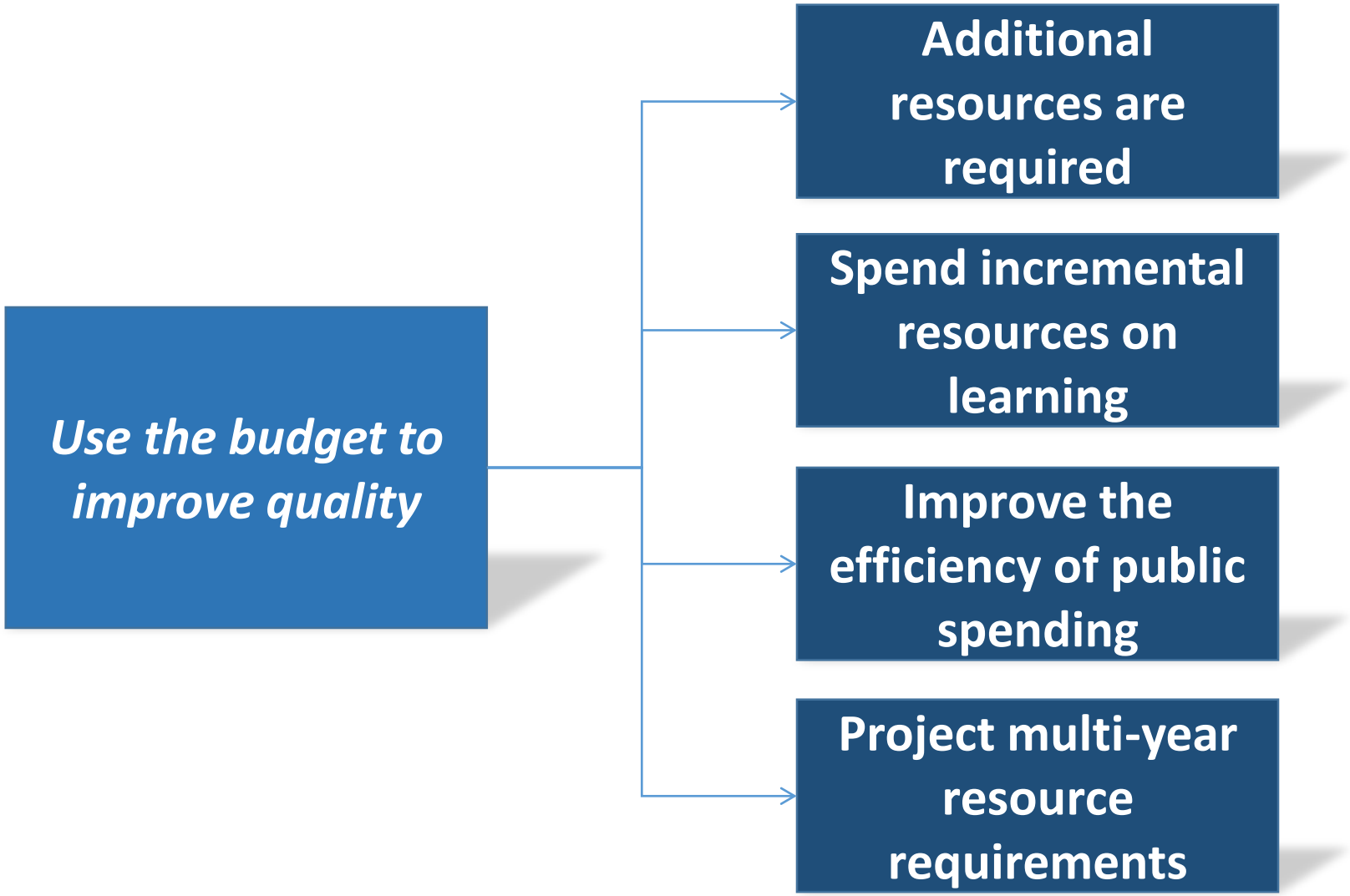


Teachers' pedagogical knowledge is also modest

SDI surveys, grade 4



3. Use the budget to improve quality



Insufficient Resources for education

- Public Education Spending as share of GDP has been increasing
- Public Education Spending as a share of Total Government Expenditure has been relatively stable
- Public spending per pupil is low
- Household contributions are high even for primary and lower secondary education

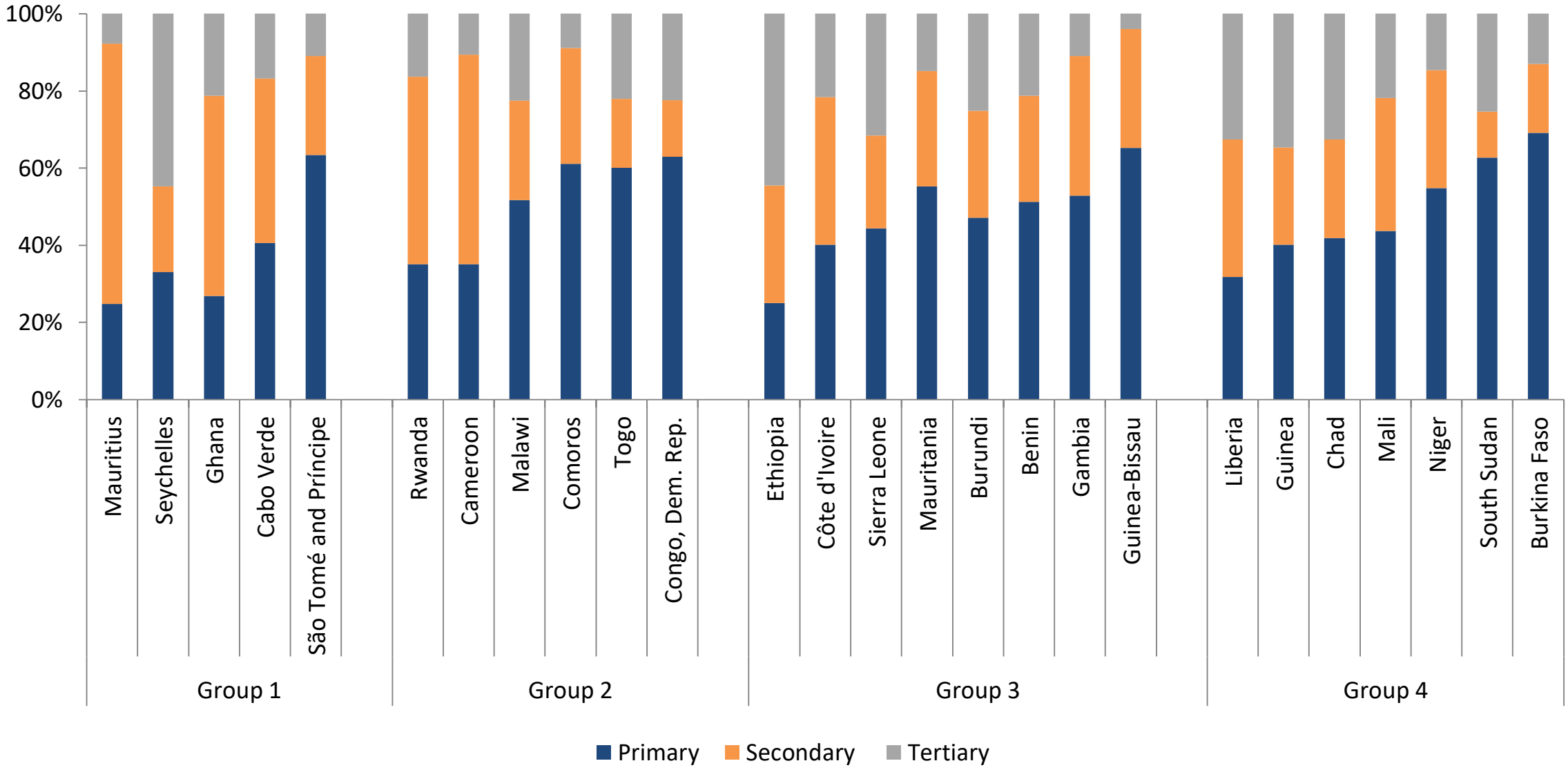
Median Government Expenditure Per Pupil on Primary and Secondary Education, Selected Regions, 2014

constant 2013 US$

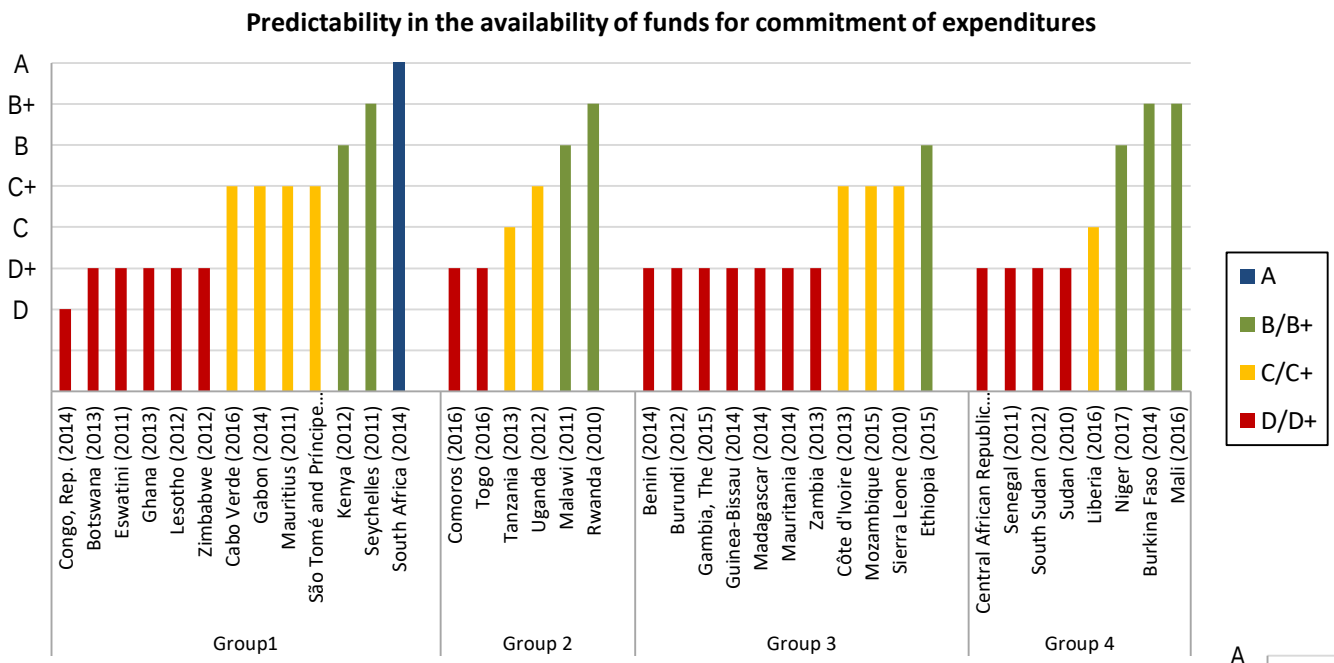
Region	Primary	Secondary	Multiple of Secondary to Primary
Sub-Saharan Africa (all countries)	208	412	1.98
East Asia	7,908	9,650	1.22
Latin America	1,385	1,582	1.14
Southern Asia	451	665	1.47

Source: Constructed from UNESCO 2016

But targeted towards higher education in countries with incomplete basic education (Group 4)

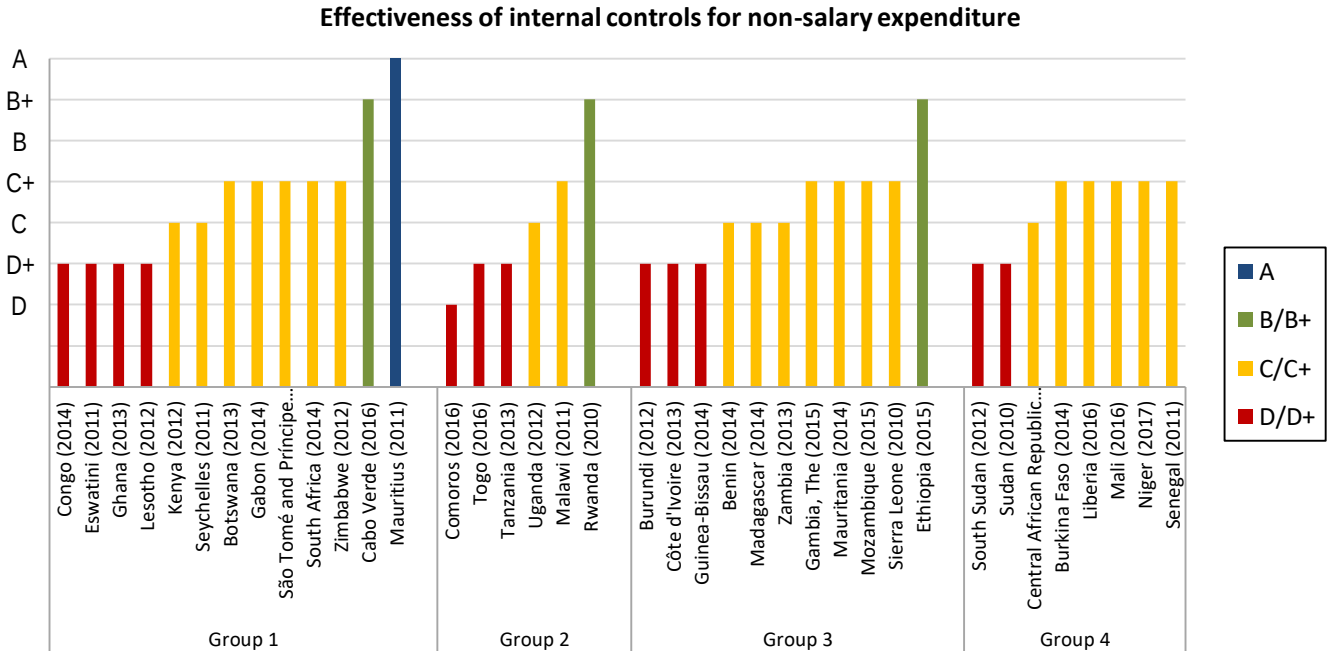


Better execution of the budget is needed



Weak procurement, financial management processes

Struggle to procure textbooks, teacher training, and implement school construction



4. Address capacity gaps in Ministries of Education

From "Science to Service Delivery" – Closing the capacity gap

Knowledge of "what to do" and increased financial resources are not enough

The challenge is implementation and specific capacities are required

What kind of capacity do Ministries need to improve learning?

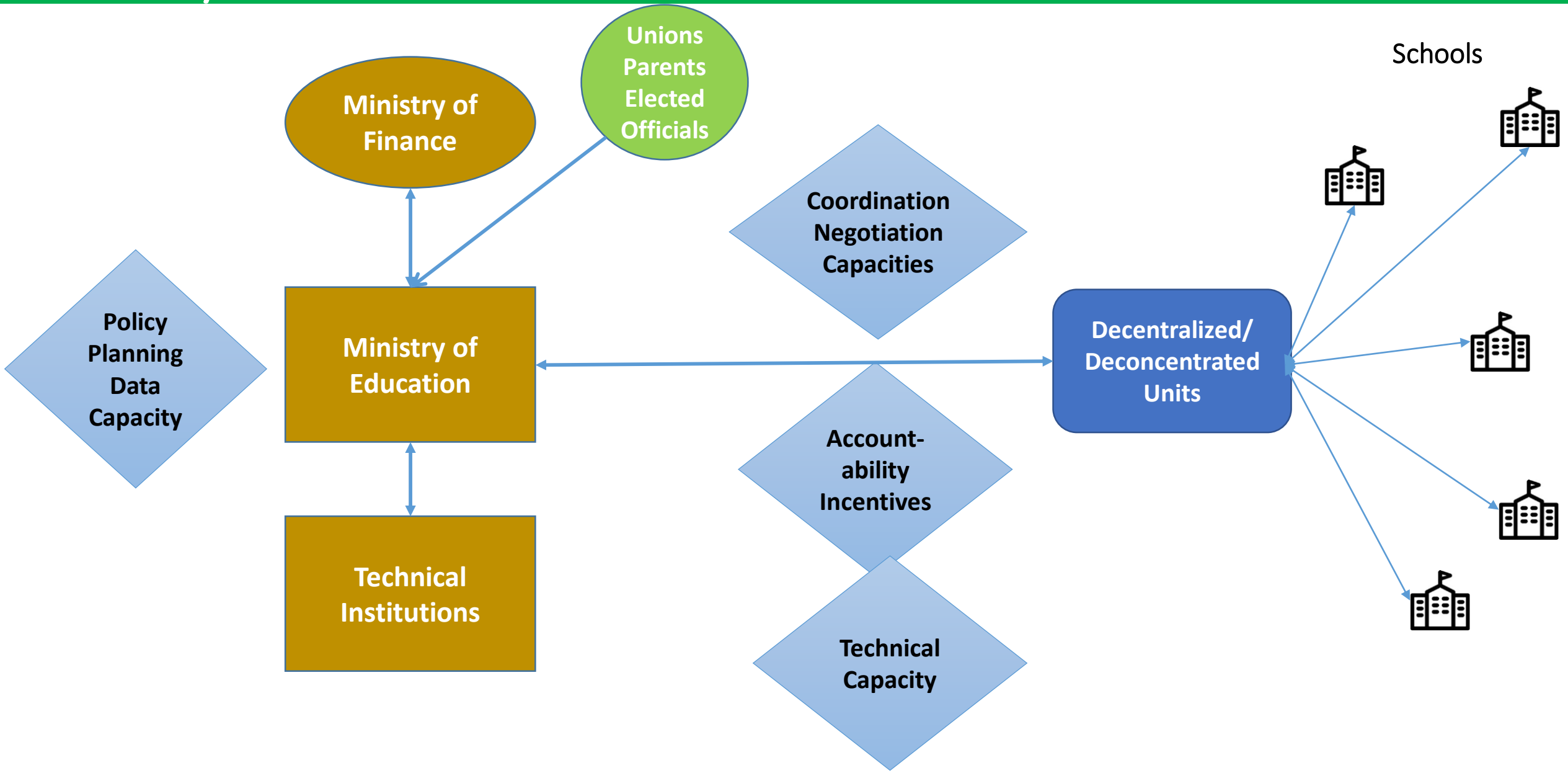
Capacity to collect, analyze and use data

Technical skills
(curriculum, materials development, assessment, teacher training, planning, etc.)

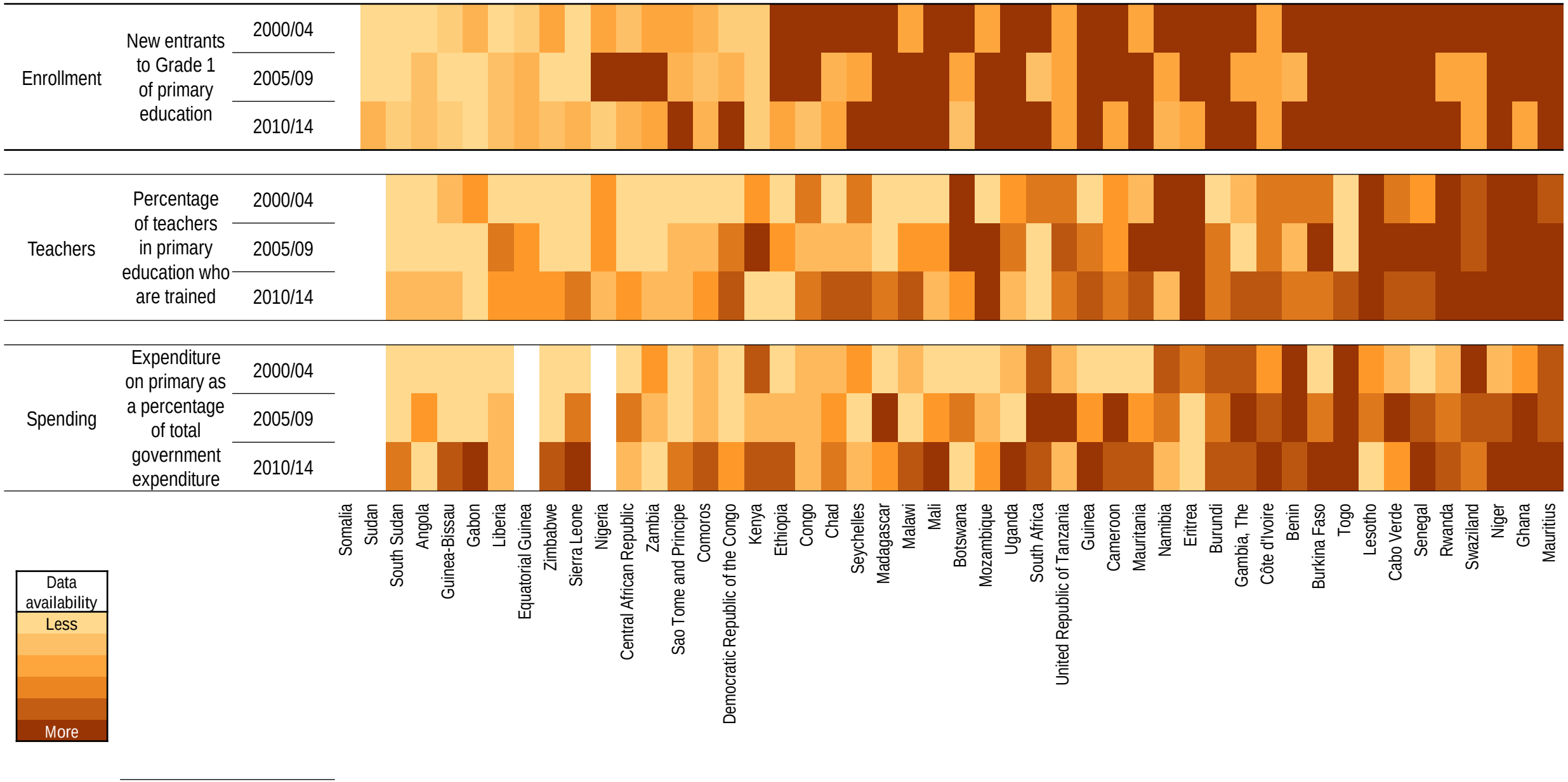
Capacity to coordinate

Negotiation skills
(with politicians, local governments, parents, unions, etc.)

Bridging the implementation gap – connecting to schools/teachers



UIS Data availability by selected indicators and period



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Looking ahead: key challenges

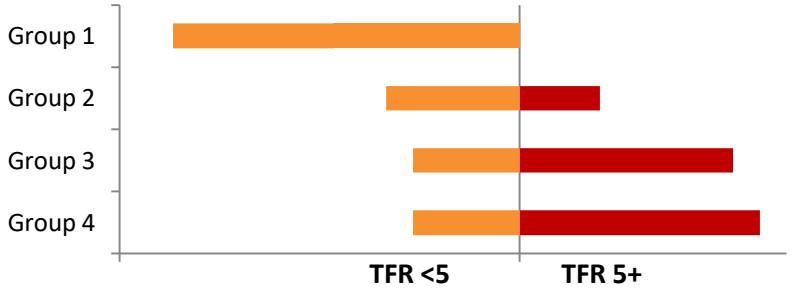
Diverging Economic Performance

- Economic growth across the region is highly heterogeneous
- Some countries have more diversified economic structures

Larger cohorts of school-age children

- A vast population growth is expected: most African countries are at the "pre-demographic dividend" stage, with total fertility rates (TFRs) of 4 or more.

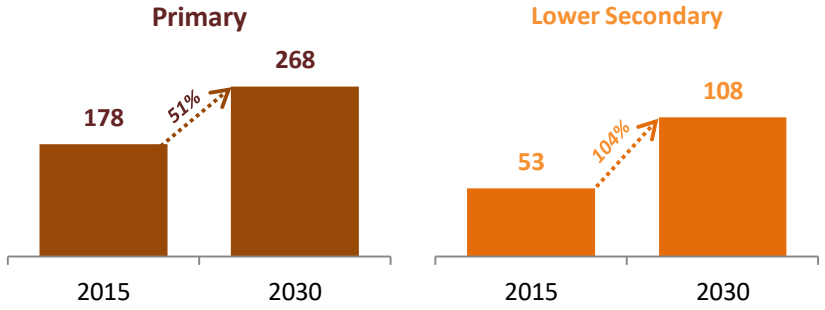
Many countries in educational Groups 3 and 4 have TFR above 5



Managing Expansion with Quality

- Need to expand while sustaining past learning improvements and absorbing students from disadvantage social backgrounds.

A sustained projected expansion in enrollment



Implications for the region

1. **Make learning a serious goal in the region**

2. Strengthen **literacy and numeracy in early years** (including pre-primary); address the ‘traffic jam’ in groups 2&3; structured pedagogy which integrates curriculum, instructional materials, teacher training and support, language of instruction; assessment and monitoring.

3. Ensure **children stay in school** (focus on the minimum conditions for learning and reducing the cost of learning, eliminate high stakes examinations).

Implications for the region

5. **Continue to expand access**:

- Primary is still an issue in some countries in the region
- Secondary is an issue across countries in the region
- Focus on providing education closer to children

6. **Strengthen the teacher corps:**

- Existing teachers: continuous support close to or within schools to improve instruction;
- New recruits: focus pre-service programs on curriculum knowledge, teaching practice, and building expectations for continuous development.

Implications for the region

7. **More and better use of financial resources**:

- Mobilize additional domestic resources for basic education;
- Utilize budgets more effectively to meet learning goals and reducing disparities

8. **Strengthen capacity:**

- Data analysis, technical skills, coordination and negotiations skills.

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Thank You

Suggested citation:

Bashir, Sajitha, Marlaine Lockheed, Elizabeth Ninan, and Jee-Peng Tan. Forthcoming.

Facing Forward: Schooling for Learning in Africa. Washington, DC: World Bank

Annexes – Data Sources

Data Sources: Chapter 1, Country Groupings and Challenges

UIS.Stat database (UNESCO)

- Country groupings, GERs, Enrollment (48 countries)
- ISCED Mappings of Length Cycles (48 countries)

Pole de Dakar (IIEP)

- Country groupings, Enrollment, GERs, (48 countries)

Household Surveys (WB)

- Out of School Rates (34 countries)

WDI (WB)

- GDP, Growth of GDP (40 countries)
- Gini Index (40 countries)
- Poverty Headcount (40 countries)

WPP 2015 (UN DESA)

- Population Projections (48 countries)
- Population Growth Rates (48 countries)

Ethnologue (SIL)

- Linguistic Diversity Index 2015 (47 countries)
- 7 countries

ACLED, Armed Conflict Location and Event Data, version 6

- Number of conflicts (48 countries)
- 9 countries

Data Sources: Chapter 2, Learning

PISA	TIMSS	PIRLS	PASEC	SACMEQ	SDI	EGRA	STEP
Reading Math Science	Math Science	Reading	Reading Math	Reading Math	Reading Math	Reading	Reading Literacy
Mauritius	Botswana Ghana South Africa	Botswana South Africa	10 Francophone countries	16 education systems	7 countries	9 countries	Kenya Ghana

International and regional learning assessments in SSA (96)

Assess-ment	Grades /Ages	Countries	Subjects	Minimum Threshold	Examples of Minimum Proficiency
PISA+	Age 15	Mauritius	Reading	*Level 2 and above*	Reading: Locates and recognizes main idea in text, interprets and integrates parts of text.
			Math		Math: Solves problems using whole numbers.
			Science		Science: Makes literal interpretations of the results of scientific inquiry.
TIMSS	8	Botswana, Ghana, South Africa	Math	*Low International Benchmark and above*	Math: Some knowledge of whole numbers and decimals.
			Science		Science: Some basic knowledge of biology, chemistry, physics, and earth science. Interprets simple pictorial diagrams and applies basic knowledge to practical situations.
PASEC	2, 6	10 Franco-phone countries	Reading	*Level 3*	Reading (grade 6): Combines, extracts and locates implicit information.
			Math	*Level 2*	Math (grade 6): Answers brief arithmetic, measurement and geometry questions.
SACMEQ	6	16 education systems	Reading	*Level 4*	Reading: Reads on or reads back in order to link and interpret information located in various part of the text.
			Math	*Level 4*	Math: Translates verbal or graphic information into simple arithmetic operations. Uses multiple different arithmetic operations on whole numbers, fractions and/or decimals.
SDI	4	7 countries	Reading	--	Reading: Reads a sentence aloud
			Math		Math: Solves a math story
EGRA	2, 3	9 countries	Reading	--	Oral reading: any score above zero

Data Sources: Chapter 3, Student Progression

UIS.Stat database (UNESCO)

Bulge Analysis
(all countries):
current, 103 countries
trend, 84 countries

Enrollment by grade

GERs in grade 1,

GIR in grade 1

GER in Pre-School

(Population projections by age, UN DESA)

Household Surveys (WB)

Over-age enrollment in grade 1

Repetition rates by grade 1

GERs by area, wealth

Distance to School

Gender Parity by area

Survival Rates grades 1-9

Drop-out reasons

(34 countries)

Other sources

Language Policies and Implementation:

EGRA reports , UNICEF, UNESCO (27 countries)

National Examinations: UIS, WB, ESP documents, national documents, WES, Nuffic (43 countries)

Class size, SDI (Malawi)

Internet and Mobile Users

(Regional Averages)

ICT use: UIS Communication and Information database , InfoDeb, WB, MoE

(26 countries)

Data Sources: Chapter 4, Teachers

UIS.Stat database (UNESCO)

- # of teachers, Total (P=38, S=32 countries)
- Non-permanent (P=29 countries)
- Class Size (25 countries), Textbooks per pupil (32 countries)
- Toilets, potable water and electricity in primary schools (33 countries)
- PTR (P=43 countries, S= 39 countries)

Household / Labor Surveys (WB)

- Teachers and comparator groups:
- educational attainment,
- wages,
- hours of work, second job,
- hourly and annual pay
- (13-16 countries)

EMIS data

- Teacher deployment (Ghana, Cote d'Ivoire)
- Randomness in teacher allocation
- (P=28 countries,
- S=8 countries)

SDI (WB)

- Teacher absenteeism
- (9 countries)
- Teacher Pedagogy Knowledge, Teaching Practices
- (6-7countries)

PASEC (2014) and SACMEQ (2007)

- Teacher knowledge (Only SACMEQ 2007, 11 countries)
- Pre-Service Teacher Training (25 countries)
- Prof. Development (15 countries)
- In-service Training (10 countries)
- Essential conditions (23-25 countries)

Other sources

- STEP (Ghana and Kenya)
- TIMSS and
- TED-S (Botswana)

Data Sources: Chapter 5, Budget and Finance

UIS.Stat database (UNESCO)

- Total government expenditure (TGE) (39 countries)
- Government education expenditure (GEE) (33 countries)
- Share of public spending by level of education (26 countries, 6-year primary cycles)

UNESCO's Global Monitoring Reports (GMRs)

- Household spending on education (18 countries)

OECD-DAC and various GMRs

- Donor aid for education (42 countries)

Public Expenditure and Financial Accountability (PEFA, 2011 Framework)

- Assessment of budgetary processes (38 countries in the 2010-2016 period)

Education Sector Plans

- Plans appraised for the Global Partnership for Education (GPE) (20 countries)

WB PERs

- Various issues covered in this chapter (10 countries, across several years)

Data Sources: Chapter 6, Capacity Gap

UIS.Stat database (UNESCO)

Selected indicators in three domains: enrollment, teachers and spending

Coverage: at least one year in 2000-04, 2005-09, and 2010-15 periods

Number of countries with valid data increases over time

World Bank Internal Survey

Data collected through questionnaires addressed to Bank staff working in different Sub-Saharan African countries.

Information available on 26 countries

Data Sources: Chapter 8, Coda

Enrollment Projections

Prepared for Ethiopia, Ghana, Kenya, and Senegal

Inputs:

Population Projections:

WPP 2012

Patterns of Student Flows:

Household Surveys

Student Teacher Ratios (STRs):

UIS.Stat database (UNESCO)

WPP 2017 (UN DESA)

Total Fertility Rates, TFR

(46 countries)

World Bank

Robustness of economic performance, 1995–2016

(45 countries)