INNOVATION STRATEGY FOR EDUCATION AND TRAINING:

INCLUSIVE INNOVATION AND EDUCATION

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OECD
BETTER POLICIES FOR BETTER LIVES

Part of the horizontal project «Knowledge and Innovation for Inclusive Growth»

- Participants: innovation (STI), education (EDU), regional development (GOV), and development co-operation (DCD)

- Project objectives:
  - Provide evidence on the impacts of innovation and related policies on inclusive development focusing on industrial, social and territorial inequalities; and
  - Develop concrete policy solutions to support countries in reconciling their innovation and inclusive development agendas, including options for scaling up inclusive innovations in education.

inclusive innovation in education

Inclusive innovation in education

- Innovation is inclusive when it aims to give enhanced access to educational resources to low-income groups.

    i. Makes educational products and services more affordable
    ii. Adapts to the social, cultural and economic environment of disadvantaged students
    iii. Improves parental education and offsets its negative consequences
    iv. Decreases school segregation
    v. Improves geographical access to educational resources
    vi. Involves local communities in the innovation process

- Project objectives:

    – Identify cases of inclusive innovation that can inspire other countries
    – Build network of inclusive innovators in education
    – Analyse different types of business models for inclusive innovation, the role played by local communities in their implementation, as well as policy conditions for success and for scalability

Context I. Poverty

Extreme poverty in selected countries:
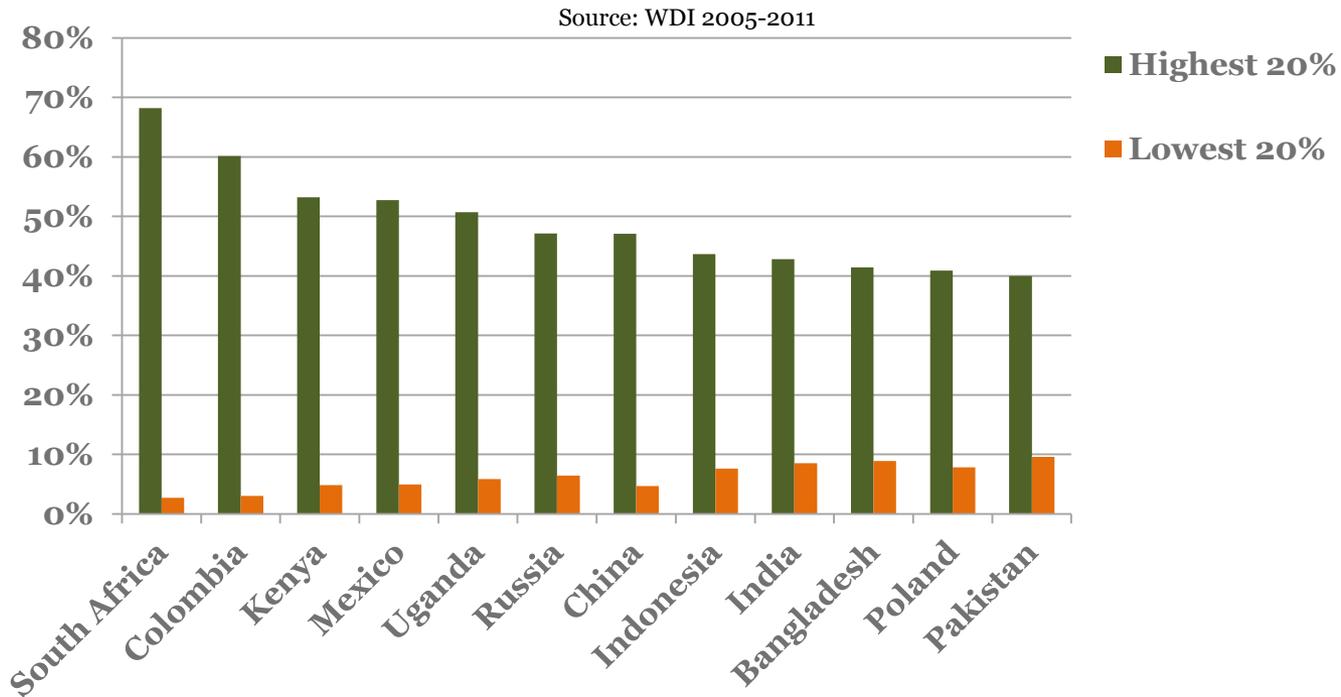poverty headcount ratio at PPP $2 a day (% population)
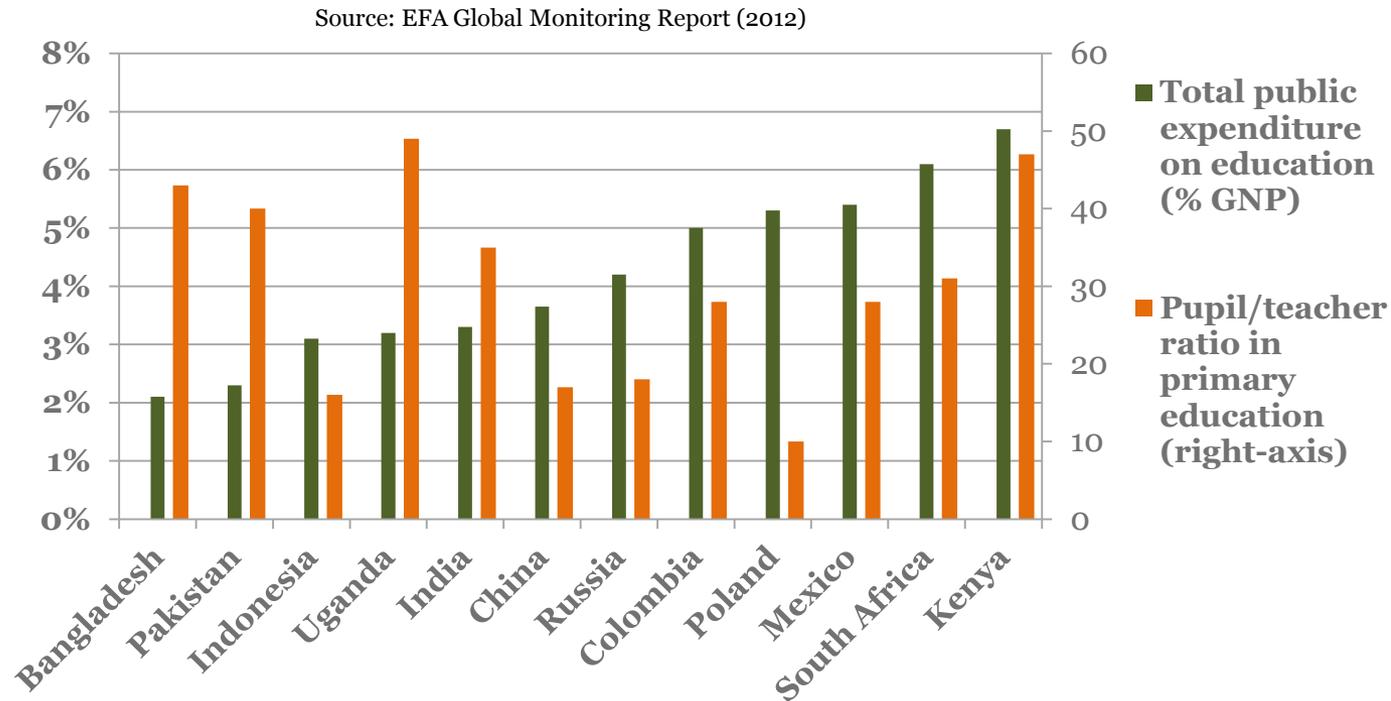
Source: WDI 2005-2011
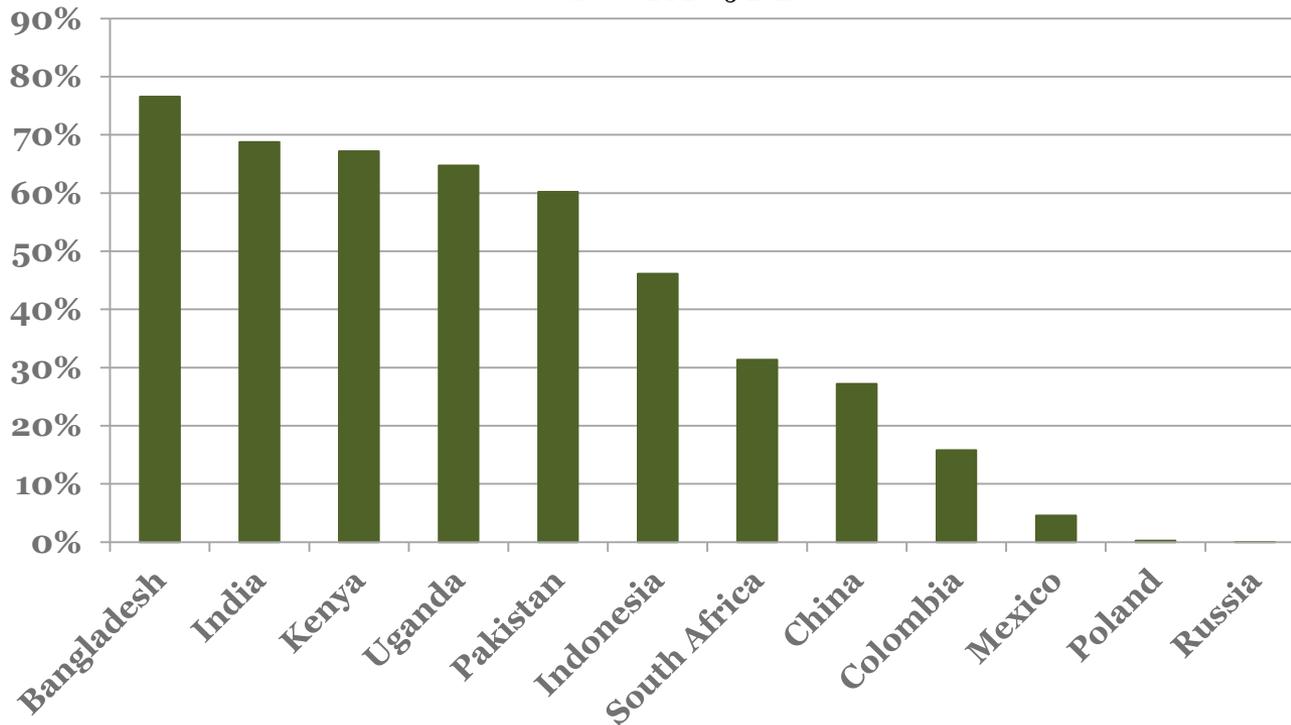
Context II. Economic inequality

Economic inequality in selected countries:
income share held by highest and lowest 20% of the population

Source: WDI 2005-2011

Context III. The role of the public sector

Public spending on education and teacher/student ratio (2010)

Source: EFA Global Monitoring Report (2012)

Total public expenditure on education (% GNP)

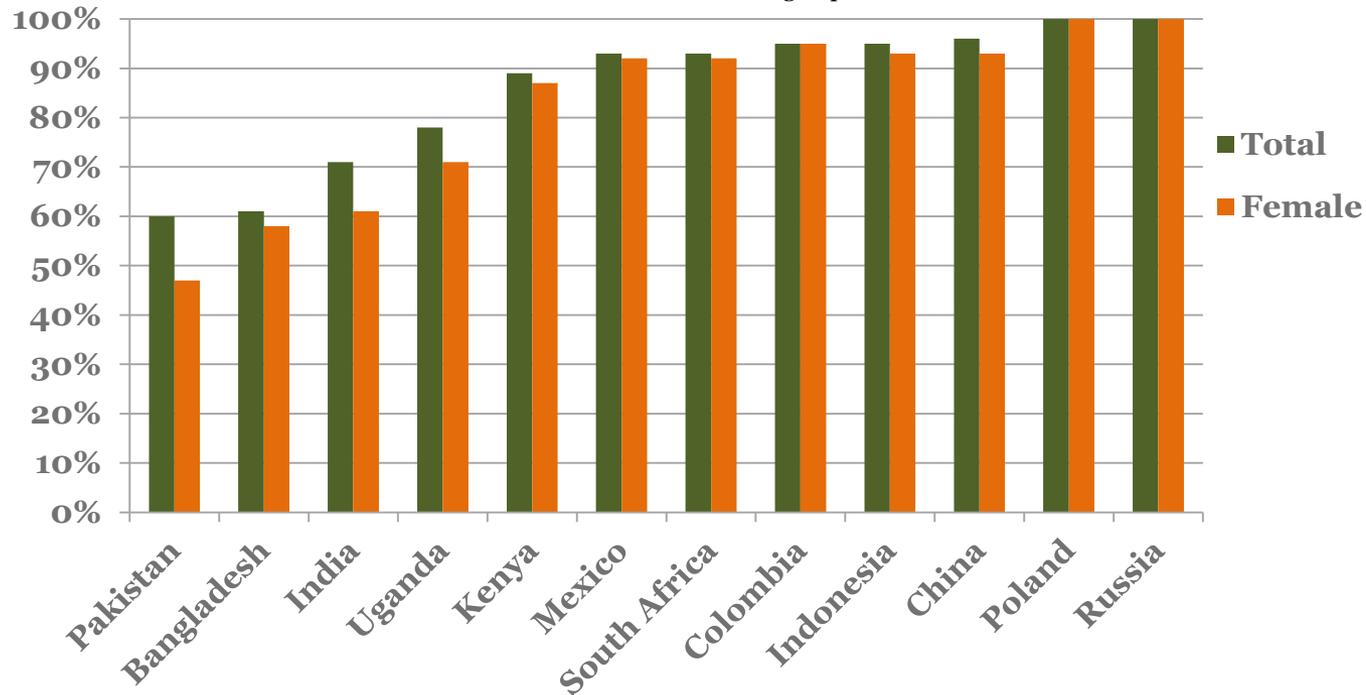**Pupil/teacher ratio in primary education (right-axis)**

Context IV. Parental education

Projected adult literacy rate for 2015, by gender

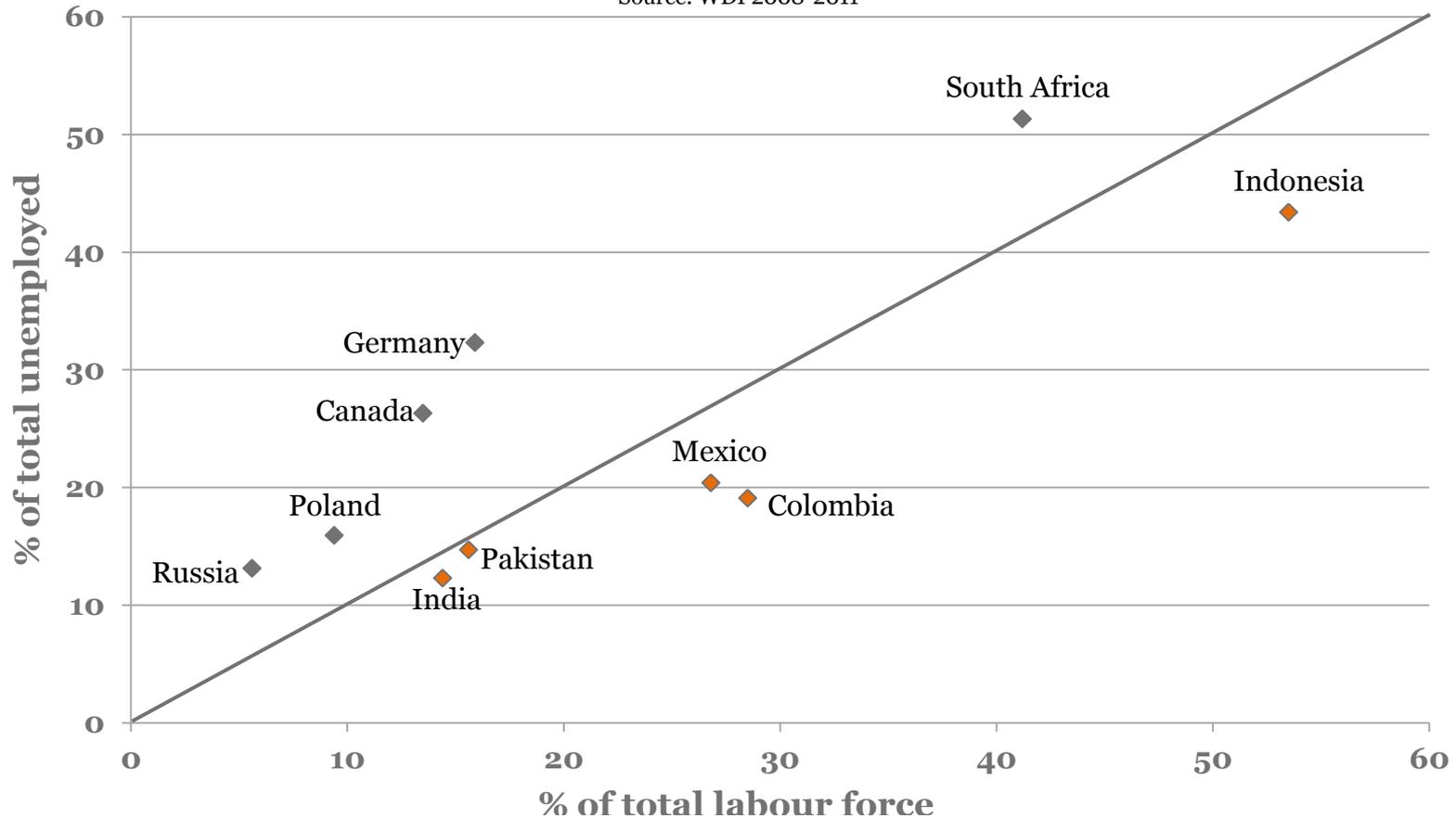Source: EFA Global Monitoring Report (2012)

Context V. Returns to education

Share of the labour force and the unemployed population: primary education

Source: WDI 2008-2011

Context VI. Schooling

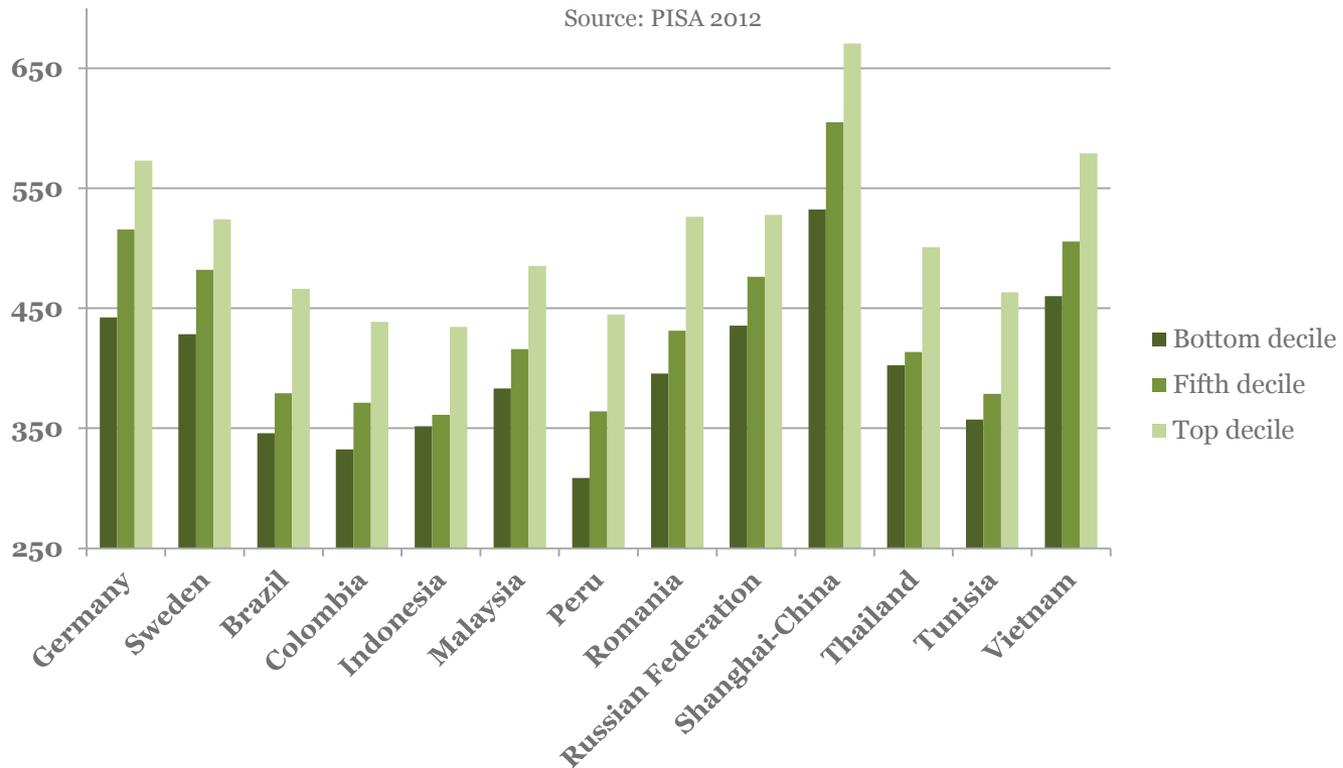Average years of schooling by quintile and rural/urban context

Source: WDI 2005-2008
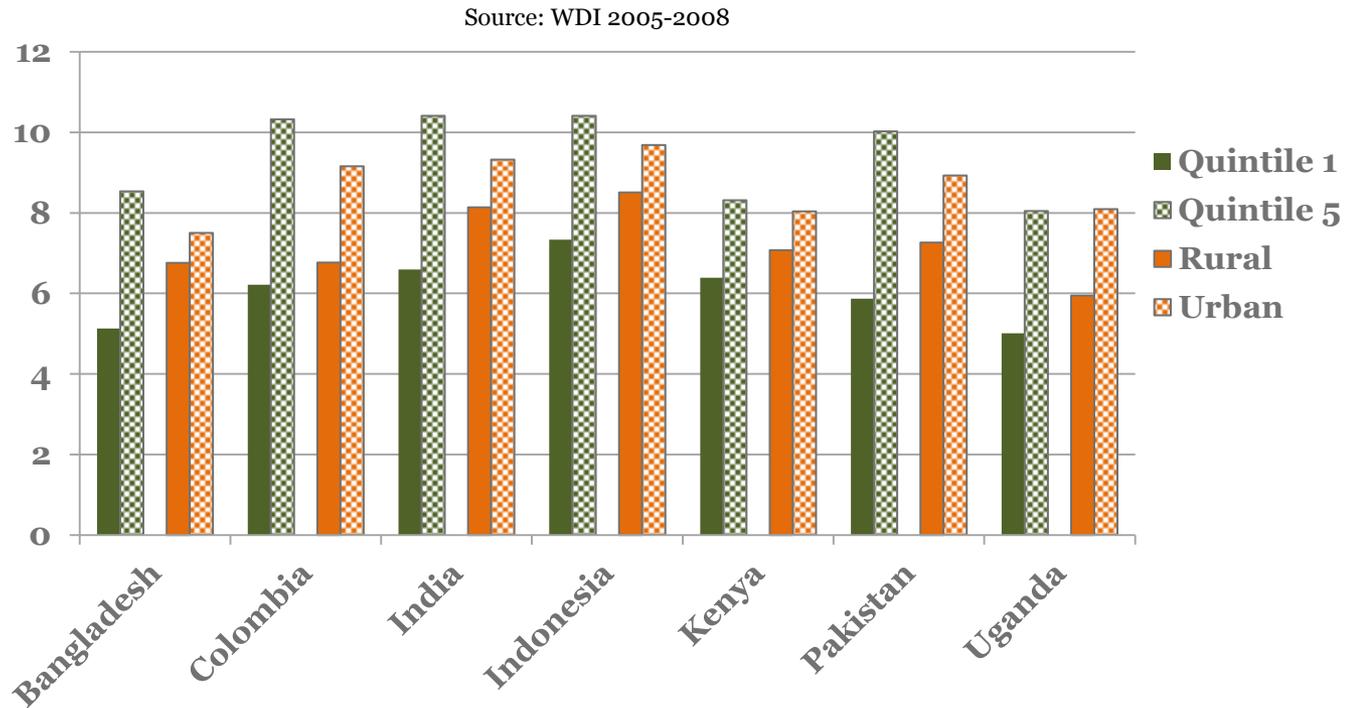
Context VII. Learning outcomes

Performance on the mathematics scale, by national deciles of the PISA index of social, economic and cultural status

Source: PISA 2012

Summary

Educational barriers of underprivileged households

- Low purchasing power
- Public spending insufficient to make up for the lack of private investment in education
- Low parental education and first-generation learners
- Positive, but uncertain, returns to education and skills mismatch
- Lack of awareness about the importance of education and other cultural barriers
- High levels of inequality > relevant for school segregation

But...a strong local community of relatives and friends

As a result:

- Low educational attainment
- Low learning outcomes

Solutions?

Frugal innovations versus other types of related innovations

"Innovative, low-cost and high-quality products and business models"

| Related concepts | Efficiency | Resource scarcity | | Good-enough quality | From developing to developed countries |
		Low overall costs	Low cost to participants		
Inclusiveness	MAYBE	MAYBE	YES	YES	MAYBE
Disruptive innovation	YES	MAYBE	MAYBE	YES	MAYBE
Reverse innovation	YES	YES	YES	YES	YES
Jugaad/shanzai/bricolage	YES	YES	YES	MAYBE	MAYBE
Frugality	YES	YES	YES	YES	MAYBE

Removing barriers: low purchasing power

Frugal innovations

- Low-cost products: Aakash tablet (India), Tutudesk (SubSaharan Africa), Pratham books (India)

- Intensive/efficient use of facilities: BaLA (India)

- Extensive use of volunteers: Teach for India/America, Kibera School for Girls

- Work/study programmes: Fundación Paraguaya

- Low-fee private schools

Other innovations

- Scholarship and voucher systems

- Cross-subsidies

- In-kind (free) services, lunch, uniform, materials, transport: Bolsa Familia (Brazil), Programa Oportunidades (Mexico), Midday Meal Scheme (India)

- Free or subsidised boarding schools: Daraja Academy (Kenya)

Removing barriers: low parental education

Frugal innovations

- Accelerated teaching: Udaan School (India), Operation Rescue (Cambodia)

- Teaching parents: Reading for Children (India)

- Teaching ICTs as a leapfrog strategy: Center for Digital Inclusion (Brazil)

Other innovations

- Catch-up strategies; long hours, reinforcement classes, out-of-school teaching, remedial and compensatory education: Reading Partners (US), Full-time School programmes (Chile, Uruguay…)

- Mentoring schemes: Ikamva Youth (South Africa)

Removing barriers: low quality of school management and teaching

Frugal innovations

- Using ICTs for distance learning: Khan Academy (US), Nokia Life, BBC Janala

- Using ICTs for deskilling: NEH Free Learning Centers (Myanmar)

Other innovations

- Turnaround schools: Matchbox Learning (US), Unlocking Potential (US)

- Customised training for staff in underserved schools: Match Education (US)

Removing barriers: uncertain returns to education and skills mismatch

- Curriculum for rural development: Gramodaya (India)
- Vocational education and training

Removing barriers: lack of awareness and other cultural barriers

- Visual and kinaesthetic teaching: Life-Lab (India), BaLA (India)

- Awareness campaigns

- Eliminating life and career options: Uncommon Schools (US)

- Watered down curriculum: Scholing Voor Arbeid (Netherlands)

- Flexible timetables: Charity School for the Children of Migrant Workers (China), Evening schools (early 20th century US)

Removing barriers: school segregation and peer effects

- Desegregation policies: Desegregation busing (US)

- Vouchers, scholarships and cross-subsidies to promote mixed-income schooling

Challenges and questions for debate

1. Scaling up and diffusion
   - Desirable?
     - Adaptation to the local circumstances
     - The meso-macro link
   - Feasible financially?
   - Feasible in terms of organisational capacity? Leader dependence and motivational constraints

2. Sustainability and the importance of frugality
3. How to assess an innovation in education? The existence of multiple goals and long-term impact
4. The reaction of stakeholders : cautious parents, inactive public sector, asymmetric information, etc. (Lubienski)

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THANK YOU
www.oecd.org/edu/innovation

Innovation in education in the final publication I

1. What is the role of education in the poverty trap?
    1. Only way-out?
    2. The best solution
    3. A good solution
2. Scaling up and diffusion
    – Desirable?
        • Adaptation to the local circumstances
        • The meso-macro link
    – Feasible financially?
    – Feasible in terms of organisational capacity? Leader dependence and motivational constraints
3. Sustainability and the importance of frugality

Innovation in education in the final publication II

4. How to assess an innovation in education? The existence of multiple goals, the long-term impact and the "new versus different" distinction

5. How to measure inclusiveness? Criteria in the literature

6. The reaction of stakeholders : cautious parents, inactive public sector, asymmetric information, etc. (Lubienski)

7. Innovations in education in developing and advanced economies: differences in its rationale, goals and impact

8. What is specific to education?
   – The role of technology in education is "peripheral"
   – Most knowledge is transmitted P2P > Baumol's cost disease
   – Deskilling is possible/desirable in education?
   – Multiple goals
   – Role of the government is pervasive
   – Baumol's distinction between productive, destructive and unproductive entrepreneurship is irrelevant