

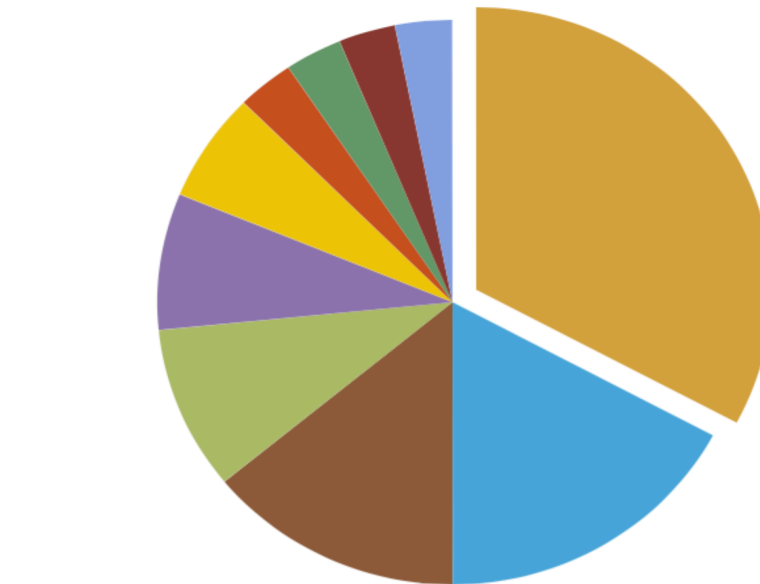
# ***Preliminary Ideas for K-12 Educational Improvement in Asia and the Pacific Region***

***Presented at an ADB Retreat for  
the Strategic Roadmap 2030***

***Dr. Scott Paris  
January 14, 2019***

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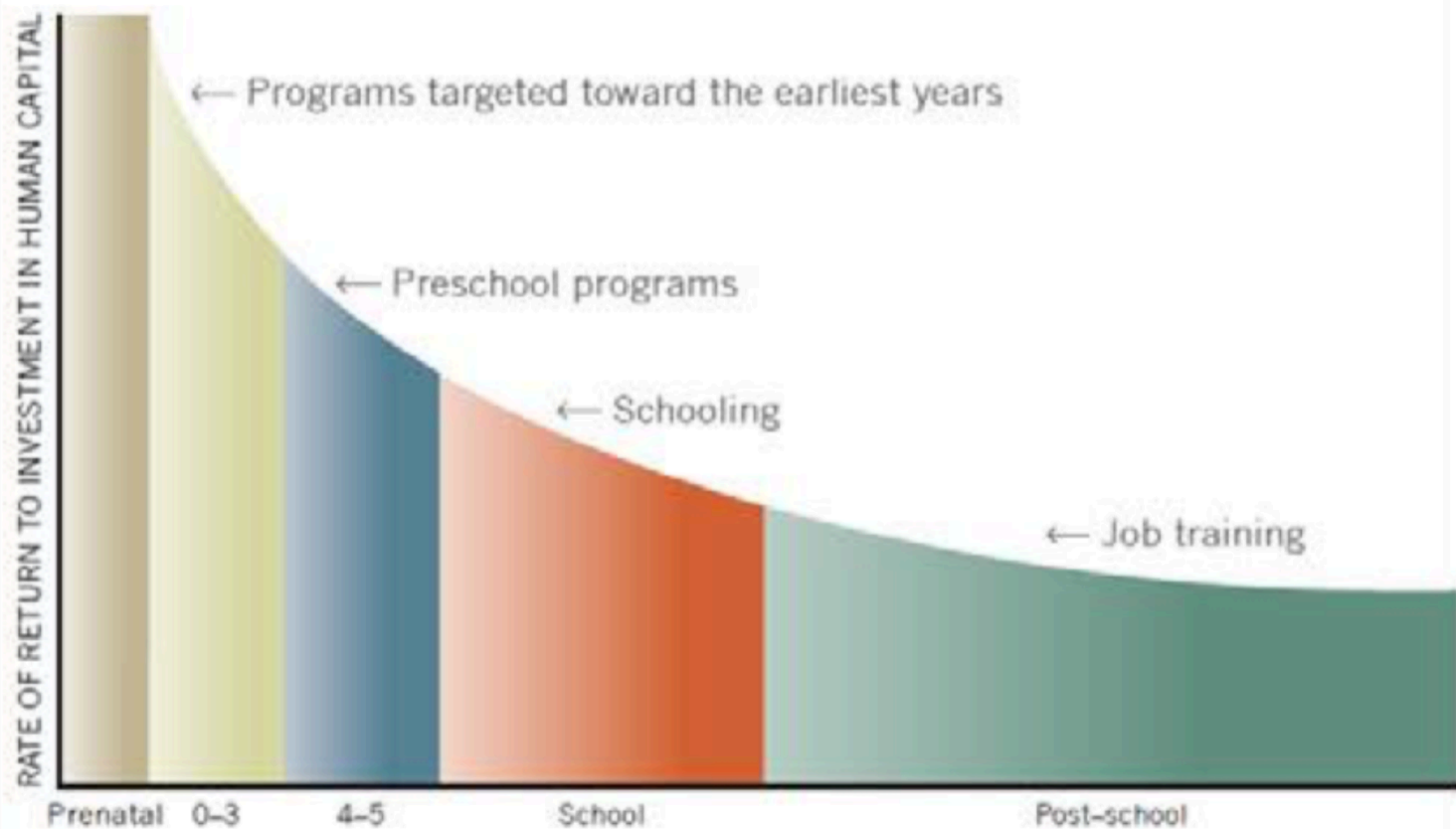
# *Early Childhood Education is about a Third of all World Bank Projects Currently in East Asia & Pacific*



- Early Childhood Education
- Primary Education
- Central Government (Central Agencies)
- Sub-National Government
- Health
- Secondary Education
- Other Education
- Public Administration - Education
- Social Protection
- Tertiary Education

# *Why? Because Early Intervention Pays Off*

Figure 1 Returns to a unit dollar invested in selected development interventions, early years to adulthood

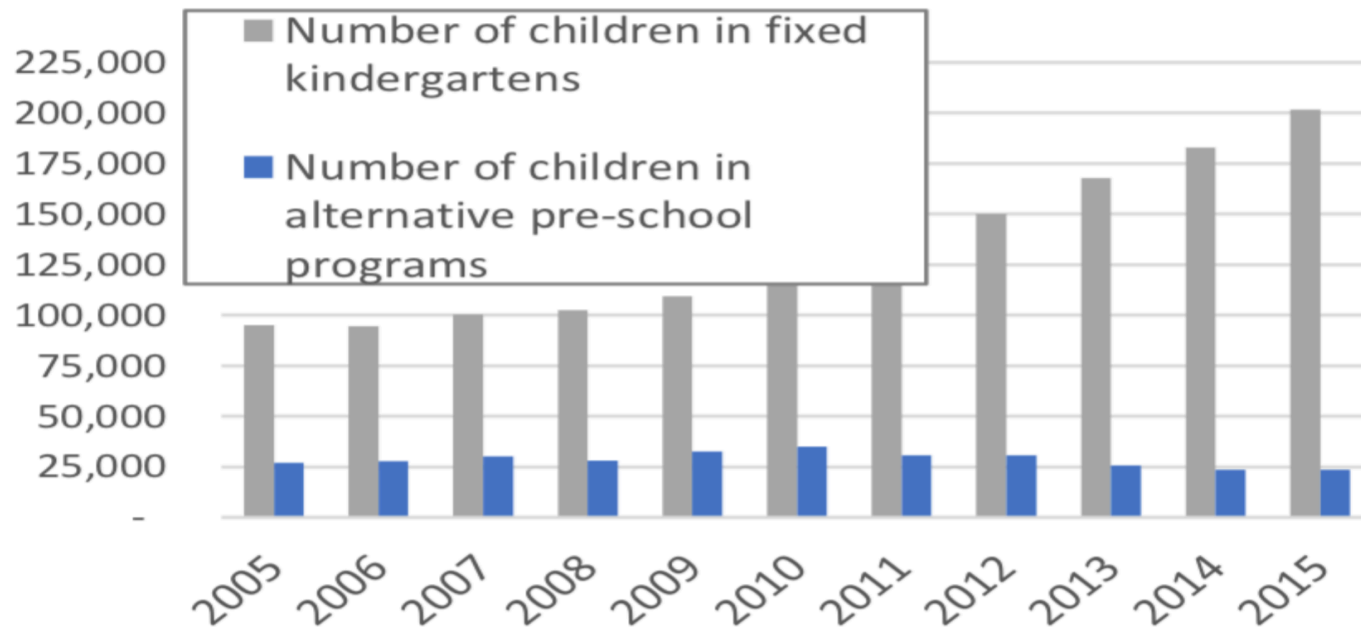


Source: Heckman (2008)

# *Trends in Early Education*

- Three years of pre-primary education is becoming common
- More inclusive and equitable access

**Figure 1.3a Trend in number of children enrolled in preschools institutions, Mongolia, 2005-15**



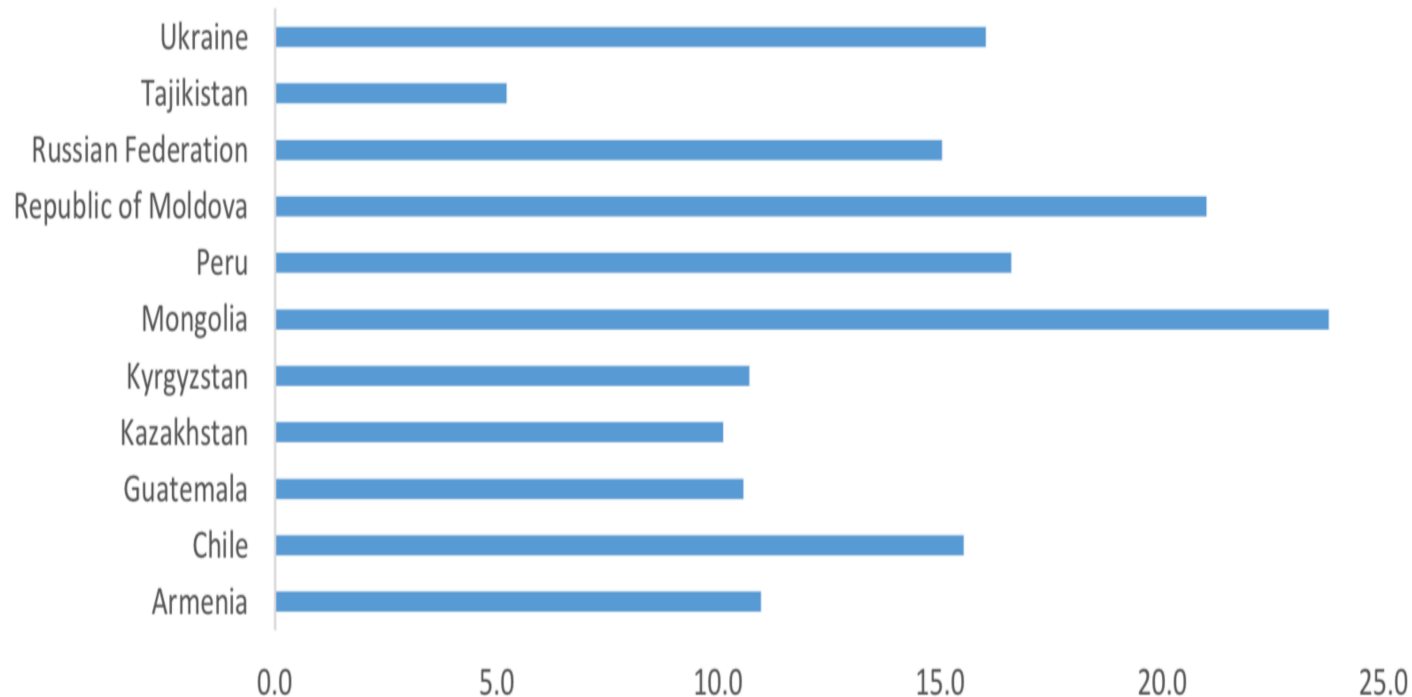
Source: MECS (2015)



# *Trends in Early Education*

- Greater investment in early childhood programs
- Exp. Mongolia spends almost 25% of total educational budget on pre-primary programs

Figure 1.10 Preprimary spending as percent of government education expenditures, Mongolia and other middle-income countries



Source: UNESCO (2014 or latest year available)

# ***Global Trends in Education***

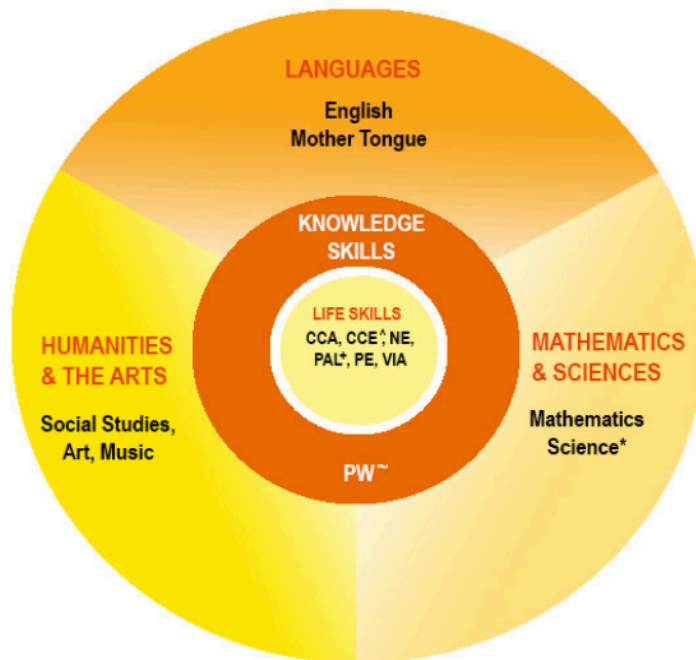
- Curricula are more integrated, exp. STEAM
- Emphasize big ideas in disciplines & deep learning
- Based on learning progressions, not disorganized curriculum objectives
- Holistic focus on 21<sup>st</sup> century skills, citizenship, character, and socio-emotional learning, e.g.,
  - Thailand 12 Core Values
  - Singapore Holistic Curriculum

# *Thailand's 12 Core Values*

1. Loyalty to the Nation, a Religion, and the Monarchy
2. Honesty, sacrifice, endurance, and noble ideology for the greater good
3. Gratitude for parents, guardians, and teachers
4. Diligence in acquiring knowledge, via school studies and other methods
5. Preserving the Thai customs and tradition
6. Morality and good will toward others
7. Correct understanding of democracy with the King as Head of State
8. Discipline, respect for law, and obedience to the older citizens
9. Constant consciousness to practice good deeds all the time, as taught by His Majesty the King
10. Practice of Self-Sufficient Economy in accordance with the teaching of His Majesty the King
11. Physical and mental strength. Refusal to surrender to religious sins.
12. Uphold the interest of the nation over oneself.

# Singapore's Holistic Primary Curriculum

## PRIMARY SCHOOL CURRICULUM



### LEGEND

CCA	Co-Curricular Activities
CCE	Character and Citizenship Education
NE	National Education
PAL	Programme for Active Learning
PE	Physical Education
PW	Project Work
VIA	Values in Action

### SUBJECTS TESTED IN PSLE<sup>#</sup>

#### Standard Subjects:

English, Mother Tongue,  
Mathematics, Science

#### Foundation Subjects:

Foundation English,  
Foundation Mother Tongue,  
Foundation Mathematics,  
Foundation Science

#### Optional Subject:

Higher Mother Tongue

<sup>#</sup>Pupils offer Standard or Foundation subjects based on their aptitude in each subject

\* Science is taught from Primary 3 onwards.

\* CCE includes the Form Teacher Guidance Period.

\* PAL will be progressively rolled out to all primary schools by 2017.

~ Project Work is conducted during curriculum time but is not an examination subject

# ***Prof Anita Rampal advocates adapting the National Curriculum in India***

- “Culturally responsive” curricula and pedagogies
- Moving away from rote learning and a focus on textbooks
- Enriching the curriculum with relevant experiences in students’ lives
- Reducing anxiety about exams
- Using books with a greater variety of genres and multicultural perspectives

# ***Global Shift to Active Learning & Scaffolded Pedagogies***

- From solo to collaborative learning
- From reproductive to creative and innovative
- From memorizing to inquiry based on driving questions
- From textbook tasks to relevant, authentic tasks based on projects, themes, and artifacts

# *Classroom Assessment Trends*

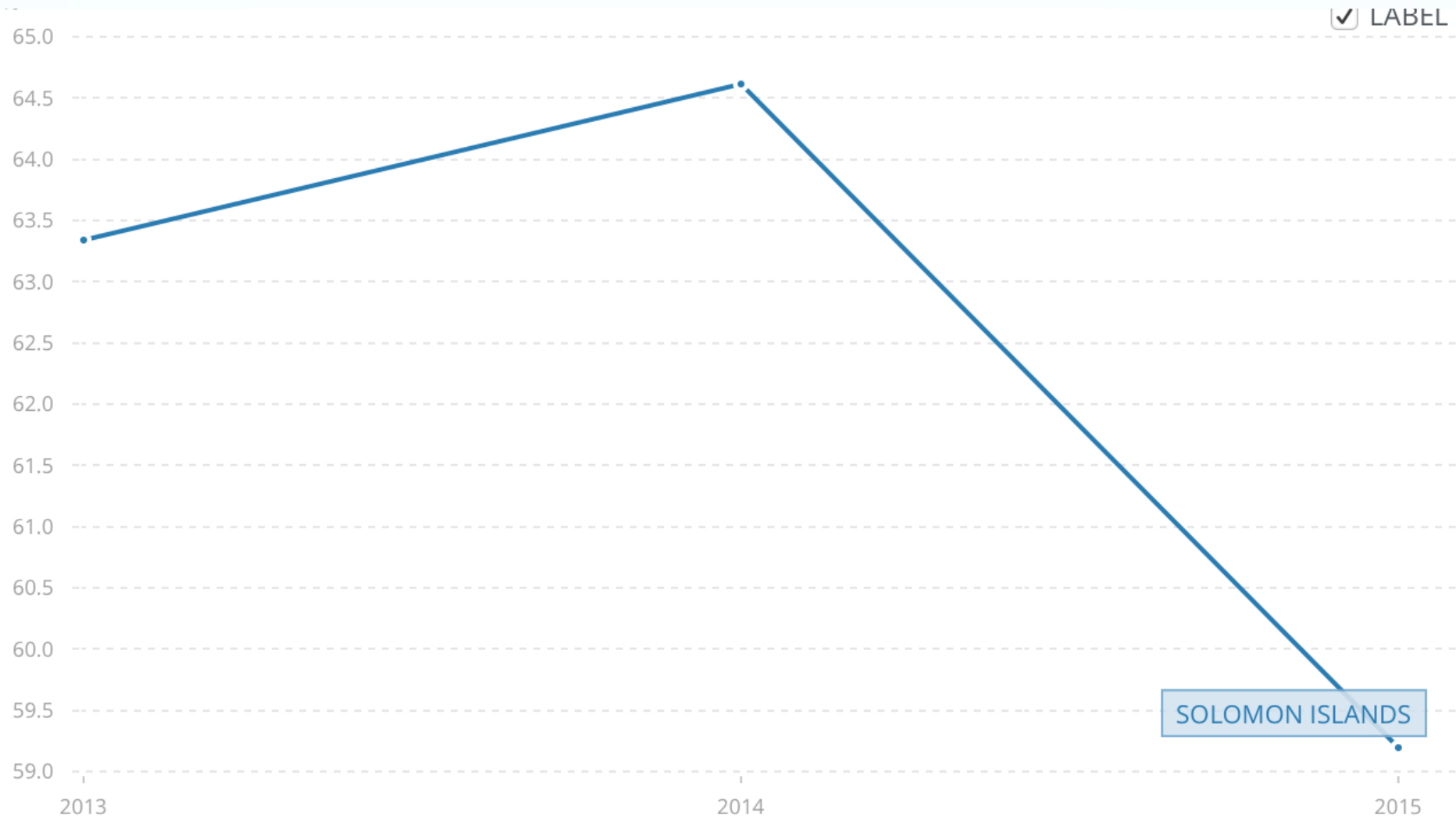
- From assessments **of** learning to **for** learning
- From teacher as evaluator to coach
- From few high-stakes to many low-stakes events
- From numerical scores to conceptual and explanatory rubrics
- From other to self-assessment

# ***Teacher Training Trends***

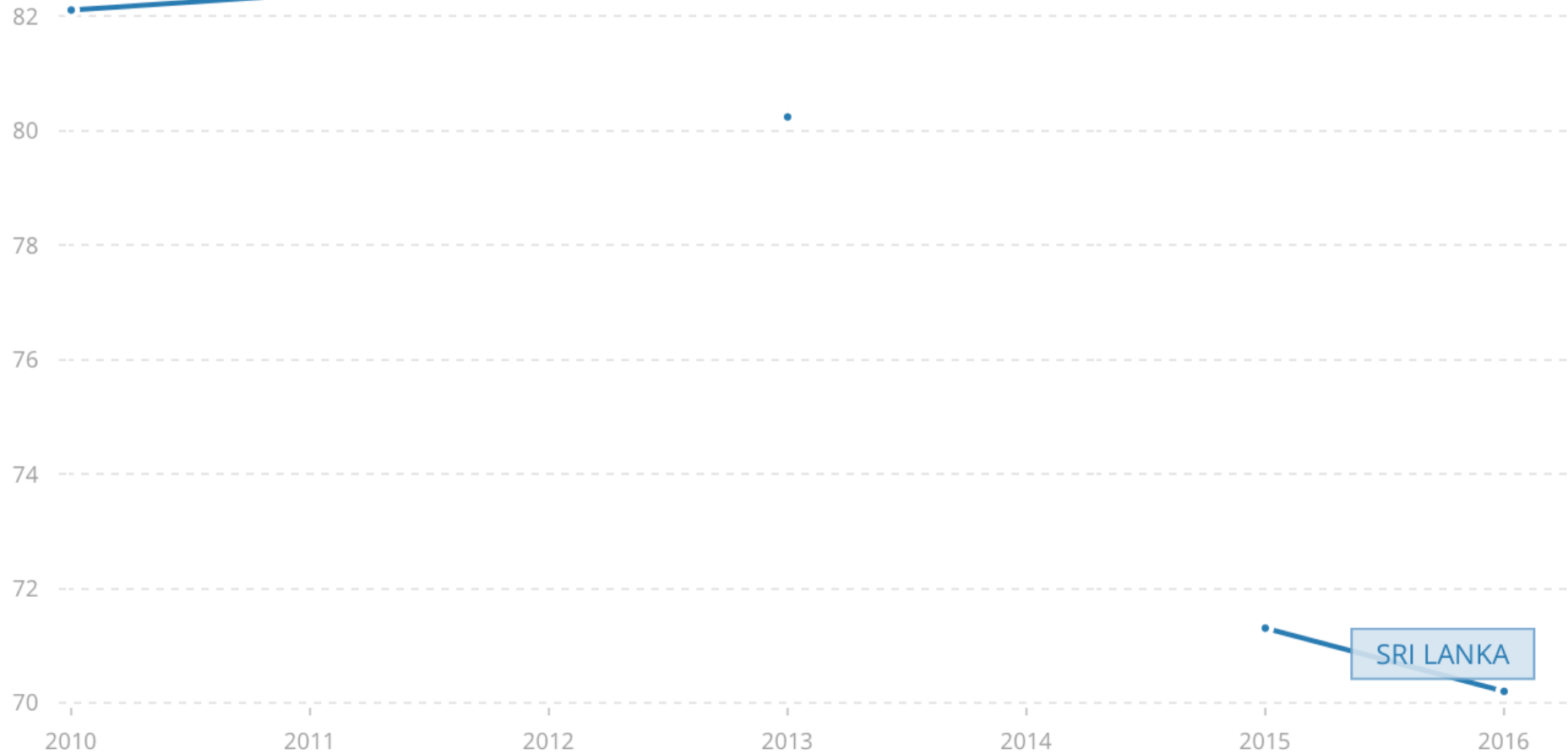
- Focus on increasing quality not quantity of teachers trained
- Higher entrance requirements for pre-service teachers
- More rigorous pre-service training programs with increased classroom experience and mentoring
- Teacher training coupled with a university degree
- Ongoing PD for new teachers with PLCs
- Why? Because teacher quality is slipping in some countries



# ***Trained Primary Teachers in the Solomon Islands***



# ***Trained Primary Teachers in Sri Lanka***



***Percent Thai Secondary Teachers  
Who Failed Tests in the Subject Area Tests They Teach***

<b>Computer Science</b>	<b>88%</b>
<b>Biology</b>	<b>86%</b>
<b>Math</b>	<b>84%</b>
<b>Physics</b>	<b>71%</b>
<b>Chemistry</b>	<b>64%</b>

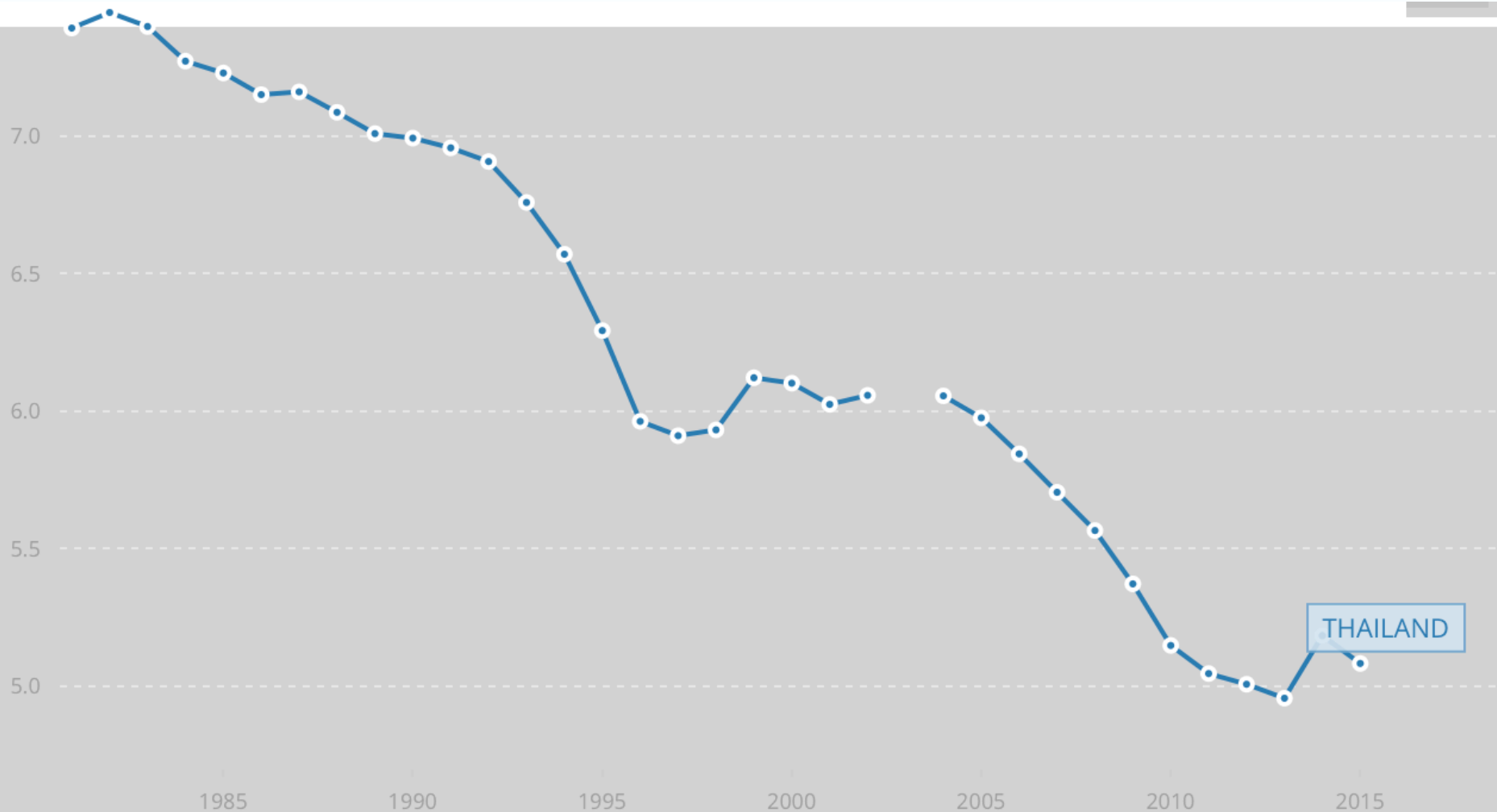
# ***Teachers need to be***

- Well trained
- Certified
- Mentored into profession
- Ongoing support from peers, principal, and PD
- Incentivized, motivated, and recognized

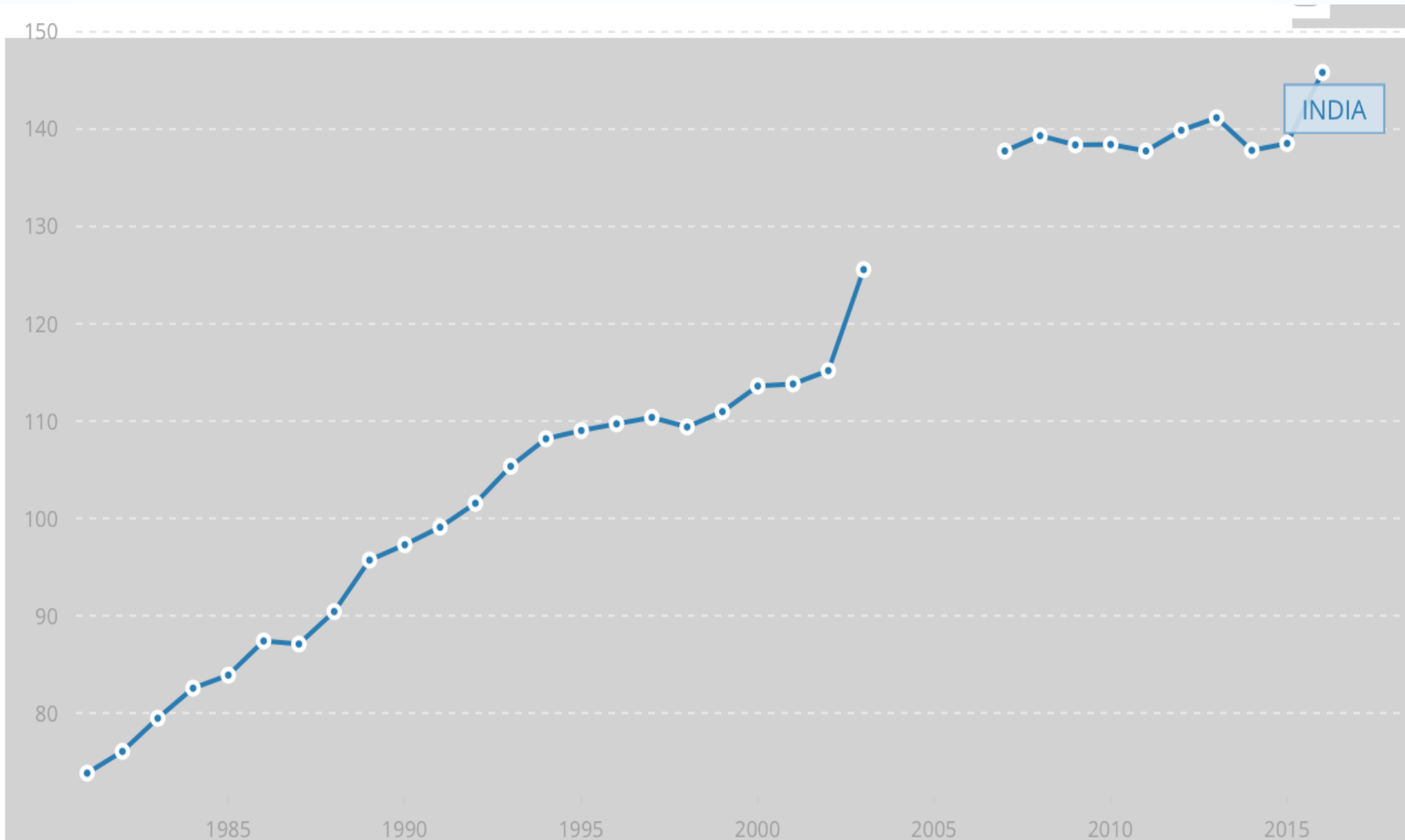
# ***More Global Trends in Education***

6. New technologies allow remote, blended, and life-long learning
7. TVET and career prep for school-work transition
8. New learning metrics for monitoring and comparing progress, e.g., SEAPLM
9. Rural vs Urban achievement gaps increasing
10. Demographic shifts in student populations require adjustments in schools and teachers

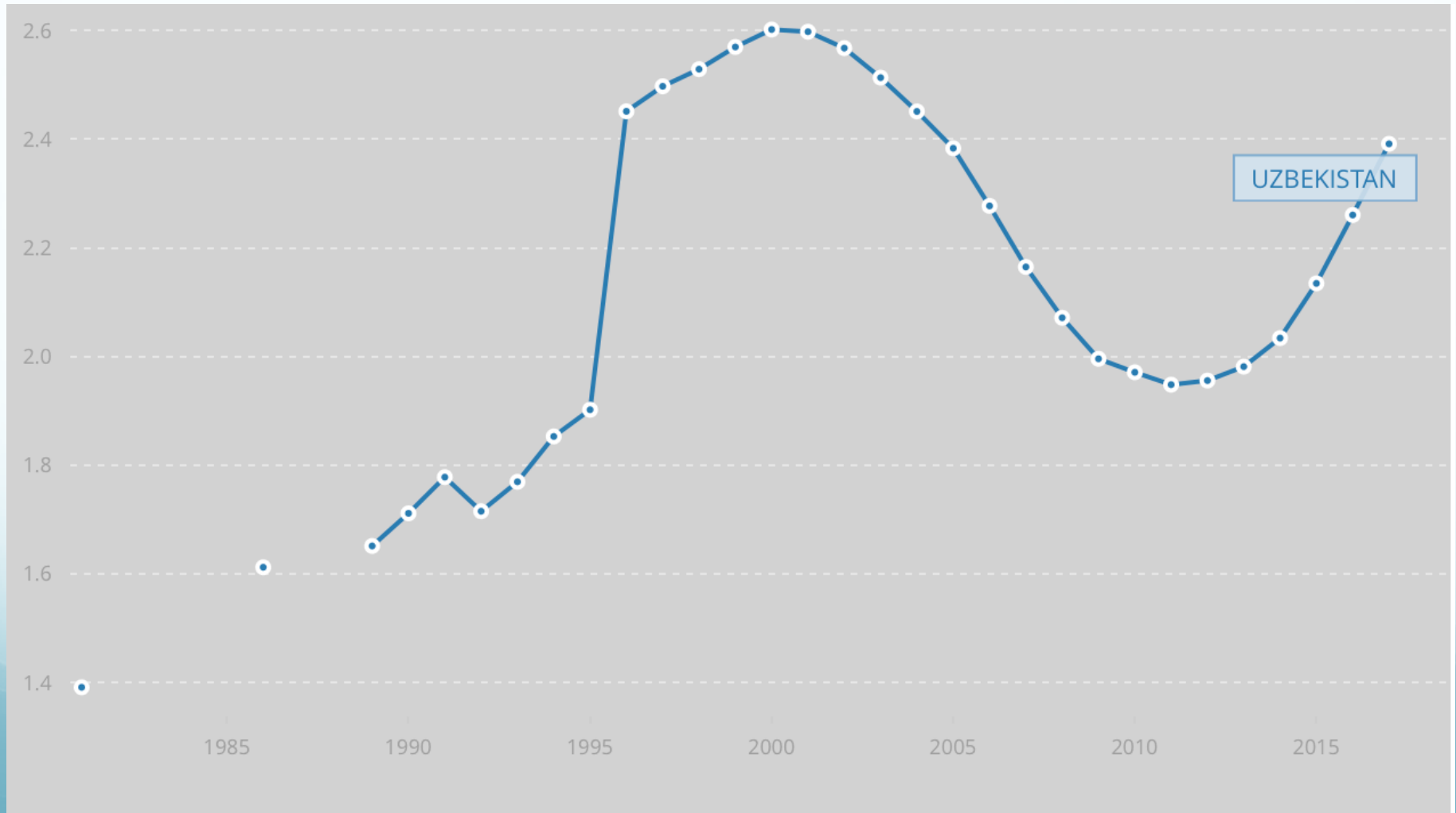
# ***Primary Student Enrollment: Thailand***



# ***Primary Student Enrollment: India***

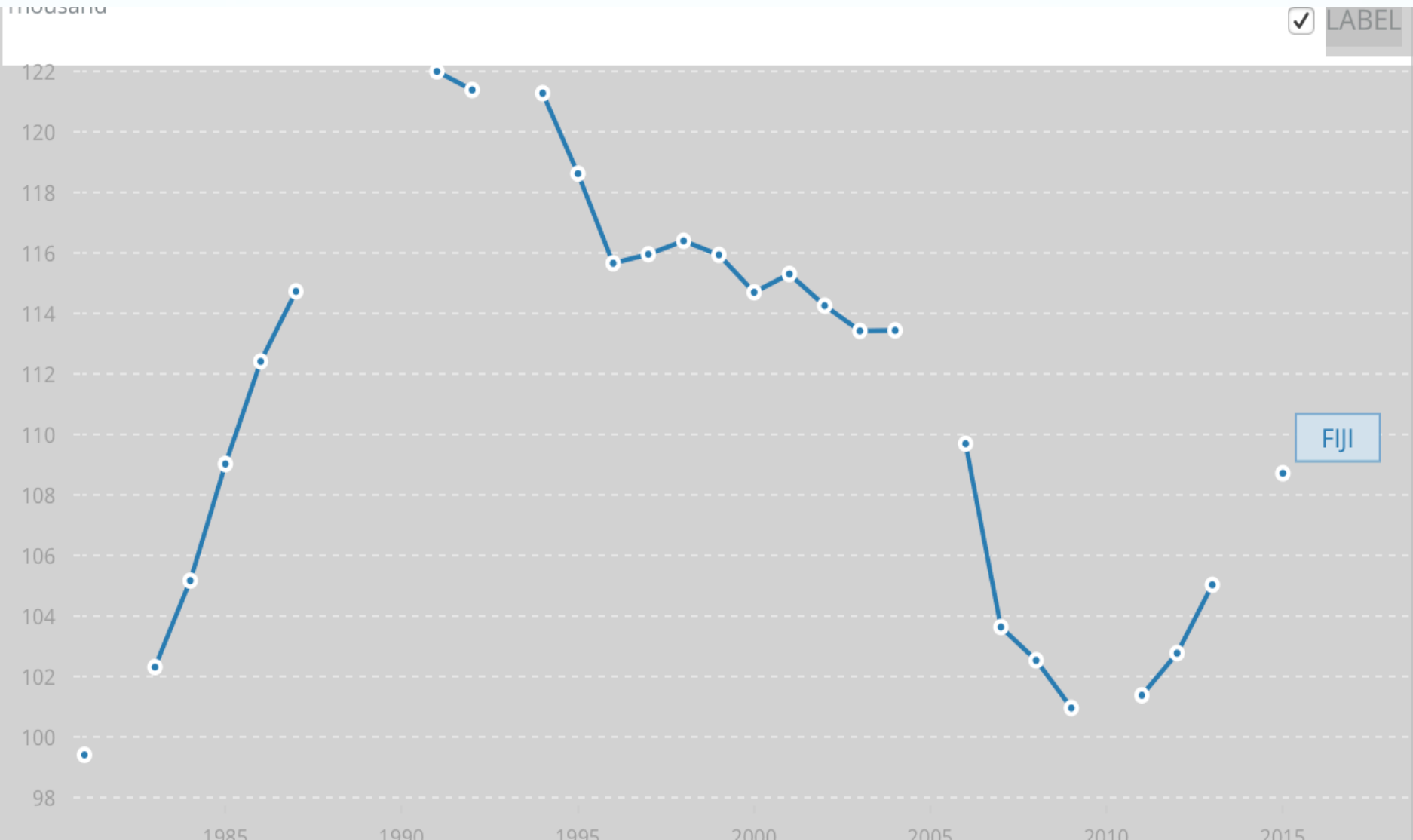


# ***Primary Student Enrollment: Uzbekistan***





# *Primary Student Enrollment: Fiji*



# ***Demographic Shifts Require Adaptive National Policies***

- To build schools
- To train teachers
- To allocate resources

# ***Analytical Frameworks to Support and Evaluate Large-Scale Reforms***

## **Three Types of Frameworks**

- 1. Historical Changes**
- 2. Dimensions of Improvement**
- 3. Roadmap Progress Scale**

# ***Exp. Historical Changes in Learning***

## **From**

- Direct Instruction
- Solo Learning
- Memorization
- Teach Facts

## **To**

- Inquiry Learning
- Collaboration
- Critical Thinking Skills
- Teach Processes & Strategies

# ***Exp. Historical Changes in Curriculum***

## **From**

- Isolated Subjects, mostly Math & Language
- Teacher-Designed
- Academic Subjects Only
- Based on Interesting Topics

## **To**

- Interdisciplinary & STEAM
- Ministry-Designed
- 21<sup>st</sup> Century & Soft Skills
- Based on Learning Progressions

# *Historical Changes in...*

From  
A



To  
B

Focus of change can be adapted to various systemic and grade levels and the period of change can be defined for each one.

# ***Possible Response Formats***

**Place an X on the line to indicate the current practices of your school.**

---

**Always**

**Usually**

**Some of Each**

**Usually**

**Always**

**or**

**Rate the impact of the change by placing an X on the line below.**

---

**Negative**

**Not Useful**

**A Bit PositiveVery Useful**

# ***The Framework Needs To...***

- Identify important dimensions of historical changes in learning, instruction, curriculum, assessment, teacher training, standards, etc.
- Be tailored for different levels of education in countries
- Create a simple response scale that yields quantitative data by item and construct.
- Allow qualitative data collection (e.g., Focus Groups) that can help to confirm quantitative data.
- Consider multiple testing cycles to make comparisons of change over time.



## ***2. Evaluating Progress According to Dimensions of Improvement***

- Identify **Critical Dimensions for Improvement** in the Roadmap 2030 that can be aspirational goals
- Consider dimensions provided by MOE, national curricula, or regional school improvement plans
- Prioritize Dimensions of Improvement
- Design measures of each dimension for web-based surveys that can be given to stakeholders
- Include evaluations of improvement with other MOE means of monitoring & reporting progress

# ***Some Examples of Dimensions to Evaluate for Improvement***

1. Access to schools for all students
2. Equity across students by gender, race, nationality, language group, and disabilities
3. High-quality and “deep learning” among students
4. Integrated curricula based on learning progressions
5. Strong attendance records for all staff and students

# ***More Examples of Dimensions to Evaluate for Improvement***

1. Principals who provide instructional leadership
2. Programmatic professional development activities for all staff
3. Parental and community involvement in school improvement
4. Support for transitions to school for young children
5. Use of technologies to enhance learning

# ***Surveys of Dimensions of Improvement allow...***

- Quick, cheap, web-based assessments at scale
- Quantitative evidence of important systemic changes
- Adaptable tools for different levels of education, different contexts, and different stakeholders

### ***3. Roadmap Progress Scale***

Questions based on achievement of aspirational goals with more progress yielding higher scores.

Scale based on points so repeated measures allow progress to be charted over time and relative achievement to be compared across schools.

#### ***Example***

Put an X in the box to indicate the progress of your school for each statement.

Not Present

☐

Just Beginning

☐

Midway

☐

Accomplished

☐

# ***Sample Questions: Physical Resources***

1. Students have access to the latest curriculum textbooks and materials in every subject.
2. Teachers have the latest teachers' guides in every subject.
3. All students work on a computer every day at school.

Not Present



Just Beginning



Midway



Accomplished



# ***Sample Questions: Staff***

1. All teachers are certified.
2. All staff participate in professional development activities.
3. Staff are present in the school at least 90% of each term.
4. Staff turnover every year is less than 10%.

***Questions can focus on any aspect of desired change in the system.***

# ***A comprehensive framework should:***

- Capture the important features of desired changes in educational quality etc.
- Reflect ADB policies and priorities
- Communicate 2030 educational goals clearly
- Be amenable to both quantitative and qualitative data analyses
- Be simple to use by stakeholders



***Goal: To identify innovations in pedagogies and technologies that support high quality educational outcomes***

- Philippines – Transitions to Grades 1-3 use Mother Tongue languages to help children learn while also learning the language of instruction. K-3 Curriculum already translated into 27 MT languages. (Prof Dina Ocampo with Bureau of Learning Delivery)
- Singapore – Curricula in English, mathematics, and science are based on learning progressions that reflect increasing conceptual complexity.

# ***Goal: To Position ADB for Future Educational Reforms***

Build on Policies articulated in Education by 2020 (*Box 4, p.18*):

1. Increasing equity, access, and retention
2. Improving quality
3. Strengthening management
4. Mobilizing resources
5. Strengthening collaboration
6. Experiment and disseminate innovative strategies

# *Create Policies to Support New Opportunities & Improve Quality*

- Create policies at different systemic levels including:
  - Global – Monitoring and Evaluating
  - National – Setting Standards, Curricula, Assessments
  - Regional – PLCs, culturally responsive teaching
  - Local – Ongoing PD, community involvement
- Create policies for different age levels:
  - Pre-Primary
  - Primary
  - Lower Secondary
  - Upper Secondary
- Create Action Plans for every cell in the matrix above such as:

# ***Some Possible Action Plans***

- National: Create and share policies that bridge centralized planning with adaptive de-centralized application.
- Regional: Provide resources and innovations at dispersed demonstration sites, then scale up using wisdom acquired from lessons learned.
- Local: Partner with effective change agents in local contexts who are familiar with the context, people, and history.

***Thank You***

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