Education 2030 Agenda & ICT

Asia Pacific Ministerial Forum on ICT in Education 2017
Gwang-Jo Kim, UNESCO Bangkok

11-12 May 2017
Seoul, Republic of Korea
Outline

1. SDG 4 and ICT
2. State of Education in Asia-Pacific
3. Potential vs. Reality: ICT in Education in Asia-Pacific
4. Role of AMFIE and UNESCO
5. Way Forward
SDG 4 and ICT
“ICTs must be harnessed to strengthen education systems, knowledge dissemination, information access, quality and effective learning, and more effective service provision.”

(Paragraph 10, Incheon Declaration)
Qingdao Declaration – May 2015

Access and Inclusion
- Relevant & responsive digital learning environments
- Use of ICT to offer diverse complementary learning pathways

Multi-stakeholder local, regional, international partnerships / cooperation
- Scalable innovative funding mechanisms

Comprehensive M&E systems for evidence-based policy formulation
- Capacity-building in data collection, analysis, and reporting
- Inclusion of ICT in Education indicators in GEMR

Empowerment of educators
- System-wide support for innovative pedagogical use of ICT (training, incentives, networks, platforms)
- Teacher training institutions as vanguards for tech-supported innovations in education

Use of OER, FOSS, Open Standards

Integration of ICT skills and information literacy in basic education curricula

Quality assurance and recognition of online learning

SDG 4 and ICT
G.J. Kim
Asia Pacific Ministerial Forum on ICT in Education, 11-12 May 2017, Seoul, Republic of Korea
Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

- A standalone goal, central to the realization of the 2030 Agenda for Sustainable Development
- Underlying principles
  - Education is a fundamental human right and enabling right
  - Education is a public good
  - Gender equality is inextricably linked to the right to education for all
- 7 outcome targets
- 3 means of implementation
### SDG 4 vs. EFA: Research Analysis

<table>
<thead>
<tr>
<th>EFA Goals</th>
<th>SGD 4 Targets</th>
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<tbody>
<tr>
<td>1. Expand early childhood care and education</td>
<td>4.1 Access to primary and secondary education</td>
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<tr>
<td>2. Achieve universal primary / basic education</td>
<td>4.2 Access to early childhood care and education</td>
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<tr>
<td>3. Provide life skills and lifelong learning</td>
<td>4.3 Access to technical, vocational, and tertiary education incl. university</td>
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<tr>
<td>4. Improve literacy rates</td>
<td>4.4 Skills for employment, decent jobs, and entrepreneurship</td>
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<td>5. Achieve gender parity and equality in education</td>
<td>4.5 Gender parity at all levels of education and vocational training</td>
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<td>6. Provide quality education</td>
<td>4.6 Literacy and numeracy skills</td>
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<td>4.7 Learning for sustainable development including global citizenship and cultural diversity</td>
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<tr>
<td></td>
<td>4.a Building and upgrading of learning environment</td>
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<td>4.b Expansion of scholarships available to developing countries</td>
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<td>4.c Increasing the number of qualified teachers</td>
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Integration of ICT in SDG 4

ICT is highlighted as a key indicative strategy in several SDG 4 targets:

<table>
<thead>
<tr>
<th>Targets</th>
<th>Key Indicative Strategies</th>
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<tbody>
<tr>
<td>Target 4.4</td>
<td>ICT skills in curricula and training programs</td>
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<td>Target 4.5</td>
<td>Enhanced distance learning in conflict and remote areas</td>
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<td>Target 4.6</td>
<td>Mobile technology for delivering programs</td>
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<tr>
<td>Target 4.a</td>
<td>Access to ICT resources in learning spaces and environments</td>
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<tr>
<td>Target 4.c</td>
<td>Teachers with adequate technological skills to manage ICT</td>
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<td>#</td>
<td>Global Indicator</td>
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<td>-------</td>
<td>----------------------------------------------------------------------------------</td>
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<tr>
<td>4.4.1</td>
<td>Proportion of youth and adults with ICT skills</td>
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<tr>
<td>4.a.1-b</td>
<td>Proportion of schools with access to the Internet for pedagogical use</td>
</tr>
<tr>
<td>4.a.1-c</td>
<td>Proportion of schools with access to computers for pedagogical use</td>
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State of Education in Asia-Pacific
Regional EFA Achievements

1. Expand early childhood care and education
2. Universal primary education
3. Provide life-skills
4. Improve adult literacy
5. Achieve gender equality (basic education)
6. Provide quality education

Created by UIS-AIMS, UNESCO Bangkok
Adjusted Net Enrolment Rates by Sub-region, 2015

ANER is nearing 100% for primary and lower secondary education levels, but drops significantly in upper secondary and tertiary.

** Insufficient data for Pacific and Southern Asia pre-primary education
Source: UNESCO Institute for Statistics Data Centre
Participation in TVET Education

Enrolment in secondary vocational, 2000-2014

Source: UNESCO Institute for Statistics, Data Centre, accessed in March 2017, created by UIS-AIMS, UNESCO Bangkok
School Life Expectancy: Primary to Tertiary

Note: Latest data for Kazakhstan and Uzbekistan refer to 2016, for Afghanistan, Australia, India, Indonesia, Japan, Kyrgyzstan, and New Zealand to 2014, and for Bhutan, Philippines, Republic of Korea, and Tajikistan to 2013. 2000 data for Afghanistan, China, Pakistan, and Philippines refer to 2003, for Thailand to 2002, and for Bhutan to 1999.

Literacy Rate

- Significant progress has been made in South and West Asia.
- But region still contains the largest percentage illiterate youth and adults in Asia-Pacific.

Source: Created by UIS-AIMS, UNESCO Bangkok, UIS Data Centre, accessed in September 2016
Reading Standards

Percentage of children of primary school age who reached Grade 4 and achieved minimum learning standard in reading

Quality of education is still an issue in many regions of the world.

Gender Parity

Adjusted net enrolment rates for primary and lower secondary level, females and males, 2012

Gender Parity Index at the primary level is no longer an issue in Asia-Pacific.

More gender disparity at the lower secondary level, where more than half of the countries have fewer than 90 girls for every 100 boys.

Source: Statistical Table 2 and 3, UNESCO UIS, July 2014
Remaining Challenges in Education

Just one third of countries have achieved all six EFA goals

Access:
• 17 million+ primary school aged children out of school
• 34.3 million of adolescents in the lower secondary school age were not in school

Inclusion and equality:
• 65% of world’s illiterate adult population are from AP, 64% of them are women

Quality:
• Globally, 250 million children are not learning the basics; Only 1/3 of children in South and West Asia are reaching grade 4 or minimum reading standards

Source:
UNESCO, 2015. World Education Blog
Potential vs. Reality: ICT in Education in Asia-Pacific
Potential of ICT

Effective use of ICT

- Inclusion and access
- Quality and innovative education
- Governance and admin management
1. Reality Check: Inclusion and Access

- Children with disabilities
- Girls and women
- Out-of-School Children
- Rural and remote populations

Missing
The Gender Gap in Internet Penetration

Internet penetration rates are higher for men than for women in all regions of the world.

The gender divisions of labour that exist in society are transferred to virtual reality.

The Positive Impact of Gender Equality

• There is a positive correlation between gender equality and real GDP per capita growth

• Increasing school completion rates for girls to the same rate as boys would lead to an increase in a country’s GDP by up to 54% to 68% (equivalent to annual GDP growth rate of about 1.5%)

Opportunity cost in East Asia and the Pacific region: estimated loss of US$16 billion to US$30 billion annually as a result of gender gaps in education

Low Access to Assistive Technology for People with Disabilities

- 400 million people worldwide
- Asia-Pacific has by far the largest number of people with disabilities in the world.
- According to the World Health Organization, in many low-income countries: **only 5–15% of the people who need assistive technology are able to obtain it.**

**Lack of precise data on children with disabilities**

Source: UNICEF. (n.d.). Monitoring the Situation of Children and Women
2. Reality Check: Quality and Innovative Education

Chain reactions:
- Difficult to define quality education and its outcome
- Lack of robust system to collect data
- Overall lack of data assessing wholesome learning outcomes
- Lack of indicators
Inverse Relationship in Quantitative Use of Internet in Schools and Student Performance

Average daily minutes using internet at school

**Top 5**
- Australia
- Denmark
- Greece
- Sweden
- Spain

**Bottom 5**
- Poland
- Japan
- Hong Kong
- Shanghai
- South Korea

Source: OECD. (2014). *PISA 2012 Results in Focus.*
Case: Singapore & Korea

- Students’ exposure to the Internet in school is less than OECD average
  - South Korea: 9 minutes per day
  - Singapore: 20 minutes per day
  - OECD Average: 25 minutes per day

- Yet..
  - Two of highest-performing countries in digital reading
  - Good mastery of online strategies and navigation

Potential: Enhancing Students’ Skills with ICT

Students who already possess foundational numeracy and literacy skills are more likely to benefit from ICT use in schools.

OECD (2015)

*Adapted from “Framework for Education Quality”
Source: UNESCO. (2016). Education for people and the planet: creating sustainable futures for all
3. Reality Check: Governance and Admin Management

1. What is Education Management Information System (EMIS)?

- “A set of formalized operation processes, procedures and cooperative agreements which are enabling the production, management and dissemination of unambiguous educational data and information in a timely and reliable manner to serve the needs of multi-level stakeholders for monitoring, analysis and decision making”

- Used by education ministries/departments, NGOs, researchers, and donors, as well as other education stakeholders for planning, monitoring, and policy decision-making

OpenEMIS. (n.d.). About OpenEMIS.
Why EMIS?

EMIS at the country level should be the primary mechanism for systematically monitoring progress toward and fostering accountability for reaching these goals.
Case 1: Philippines

1. Electronic Basic Education Information System (EBEIS)
   - Implemented since 2011
   - End users: policy makers, school heads, administrators
   - To maintain records of each individual school, and provides data on school facilities and personnel; additional aggregate data in terms of certain student demographics (extracted from LIS)

2. Learner Information System (LIS)
   - Implemented since 2011
   - End users: policy makers, school advisers
   - To maintain a registry of learners; generate information that enables a more effective and efficient tracking of learner movement and performance; and enhance learner-centred decision-making at all level of education management

Significant impact:

- Enabled the DepEd to collate beginning of school year data as early as August of the same year (cutting down from 8-12 months to around 3 months)
- Easy processing and transfer of students records from one school to another
- Partial/full automation of reports
- Eradication of ghost students and schools through embedded checks and controls
- Better response system for schools in disaster areas

1. National Education Information System (NEIS)

- Implemented since 2002
- Web-based integrated administration system for Korea’s education organizations
- Combined student information system and school information management systems
- Used by: 500,000 teachers and staff of the Ministry of Education, City/Provincial Education Offices, elementary and middle schools; parents and teachers
- Connects more than 10,000 elementary and middle schools throughout 17 City and Provincial Education Offices

Significant impact:

- Transparency of education system (public disclosure system)
- Reduced administrative burden on teachers
- Smoother transition from secondary to higher education due to college application system
- Online programs for users to conveniently manage online surveys and tests for students and parents

Role of AMFIE and UNESCO
AMFIE at a Glance

• Share policies, challenges, experiences, and innovations across countries in the Asia-Pacific region and beyond
• Promote bilateral and multi-lateral collaborations and other forms of partnerships within the region towards the efficient and effective use of ICT in Education

AMFIE 2010
1st Asia Pacific Ministerial Forum on ICT in Education
- 16 countries

AMFIE 2011
Evaluation and Assessment: Effective and Safe Use of ICT in Education
- 19 countries

AMFIE 2012
The Power of ICT in Education Policies: Implications for Educational Practices
- 20 countries

AMFIE 2013
Fostering Favorable Policy Environments for Mainstreaming Sustainable Innovations
- 20 countries

AMFIE 2017
Shaping Up ICT-supported Lifelong Learning for All
- 29 countries

Central Asia Symposium on ICT in Education 2011

South Asia Ministerial Forum 2013

Central Asia Symposium on ICT in Education 2013

## AMFIE Overview: 2010-2013

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<thead>
<tr>
<th>AMFIE Year</th>
<th>Outcome/Impact</th>
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<tr>
<td>2010</td>
<td>Organizers received significant inputs from policymakers on programmes and support needed for Member States.</td>
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<td>2012</td>
<td>Possible impact on countries’ development of ICT in Education Masterplan and/or ICT in Education Policy.</td>
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<td>The Forum helped guide UNESCO in developing proposals for major projects, and involving relevant countries vis-à-vis their needs.</td>
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<td>2013</td>
<td>Bringing teachers to the forefront of planning was pointed out during discussions.</td>
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Regional Strategy for ICT in the Asia-Pacific

- **Objective:** To provide actionable, concrete and clear guidance on the use of ICT in Education in the implementation of SDG4-Education 2030 at the national, sub-regional and national levels for 2017-2022

- **The Regional Strategy will:**
  - Focus on six action points to concretize SDG4-Education 2030
  - Identify key areas for effective ICT intervention
  - Be instrumental in mobilizing collaborations and support for capacity building, M&E, and other areas

Research Study conducted by expert team:
- Literature Review
- Country survey

Feedback and revisions based on MS inputs and Drafting Committee

Deliberations and endorsement at AMFIE 2017

Regional implementation activities between 2017-2022
Way Forward
Way Forward

Partnerships

Inclusion and access
- Infrastructure, policies, and programs to reach underserved

Quality
- Ensure foundational skills are attained first
- Data collection of process and outputs

Governance
- Holistic policy making based on evidence
- M&E: operationalize indicators for ICT
## Way Forward: Partnerships

### SDG4 + SDG17

<table>
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<tr>
<th>Partnerships</th>
<th>Examples</th>
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<td>Joined advocacy</td>
<td>Funding and management</td>
</tr>
<tr>
<td>Joined research/policy research</td>
<td>Country case studies to benefit all</td>
</tr>
<tr>
<td>Joined projects</td>
<td>Global citizenship education, Safe, effective, and responsible use of ICT</td>
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</table>


OECD. (2014). *PISA 2012 Results in Focus.*


Thank you!

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