Broadband connectivity for quality learning

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Source: UNESCO
The Power of ICT in Education

Improves quality of education through innovative pedagogy

Connects those most deprived or marginalized

Increases literacy rates through mobile based literacy programs

Lifelong learning through ICT supported informal learning

Source: Education 2030 Framework
UNESCO EDUCATION SECTOR

The 4 Pillars of AP-IS

- Physical network design, development, management at regional level
- Intergovernmental negotiation
- Improving regulation based on open access

- Ensuring efficient and effective Internet traffic and network management at regional, sub-regional and national levels

- Resilient ICT networks
- Support to disaster management systems
- Ensuring last-mile disaster communication

- Bridging digital divides
- Promoting affordable access to underserved areas
- Policy and technical support to governments

Source: UN ESCAP, 2017
The 7 strategic initiatives

1. Identification, coordination, deployment, expansion and integration of the regional backbone networks

2. Establishment of a sufficient number of Internet exchange points, and setting out common principles on Internet traffic exchange to decrease Internet traffic tromboning, transit costs and improve service quality

3. Undertake regional social and economic studies

4. Enhance ICT infrastructure resilience

5. Analysis of policy and regulations for leveraging existing infrastructure, technology and inclusive broadband initiatives

6. Capacity-building implementation

7. Research on AP-IS project funding mechanism based on PPPs.

Source: UN ESCAP, 2017
“The full potential of the Internet remains untapped, especially for low-income and less educated users.”

Schools lack basic electricity

Snapshot: Data from just 6 Asia-Pacific countries shows >170 million schoolchildren lack access to basic electricity

- UNESCO, 2014
Schools lack internet connectivity and ICT devices

Snapshot: >90% in Bangladesh, Cambodia, Kyrgyzstan and Nepal, >50% in Indonesia

- UNESCO, 2014
New skills needed for the jobs of tomorrow

“On average, a third of the skillsets required to perform today’s jobs will be wholly new by 2020”

As societies become increasingly digital, ICTs must advance quality learning and reduce the long-existing learning divides.

- Broadband Commission, 2017
"We need broadband that ensures equal access to education, that enhances the quality of learning... because these are the strongest foundations for sustainability and peace."

- Irina Bokova
Former Director-General, UNESCO
on the occasion of the opening of the Broadband Commission for Sustainable Development, 2017
UNESCO-ESCAP

Inclusive use of broadband connectivity for quality education: Insights from Asia and the Pacific
State of ICT development in case study countries

Kazakhstan: 149.99
  - Mobile-cellular telephone: 70.99
  - Active mobile-broadband: 70.99
  - Fixed (wired)-broadband: 13.68

Mongolia: 113.6
  - Mobile-cellular telephone: 82
  - Active mobile-broadband: 82
  - Fixed (wired)-broadband: 7.6

Philippines: 109.71
  - Mobile-cellular telephone: 46.28
  - Active mobile-broadband: 46.28
  - Fixed (wired)-broadband: 5.46

Bangladesh: 77.88
  - Mobile-cellular telephone: 17.79
  - Active mobile-broadband: 17.79
  - Fixed (wired)-broadband: 3.77

Source: International Telecommunications Union, ICT Development Index 2017
State of ICT

State of ICT development in case study countries

Source: International Telecommunications Union, ICT Development Index 2017
State of ICT development in case study countries

- **Kazakhstan**: 226
- **Mongolia**: 218
- **Philippines**: 177
- **Bangladesh**: 98

**Source:** International Telecommunications Union, ICT Development Index 2017
State of Education

Education statistics for case study countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Youth Literacy Rate</th>
<th>Primary Completion Rate</th>
<th>Lower Secondary Completion Rate</th>
<th>Upper Secondary Completion Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kazakhstan</td>
<td>2015</td>
<td>95%</td>
<td>100%</td>
<td>100%</td>
<td>95%</td>
</tr>
<tr>
<td>Mongolia</td>
<td>2013</td>
<td>93%</td>
<td>99%</td>
<td>97%</td>
<td>93%</td>
</tr>
<tr>
<td>Philippines</td>
<td>2014</td>
<td>72%</td>
<td>90%</td>
<td>75%</td>
<td>72%</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>2014</td>
<td>83%</td>
<td>80%</td>
<td>56%</td>
<td>23%</td>
</tr>
</tbody>
</table>

Source: UNESCO, World Inequality Database, multiple years
I. Capitalize on increased access/increased quality/lowered cost of connectivity as a result of enhanced broadband initiatives
Kazakhstan

The “Digital Kazakhstan 2020” national strategy emphasizes digital skills development as a key component required for improving productivity for a digital economy.

- Equipping schools with computers
- Expanding high speed internet connectivity infrastructure
- Training of teachers and managers
- Updating regulations for ICT in Ed
Kazakhstan

- Within the curriculum, ICT has been integrated across primary and secondary levels with approximate use of 1 to 5 hours per week.
- There are 80,000 interactive lessons and content in three languages for teaching and learning

Secondary level: ICT subject in 3rd and 4th grade levels

Primary Level: Use of ICT and e-materials incorporated at all levels
Global Filipino School (GFS)

- Public-private partnership between Department of Education and telecommunications service provider
- Use broadband connectivity to transform public elementary and high schools into centres for ICT excellence
Philippines

No. of beneficiaries
- 41,000+ students participated in
- 7,200+ teachers trained
- 20 schools transformed into GFS Centers of Excellence

Digital Skills
- Self-rating on computer knowledge
  - 85% → 100%: good and excellence (students)
  - 90% → 100%: good and excellence (teachers)

Students engagement in classroom activities
- 59% → 81% (students’ self-rating)
- 76% → 80% (teachers’ rating)
II. Empower communities to maximise the potential of the Internet for learning
LET’S READ MONGOLIA

Books read >9000 times

Reading hours >1200

Increased use of the school library

Android tablets for school libraries

Digitized versions of children’s books

Free usage of all books
Mongolia

Connecting the Disconnected

- Provide free access to internet connectivity for rural herders, businesses, and public schools
- Use for online healthcare, download of education materials, and sharing of business information

50,000 households

35 rural schools

200,000 personal users
ENGLISH IN ACTION

Bangladesh

- Mobile phone, television and peer-to-peer learning
- Reached 30k teachers and 4.8 million students
- 95% of teachers saw an improvement in English Language skills
**Challenges**

- Lack of teacher training
- Lack of ICT skills in Trainers
- Underdeveloped ICT infrastructure
- Limited availability of ICT experts
- Low connectivity in rural areas
- High student to computer ratio
Next Steps

Contributions from AP-IS members especially case study countries and other partners

Finalize case studies, consolidate and share draft

Publish by Dec 2018

Expand in-depth research activities for 2 sub-regions under Strategic Initiatives 3 and 5
Thank you

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