Asia-Pacific Ministerial Forum on ICT in Education 2012

ITU Connect A School, Connect A Community

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Sameer Sharma, Senior Advisor
(sameer.sharma@itu.int)

ITU Regional Office for Asia and the Pacific
ITU Structure & Functions

- Founded in 1865
- Leading UN Special Agency for ICTs
- HQs in Switzerland

- Three sectors (ITU-T, ITU-D, and ITU-R)
- 4 Regional Offices & 7 Area Offices
- 193 Member States, 545 Sector Members, 161 Associates, and 33 Academia

ITU-T
Efficient, right-time production of international telecommunication standards

ITU-D
Established to help spread equitable, sustainable and affordable access to ICT.

ITU-R
Managing the international radio-frequency spectrum and satellite orbit resources

ITU TELECOM
Brings together the top names from across the ICT industry & ministers and regulators for a major exhibition, a high-level forum & a host of other opportunities
WSIS Action Lines

**Action Line**

C1. The role of public governance authorities and all stakeholders in the promotion of ICTs for development

C2. Information and communication infrastructure

C3. Access to information and knowledge

C4. Capacity building

C5. Building confidence and security in the use of ICTs

C6. Enabling environment

C7. ICT Applications
   - E-government
   - E-business
   - E-learning
   - E-health
   - E-employment
   - E-environment
   - E-agriculture
   - E-science

C8. Cultural diversity and identity, linguistic diversity and local content

C9. Media

C10. Ethical dimensions of the Information Society

C11. International and regional cooperation

**Possible Moderators/Facilitators**

ECOSOC/UN Regional Commissions/ITU

ITU

ITU/UNESCO

UNDP/UNESCO/ITU/
   UNCTAD

ITU

ITU/UNDP/UN REGIONAL
   COMMISSIONS/UNCTAD

UNDP/ITU

WTO/UNCTAD/ITU/UPU

UNESCO/ITU/UNIDO

WHO/ITU

ILO/ITU

WHO/WMO/UNEP/UN-Habitat/ITU/ICAO

FAO/ITU

UNESCO/ITU/UNCTAD

UNESCO

UNESCO

UNESCO/ECOSOC

UN REGIONAL COMMISSIONS/
   UNDP/ITU/UNESCO/ECOSOC

*PS: ITU is MODERATOR for Action Lines C2 and C5
And FACILITATOR for Actions C1-C3-C4-C6-C7-C11*
“In the 21st century, affordable broadband access to the Internet is becoming as vital to social and economic development as networks like transport, water and power… Connecting schools to broadband is an essential part of ITU’s Build on Broadband campaign.”

The enormous potential of ICTs for development must be reflected systematically in national development policies, strategies and legislation, in regional policy and within global frameworks..... This means also integrating more clearly ICT projects into wider policy frameworks.”
Initiatives for Connecting Schools

- **Millennium Development Goals** focus on providing education sets the stage for countries to direct and concentrate efforts to develop policies that will improve the accessibility of education.

- **World Summit on Information Society** – WSIS 2003 Plan of Action possible national targets, including one to “connect universities, colleges, secondary schools & primary schools with ICTs.”

- **World Education Forum** – Held in April 2000 in Dakar, Senegal, the Forum adopted a Framework for Action that envisions ICT connectivity as a key means to achieve educational goals.
Mobile broadband has reached an estimated 1.19 billion subscriptions in more than 160 countries by the end of 2011.
Some estimates and predictions

Detecon estimates that the M2M market was worth some USD 5.07 billion in 2011 across a range of sectors. Other analysts predict total M2M airtime revenue to grow to USD 7 billion in 2016, up from USD 2.2 billion in 2010, while GSMA estimates that M2M could create an extra USD 1.2 trillion in revenue for mobile operators by 2020, up seven-fold from expected revenues in 2011.
moving toward the information Society responsibly..........

ICT and climate change
Digital Cities
Smart Grids
Security in Cyberspace
Fully Networked Car

CONVERGENCE

e-health
e-governance
e-education
e-commerce

e-health
e-governance
e-education
Connect a School, Connect a Community

- What is the Connect a School, Connect a Community initiative?
- Why Connect Schools?
- Best practices in using ICTs for persons with disabilities
- Best practices in using ICTs for women’s empowerment
- Best practices in providing ICTs for indigenous persons
Why Connect Schools?

- Leverage existing infrastructure and community resources
- Use connected schools as a platform to teach ICT skills to children and youth
- Schools can incorporate ICTs into the regular curriculum
- Help our members meet the WSIS and MDG targets
Why Connect Communities?

- Connected schools can be used as community ICT centres to meet the ICT needs of the local community in which they are located
  - Meet their accessibility needs, including for persons with disabilities
  - Provide basic ICT and language literacy training to women and indigenous peoples
  - Provide ICT-based life skills as well as vocational and educational training
Tool Kit : Connect A School, Connect A Community

The Concept

Connecting all primary, secondary and post-secondary schools to ICTs by 2015 was one of the targets set by world leaders at the World Summit on the Information Society (WSIS). Connect a School, Connect a Community is a public-private partnership launched by ITU to promote broadband Internet connectivity for schools in developing countries around the world. Why focus on schools? Because connected schools can serve as community ICT centres for disadvantaged and vulnerable groups, including women and girls.

read more

www.connectaschool.org
Tool Kit: Connect A School, Connect A Community

CONNECT A SCHOOL, CONNECT A COMMUNITY

Toolkit of Best Practices and Policy Advice

Module 1 Policies and Regulation to Promote School Connectivity
- download PDF version | download HTML version | executive summary | table of contents

Module 2 Disseminating Low Cost Computing Devices in Schools
- download PDF version | download HTML version | executive summary | table of contents

Module 3 Providing ICTs to Indigenous Peoples
- download PDF version | download HTML version | executive summary | table of contents

Module 4 Using ICTs to promote education and job training for persons with disabilities
- download PDF version | download HTML version | executive summary | table of contents

Module 5 Community ICT Centres for the Social and Economic Empowerment of Women
- download PDF version | download HTML version | executive summary | table of contents

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Policy & Regulations : School Connectivity Plan

- Importance of Connecting Schools : Short Term, Medium Term and Long Term benefits
- Key Elements
  - Stakeholders in School Connectivity Plan
  - Setting Priorities for Connectivity
  - Technology Choices
  - The Role of ICT Sector Regulations
  - Funding
- Leveraging School Internet Connectivity
- Cross Cutting Issues: Teachers training, LCCD, assistive technologies COP, awareness/ HCB
Stakeholders in School Connectivity

- Ministry of Education
- Other government agencies
- Educational institutions
- NGOs
- Donors
- Private sector
Key Considerations for School Connectivity

- Network details
- School selection
- Timetable
- Funding
- Technical Support
- Application (training, curriculum, content)
- Monitoring & evaluation
## Low Cost Computing Devices (LCCD)

<table>
<thead>
<tr>
<th></th>
<th>OLPC XO</th>
<th>Intel Classmate</th>
<th>ASUS Eee</th>
<th>Encore Mobilis</th>
<th>ITP-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Countries</td>
<td>Afghanistan, Bhutan, Brazil, Cambodia, Colombia, Ghana, Guatemala, Haili, India, Iraq, Lebanon, Mali, Mexico, Mongolia, Mozambique, Nepal, Nigeria, Niue, Pakistan, Papua New Guinea, Paraguay, Peru, Rwanda, Solomon Islands, South Africa, Thailand, Uruguay</td>
<td>Argentina, Brazil, Chile, China, Egypt, India, Indonesia, Lebanon, Libya, Malaysia, Mexico, Nigeria, Pakistan, Philippines, Russia, South Africa, Sri Lanka, Thailand, Uganda, Vietnam</td>
<td>Russia</td>
<td>Brazil</td>
<td>Argentina, Chile</td>
</tr>
</tbody>
</table>

*Note: The list of countries where the devices are used in schools excludes developed nations.*

<table>
<thead>
<tr>
<th>Device</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deol Bangladesh: Android-based laptop</td>
<td>130 USD</td>
</tr>
<tr>
<td>Aakash India: Tablet</td>
<td>45 USD</td>
</tr>
</tbody>
</table>
Low Cost Computing Devices: Cost Model

**Infrastructure**
- Low-Cost Computing Device
- Additional Hardware
- Tanes
- Security
- Transport
- Servers
- Electricity

**Software**
- Applications
- Content

**Training**
- Teachers
- Students

**Sustainability**
- Maintenance, Support, Repair
- Recycling
- Monitoring & Evaluation
Implementation Strategy for LCCD

- The selection of a particular LCCD depends on
  - Country’s educational strategy and development status
  - Pedagogical orientation of a country, government software policies and the age of the school children.

- The immediate introduction of a one-to-one computing model is beyond the financial capability of most developing countries. Therefore, countries need to consider a phased approach involving a mixture of computer labs and individual computers.

- Objective studies about the costs and benefits of education-oriented laptops, commercially available laptops, recycled computers and thinclients are still lacking.

- There must be a long-term commitment to one-to-one computing and LCCDs.
Key Considerations for School Connectivity

- ICT Sector Regulations and School Connectivity
- Universal Service
  - Universal service fund
  - Coordinating universal service
- Spectrum Allocation
  - Reduced spectrum fees
  - Unlicensed spectrum
Key Considerations for School Connectivity

- License obligations
- Tariffs
- Competition issues
- Funding
- Government
- Telecommunications operators
- Multilateral and bilateral development agencies
- Private sector
- NGOs
2011 Connect a School Projects: ITU

- National School Connectivity Plans and Model Connected Schools in Mauritania, Niger and Tanzania
- Model connected schools in Comoros, Lesotho, Sierra Leone and Sri Lanka
Connecting Schools in Sri Lanka- Phase I

- ITU and the Telecom Regulatory Commission of Sri Lanka (TRCSL) jointly implemented a project to connect 25 schools in Akuressa, Southern Province of Sri Lanka.

- Under the “Connect a School, Connect a Community” initiative, ICT tools such as computers and printers as well as Internet connectivity was provided.

- Within the framework of a public-private-people’s partnership (4Ps) model, telecommunication operators, Internet Service Providers (ISPs) and NGOs have joined the project as partners to assist in providing access to education through ICTs in the rural schools of Sri Lanka, some of which are located in remote communities.

- This project aims to transform these schools into connected community ICT centres.
Their long-term sustainability would provide a vital link to marginalized and vulnerable groups including children, women, indigenous people, persons with disabilities and those living in rural, remote and underserved areas of Sri Lanka.

Intel & Ministry of Education provided training for 62 teachers at 31 schools through Intel Teach program helping teachers to be more effective educators.

Training aimed teachers to integrate technology into their lessons & to promote problem solving, critical thinking & collaboration skills among their students.
“CONNECT A SCHOOL, CONNECT A COMMUNITY”
Connecting Rural Schools in Southern Sri Lanka

“CONNECT ALL PRIMARY, SECONDARY, AND TERTIARY SCHOOLS TO ICTs by 2015”
(Wsis, 2003)

‘Connect a School, Connect a Community’ is a public-private partnership launched by ITU to promote broadband school connectivity to serve as community ICT centers for people in rural, marginal urban and isolated areas.

- Changing Schools: Over 80% of the students saw computers for the first time in their life through the ITU initiative. IT class has been created in most schools, and curious students are eager to learn how to use computers.

- Enhancing awareness: The ITU project has increased awareness of the importance of ICTs in schools. After the project, the Ministry of Education in Sri Lanka announced to quadruple its investment in connecting schools.

- Fostering Future Partnerships: Based on successful implementation of 4P collaboration model that was demonstrated by this pilot project, ITU and TRC jointly call for partners/donor agencies who would could contribute to replicate the success on larger scale in other provinces of Sri Lanka.
Connecting Schools in Sri Lanka - Phase II

- Second Phase of the project aims to promote use of ICT applications and services by children and youth and to demonstrate Policy makers the value of connecting schools by assisting Member States to equip primary and secondary schools with ICTs and running national projects.

- In Asia-Pacific, Sri Lanka was selected as beneficiary country where ITU offered 200,000 CHF for project implementation.

- ITU and TRCSL signed the MOU for joint implementation.

- Ministry of Education was deeply involved in selection of schools as well as designing the training modules.
Connecting Schools in Sri Lanka- Phase II

- There are two models of implementation:
  - **Computer Lab Model**: along with other necessary facilities for 25 schools comprising of 05 PCS, 05 UPS, 01 server, 01 Wi-Fi router, 01 Multifunctional printer/scanner, 01 Medium range laptop, 01 projector, 01 screen (10x10)
  - **Shared Devices Model**: 8 remote schools, in Nuwarae Eliya District of Sri Lanka to receive 08 PCS, 08 UPS, 08 Printers, Internet facility

- Model School likely to be showcased during ITU Global Symposium for Regulators 2-4 October 2012

- It is expected to educate and enhance access and use of ICT for school teachers and children

- The ultimate goal of this project is to empower the school community with the transformational power of ICT in education sector
School Connectivity in Bhutan

- ITU and One Laptop Per Child (OLPC) signed a Cooperation Agreement to connect and educate children in Bhutan in the use of ICT (2009)
- OLPC provided 200 XO Laptops to connect 24 schools in rural and remote areas of Bhutan.
- ITU and the 50x15 Foundation provided additional 44 Laptops under the ITU-AMD Learning Labs project.
- ITU also provided training support for the 24 schools and the training program benefitted about 300 students and teachers.
- UNICEF provided 25 XO Laptops and ITU is facilitating training for eight school teachers identified by UNICEF.
- ICT was incorporated as part of curriculum in the school
- Special training for selected teacher for O&M of computers and ICT Equipment was organized by ITU
Conclusions

- ICT / Broadband are powerful tools to achieve MDGs on education
- Impressive success stories through Connect School initiative
- National strategy, vision and leadership MUST for achieving comprehensive e-learning objectives
- Urgent need for countries to develop National School Connectivity Plans along with ICT for Education plans
- ITU accord high priority for use of ICT / Broadband for enabling education for all citizens
- ITU Initiatives for Connect A School Connect A Community include:
  - Strategy and Policy framework
  - Building infrastructure and applications
  - Capacity building / training
- ITU – UNESCO “Platform for Digital Development” is a resource guide for country decision makers to develop their national broadband plans with education as key application