



# SERENE

South-South Exchange of Education and Research Network Experience

- Models on how to build and operate a National Research and Education Network (NREN)

## Developing policy and strategy for building an NREN

Target countries: Afghanistan, Bangladesh, Bhutan, Nepal

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## World Bank and NRENs

- Credit Michael Foley/GDLN
- WB now has an interest in NRENs as potential contributors to improving educational and health outcomes and improving lives in developing countries
- It's a bank, it makes loans not grants
- Not interested in funding recurrent expenditure
- Is more interested in providing loans to acquire long-term capital assets
- Contrast with funding agencies
- Only deals with Governments
- Favourable rates to poorer countries



## SERENE – what is it?

- South-South Exchange of Research & Education Network Experience
- Multi-country exchanges between South Asian and other countries through a blend of video-conferences, on-line discussions and face-to-face interactions
- Specifically aimed at helping Afghanistan, Bangladesh, Bhutan and Nepal to develop policy and strategy for establishing their own NRENs
- Exchanges drew on the experiences of South Asian and other countries as well as of individual experts worldwide
- An action-learning program of virtual dialogues, visits, and a workshop, for those responsible for developing and implementing policy & strategy



## Objective, Target Audience, etc

- **Objective:** To assist participants in developing guidelines and policy for building or enhancing NRENs in their own countries and to encourage cooperation and collaboration among South Asian NRENs
- **Target Audience:** Senior staff in Ministries of Education, Health, Science and Technology, and Communications, and Higher Education Authorities, Universities, and Telecom Operators
- **Website:** <http://serene.learn.ac.lk>  
events, resources, discussion forum, feedback
- **Funding Source:** funded by the multidonor [South-South Experience Exchange Trust Fund \(SEETF\)](#) administered by the World Bank. The donor countries include Mexico, China, Denmark, UK and India



## Some Key Topics

- How to devise an ownership, governance, and management structure for the NREN
- How to establish a sustainable financing scheme of government/user contributions
- How to negotiate for bandwidth purchase and how to apply known creative low-cost solutions for acquiring capacity
- How to design a manageable network infrastructure and its interface with campus networks
- How to create, maintain and get buy-in from user communities



## Activities undertaken

- A virtual Community of Practice - a web based discussion forum and repository of resources on the range of topics in NREN management.
- Monthly videoconferences on the themes, with expertise drawn from the South Asia experiences of Pakistan, India and Sri Lanka as well as Vietnam, Thailand, Ireland and contributions of individuals
- Involved key ministry and university personnel from Afghanistan, Nepal, Bhutan and Bangladesh visiting Vietnam, Thailand, and Sri Lanka
- Workshop on “Research and Education Networks; Governance, Management and Operation”. Colombo, Sri Lanka, 1-2 February 2010



## Level of participants

- Vice-Chancellor, Kabul university
- Deputy Minister of Education
- Secretaries of Departments of Education; Science and Technology; and ICT
- Chair of University Grants Commission
- Head of University Research
- Key people from NRENs

## How an NREN might help



- The ability to access massive amounts of information; expensive instrumentation; and expertise from around the world at low/no cost from a supportive global NREN community
- The ability for in-country users participate in global collaborative teams
- Improve and save lives and property through deployment of
  - Innovative approaches to education delivery and knowledge discovery
  - telemedicine
  - natural hazard warning & environmental monitoring
  - climate forecasting and extreme weather prediction
- Enable transformational new applications that will fundamentally change business, society and its institutions, and personal lives





## Study Tour - Vietnam

- Visit Central Hydrometeorological Forecasting Centre: demonstration and with experts on weather forecasting services that use VinaREN and TEIN3
- Visit National Paediatrics Hospital to join inaugural remote session on Paediatric Cardiology training with Hue Central Hospital delivered from Royal Children's Hospital, Melbourne
- Discussions with Vice-Minister of Science and Technology
- Presentation on VinaREN by Director General, National Agency for Science and Technology Information. Visit NOC
- Visit to Vietnam National University: participate in multipoint e-learning and applications demonstrations with remote participation from Ho Chi Minh City National University, Can Tho University, Hue University and Thai Nguyen University



## Study Tour - Thailand

- Visit Chulalongkorn Hospital for Telemedicine demonstration and network-enabled technology use and application - discussions with users from the Faculty of Medicine
- Visit intERLab, TEIN3 HRD, CanalAVIST and applications at AIT - discussions with remote sensing and GIS users
- Visit Science Park – discussions, demonstrations and presentations on a wide range of topics
- Presentation on UniNET/ThaiREN by Secretary General of Commission on Higher Education and Director UNINET – interactive session
- Visit to UNINET NOC



## Study Tour – Sri Lanka

- Presentation on LEARN and discussion with Chair University Grants Commission
- Visit Sri Lanka Telecom Internet Data Centre
- Visit University of Peradeniya and LEARN NOC
- Discussions with Sri Lankan people involved in how they engaged with the World Bank, lessons learned
- 2 days of Workshop
- Ceremonial handover of router interface card





## Sum-up

- This was an experiment
- It took a huge amount of planning effort both for program content and organisational logistics
- Very positive feedback (but the proof of success will be in the follow-up)
- Some deliverables still to be completed
- Report at I2MM Spring Meeting
- Future targets – Africa? Pacific Islands?