ICTs in rural Nepal through Community Support

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Project:  http://www.ruralict.ftml.net/np/reports.htm
Summary of Presentation

- Rural situation and status of ICT sector
- Introduction to the project
  - Objective of the study
  - Brief terms of reference
- Key Strategies
- Proposed pilot projects
- Partners in development of rural ICT
- Some challenges for rural ICTs in Nepal
- Some issues relating to multi-stakeholder partnerships
- Lessons or possible applications to other countries or regions
- Conclusions
Topography of Nepal
Machhapuchhere near Pokhara
Mount Everest 8848 meters
Hilly terrain near Annapurna region
Rural situation overview

• Rural Environment- (86% population rural)
  – difficult terrain,
  – Huge diversity in population density, ethnicity, language and poverty,
  – agriculture as main livelihood, -71% of all employed in agriculture
  – literacy low (54 %)- (listen, watch)

• Institutions, Infrastructures, Services,
  – local government in District and village and municipal levels
  – Sub health posts and additional post offices about (1/6000people).
  – primary and secondary schools about 1/1000 and 1/5500 of population respectively.
  – District Centres with road access-60, 15 yet to be reached
  – 40% households country wide electricity, For Rural Power- (pico, micro, small)- hydro plants, Solar, GRID supply
Information Technology Sector-

- Government use number of applications in revenue, finance, election, education, health and other sectors.
- GIS is used in rural development planning.
- govt-use is low in email, Internet
- financial sector uses IT applications
- Manufacturing sector use information systems in accounting, inventory control and payroll.
- Several Rural telecentre piloted by various agencies in government.
- 5000 students for undergraduate courses on IT (2002),
- 74 companies in IT-mainly in the capital
Broadcasting Sector

- several private operators in TV
- Number of licensees in FM radio broadcast are 56, 46 operational
- community FM radio-success, 16 in number, owned by NGOs and cooperatives.
- cable networks can be made vehicle for national programme and can be developed for local content
Telecommunications Sector

- Regulatory body established in 1998 by Telecom Act 97
- Hurdles in Introduction of privates sector since 1994
- One private operator introduced in with WLL in 2003.
- One private mobile operator licensed in 2004 is yet to start
- One operator introduce in one region for rural telecom in 2004.
- Telephone density %: national - 1.9, rural - 0.12, mobile - 0.7 current
- Internet use - 26 ISPs - 50,000 accounts
- Plans - telephones - 2007 years - mobile - 0.8 million, fixed wireless - 0.55 million, fixed line - 0.75 million (About)
- Nepal Electricity Authority leasing fibre OPGW in the hills
- Conflict situation hindering progress in rural telecom
Objective of the study

• Develop an understanding of characteristics of rural/peri-urban low income ICT market, methods of serving such market and institutional arrangements required.

• Determine cost of providing ICT access to such areas and Subsidy needed for them.

• Determine cost of expanding Internet PP in all districts and encourage the private ISP’s for this expansion

• Set out mechanism to encourage private sector to serve such market

• Develop business models (private-public partnership) for sustainable delivery

• Recommend Institutional and regulatory requirements for the operation of the Rural Telecommunication Development Fund (RTDF)

• Design and support government in conducting pilot project
Brief Terms of reference

• Analyze the existing level of provision of the services, potential demand for them, and technical, economic, and regulatory constraints in service delivery.

• Propose viable alternatives to meet this demand, with detailed analysis of costs involved.

• Develop strategic options for the provision of the necessary infrastructure and services, such as Internet Points of Presence, telecenters, and Internet access for schools.

• Conduct demand study and develop pilot project, bidding process, support the government in pilot implementation.

• Recommend institutional arrangement for subsidy management (RTDF)
Key Strategies

• Build on Nepal’s Context and strengths, which include:
  – huge diversity
  – being an oral society
  – strong community spirit
  – enthusiasm of youth

• ICT provision must be demand-driven, with communities supported in planning ahead
Key Strategies continued

• Interpret ICT broadly and focus on oral technologies:
  – phones,
  – Radio and TV; and
  – actions to grow demand for Internet

• Use lessons from previous pilot activities

• Exploit Nepal Telecom’s network expansion plans:
  – target phones within shouting distance,
  – Internet within walking distance for (nearly) everyone by 2010

• Co-operation and co-ordination among:
  – national and international government and non-governmental agencies,
  – private sector and
  – communities
Proposed pilot projects

• Purpose: of pilot is to develop management of Rural Telecoms Development Fund and demonstrate successful ICT installations

• Strategy: Clustered in a few Districts to grow local expertise and develop operations and maintenance support for ICT projects in district centres.

• Projects:
  – Internet access points at district centres for public access.
  – Community telecentres at Rural Market Centres for rural hinterland.
  – Computers and Internet in secondary schools
  – (Community Radio: recommended but not feasible at present)
  – Regional Internet exchange points: to strengthen competitive ISP industry (peering arrangements at some bigger regional centres).
International Partners

• World Bank: funding and policy support

• Asian Development Bank: parallel South Asia telecentre project

• World Computer Exchange, Computer Aid International: supply of re-usable computers

• Various international donors, more in future?
Government partners

- MOIC (our client), also responsible for NT (till privatised), Postal Department
- NTA-Telecom authority- (implementing agency),
- MOST (High Level Commission on Information Technology, rural electricity)
- MLD-Min of Local Dev (supporting ICT in local government)
- Service-delivering Ministries (education, health, agriculture etc): services and content
- Local government: Districts, Municipalities, Village Development Committees
Commercial partners

- Nepal Telecom: major CDMA expansion plans
- Several independent ISPs: keen to take part
- STM in Eastern Region rural telecom
- Spice Telecom and UTL: coverage growth starting
- Local entrepreneurs: to be recruited
Non-commercial partners

• Rural-Urban Partnership Programme (UNDP-Habitat programme): telecentre component with e-government and e-commerce focus

• Decentralised Local Governance Support Programme (MLD, UNDP, Norway): ICT support to local government

• COPPAPADES: established NGO providing computers to schools
Some parallel activities

- Community Radio in Madhan Pokhara and elsewhere
- Winrock: INGO mainly improving agricultural livelihoods, now planning to support e-kiosks as small commercial ventures
- Himanchal High School, Myagdi District: independent initiative using WiFi to connect schools to Internet
- Shanti Griha: computer education
- HealthNet telemedicine pilot
- Doko Dai mobile library project in two Districts
Some challenges for rural ICTs in Nepal

- High mountains and hilly terrain, scattered population
- Extreme rural poverty: other priorities, including electrification
- Civil conflict: leads to destruction or closure of existing facilities, and fear for new ones
- Governance changes and political problems
- Slow sector liberalisation
Some issues relating to multi-stakeholder partnerships

• Only way with any hope of success – but success is not assured

• Build on tradition of community participation, and recent community-ownership based successful development initiatives-forestry, energy, water

• Find paths around difficulties rather than walking into them

• Rely on co-operation plus some competition

• Many different aspects need attention, eg skills, confidence and content as well as infrastructure

• Larger role for incumbent telco than may be desirable long-term
Lessons or possible applications to other countries or regions

• For success, impetus for ICTs needs to come from within communities and be supported by them
• One size does not fit all: consider whole range of ICTs, including oral ones
• Community ownership offers best safeguard for facilities in the face of civil conflict
• Small-scale activities can be cost-effective and even commercially viable
• Co-ordination needed both centrally and locally, but central unit can be small
Conclusions

• Plan to pilot rural ICTs on a modest scale, then attract more funding and scale up

• Two-year rolling plan with longer term flexibility: Nepal Telecom to commit to coverage, and others to exploit and work around this coverage

• Infomobilisation of communities is very important item for building awareness about use of ICTs and applications

• Multi-stakeholder partnership is an essential element

• Competition is also important, but maybe on a smaller scale than previously thought, and within a framework of partnership