

Innovation at the Edges and Promoting Alternative Model

Mahabir Pun

Chairman, Nepal Wireless

Used DLink 900AP Wi-Fi Routers to build long range wireless links. Nobody then believed this would work.

Maximum – Out door Range 100 m



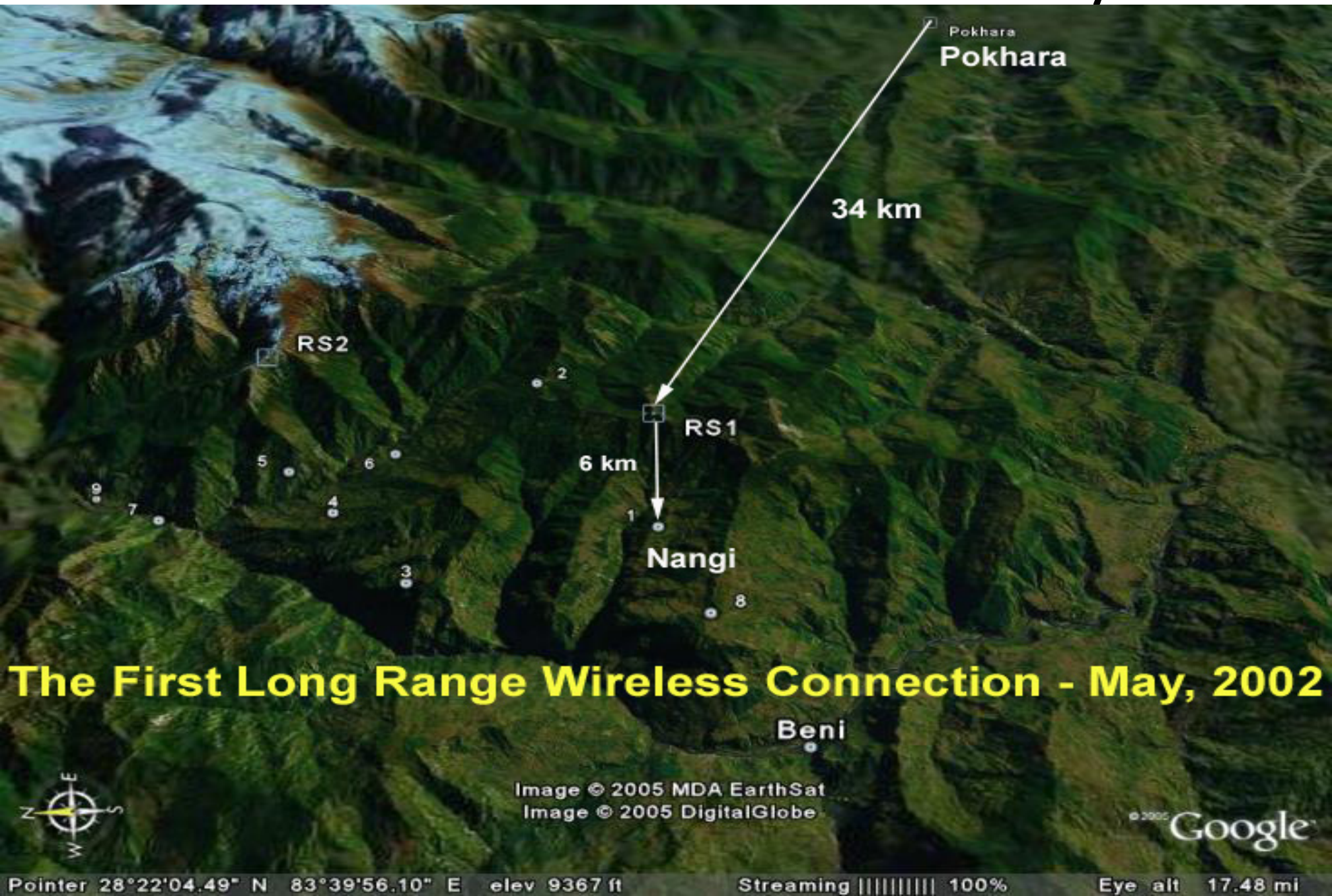
Homebuilt Antennas



Testing Phase (Year 2002)



The First Wireless Link Made in May 2002



Khopra Relay at 3,650m



Repeater Station in Kagbeni



Some Repeater Stations Now



Dhorjung Repeater Station at 4,200m



Glacial Lake Monitoring System with Keio University Japan near Mount Everest



Hotspots



Power Generation



Mustang Wireless Network



Manaslu Broadband Network



15 Districts connected to Nepal Wireless – about 200 villages



Usage of Wireless Network and Internet

Goals of Rural Internet Project

Maximize the benefit of the technology to the rural population.

- Tele-**education** and tele-training – Online educational content and e-library materials sharing, video conferencing between teachers and students.
- Tele-**medicine** – Medical service through online or offline consultation using the Internet and Intranet.
- **Digital Literacy** Program for the villagers.
- **Communication** – E-mail, Internet Telephony.
- Information share – Webpage, bulletin board, group discussion, research works.
- E-Business – Internet banking transaction, remittance services etc by collaborating with the financial companies.

E-Learning material for students

EPaath - Mozilla Firefox

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E-Paath | OLE Nepal

EPaath

pustakalaya.org/external-content/static/epaath/epaath/

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Start

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E-Library for villagers in Nepali

सङ्ग्रह - Pustakalaya - Mozilla Firefox

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लग-इन सम्पर्क मन्तव्य सहयोग English

खोजी: **विस्तृत खोजी**

साहित्य कला विषयगत सामग्री सन्दर्भ सामग्री अन्य सामग्री शिक्षण सामग्री पत्र-पत्रिका

कक्ष: शिक्षण सामग्री

जम्मा उपलब्ध : ७ क्रम मिलाउने आधार Title घट्दो क्रम

-  **शैक्षिक सिद्धान्त [Educational Theory and Philosophy]** (२१)
-  **शिक्षण तालिम सामग्री [Teacher Training Material]** (१३)
-  **शिक्षकका लागि थप पाठ्य सामग्री [Additional Reading Material for Teachers]** (७९)
-  **शिक्षक स्रोत सामग्री [Teaching Support Material]** (७४)
-  **पेशागत विकास [Professional Development]** (४१)
-  **पाठविवरणहरूको संगालो [Teachers Note]** (१६)
-  **जर्नल, पत्रिका तथा सुचनापत्र [Journals, Magazines, Newsletters and Pamphlets]** (१२८)

एक पानामा कतिपय शिर्षकहरू देखाउने: ५

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Conferencing through Skype



Rural Communication Center



Rural Innovation Labs



Technology and Tools Used

- 2.4 GHz for last mile connectivity.
- 5.8 GHz for P2P link – 60 km longest one
- Video conferencing for telemedicine
- Tracking system for trekkers
- Early warning system for landslides
- Weather Monitoring

Underway Pilot Project for Testing TV White Space and VHF Technology Using some bands.

- 560 MHz to 578 MHz on **TV White Space**
- 192 MHz – 202 MHz on **VHF Technology**

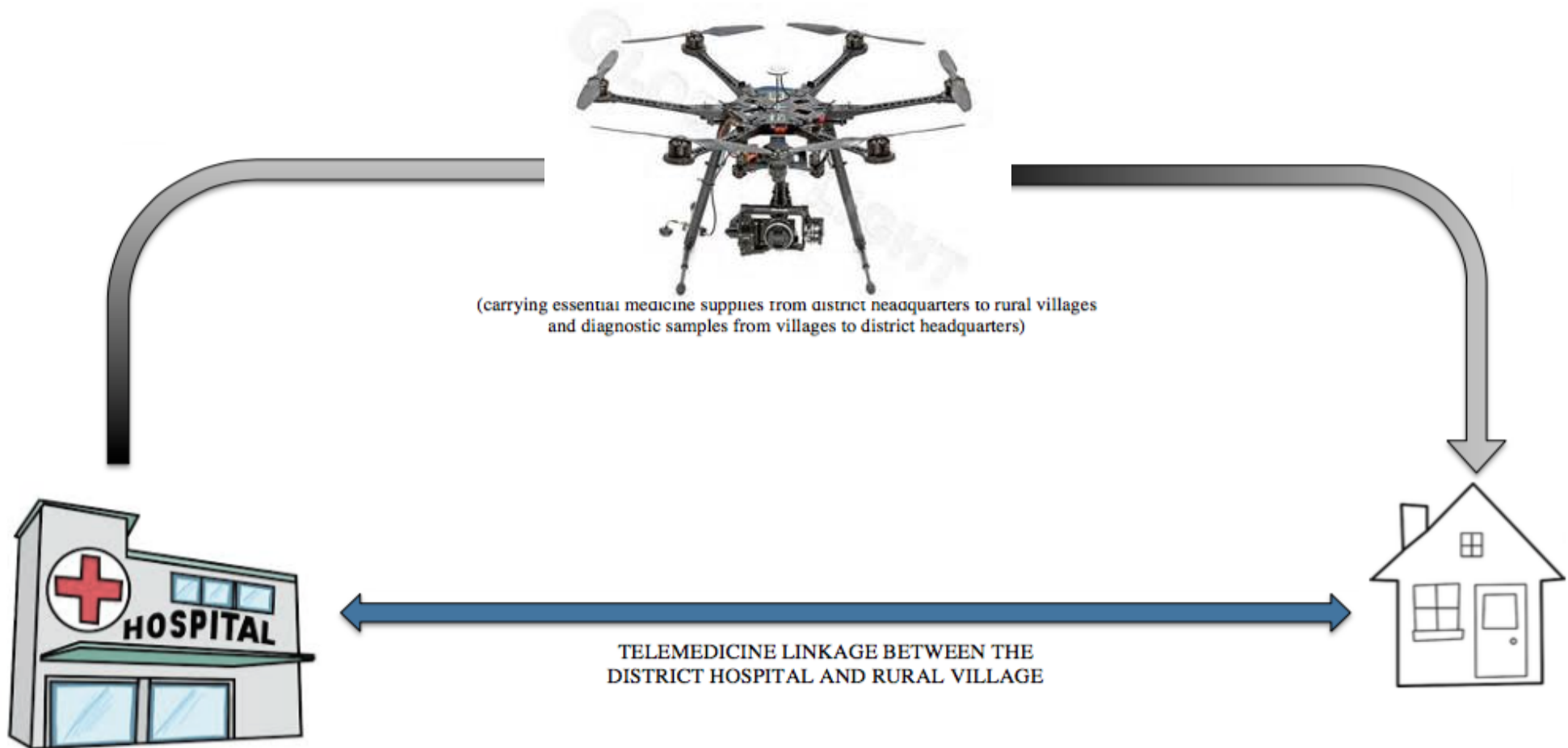
Upcoming Plans of Rural Broadband Project

- Create Smart Villages -

- Smart communication and ICT services through WiFi hotspots and one-stop village Internet shop in every village from where villagers can get all kinds of ICT related sales and services.
- Smart rural schools through interactive e-learning, e-teaching and e-training for students and teachers.
- Smart rural hospitals connected to city hospitals for telemedicine and tele-consulting services, and tele-health training program for the village health workers. Develop and implement autonomous drone services (wherever needed) to deliver small packages of medicines and vaccines to villagers and to collect diagnostic samples of patients for testing.
- Smart villages with rural innovation lab, which will be a community collaboration space to foster grassroots innovation.

Working on to Develop Drone for Medicine Delivery in remote villages

Plan is also to collect of diagnostic sample of patients for testing too.



- **For More Information**

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Thank you