A SUSTAINABLE INTEGRATED-SERVICES COMMUNITY LEARNING CENTER

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PRESENTATION OUTLINE

- OVERALL SYSTEM ARCHITECTURE
  - USO Projects
    - Telehealth Center
    - School Internet
    - Learning Center
  - A Sustainable Community

- ORIGIN OF COMMUNITY LEARNING CENTER

- USO/UA ROLE OF COMMUNITY LEARNING CENTER

- E-HEALTH ROLE OF COMMUNITY LEARNING CENTER VIA BROADBAND SATELLITE IPSTAR

- FLOOD AND NATURAL DISASTER WARNING ROLE OF COMMUNITY LEARNING CENTER

- CONCLUSIONS
Main Introductory Concepts

- This paper proposes the concept of integrating the community learning center with e-health facility and natural disaster warning system.

- Community learning centers have been designed with the principle of sustainability, flexibility, easy-to-use, cost saving and local participation concepts.

- Such integrated-services community learning center will enhance the education of people, to improve health care and wellness of people by telehealth service, as well as to make readiness for unforeseen natural disaster crisis in the future.
Overall Architecture of Integrated-Services Community Learning Center

- Satellite
- Water-level sensor
- Weather information
- Other relevant information

- IPSTAR GW

- MICT, MOI, RID, National Disaster and Emergency Office, Meteorological Bureau, BMA

- Rural Village
- Emergency Alarm
- Mobile broadcasting system
- Transmitter
- Tuner
- Data Processor
- PC

- Deliver various data by broadcasting
- Amateur MCOO
- General information
- News, Entertainment, Advertisement etc.

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Community Learning Centre Project Initiatives

- To find the suitable management framework for building self-sustainable learning centre for rural areas (usually not revenue-generating enough for business sectors to invest, hence the need of universal service obligation)

- Chula Univ team have been granted 2 years (2010-2012), working with NBTC team, to build five learning centres in selected Thai rural villages
Locations of community learning centre sites

Lumpoon
Pichit
Chaiyapoom
Krabi
Surat Thani
Pictures of Learning Centers
Learning Centre or Telecentre

Learning Centre = Room + Computers + Internet

What about “self-sustainable” ??

To have sustainability, villagers must find their learning centre useful, and must feel of the centre belonging to villagers as a whole (not anyone particularly)
Framework of Sustainable National Learning Society

Learning Society

Knowledge to Protect

Knowledge to Earn

Small/Local Distributed Pools of Knowledges

Big/Regional Centralised Pools of Knowledges

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E-HEALTH ROLE OF COMMUNITY LEARNING CENTER VIA BROADBAND SATELLITE IPSTAR

- In Asia Pacific Region, most of the population is living in rural areas where medical facilities and care are either inadequate or non-existing.

- Lack of network connectivity and centralized medical database makes it difficult to provide effective service to people in rural areas.

- In this environment, IPSTAR, an IP-based broadband satellite can provide healthcare service to rural villages at very low cost.
IPSTAR for E-health services
FLOOD AND NATURAL DISASTER WARNING
ROLE OF COMMUNITY LEARNING CENTER

- Most of the flood information systems are based on remote sensing (satellite) digital imagery, photogrammetry and field survey or sensor system-level monitoring.

- Flood Risk Evaluation System for Thailand (Flood REST)
Flood REST
• Google map
• Ground elevation data
• Real time monitored water level data

Social Flood Map Monitoring System + Thai Crisis Reporting Systems
• maps are marked by circles with different colors or grey scale intensity (in black and white)

Flood Information
• Remotely Sensed (Satellite) Digital Imagery
• Photo grammetry
• Field survey or sensor system level monitoring
Tablet Application of Flood
REST
CONCLUSIONS

- This work presents a model of sustainable integrated-services community learning center, which combines
  - community internet
  - telehealth/telemedicine
  - distance learning
  - flood/natural disaster warning system

- The success factors
  - Local values and sense of ownership
  - Interconnected
  - Training
  - Applications of agriculture planning, marketing, lifelong education, and healthcare
Thank you for your kind attention
Questions & Suggestions

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