

# USING INFORMATION AND COMMUNICATION TECHNOLOGY FOR AGRICULTURAL EXTENSION

Roundtable Consultation on Agricultural Extension  
March 15 – 16, 2012, Beijing China



中国农业科学院  
CHINESE ACADEMY OF AGRICULTURAL SCIENCES

syngenta foundation  
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# OUTLINE

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- A. ICT For Rural Livelihood (ICT4RL)
- B. PILOTS ICT4RL IN INDONESIA
- C. CELL PHONE FOR AGRICULTURAL EXTENSION

# ICT For Rural Livelihood (ICT4RL)

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# ICT For Rural Livelihood (ICT4RL)

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- a. to increase access to information
- b. to increase group capacity
- c. to increase community knowledge and access to government services
- d. to increase marketing network
- e. to increase social capital

# ICT4RL: LESSONS LEARNED FROM THE PAST

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- a. Widening gap: Information rich vs. Information poor
- b. Free competition: ICT widening gap between the rich and poor
- c. Communication intervention through ICT should be use wisely

# PRINCIPLES IN IMPLEMENTING ICT4RL

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- Adapting to local content
- Constructed in existing system
- Diversity
- Capacity building
- Ensure access equality and empowerment
- Build network for cooperation
- Adopt realistic technology
- Sharing information cost

# PILOTS ICT4RL IN INDONESIA

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1. Microsoft Community Training and Learning Center
  - a. Initiated by Microsoft cooperating with 7 non-profit organizations
  - b. Inaugurated 33 CTLC
  - c. In Bali, farmers use CTLT to learn how to produce organic fertilizer, broaden marketing, and other agricultural technologies

# PILOTS ICT4RL IN INDONESIA

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## 2. Partnership for e-Prosperity for the Poor

- a. Implemented by National Development Planning Board and UNDP
- b. Create tele-center and develop rural poor capacity to use ICT
- c. Farmers use information from internet to improve agriculture practice
- d. Farmers use internet in marketing their product
- e. Replication in 33.000 villages and kecamatan



# PILOTS ICT4RL IN INDONESIA

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# PILOTS ICT4RL IN INDONESIA

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3. Poor Farmers' Income Improvement through Innovation (PFI3)
4. Collaboration between Ministry of Agriculture and ADB
  - a. Develop national farming website and local information center in district level
  - b. Provide market and technology information
  - c. Invite private sector to participate

# PILOTS ICT4RL IN INDONESIA

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4. Farmers' Empowerment through Agricultural Technology and Information (FEATI)
  - a. Using ICT to empower farmers and their organizations
  - b. Increasing farmers' access to technology, market, and capital
  - c. Linking agricultural research and extension

# PILOTS ICT4RL IN INDONESIA

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## 5. Center for Agricultural Information

- a. Located in district level
- b. Provide farmers' access to agricultural information
- c. Documentation of indigenous knowledge
- d. One stop shop for knowledge exchange among agricultural development stakeholders

# ICT4RL IN INDONESIA

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- a. Government and private sector provide internet access over Indonesian villages
- b. Many website provide information about agricultural technologies: central government, local government, NGOs, and University

# ICT4RL IN INDONESIA

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# CELL PHONE FOR EXTENSION

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- a. 180 million cell phone users in Indonesia (75 percent of population)
- b. 40 million internet users and 61.9 percent of them through cell phones



# CELL PHONE FOR EXTENSION

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- a. Cases in West and South Java, 85 percent vegetable farmers own cell phone
- b. Besides the use of cell phone as telephone and for texting, it is also used to access radio, internet, and as camera
- c. Farmers use cyber extension (especially cell phone) for information sharing among farmers, marketing, and to access agricultural technology



# CELL PHONE FOR EXTENSION

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- a. Information in agricultural cyber extension is appropriate for their needs
- b. Using cell phone as telephone and texting are easy, but as in the case for accessing internet is difficult
- d. Using cell phone make information flow faster
- e. Using cell phone widens marketing network

# CELL PHONE FOR EXTENSION

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- a. Most of the extension workers lack the capability in facilitating farmers to use cyber extension
- b. Function of extension worker: shift from information source to information sharing facilitator
- c. There is a need to train more farmers in using cell phone for internet
- d. *Forum media* is needed to improve farmers' and extension workers' capability in using cyber extension
- e. There is a need to continuously up-date data in cyber extension, especially for marketing

THANK YOU  
VERY MUCH

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