Information & Communication Technologies (ICTs) for Agriculture and Rural Development in the Caribbean Region

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Contents

• Global trends in ICTs and agriculture
• Caribbean agriculture and rural development
• ICT Connectivity in the Caribbean
• Towards national policies in ICTs for agriculture and rural development
• Emerging ‘best practices’
• Key stakeholders
• Conclusions / Recommendations
Definition: ICTs

ICTs can be described as a combination of hardware, software and the means of production that enable the exchange, processing and management of information and knowledge.
Focus Questions

• Caribbean life by year 2020?
• What role for ICTs?
• Who are the stakeholders in this process?
• What can we foster today to achieve the vision of 2020?
Invigorate the rural space!

- Isolated, remote & poor areas
- Environment & Natural Resources
- Education
- Government
- Finance
- Health
- Private Enterprise

Investment in Rural Livelihoods
Digital Revolution

- Unprecedented opportunities
- Major Challenges
- Strategies to reduce marginalisation.
Global Agricultural Sector

- Globalization
- Economic liberalization
- Technological change
Challenges

• Food security challenges
• Global supply chain
• Research and extension systems
Opportunities

New extension / rural officer
Dynamic farmer?
Rural enterprise zones
Caribbean Agriculture and Rural Development

- The agricultural sectors suffer from poor communications infrastructure and weak institutional capacities
- Poverty on the rise
- Farmers under pressure to diversify whilst preserving the environment
- Demand for Information Services set to increase
The *rural* Digital Divide

**Stakeholders**

- Rural communities and households
- **Rural institutions;** in the public and private sectors providing agricultural, financial, and communications services
- Policy-makers and their advisors
Growing consensus

- Knowledge and information are essential for empowering rural communities
- Communication is central to this process
- Convergence of technologies can help people share knowledge and information
- Information intermediaries (e.g. extension workers, educators, radio broadcasters) can help rural communities access relevant information
Effective use of ICTs for rural development will require integrated approaches...
Policy: Agriculture and Food Security

Recent Agricultural Policies
- THE OECS Framework and Strategic Plan
- Food Security and Rural Development Priorities for CARICOM

Contribution of ICTs?
## ICT Connectivity

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<th>Middle to Low</th>
<th>Low Access</th>
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<td>Grenada (60th)</td>
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* ITU Statistics, Philip Cross
Policy: Telecommunications and ICTs

- Recent CARICOM Initiatives
  - CTU, ICA, ITU, IICD
- National ICT Strategies
  - Trinidad and Tobago:
    The Community Connection Programme
    A Youth Computer Corps Programme
    Opening up the telecommunications market to full competition
ICT's and the Caribbean RURAL SPACE

We are HERE!!!
ICT's and the Caribbean RURAL SPACE
We are HERE!!

Agricultural Policy Development in the Region – Globalization, Trade Liberalization, CARIFORA Food Security programme, declining budgets for extension

Establishment of Telecentres, Cyber centers, Internet Cafes, CORICS, multi-media postal services

e-Governance, Civil society use of ICTs, growing NGO involvement and direct control of ICTs

Growth of NGO involvement and direct control of ICTs

Rapidly Changing Telecommunications Policy, Greater Competition, Goal of Universal Access

Affordable technologies, enhanced teledensity

ICT Use for Promotion of Caribbean Cultural Products

ICT's and Natural Resource Management – GIS, Environmental Reporting

e-learning, ICTs and Education
Getting the policy level right

Disconnect between ICTs policy and agriculture and rural development sectors
Best Practice examples

• **ICTs for Strengthening Research, Extension and Farmer linkages** *(CARDI, COL, IICA)*
• **ICTs for Agricultural Marketing** *(CARDI-ABIS)*
• **ICTs for Disaster Mitigation** *(FAO)*
• **ICTs for Rural People and Communities** *(TOCO Foundation, Youth container project, JSDNP, Knowing and growing network)*.
• **ICT linkages for Tourism and the Culture Industry**
**ICTs for Strengthening Research, Extension and Farmer linkages**

**COL – Media and Empowerment Program (COLME)**

- Promoting digital video, radio and distance learning.
ICTs for Strengthening Research, Extension and Farmer linkages

**CARDI** – Caribbean Agricultural Information Service (CAIS), Procicaribe and other networks

- Disseminating timely and relevant Ag Research Information

**IICA** – Agricultural Distance Learning and Training Centre (ADLTC)

- Provides educational training on CD ROM with online support
ICTs for Agricultural Marketing

• Agricultural Business Information System – ABIS
  Facilitates linkages between known producers and needy retailers.

ICTs for Disaster Mitigation

• Forecasting, monitoring, early warning and food security systems.
**ICTs for Rural Communities**

- **TOCO Foundation**, Trinidad and Tobago

- **The Youth Container Project**, Jamaica

  *the rural digital divide will not be closed just through the extension of technology or improved access alone. Other factors are also needed.*
Tourism & Culture Industry

- Direct marketing
- Eco tourism

Music Industry

- Direct marketing
- Caribbeat’s
  - Represent Caribbean artists in the production and marketing of their musical goods and services and strengthen the network of production, distribution and promotion capabilities of Jamaican and other Caribbean music producers.
Agencies and Organizations needed for Collaboration

International
FAO, ITU, UNDP, UNESCO, CTA/ISNR, IICD, COL

Regional
CTU, IICA
CARDI - CAIS
CARDI - Procicaribe
CARDI- CAMID, ABIS

National
Knowing and Growing” – organic growers network
Toco Foundation, JSDNP, Container Project
Bluefields Community, CERN, Caribbeat
Gaps to be addressed

• Lack of appropriate content to meet the information and capacity needs of small farmers.
• Lack of support to diversify rural livelihoods - encourage small enterprise
• Lack of support to extension services
• Innovation from NGO / CBO community has yet to be harvested on a wider scale.
In Conclusion

ICTs in agriculture and rural development offer unprecedented opportunities for all stakeholders in ‘the global agricultural knowledge and information system’ (AKIS).

ICTs in rural development present major challenges to those people and communities who at present reside beyond the reaches of the networked society.
Successful ICTs

- Community Ownership
- Appropriate content
- Building on existing practices
- Capacity building
- Access and empowerment
- Strengthening partnerships
- Realistic approach to technologies
- Costs and financial sustainability
Recommendations [1]

**POLICY**

- Create integrated rural development policies
- Revisit agricultural policies to address the opportunities offered by ICTs
- Revisit national ICT strategies and plans to include a rural component.
- Establish appropriate administrative and organizational structures at regional, national and local levels to facilitate dissemination of agricultural information using ICTs
Recommendations [2]

ACCESS

- Support advocacy work to highlight the demand for rural services, challenge/mandate the private sector to service these areas.
- Support community owned access to media and ICTs for education, health, enterprise and entertainment.
Recommendations [3]

**CAPACITIES**

- Support local appropriation of ICTs
- Focus on needs and aspirations of target groups (youth and entrepreneurs)
- Use ICTs to catalyze a new role for extension officers
- Strengthen research, extension, market and farmer linkages though ICTs
Recommendations [4]

CONTENT

• Create information in the form that users can access and use.
• Focus on neglected audiences to provide relevant information on agricultural practices and rural livelihoods
• Learn from what exists and works in the region for using ICTs for agricultural information and networking
Not only require the different sectors fitting together...
But they will require all partners working together...
Thank you
Invigorate the rural space!

Isolated, remote & poor areas
Environment & Natural Resources
Education
Government
Finance
Private Enterprise
Health
Investment
Rural Livelihoods
the ‘microprocessor’ enables produce to be organized, tracked and timed across the globe to correspond with the demand generated by ‘point of sale’ information
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Recommendations [2]

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Knowledge and Information for Development

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ICTs - Relevance for Agriculture and RD

- Reducing isolation
- Facilitate dialogue
- Providing information and skills training