



“ICTs in Agriculture”

Agenda

- The Global State of Food and Agriculture
- Current State and Issues in the Region
- The Value-of ICTs
- Case Snapshots
- The Opportunities, Benefits and Recommendations
- The Way Forward

Over-Arching Tenets

- Inclusion
 - End to End Value Chain Enablement
- Return on Investment
- Regional Harmonization
- Agnosticism



The Global Scenario



Key Points for World Agriculture

- There are 870 million hungry people in the world and 98 percent of them are in developing countries. They are distributed as follows:
 - 578 million in Asia and the Pacific
 - 239 million in Sub-Saharan Africa
 - 53 million in Latin America and the Caribbean
 - 37 million in the Near East and North Africa
- The world population will likely increase to 9.2 billion in 2050
- Food production will need to nearly double by 2050 in developing countries.

Key Points for World Agriculture

- About 40% of the world's arable land is degraded to some degree and will be further affected by climate change.
- There are 500 million small farms in developing countries, supporting around 2 billion people.
- Gross Domestic Product (GDP) growth generated by agriculture is up to four times more effective in reducing poverty than growth generated by other sectors.
- Development aid to agriculture was 4.3% in 2008, compared with 18% in 1979.
- Poor people spend between 50% and 80% of their income on food.

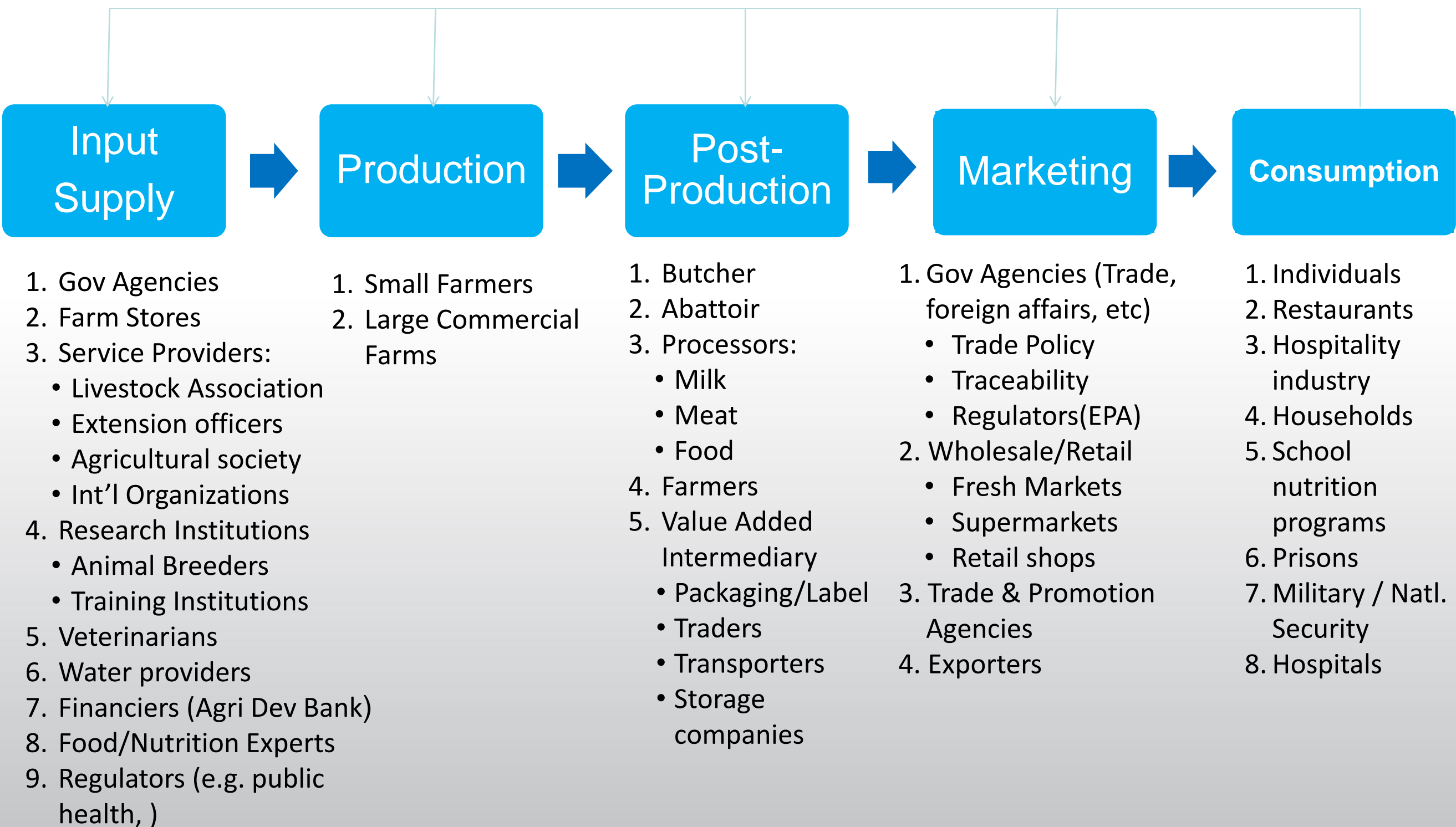
Current State and Issues for Agriculture in the Region

- Isolation of small holder farmers
- Country disparities and under-collaboration
- Lack of cross-fertilization across sectors
(particularly ICT and Agriculture)
- Limited/localized success in ICT and Agricultural
efforts to-date

	Key Challenges – Specific to the Region
1	Price / Availability of Input supplies/ infrastructure
2	Lack of up-to-date local information (farmers / production/ buyers/ research)
3	Access to trained labour / technical human resource/ extension human resources
4	Poor value chain communication (both within nodes / agencies, and among nodes / agencies)
5	Credit / Budget/ Funding availability
6	Lack of ICT/ ICT usage/ training
7	Sustainability of market opportunities
8	Praedial Larceny / Animal Attacks on livestock
9	Inadequate storage/ packaging/ transport/ abattoir facilities
10	Unstable sector policy/ priorities/ commitment by government
11	Poor Animal and Farm Management Practices
12	Limited range of fresh produce/ Inconsistency of supply/ Quality of Product / high price
13	Farmers’ Commitment (Invest in Agriculture, Attending Training Courses, Adopting new fertilizers regime, Marketing Agreements, to form farmer groups)

AGRI-VALUE CHAINS AND THE ROLE OF ICTS





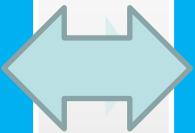
Flow of
Value /
Goods



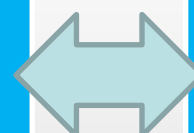
Input
Supply



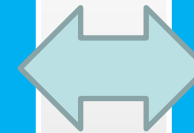
Production



Post
Production



Marketing



Consumer

*Flow
of \$*



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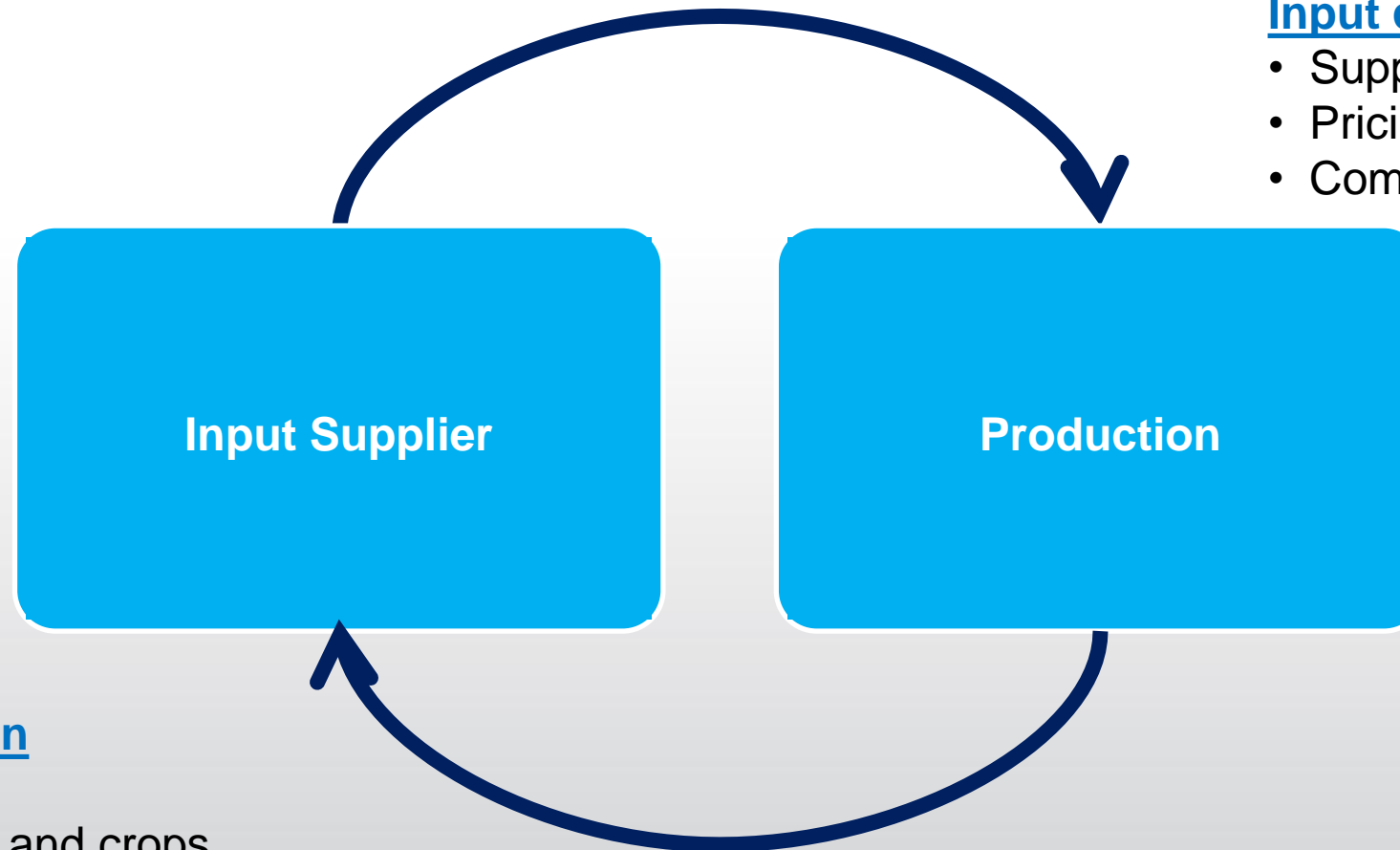
Flow of Information

Technical info

- Good agronomic practices
- Health and food safety
- Disease vector control

Input commodity Information

- Suppliers of input products
- Pricing information
- Commodity Availability



Farmer Information

- No of farmers
- farmer acreages and crops

Production Information

- Production amounts
- Yields time
- Farming practices

The Challenges



Mechanism for restricting outgoing calls at a division of the Ministry of Agriculture



The Economic Opportunity

- The Caribbean regional food import bill was estimated in 2008 at US\$4.0 billion.
- World Food retail industry is approximately \$4 trillion annually (2011)
- Share in world agricultural exports was 0.3% in 2004
- Strengthening Linkages to the Tourism Sector(other sectors, professional services etc)
- Encouraging Gov'ts to use their market power to help create more sustainable markets



CASE SNAPSHOTS



D'Market Movers



Website URL: <http://www.dmarketmovers.com>

Service Countries/Region: Trinidad and Tobago

Owner/Administrator: David Thomas, Rachel Renje

Head Office Location: Market Movers, Barataria, Trinidad

Phone Number (1): 868-221-5042; 868-708-7623; 868-784-2473

Email Address: marketmovers14@yahoo.com

Description

d'Market Movers is a small-scale organic produce delivery service that strives to continuously improve its standards by sourcing items that are greenhouse grown. Items include fruits, vegetables, dried goods, dairy and eggs and meat and seafood.

Services

Online retail market

Retail prices for organic produce

Online shopping cart to purchase produce online

Goods delivery



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Trini Trolley

Website URL: <https://www.trinitrolley.com>

Service Countries/Region: Trinidad, Caribbean

Head Office Location: P.O. Box 7584, Claxton Bay, Caroni,
Trinidad And Tobago

Phone Number (1): 868-298-4151

Email: support@trinitrolley.com



Description

Originally envisioned as a convenient form of shopping for locals, this online retailer has not only become the largest e-commerce business in the country, but has also expanded its doorstep delivery services to the rest of the Caribbean as well as internationally. Among the 16 departments, grocery is of greatest demand.

Services

- Delivery of Groceries (including fresh fruit and vegetables) to your doorstep
- Flexible payment options (Gift Cards, credit cards, cash on delivery)
- Streamlined on-line shopping cart experience
- FedEx shipping available
- Gift wrapping available

Jamaica Agricultural Marketing Information System (JAMIS)



Website URL: <http://www.ja-mis.com>

Service Countries/Region: Jamaica

Owner/Administrator: The Ministry of Agriculture & Fisheries,
Agricultural Market Information Division and the Rural Agricultural
Development Authority's (RADA) Marketing

Phone Number (1): 876-276-7076

Description

According to the website, JAMIS is a service that provides unbiased market information (prices, availability quantities, market reports, etc.) on over 50 agricultural products from farms to supermarkets and everywhere in between. This public service also provides a virtual shopping cart and an extensive archive of data from previous years.

This platform is considered a comprehensive service offering for all the Jamaican agricultural and agro-processing sectors, a service that can be leveraged by all value chain players to make effective management, production and marketing decisions.

Services

JAMIS serves to compile and disseminate this information that will aid producers, purchasers, consumers, and distributors in the sale and purchase of agricultural commodities nationally and internationally. This information includes:

- Weekly wholesale and retail commodity prices from farmgate, municipal markets, etc.
- Market Reports
- Commodity quantity and price data archives
- Produce grading manuals and reports
- Virtual shopping cart for consumers

RADA Extension Service – Provision of ICTs to Extension Officers



Website URL: <http://www.agriculture.gov.tt/>

Service Countries/Region: Jamaica

Head Office Location: Hope Gardens, Kingston 6, Jamaica, W.I

Phone Number (1): 1-876-977-1158 - 63

Description

RADA in its thrust to enhance its extension service through the collection of real-time and accurate data, has equipped its extension officers with Tablet PCs that they use to remotely access RADA databases that store farmer and production data. RADA purchased 130 Huawei Media 7 Lite Tablets on June 21, 2013 as part of a resigned CUG/ICT contract between the two organisations.

Services

- Real-time (or close to real-time) ability of extension officers to access and update farmer and production information while they are on their field and interacting with producers.
- to increase the productivity of extension officers and RADA's ability to maintain accurate and up to date farmer and production data
- Provides better data for sector planning, policy and value chain stakeholder use.

Additional Perspectives

- Engage stakeholders from a market perspective – return on investment
- The need to enable / empower farmer groups and agri-processor associations
 - Member management and production aggregation (Xhuma Green)
 - The need to enable small holders to receive payment electronically (incl. mobile)
- The potential of open data - the case of St. Kitts



DISCUSSION



Benefits of Applying ICTs to Agriculture

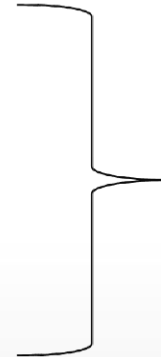
- Creating Markets and Easing Market Dysfunction
- Monitoring and Forecasting of Natural Hazards
- Facilitating Indigenous Research and Development
- ICTs to give better Information to Regional Transport Systems
- ICTs for Spatial Analysis and Management
- Increasing the productivity of farming and coordination of the agri-food value chain
- Increasing the attractiveness of Agriculture to a new range of stakeholders, capacities and skillsets
- Etc., etc....

Recommendations for ICT Incorporation

- Advancing ICT Infrastructure and Applications in the Region
- Build an enabling environment for producers to be able to sell their produce on-line
- Strengthening Linkages to the Tourism and other sectors
- Enable interactions across the entire value chain
- Greater Engagement “on the Ground”
- Presenting Information for Audience Reception
- Enhance ICT accessibility, and bridge the fields of ICT and Agriculture by ensuring collaboration between practitioners

How do we get there?

- Engagement & Messaging
- Awareness & Buy In
- Capacity Building & Action



Build a Culture of
Confidence and Innovation

Stakeholders

- Policy makers
- Telecoms Companies / Regulators
- Farmers / Farmer Organisations
- Direct Value Chain Stakeholders
- Financial
- Innovators/ICT's



DISCUSSION





- Thank You!

