“Information Management in Agri-food chains for Trade Facilitation

Regional Workshop for Asia on WTO Agreements on SPS and TBT
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Coverage

- Introduction – importance and challenges in food trade
- Information in agri food chains – need, types, functions and benefits of information and information management
- Agrifood chain Information Management
- Single Window for Agrifood trade – its implementation
- Introducing the Publication - Information Management in Agrifood Chains: Towards an Integrated Paperless Framework for AgrifoodTrade Facilitation
Introduction

• **Globalization** - increasing consumers demand for variety in food

• Creation of **global market** – food trade across countries – food consumed in a country may have ingredients from almost any country

• Food trade important
  - Economic advantages – creates jobs, promotes growth, benefits to consumers: greater variety at lower prices, boosts competition
  - Social advantages - alleviation of poverty
  - Cultural – religious (halal), preferences - vegan
  - Political advantages – free flow of trade (no tensions)
Challenges in food trade

- Long and complicated food chain – not visible to consumer
- Food safety – can be a cause of food-borne diseases – need to locate cause and address it
- Sensitive - perishable in nature, religious beliefs
- Governed by regulations/ standards – multiple agencies, actions of each needed to build a comprehensive system
- Accurate information required on source (GI), processing (halal), GAP - traceability
- Many players – actions of each player determine actions of next in chain

Significant concerns about food in trade
To Facilitate food trade

• ......and address concerns
  ✓ Information needed and managed
  ✓ Structured across food chain (producer – consumer)
  ✓ Move across food chain – adding to it/ building up as it moves
  ✓ Information to be accessible to consumers
Typical Agrifood Supply Chain

* Information Management in AgriFood Chain: Towards an Integrated Paperless Framework for AgriFood Trade Facilitation

Transport
- Air, Sea and Land

Cross-border processes

Traceability

Import → Value-add processing → Distribution → Retail
Information Needs

Sanitary and phytosanitary information
- Hygiene, food safety and related export procedures
- Disease control
- Food safety information for recall purposes

Customs and regulatory agencies
- Information for efficient trade
- Avoidance of illegal activities
- Exporter blacklists

Food security
- Production prediction models based on history information
- Avoidance of waste

Food nature and history
- Origin (linked to compliance, consumer health and choice, food Safety)
- Certification and practices (e.g., Halal, fair trade, labour conditions)
- Consumer information, in particular related to correct labelling

Control of illegal activity
- Importers/ exporters
- Lack of trade permits

Information may be paper-based or paperless
Comparison between paper and electronic information records

**Paper-based systems**
- Easy to implement
- Time resilient
- Not scalable; limited by capacity of personnel and physical transportation
- Cannot be re-used
- Usually not accessible; filed in a physical location
- Information chains impossible to construct

**Electronic Records**
- Require technical capacity
- Subject to data format compatibility issues
- More scalable; can be (semi)automated
- Easy to copy and exchange; no transportation time
- Easily accessible – tracking easier
- An information chain can be established - robustness
- Reduces risk of errors
- Reduce chance of tampering & fraud
- Can rapidly respond to changes
Agrifood chain Information Management

- Is the collection, storage and distribution of information about food and food trade along the whole food supply chain from farm to fork - used for any type of purpose that helps in making agrifood trade inclusive, safe and accessible.
- Concept covers 2 main aspects:
  - Traceability
  - Cross border trade facilitation systems (single window, customs systems, others)
- Uses technology to enable smarter food systems.
Functions of Information Management in Agrifood chains

- Regulatory systems:
  - ePermit systems
  - eSPS systems
  - IUU fishing
  - Export/import licenses
  - Legal compliance, also with social and labour laws

- Standard compliance:
  - Food safety oriented systems
  - Animal and carcass tracking
  - Sustainability tracking
  - Fair trade
  - Religious
  - Compliance with specific food standards

- Marketing-oriented systems:
  - Transparency systems
  - Fraud avoidance
  - Consumer-oriented systems
Benefits of Information Management in Agrifood chains

To Governments
- Industry statistics;
- Decreased poverty through smallholder access;
- Reduced food safety problems - better public health, less incidences of export rejections, more effective recalls;
- Assistance in the fulfilment of mandates, such as keeping food safe and its production legal;
- Improved trade security

To Private Sector
- Compliance to regulations & standards
- Trade & efficiency
- Marketing & brand assurance – authenticity
- Better business models – supply chain management, shelf life
Main Elements

• An information system for agrifood chains, which transports information between business partners;

• A monitoring system, allowing governments & industry to analyse the information they need to ensure compliance;

• Business systems of FBOs;

• Certifiers (governmental) to verify the information contained in the chain information management system
# Macro factors driving agrifood chain information management

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<th>What</th>
<th>Experiences</th>
<th>Benefits</th>
<th>Challenges</th>
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</thead>
<tbody>
<tr>
<td>Food safety</td>
<td>• e-Sporing (Norway)</td>
<td>• Institutional: Disaster management, accountability of FBOs, statistics</td>
<td>• Industry buy-in</td>
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<td>• M-FIT (Malaysia)</td>
<td>• Industry: Brand risk management, legality of supply chain, monitoring of goals and claims</td>
<td>• Consumer/citizen interest</td>
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<td>• Smallholder traceability for aquaculture (Viet Nam and Indonesia)</td>
<td>• Consumers/Citizens: Informed decisions, peace of mind</td>
<td>• Standardization</td>
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<td>• ESIT (Greece)</td>
<td>• Technical complexity; in some case unclear science</td>
<td>• Governance</td>
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<tr>
<td>Food Quality</td>
<td>• Kampot Black Pepper (Cambodia)</td>
<td>• Brand equity</td>
<td>• Certifications</td>
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<td></td>
<td>• Thung Kula Rong-Hai Hom Mali Rice (Thailand)</td>
<td>• Higher prices</td>
<td>• Costs</td>
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<td>• Basmati Rice, Darjeeling Tea (India)</td>
<td>• Customer confidence</td>
<td>• Internal and external controls</td>
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<tr>
<td>Trade</td>
<td>• Exchange of electronic information for trade relevant purposes (trade permissions, customs, goods shipped notices)</td>
<td>• Institutional: More robust trade processes, accountability of institutions, increased visibility of trade bottlenecks; statistics</td>
<td>• International standardization</td>
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<td>• Single window for traders</td>
<td>• Industry: Reduction of trade-related bureaucracy; Streamlined processes</td>
<td>• Interdepartmental collaboration</td>
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<td>• Legality, security, safety of shipments</td>
<td>• Consumers/Citizens: Fresher products</td>
<td>• Economic sustainability of systems</td>
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<tr>
<td></td>
<td>• Electronic handling of incidences</td>
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<td>• Electronic handling of fees</td>
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<td>Sustainability</td>
<td>• (Social only) UTZ Certified</td>
<td>• Social benefits; traceability</td>
<td>• Technical complexity; in some case unclear science</td>
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<td>• (Legal compliance) IUU fishing</td>
<td>• Health and safety</td>
<td>• Industry commitment</td>
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<td>• (In preparation) Roundtable for Sustainable Palm Oil and some retailers/manufacturers</td>
<td>• Environmental benefits</td>
<td>• Consumer/citizen push</td>
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<td>• (For biofuels) ISCC</td>
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<td>• Standardization, in particular of calculation</td>
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Governance Structure for Agrifood chain Information Management

Layer 1: Public sector
- Food Safety Agencies
  - EXPORTING NATION
  - Import control
- Export control
- Food Safety Agencies
  - IMPORTING NATION

Layer 2: Private sector
- Primary production
- Processing
- Distribution/Export
- Import/Retail
- Consumers

Layer 3: Verification
- Private or public certification agencies or bodies

Red light: Non-conformance
Green light: Conformance
Single Window for Agrifood Trade (SWAT)
SWAT – What is it

• An inter-organization information system aimed specifically at increasing the security and efficiency of agrifood cross-border trade through collaboration, electronic information exchange and efficient regulation.
Recommended Steps towards implementation of SWAT

1. Establish a roundtable for agrifood chain IM - national vision, stakeholder buy in, attitude change on T
2. Prioritise areas for paperless systems for agrifood trade, incentivize and implement
3. Establish normative databases - locations, products and land use
4. Establish a standard framework for identification & information exchange – unique numbering system, international compatibility
5. Establish authorised economic operators – reliable exporter/ importers
6. Establish of risk-based inspection systems for issuance of licenses and certificates – export/ import
7. Establish a food safety emergency system – recall/ RASFF
8. Address legal implications of information management systems for agrifood chains – mandatory/ voluntary data
9. Funding for development of core components
• Chapter I: Introducing information management in agrifood chains
• Chapter II: Structuring agrifood chain information management
• Chapter III: Practical recommendations for enhancing information management for agrifood trade facilitation
• Chapter IV: Selected case studies
  — **Export:** India GrapeNet; Malaysia Food and Traceability; Vietnam TraceVerified for Fish Exports; New Zealand eCert for Meat Products
  — **Import:** China Tianjin eCert, GPS-RFID

Recommendations/ Way forward

• **Start with priority actions** – automated risk-based inspection system – acceptance of export country certification, Food safety emergency management & RASFF systems, cooperation on inter-agency information systems, issue electronic certificates....

• **Workshop** on risk-based import controls, e-certification, etc with representatives from different organizations including those dealing with food safety, animal health, plant health and customs.

• **Pilot in countries** – government buy-in and support, cost effective technical solutions, exp/imp country collaboration (possible SS cooperation)
THANK YOU

Any Questions?

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