

The Establishment and Application of Standards by ACFS

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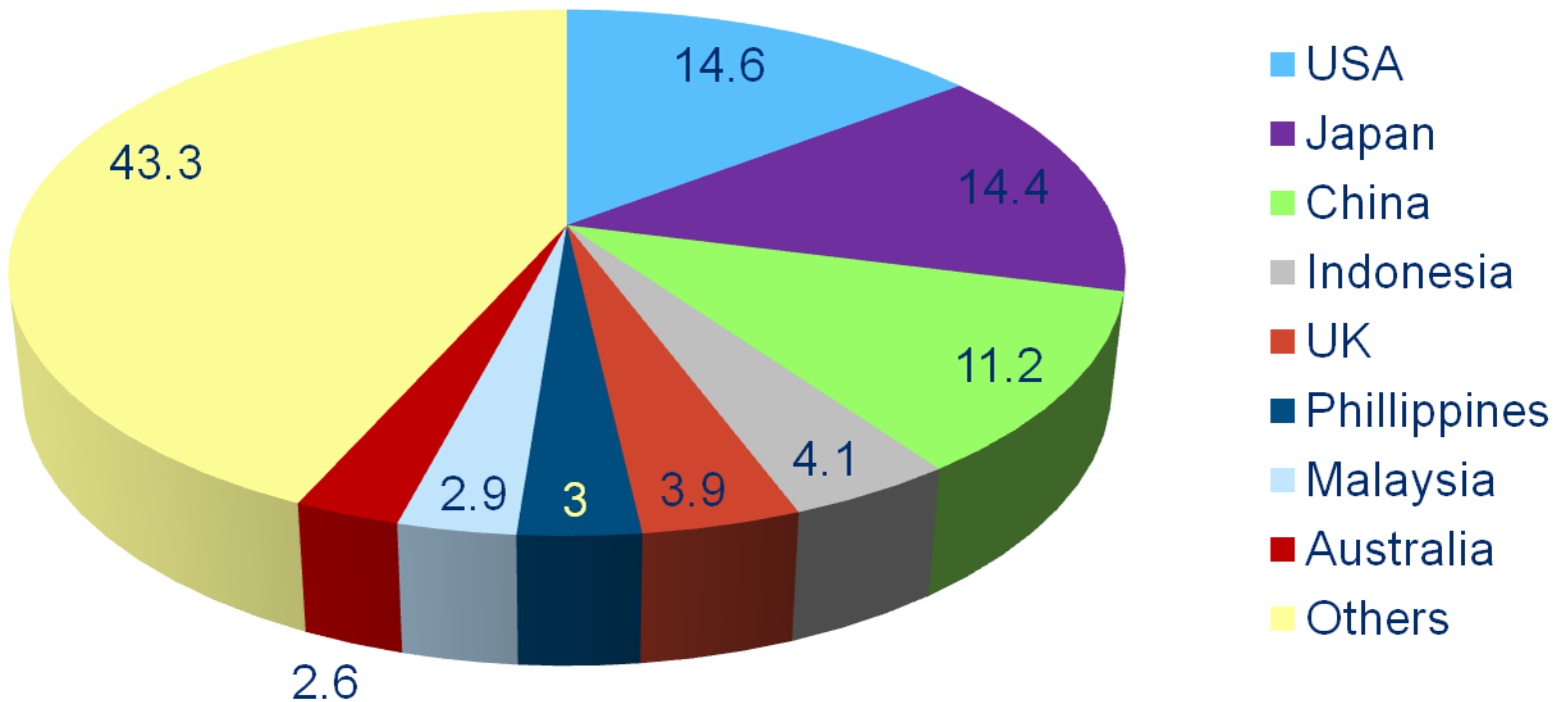
Fact About Agriculture of Thailand

- Population 65 million
- 5.8 million farms, ~23 million farmers
- Total area = 51.31 million hectares
- 41 % are agricultural land (20.85 million hectares)
- Agriculture GDP 31,589 million \$
= 11.58% of total GDP

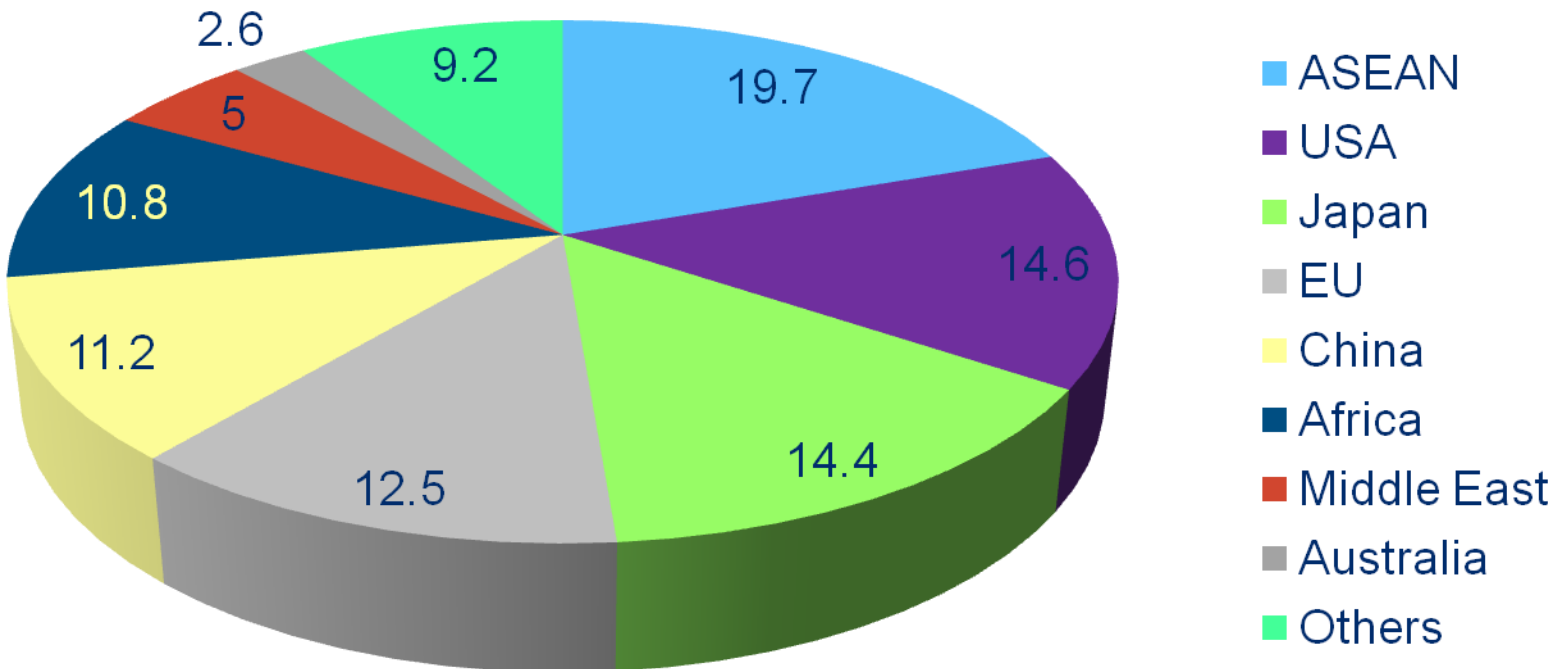
Important Agricultural/Food Commodities (2008) (x1000 t)

Commodities	Production	Export	% Export
Rice	21190	10216	48
Pineapple	1300	721	55
Longan	477	287	60
Durian	638	219	34
Sugar	7820	5012	64
Cassava	25160	15660	63
Chicken Meat	1200	383	32
Shrimp and products	500	358	72

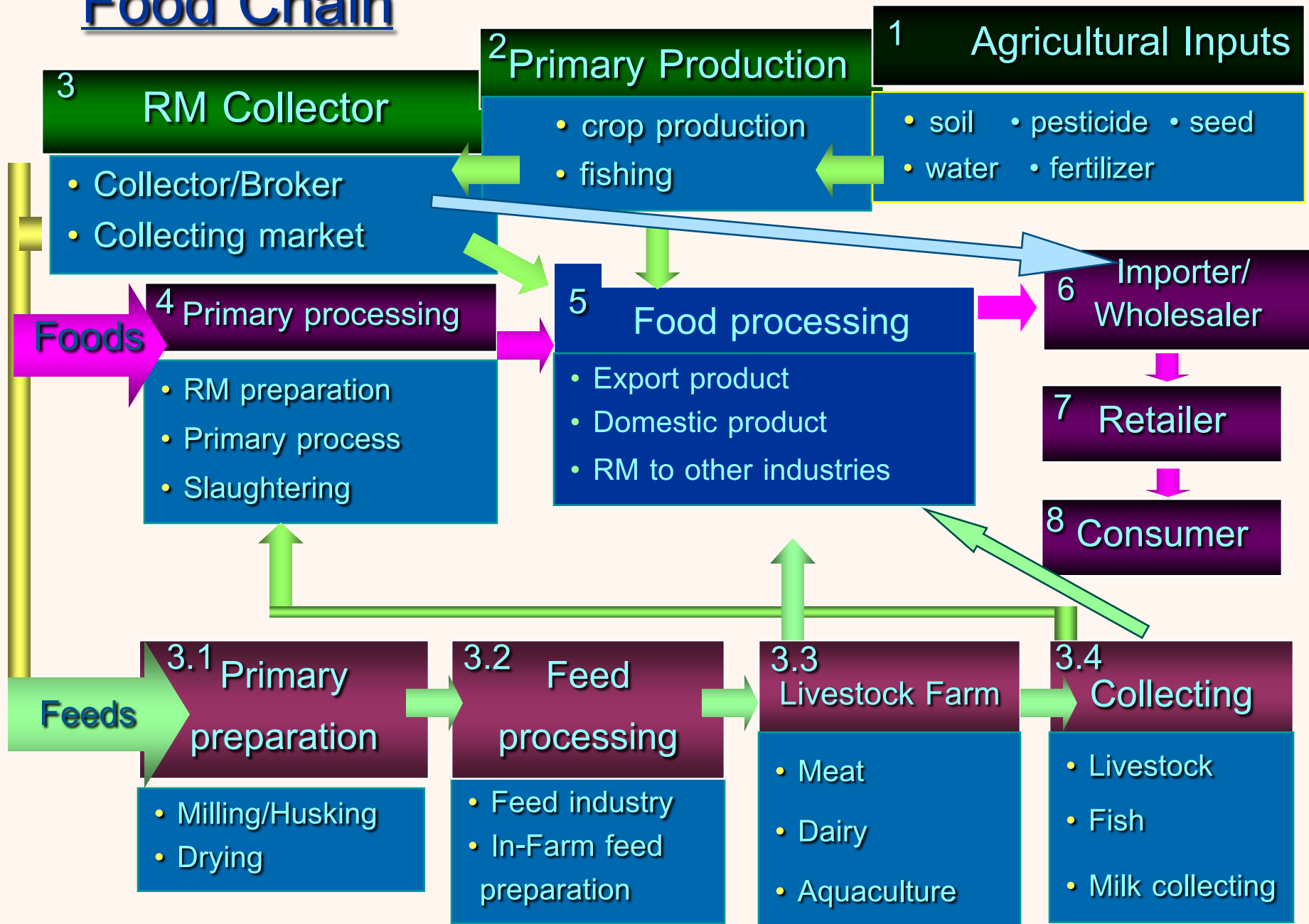
Export Market of Thai Food by Country (%)



Export Market of Thai Food by Country/Region (%)



Food Chain



Food Safety along the Food Chain

- **Health hazards can be introduced at any steps, any places, and any times.**
- **Risk to consumer is a complex and integrated issue. Emerging risks can be occurred every day.**
- **New strict food safety standards & regulations from both government and private.**
- **From-Farm-to-Table approach**
- **International forums : Codex / WTO**

Food Control System in Developing Countries

The Balancing between

National Consumer Food safety



and



Food Trade (Export)

* Single policy - Single standard

Single Standard – What does it mean?

- **Single standard for both domestic and export food products need not to be only one standard BUT need to ensure that both food products are sufficiently safe**
- **Single standard for safety but may be multiple standards for quality as quality varies among countries and markets**

National Agencies in charge of Food control

**Ministry of Agriculture
- Production based**

**Ministry of Health
- Health based**



- **Food production, mainly primary production (safety + quality)**
- **Food trade, mainly export**
- **Food security**



- **Consumer protection (safety + quality)**
- **Some parts of food production related to consumer protection**
- **Food import**
- **Domestic market including food service**

Health : Food Act 1979

- Regulated by Ministry of Public Health (MOPH), Food and Drug Administration (FDA)
 - ⇒ Food establishments registration
 - ⇒ Establish regulations on specific foods
 - ⇒ Control of food sold domestically / Imported foods
 - ⇒ Control of food labelling + food advertising

*** All mandatory**

Agriculture : Agricultural standards Act 2008

- **Effective 20 August 2008**
- **The National Committee on Agricultural Standards is a statutory body in charge of policy**
- **Enforced by the National Bureau of Agricultural Commodity and Food Standards (ACFS) , Ministry of Agriculture and Cooperative (MOAC)**

Agricultural standards Act 2008

- **Agricultural commodity = produce / product originated from agriculture, fishery, livestock or forestry including by-product thereof**
- **Applied to producer, exporter & importer of agricultural commodities**
- **Also applied to governmental/private certification bodies (CB) who inspect / certify upon agricultural standards**

Agricultural standards Act 2008

2 types of standards

* Mandatory standards :

- license required for production , export or import
- require inspection / certification by approved CB

* Voluntary standards :

- license not required
- inspection / certification on voluntary basis

* The uses of certification mark for both types of standards are controlled by law

Mandatory standards : MRA

When there is MRA between Thailand and exporting countries

Type I : Equivalence of both standard and inspection / certification

⇒ accept exporting countries' certificate / certification mark

Type II : Different standard but equivalence of inspection / certification system

⇒ accept exporting countries' certificate based on Thai agricultural standards

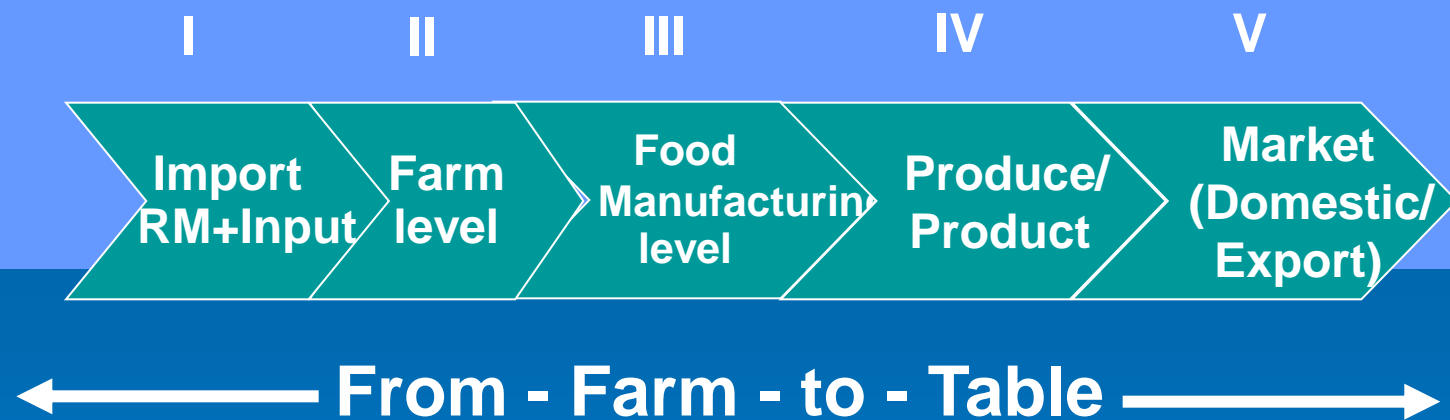
Ministry of Agriculture and Cooperatives (MOAC)

Mission 2007 – 2011 :

1. Research, develop and transfer agricultural technology to farmers
2. Develop infrastructures for agricultural productions
3. Promote food and agricultural commodity standard
4. Promote farmer's organizations and support farmers for their self-sufficient, good quality of life and stable occupation.

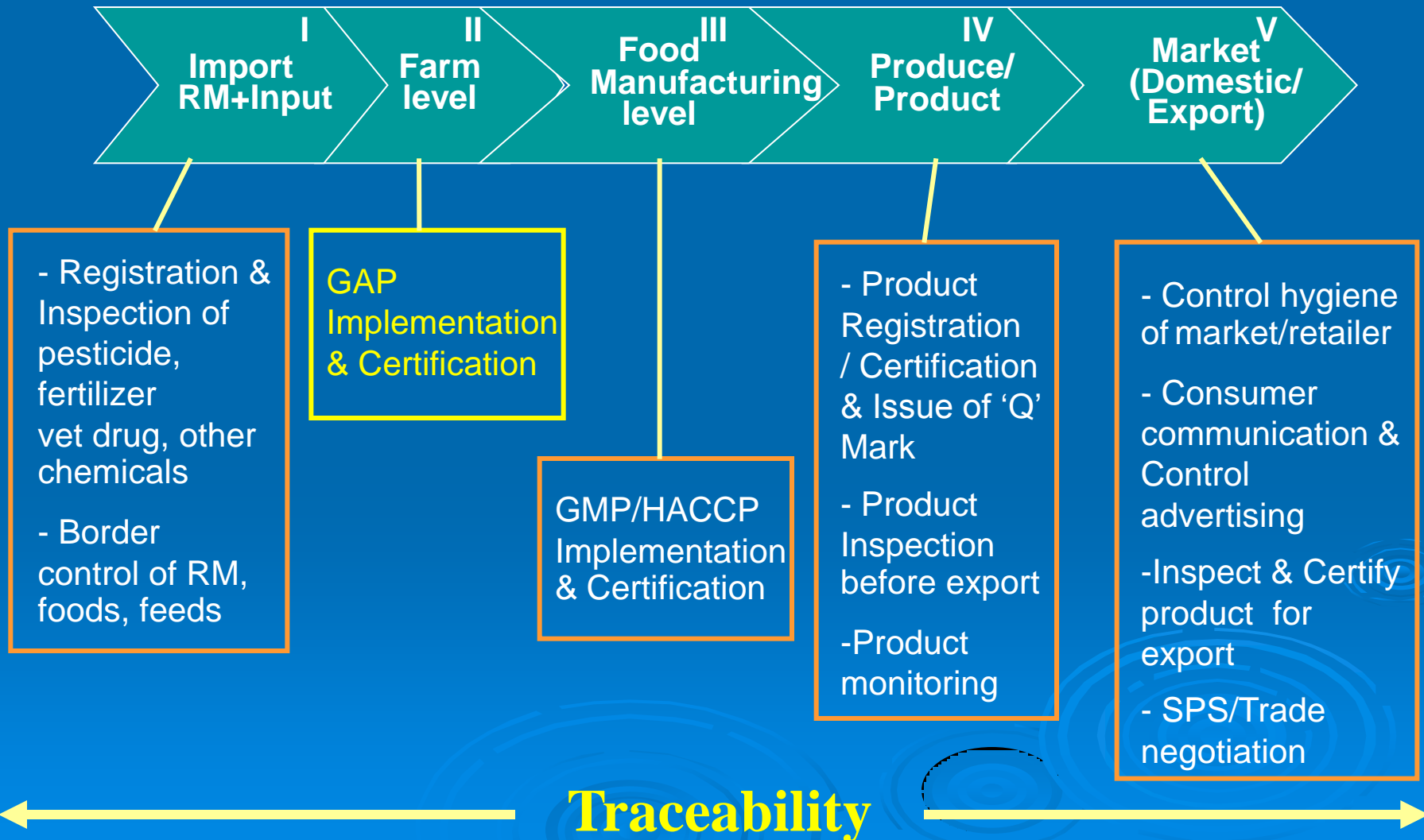
National Policy : Road Map of Food safety

- Cabinet on 4 March 2003 announced the year 2004 as a Food safety year and approved “Road Map of Food Safety ” to be implemented from 2004



Road Map of Food safety

Food safety standards

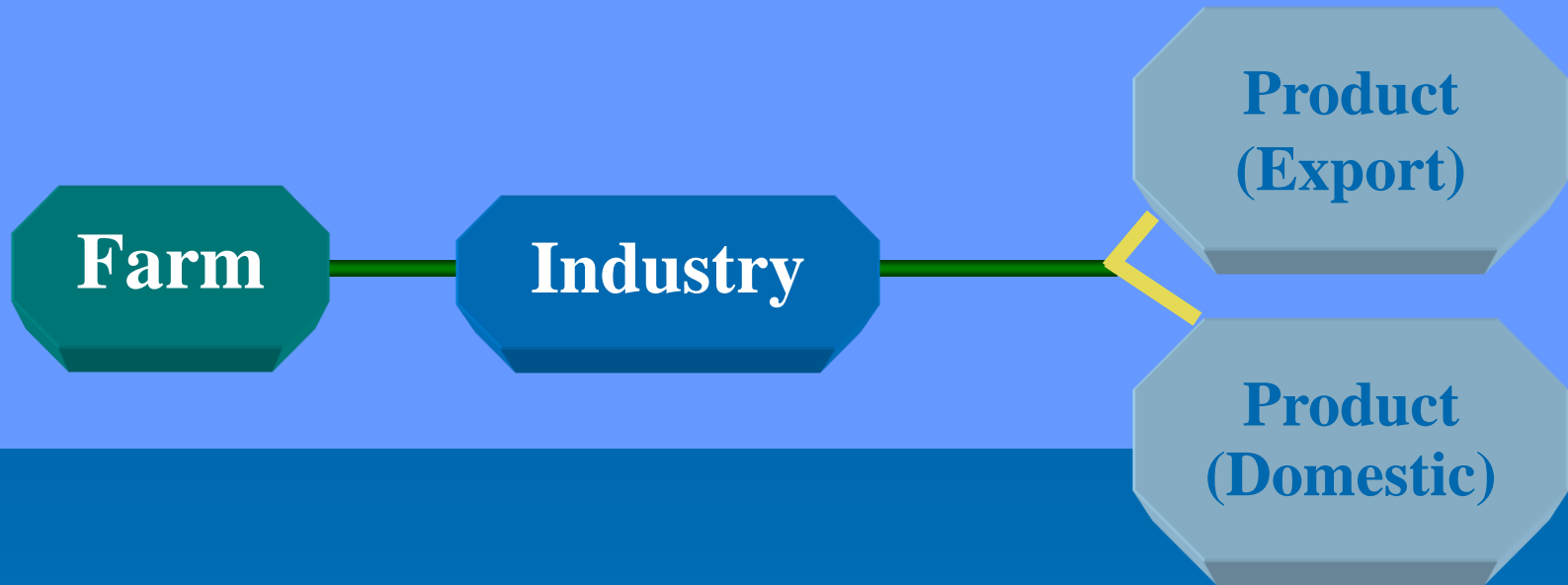




The Responsibilities of MOAC under Road Map of Food Safety

- I. - Control the imports of agricultural inputs**
 - Control the import of raw materials for food production (e.g. meats, tuna, shrimp)**
- II. Farm GAP implementation & certification**
- III. Control of food manufacturing for export**
- IV. Control of produce/products for export**
- V. SPS/Trade/International standards negotiation**

STANDARDS FOR FOOD CHAIN



GAP

GMP
HACCP

Product standard
(Safety & Quality)

Hygiene of food service

TYPES OF STANDARDS

- **Commodity standards e.g. longan, mango, asparagus, rice, chicken meat**
- **Production standards e.g. GAP, GHP, GMP, Organic Agriculture**
- **General standards (mainly on food safety) e.g. MRL for pesticides, ML for contaminants, methods of analysis**



Good Agricultural Practices



Examples GAP Standards

For crop production

- : **GAP for Food Crops** → general standards for all food crops
- : **GAP for Longan, Asparagus, Okra, Chili, Thai Hom Mali (Jusmin) Rice, Orchid**

For livestock farm

- : **GAP for Cattle Farm, Bee Farm, Duck Farm, Broiler Farm**

For Aquaculture

- : **GAP for Tilapia (fresh water fish), Shrimp**

Good Manufacturing Practices



Examples of GMP Standards

- : General Principles of Food Hygiene**
- : Slaughter house – General, Poultry, Pig**
- : Packing house – Fresh Fruits & Vegetables**
- : Rice mill**
- : Raw milk collecting center**
- : Processing of fishery products**
- : Wood packaging for import/export**

Standard Setting

ACFS

Focal Points
(Codex, OIE, IPPC)

9 Steps
Standard Setting

- Farmers
- Processors
- Scientists
- Consumers

National Standards

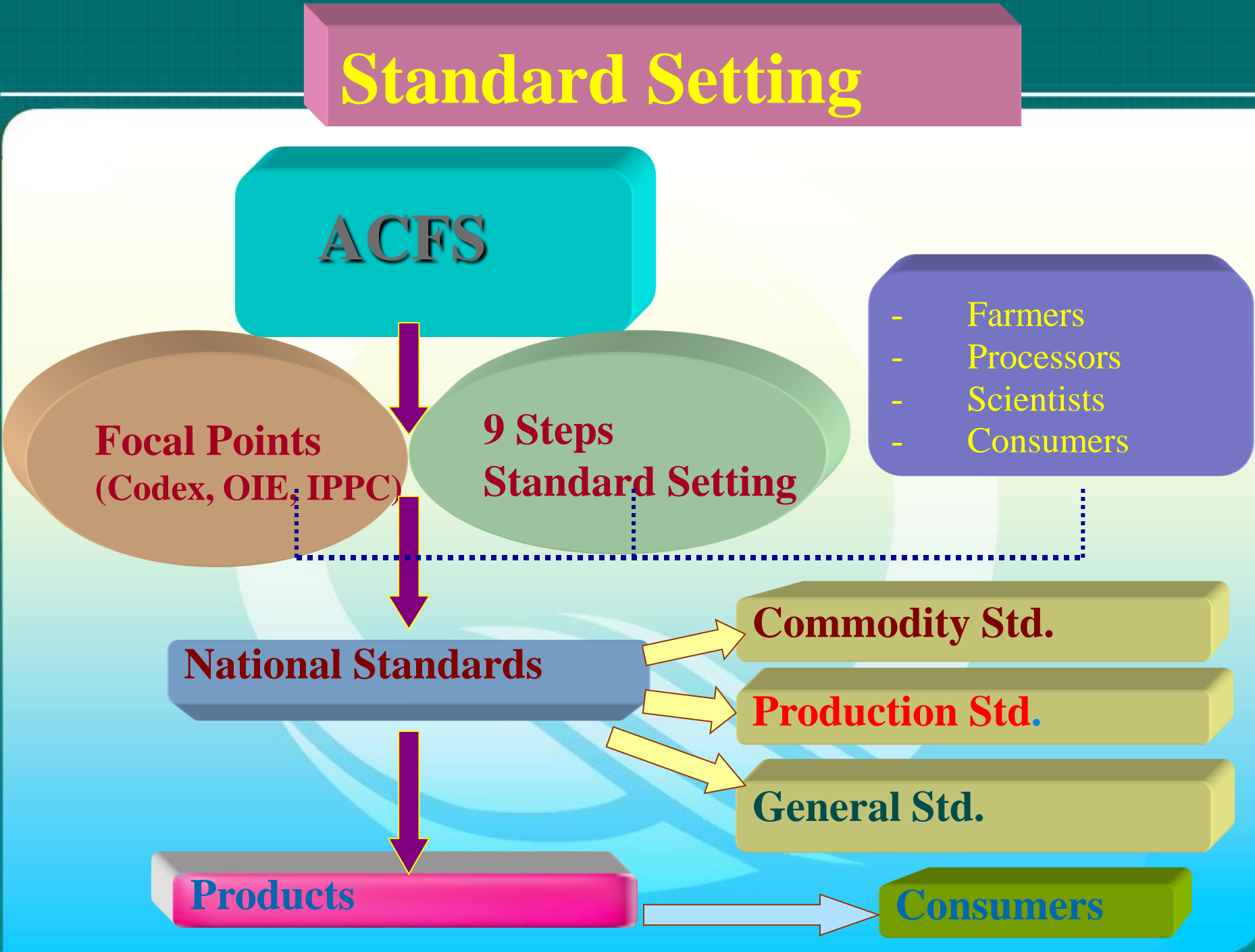
Commodity Std.

Production Std.

General Std.

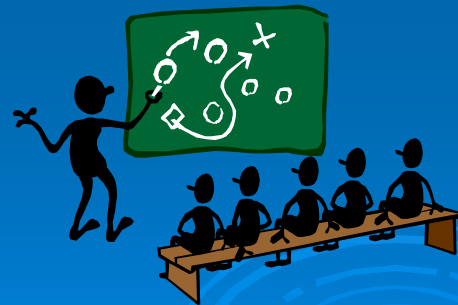
Products

Consumers



ACFS : National standard setting

1. **Prioritization of a standard**
2. **Establishment of Technical Committee**
 - all stakeholders including
 - * **scientists, experts**
 - * **government officers,**
 - * **farmers**
 - * **private sectors**
3. **Standard drafting**



ACFS : National standard setting

- 4. Draft standard considered by the Technical Committee**
- 5. Public hearing / Requesting comments from all stakeholders**
- 6. Draft standard approved by the National Committee on Agricultural Standards**
- 7. WTO Notification (for mandatory standard)**
- 8. Standard Approval and Notified in the Royal Gazette**
- 9. Standard review and revision (every 5 y)**

UTILIZATION OF STANDARDS

For Production (farmer & industry)

- : Production practice – GAP, GHP, GMP
- : Commodity specification – commodity/general standards

For Trade

- : Trading specification - commodity/general standards

For Certification/Inspection

- : System certification - GAP, GHP, GMP, Organic
- : Product certification – combination of all standard types

Control of Food Safety at Farm level

Strategy : Implementation of **GAP** at farm level by

- **Establish GAP standards**
- **Promote GAP implementation among farmers**
- **Certify GAP farm**
- **Accredit certification body (CB)**



MOAC : Roles on Food Safety Standardization

Activities

Plants

Livestocks

Fisheries

Standard setting

ACFS

Agri. Extension/
Std. Implementation

DOAE, CPD

DLD

DOF

Inspection &
Certification

DOA, RD

DLD

DOF

Accreditation

ACFS

Communication &
Education

All

Agricultural Extension / Food Education

- Develop guidance/manual/training materials for farmer, farm advisor, industry, etc.
- Introduce standards on good practices (GAP) to farmers
- Promote practices that lead to safer and sustainable production e.g. sufficiency agriculture, organic agriculture, pesticide-free production
- Educate consumer for understanding of safe production/ products and how to properly choose safe products
- Communicate for wide acceptance of the 'Q' mark as a guarantee for safe and good quality product

Certification by MOAC

4 Departments act as CBs/Authorities

- Department of Agriculture (DOA) for crop/plant products
- Rice Department (RD) for rice
- Department of Livestock Development (DLD) for livestock/animal products
- Department of Fisheries (DOF) for aquaculture/fishery products



GAP Certification/Accreditation

DOA

DLDD

DOF

RD

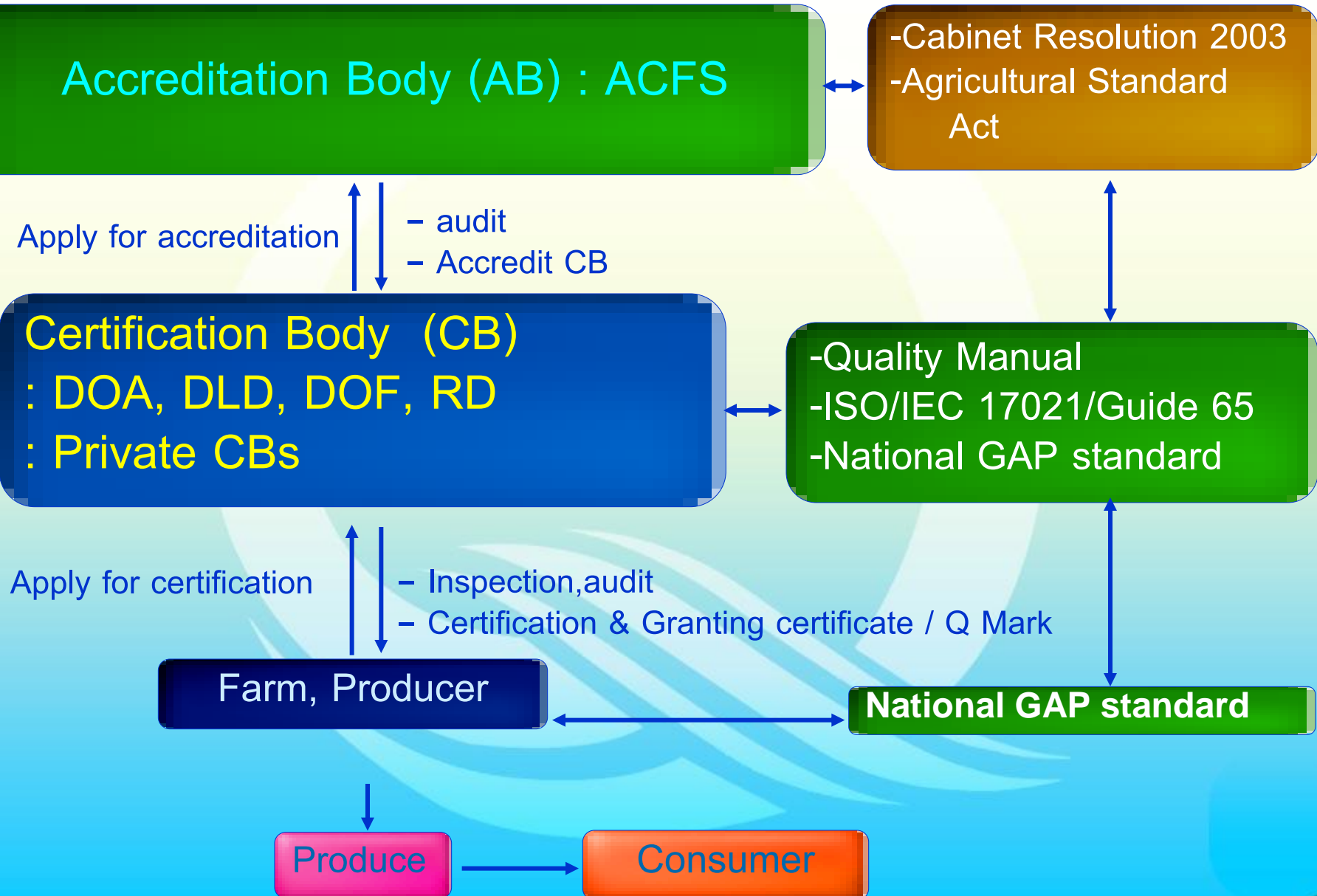


Government certification bodies for
national GAP standards

**Private CB → national GAP standards and possibly
Other GAP standards (e.g. GlobalGAP)**

ACFS (as accreditation body or regulatory body) :
Recognize/Accredit government/private CBs for GAP
certification (and also other certification e.g. GMP,
HACCP, organic)

GAP Certification and Accreditation



Q – Mark: Certification Mark for Qualified Systems or Products



Standards Applied to FFV

- FFV commodity standards
- Specific GAP standard for each F&V
- General GAP standard for food crops
- GMP standard for FFV packing house
- MRL & EMRL for pesticide residues in foods & agricultural commodities
- Sampling for testing for compliance of pesticide residues
- Standards relating to phytosanitary measures
- Guidance for the application of GAP standard (under development)

GAP

Good Agricultural Practices

Main objectives :
- Food safety
- Essential Quality

Supplementary objectives :
- Productivity
- Premium quality
- Environmental
- Occupational health & safety
- Sustainability



GAP Requirements

- Water sources
- Plantation area
- Pesticides application
- Pre-harvest management
- Harvest and post-harvest handling
- Holding, moving and storage of produce
- Personal hygiene
- Data recording and traceability

The Establishment of Thai MRLs



มาตรฐานสินค้าเกษตรและอาหารแห่งชาติ

มกช. 9002-2551

THAI AGRICULTURAL COMMODITY AND FOOD STANDARD

TACFS 9002-2008

สารพิษตกค้าง : ปริมาณสารพิษตกค้างสูงสุด

PESTICIDE RESIDUES : MAXIMUM RESIDUE LIMITS

สำนักงานมาตรฐานสินค้าเกษตรและอาหารแห่งชาติ

กระทรวงเกษตรและสหกรณ์

ICS 67.080.01 ISBN 978-974-403-574-5



มาตรฐานสินค้าเกษตรและอาหารแห่งชาติ

มกช. 9003-2547

THAI AGRICULTURAL COMMODITY AND FOOD STANDARD

TACFS 9003-2004

สารพิษตกค้าง : ปริมาณสารพิษตกค้างสูงสุด
ที่ปนเปื้อนจากสาเหตุที่ไม่อาจหลีกเลี่ยงได้

PESTICIDE RESIDUES : EXTRANEOUS

MAXIMUM RESIDUE LIMITS

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Establishment of Thai MRL

**Agricultural Std
Committee**

ACFS

**FAO/WHO-
JMPR**

Approved label = GAP



**Data i.e. Codex MRLs
Supervised Trial, other
countries' national MRLs**

Exposure assessment



MRL - Recommendation



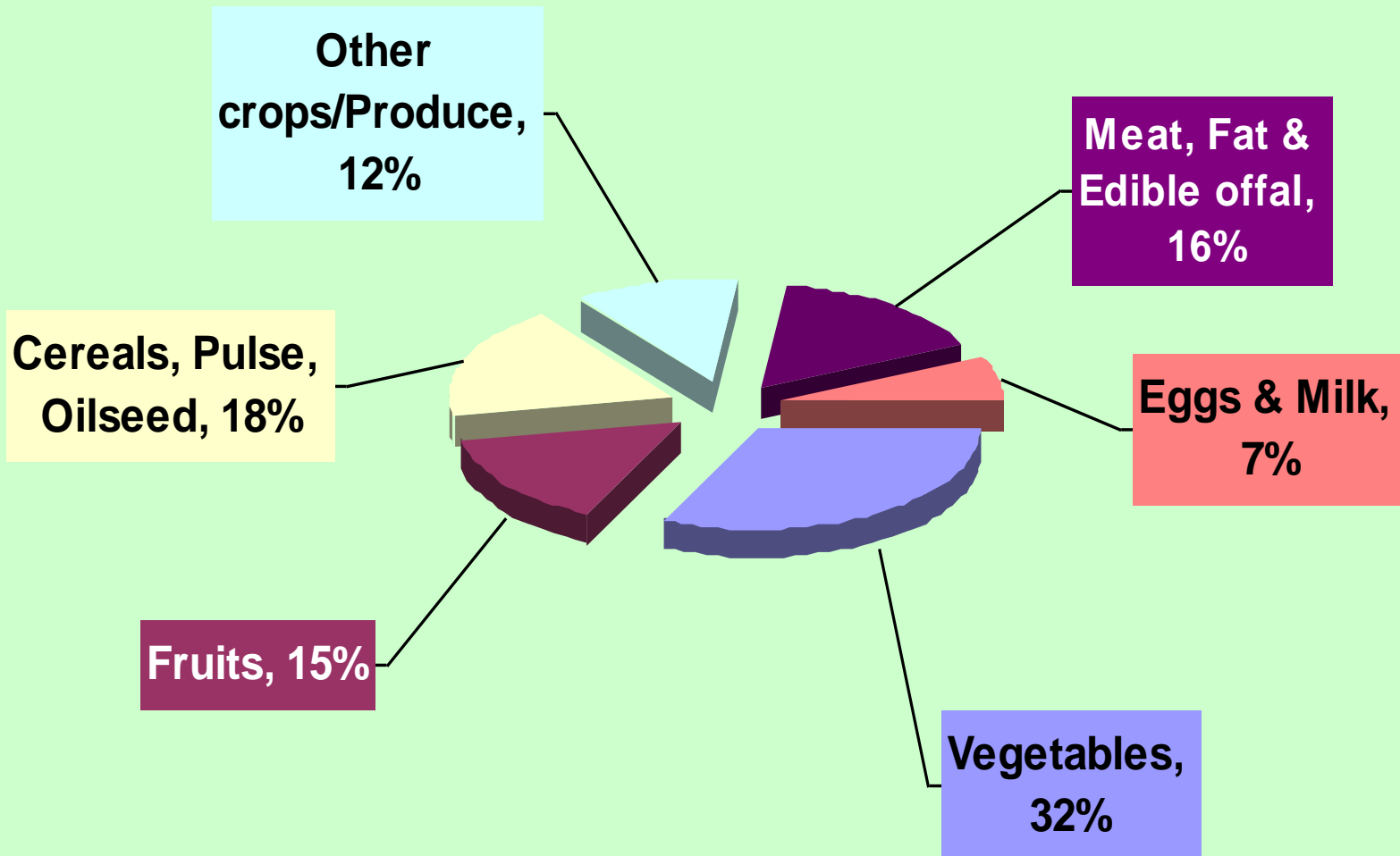
MRL Adoption



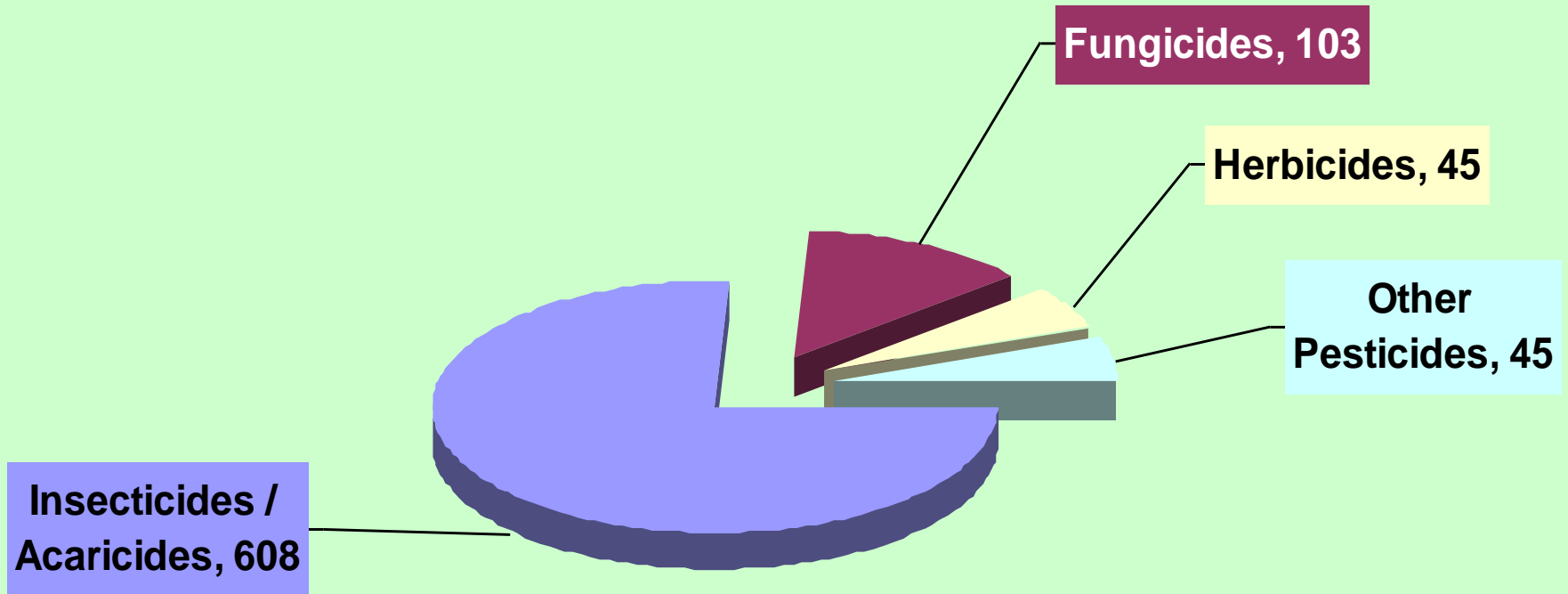
ADI/ARfD



MRL/EMRL Classified by Commodity Groups



MRL/EMRL Classified by Pesticide Groups



Regional Standards Harmonization



ASEAN Agricultural Standards Harmonization

- AMAF (THE ASEAN Ministers on Agriculture and Forestry)
 - ASEAN Sectoral WG on
 - Crops: EWG-MRL, AMSHP
 - Fisheries : ASEAN Shrimp GAP
 - Livestocks : Animal Vaccines
 - HALAL FOOD
- EWG-MRL : Expert WG on the Harmonization of MRL of Pesticide among ASEAN Members
 - 14 meetings since 1996
 - > 800 pesticide MRLs harmonized
 - MRLs based on Codex MRLs and residue data generated by ASEAN members
 - ASEAN Members should establish/revise their national MRLs to comply with ASEAN MRLs

ASEAN Food Standards Harmonization

- AMSHP(ASEAN Meeting on Standards for Horticultural Produce)
 - Establish ASEAN standards on horticultural produce, and from 2010, TOR revised to include other food crops
 - Standards mainly on essential quality issues
 - 16 fruits & 3 vegetables e.g. durian, pineapples, mango, papaya, banana, cucumber, garlic standards have been established
 - Primary objective is for produce traded among ASEAN but can also be used as a reference for produce traded outside ASEAN

Gaps/Challenges in Food Control

- How to promote implementation of good practices by farmers – Incentive?, Enforcement?
- Food quality vs. Safety / voluntary vs. mandatory application
- Linkage between farm ,industry and market
- **Consumer/market education/information**
- **Transportation of produce/product**
- **Traceability along food chain**

Thank you
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