

Mutual Recognition Agreements embedded in Integrated Food Control System For Fishery Export in Myanmar

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Food Control and Food Control System

- **Food Control** : “*the Mandatory Regulatory Activity of enforcement by national or local Authorities to provide consumer protection and ensure that all foods during production, handling, storage, processing, packaging, transportation, distribution and sale are safe, wholesome and fit for human consumption; conform to safety and quality requirements; and are honestly and accurately labeled as prescribed by law*”
- **Food Control System** (at National Level)
 - (1) **Food Legislation** - the comprehensive body of appropriate food law
 - (2) **Food Control Management** -the continuous process of Monitoring ,Controlling & Surveillance
 - (3) **Inspection Services**- operated by Gov. or independent organizations, inspector is key functionary
 - (4) **Laboratory Services** -essential, support for food law enforcement by providing Scientific data
 - (5) **IEC** – important for efficacy, can be used to educate consumer and to encourage food industry for adoption of good practices

Important Stakeholders

National authorities have the responsibility of protecting public health by reducing the risk of food-borne disease and providing food safety education and information to consumers and the food industry.

Government



Food Industry

Consumer

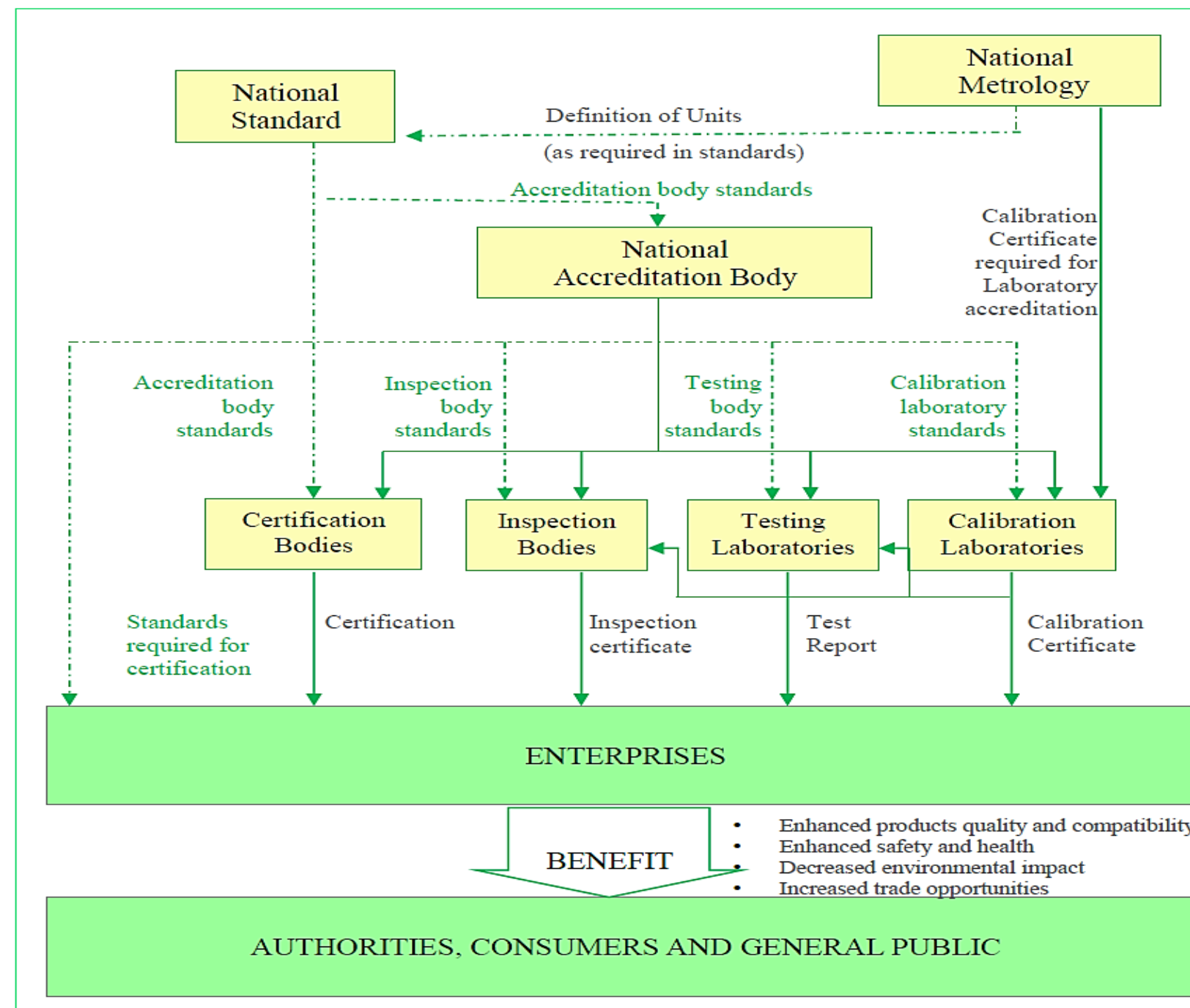
Ultimate responsibility for food safety lies with food producers, processors, retailers, preparers and servers. The capacity to fulfill their roles adequately depends on their ability to understand, establish and follow effective food control systems.

They are entitled to safe, wholesome food. They have responsibilities on their own by proper good hygienic practices when handling, storing while following manufacturers' recommendations on labels. However they cannot expect the sole provision from firm.

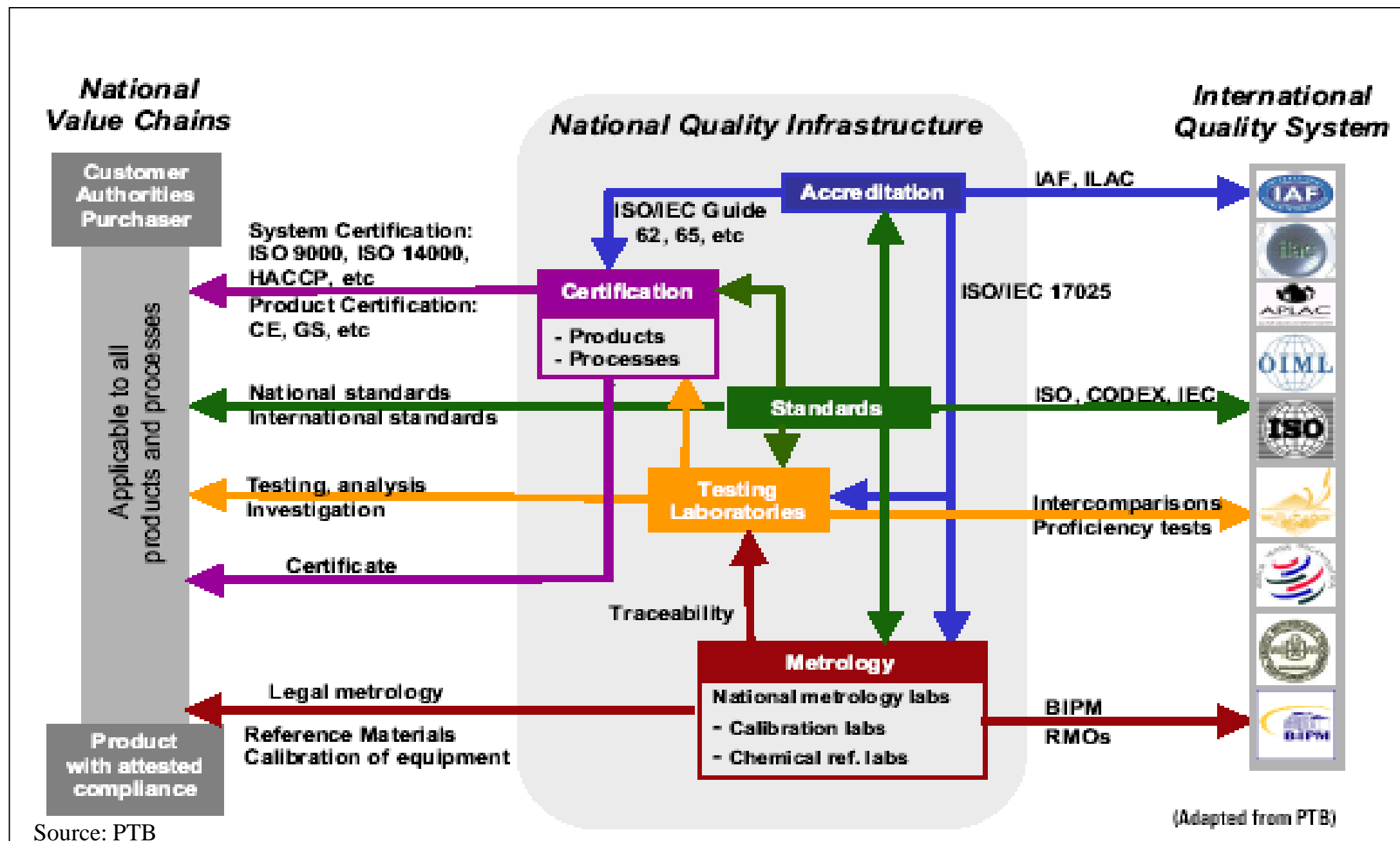
Food Control System for Public Health and Trade

- Food control is a tool to achieve safety either for hygienic-based or price-based food demand
- Food Control System to be provided by government agencies for protection of consumer from unsafe foods(Alomirah,2010).
- Competent Authority-CA is the central authority of a state for official controls or any other authority to which competence is conferred (EDES,2012).CA is the official government agency having jurisdiction(CAC,1999)
- Food Business Operators-FBOs mean natural or legal persons responsible for ensuring that the requirements of food law are met within the food business under their control (FSA,2007) who involve in food chain commercially [i.e. producers,processors,traders,exporters,importers retailers, etc.]
- Consumer an active group through dialogue for safer food in risk governance framework (Cope and Frewer,2010)

Linkage between National Quality Infrastructure and Food Control System



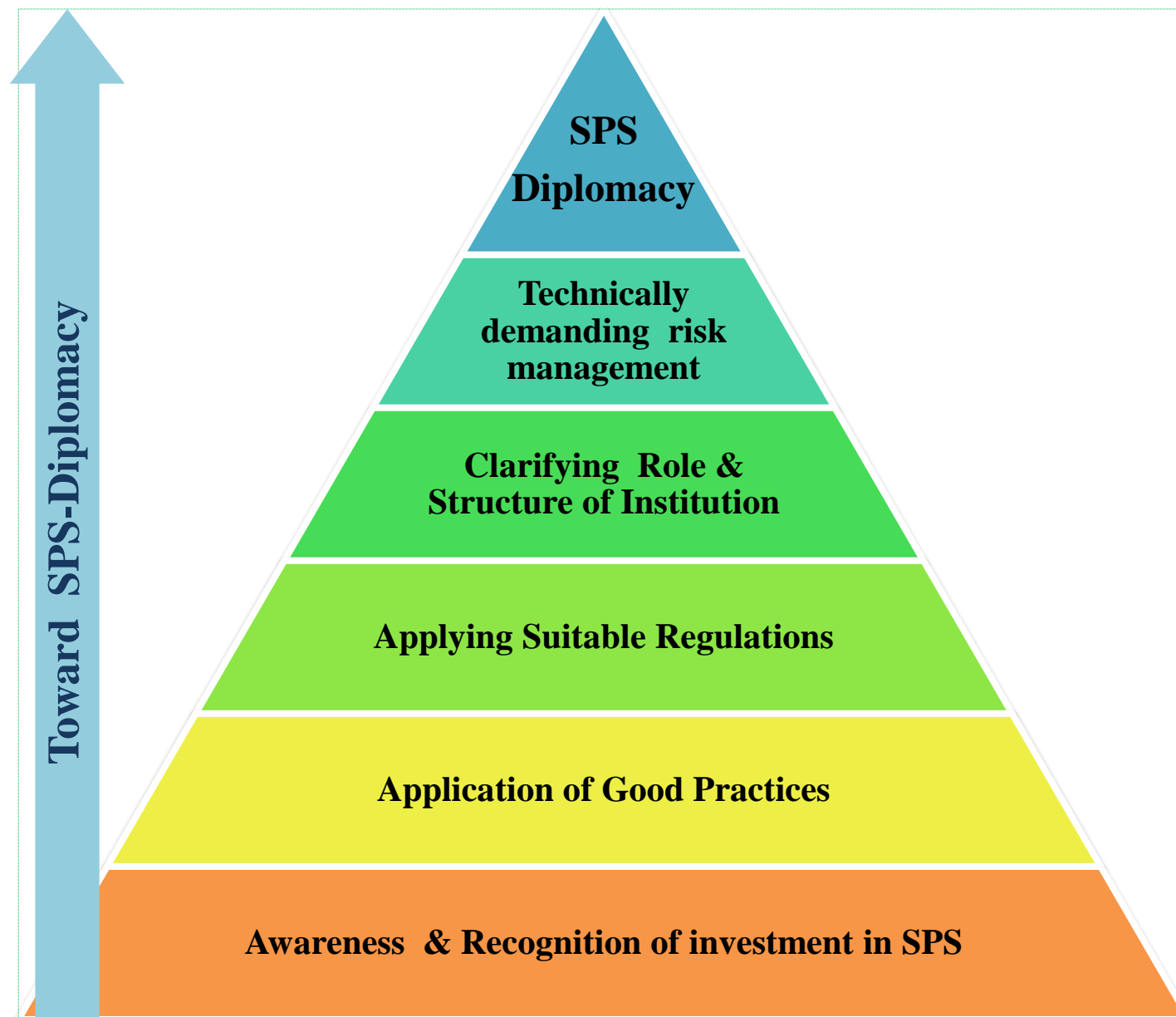
Quality System Relationship



National Quality Infrastructure NQI an institutional framework that establishes and implements conformity assessment services, accreditation, standardization, metrology (Tippmann, 2013).

SPS Management for Trade

Figure.SPS management functions for trade



Source: Henson and Blandon (2007)

- **SPS management functions** 6 levels
- **SPS Diplomacy** for engaging fully with trading countries (Henson and Blandon,2007)
- **SPS capacity building** needs to link domestic policy objectives and agri-food export promotion (STDF, 2013)
- **Clarifying role of Institutions** Well-defined organizational structure supported by funding can confer analytical function, surveillance, quarantine systems, emergency management arrangements that need to be legally mandated, with sophisticated skills (Henson,2007)

Firms Level: Food Safety Management System FSMS

- Firm level food control Control of food-borne risks is highly complex
- Standardized Processes All levels of food-chain guided with standardized practices
[(e.g.)Fishery Processing Plants]SSOP,GMP,HACCP-3 main standardized systems]
- Cost and Benefit of Food Safety Regulations Benefits are reductions in risks of morbidity and mortality associated with the consumption of contaminated food. Costs include production cost, compliance cost, administrative cost,etc. (Antle,1999)
- How to address Food Safety in Trade and Business? Food safety is addressed as a global public good through Private sector efforts, Institutional innovations following SPS-WTO, and Trade Capacity Building efforts (Unnevehr,2006)

Risk Reduction in Food Trade for Safety

- No 'zero-risk' in food microbiological aspects, appropriate food control is required (Anklam, 2001)
- **Risk → Hazard plus Exposure**
- Risk can be reduced by adoption of good practices GAP,GHP,GMP, HACCP in food production
- Risk Assessment, Risk Management and Risk Communication formalized and incorporated into a process known as risk analysis for food safety (FAO,2005)
- **Food Safety Objective FSOs as a tool** to develop food standards, guidelines and related texts (Schothorst et.al.,2002)
- FSO and ALOP suggested by international governmental bodies as a mean for CAs to make food safety control transparent and quantifiable

Figure.Risk control along food-chain

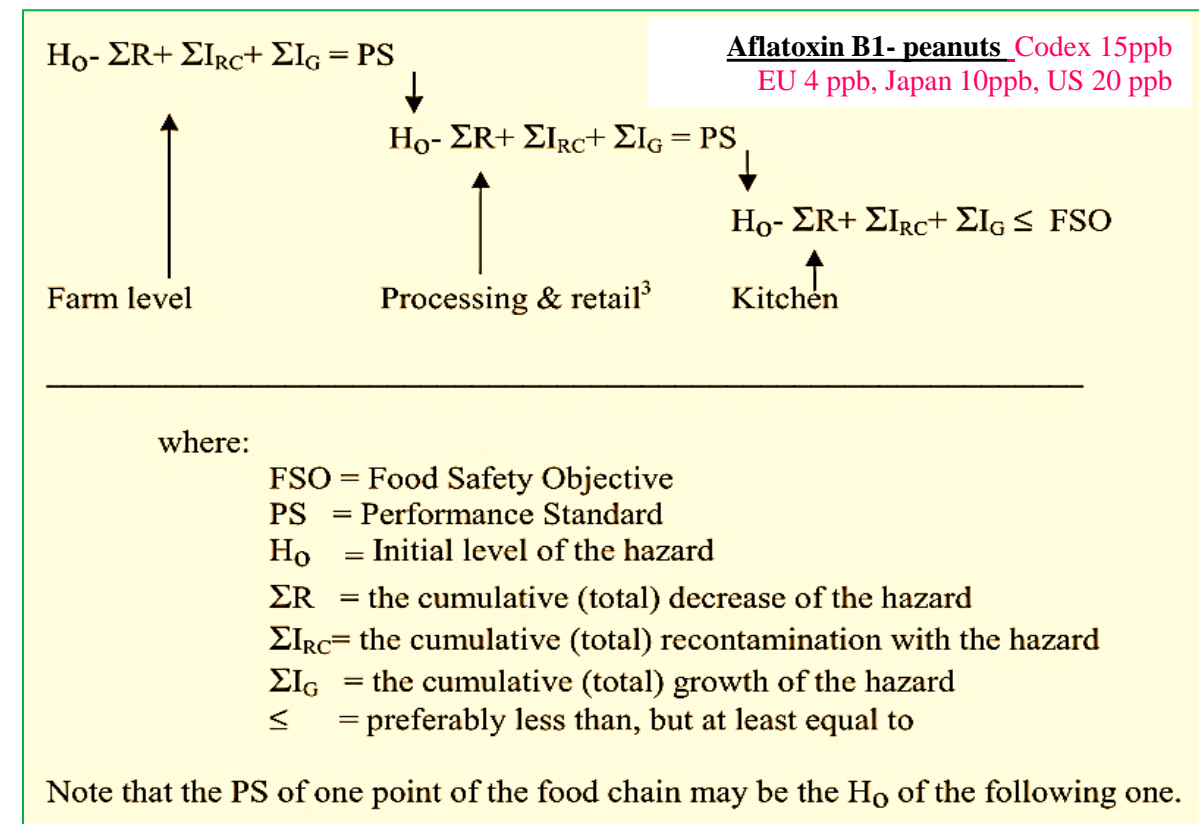
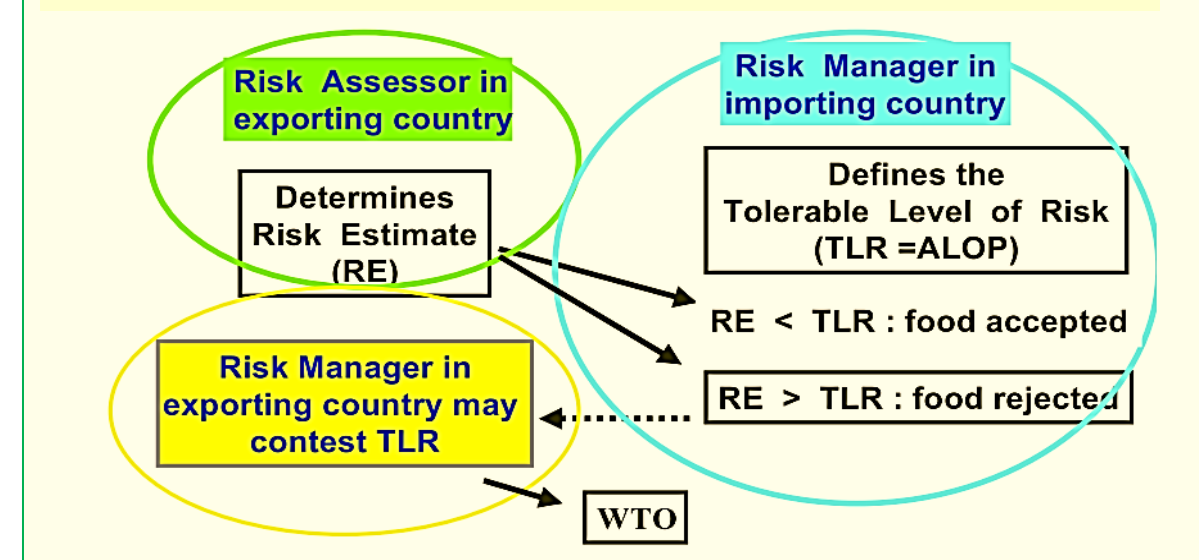
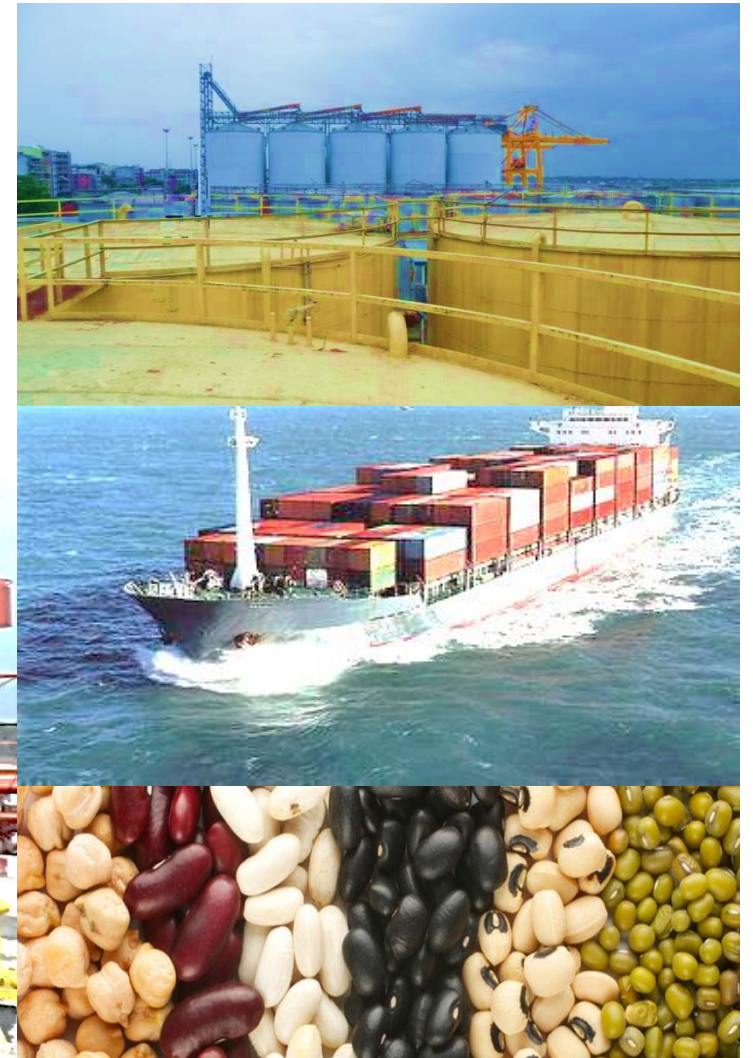


Figure.Use of MRA in Trade



Food Control in Export :

Control of Fishery Products for International Markets



Introduction

- Achieving food safety is driven by food security, agriculture practices, trade requirements, consumer concern on food safety, etc.
- Goal is to fulfill the needs of consumers while producers taking responsibility along food chain following regulatory control
- Myanmar is traditionally an agrarian country exports a variety of primary produces cultivated by a majority 70% of population
- the world 2nd largest exporter -Bean in 2011, but not selling to lucrative markets
- Little investment in quality infrastructure during last 30 years (UNIDO,2013)
- Trade-supported industries were not so successful in export aimed at lucrative markets (ITC,2015)



Source: https://greatboatjourneys.files.wordpress.com/2013/11/myanmar_map.jpg

Challenges in Food Sectors

- **Food Control** Authorities with food control systems are generally in place **but without quality policy for export success**(ITC,2015).Weak in sharing export success goal among public agencies (Wai and Yamao,2014a)
- **Myanmar's Export Strategy to Nontariff Measures** Only general export procedures for all export goods existed (EU,2014) over 90% of Myanmar primary produces were selling to the countries with less rigorous SPS regulation requirements (Wai and Yamao,2014a and Aye,2005)
- **Technical Regulations** Responsible agencies **admitted technical regulation information gaps** between National standard body and Trade promotion organization that **adversely effect trade**
- **Agri-Export Success** is **facing with the challenges**, as a result of lack of appreciation on Commodity Standards formation, insufficient resources in food control works,etc.(Wai and Yamao,2014a)
- **Image of Myanmar food products** No strong brand image (e.g.sea food) in international market (CBI,2012) however, neighboring countries (China,Thailand,Bangladesh,etc.) are buyers and re-exporters of Myanmar (fishery) products
- **Food Safety Challenges**
 - **Chemical hazards**: Histamine in dried-anchovy,antibiotic residues:nitrofurantoin,chloramphenicol in fish, etc.
 - **Microbiological hazards**: *E-coli* and fecal coliform in Beans,*Vibrio cholerae* in ice products,*Streptococcus aureus* in milk products and salads,etc.(Ilsijapan,2014).According to FDA,microbiological contamination is a major problem associated with street foods, reported during market assessments (Nwe,2011)

Fishery Control for International Markets

- **Resources** Myanmar fishery resources especially from marine remained largely untapped due to late privatization(Okamoto,2008).However, **little information was available about competency of marketable conformed fishery products for international trade from food control aspects**
- **Equivalent Inspection Level** among trading partner countries **SPS:Article 4** states how recognition agreement could be made between trading partner countries to account for equivalence level in inspection, testing and other relevant procedures (WTO)
- **Mutual Recognition Agreement** among trading partner countries **TBT:Article 6** mentions how central government bodies of trading partner countries achieve mutual recognition of conformity assessment through accreditation (WTO)
- **3 main parts-**
 - (1) Food Control over fishery products in International trade
 - (2) Fishery Food Control System for Export
 - (3) Assessment of the approved fishery processing plants: Firm level adoption of Standards

Fishery Production and Control in Myanmar

Table: Fishery Production growth during 2000-2010

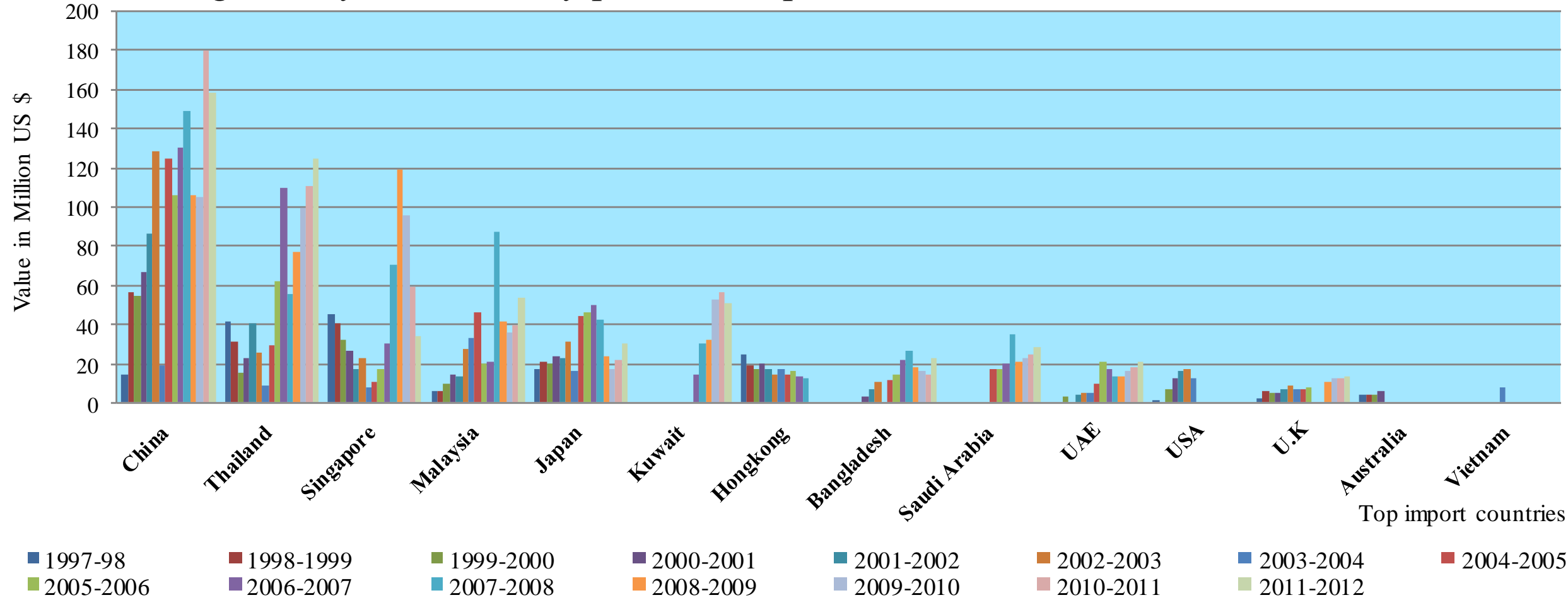
Country	Production growth% during 2000-2010	
	<i>Capture Fishery</i>	<i>Aquaculture</i>
World	0.4	7.2
EU	-1.2	3.1
China	0.4	5.5
Japan	-2.2	-0.6
South East Asia	3.6	13.4
Myanmar	10.9	24.0
Cambodia	5.6	15.3
Vietnam	4.1	13.3
Indonesia	2.8	11.3
Philippines	3.3	6.6
Malaysia	1.1	9.4
Lao	0.6	6.9
Thailand	-4.8	5.7
Singapore	-10.7	-3.7
Bangladesh	5.6	7.1

Source : FAO (2012)

- 4.14million metric tons MMT produced in 2012, **higher than neighboring countries'** production– Bangladesh 3.1 MMT, Thailand 2.9 MMT (DOF)
- **Production growths become highest** (table)
- Fishery is the **only one sector delegated by EU**, among all food sectors
- **Trade:** Border(>60%), **Oversea-normal trade(<40%)**
- **Importers:** EU, USA, Japan, China, Thailand, Bangladesh
- **Top 10 Fishery Products** Rohu, Hilsa, Pink, Live crab, live eel, White Pomfret, Tiger, Rosy Jew fish, Ribbon fish, dried prawns
- **World Top Exporters** China, Thailand, Vietnam
- **Top aquaculture producers:** China, India, Vietnam, Indonesia (FAO, 2008)

Myanmar Fishery Products' Top Destined Markets

Figure: Myanmar fishery products' top destined markets



Source: Statistical Data of Department of Fishery in Myanmar (2012)

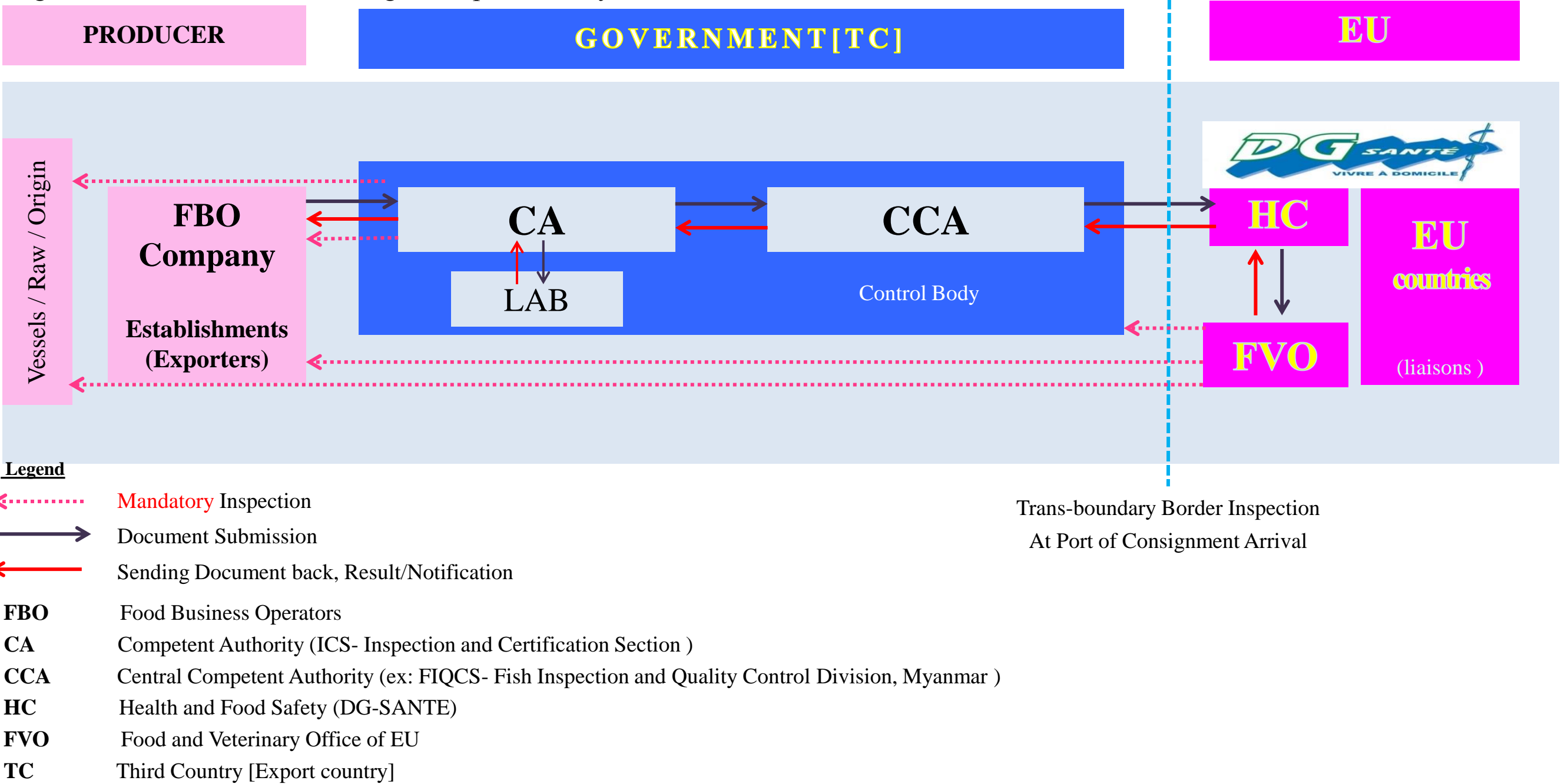
Major Markets of Myanmar Fishery Products

- Asia neighboring countries are so far the top importing countries of Myanmar fishery products, China with the highest ranking, Thailand the 2nd and so on, including Japan

(1) Food Control over Fishery Products for International trade

(a) Schematic Food Control for EU markets

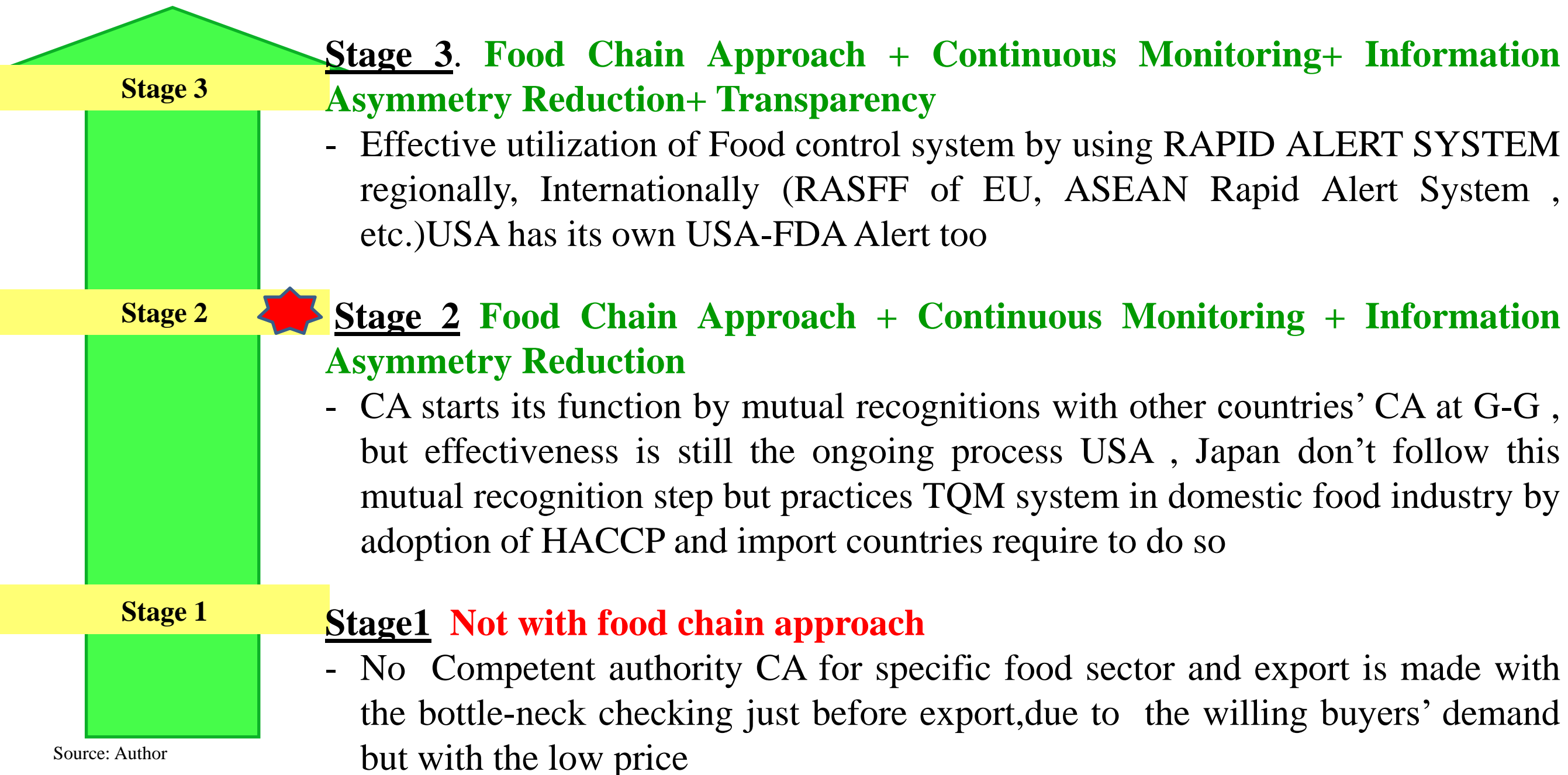
Figure: EU’s food control coverage in export country



(1) Food Control over Fishery Products for International Trade

(b) Vertical Integration of Food Control System by CA

Figure: Vertical integration at government level



(1) Food Control over fishery products for International trade

(c) Horizontal Integration-Food Safety Management System FSMS at Firm Level

Figure: Horizontal integration at firm level



Source: Author

Stage 3 (Double or triple certificates)

- 3.1.HACCP certificates approved by CA ,ISO 9000, 14000series
- 3.2.HACCP certificates approved by CA and ISO 22,000series
- 3.3.HACCP certificates approved by CA and ISO 9000series

Stage 2 (Single certificate)

- 2.1. HACCP certificate approved by CA
- 2.2. HACCP certificate approved by ISO 9000
(without CA's approved HACCP certificate)
- 2.3.Quality Management approved by ISO 22,000 series
(without CA's approved HACCP certificate)

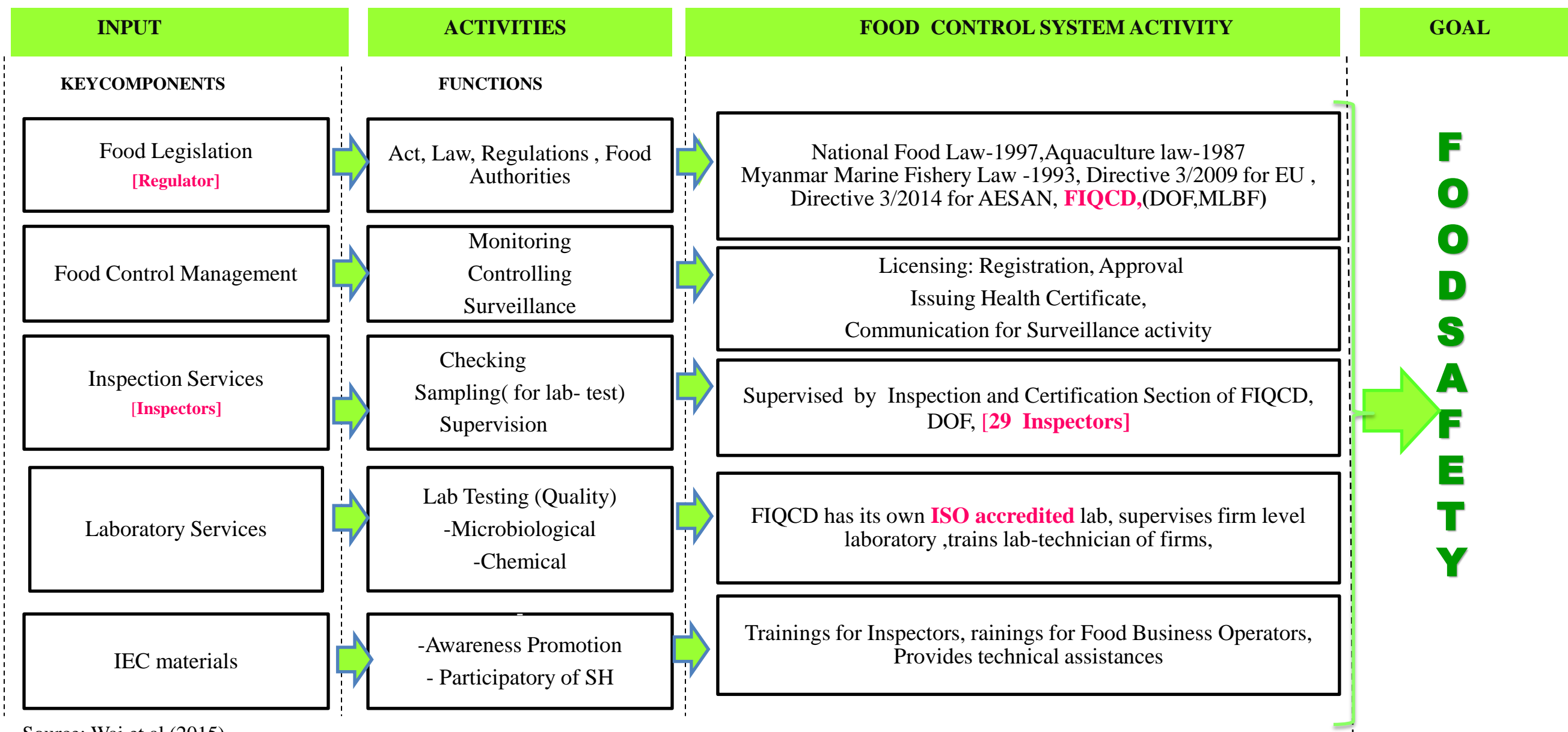
Stage1 (Without certificate)

- 1.1Traditional/Conventional factory without any certificate

- 1st stage, a firm does not have certificate that limits market access
- 2nd stage, FSMS can be started by acquiring single certificate from either public or private sources (Only firm 2.1 type can export to EU). Firm must be approved by CA no matter how much private standard they possess
- 3rd stage, firm would acquire both private and private certificates
- 4 types : 2.1, 3.1,3.2,3.3 are eligible

(2) Fishery Food Control System [for Export]

Fishery Food Control System



Source: Wai et.al.(2015)

FIQCD

Fishery Inspection and Quality Control Division

DOF

Department of Fishery

MLBF

Ministry of Livestock, Breeding and Fisheries

(3) Approved fishery processing plants: Adoption of standards

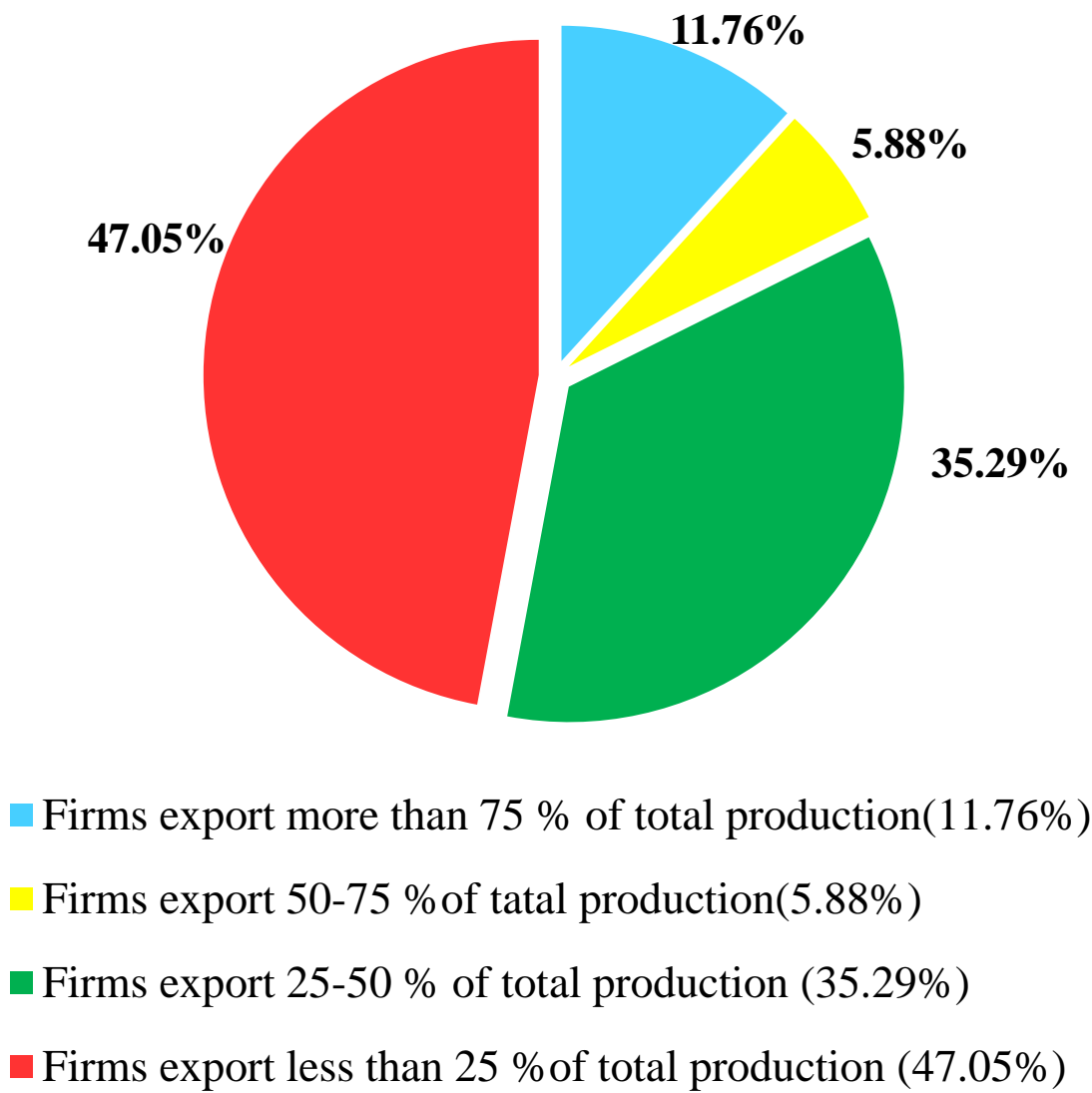
Figure: Firms' adoption of public and private standards



Source: Wai et.al. (2015)

- **Public Standards** All 20 firms used Public Standard
- **Private Standard** 60% did not use ISO 9000. Among them, more than half of them did not have a plan to apply for private standards meaning they will continue to rely on public standard DOF HACCP
- 60% did not use ISO 9000[Quality Management]
- 90% did not use ISO 22000 [Food safety]
- 95% did not use 14000 [Environmental]
- 40% ISO 9000, 10%-ISO22000,5%-ISO14000
- **Size of firms** 30%- less than 100 employees , 50% between 100-300, 15%- more than 300

Figure.Approved firms classification based on export to EU



Source: Wai et.al. (2015)

(3) Assessment of approved fishery processing plants: Adoption of Standards

Table: Requirements of 7 major markets in vertical integration and approved factory lists

	Import Country/ Markets	2 nd stage of Vertical integration			3 rd stage of Vertical Integration	Number of Myanmar fishery factory approved by import country's CA
		Harmonization	Verification Visit	Mutual Recognition between CAs	Alert system Web-sites	
1	EU	Required	Required	Required	RASFF	20
2	Japan	Not necessary	Not necessary	Not necessary	-	*
3	USA	Not necessary	Not necessary	Not necessary	US-FDA	[exporters/factory can apply directly to US-FDA]
4	China	Required	Required	Required	CNCA-AQSIQ	78
5	Vietnam	Required	Not yet	Required	NAFIQAD	24
6	ASEAN	at preparation stage	Not yet	Not yet	ARASFF (ASEAN alert)	*
7	GCC countries	Not necessary	Not necessary	Not necessary	-	*

Legend

Source: Wai et.al (2015)

* means processing plants did not require to be approved by import country's CA

- 7 major markets and requirements at 2nd and 3rd stages of integration. EU and China integrated vertically
- US integrated completely also having the same requirements at the 2nd stage with Japan that lack the 3rd stage so far
- Integration is initiated by EU and followed by China, Vietnam and ASEAN with varying intensity
- Up to 2014, 20 fishery factories approved for EU markets, 78 factories for China, 24 for Vietnam market
- ASEAN encourages its countries to integrate like EU. However, most countries were not ready practically

Summary

- Fishery Sector is one and only food sector that have (formal) MRA
- Other agriculture sectors have room to develop due to lacking of farm level good practices
- **At Government Level (Fishery Sector)**
 - **Competent Authority and SPS Diplomacy** CA recognized and invested in food control with clear role at institutional structure [SPS functions]
 - **Vertical Integration** It integrated itself at the 2nd stage of Vertical Integration for taking part in international trade with SPS management functions [SPS-Diplomacy for International trade]Risk-management is applied in food control management [SPS functions]
- **At Firm Level**
 - **Ownership and Size of Firms** All approved firms owned by Nationals [none were Joint Venture/MNEs] .Almost all approved firms concentrated in Yangon
 - **Horizontal Integration** Only 14% of firms Integrated FSMS horizontally, 86% of the firms were still ineligible

THANKS FOR YOUR ATTENTION



References

- Aye,T.,(2005),Sanitary and Phyto-sanitary(SPS):Union of Myanmar,Asian Productivity Organization.
- CAC,(1999),Guidelines for the production, processing,labelling and marketing of organically producedfoods. Available: http://www.bioaktuell.ch/fileadmin/documents/ba/bioregelwerk-2014/deutsch/eu_d/codex_e.pdf.
- CBI,(2013),CBI Market information database.Available: http://www.cbi.eu/system/files/marketintel/2013_cbi_import_intelligence_-_seafood_in_myanmar.pdf.
- FAO,(2012),Feeding the world:Statistical year book of the Food and Agriculture Organization.
- FSA,(2002),Guidance on identifying the food business operator and changes in operator for FSA approval purposes. Available:<http://www.food.gov.uk/sites/default/files/multimedia/pdfs/enforcement/idingfbochangesoperatorguide.pdf>.
- ILSJapan,(2014).Available:<http://www.ilsijapan.org/ILSIJapan/COM/W2014/EastAsia2013c.pdf>
- ITC,(2015),Quality management:cross-sector strategy 2015-2019 of National export strategy. International trade center and Ministry of Commerce.
- Schothorst,M.V.,and Gram,L.,(2002),Food safety objectives as a tool in development of food hygiene standards,guidelines and related texts. Available:<ftp://ftp.fao.org/Es/esn/jemra/kielpaper5.pdf>
- UNIDO,(2013),<http://www.adb.org/about/main>
- Unnevehr,L.J.,(2006),Food safety as a global public good:Is there under investment?.Available:<http://ageconsearch.umn.edu/bitstream/25733/1/pl06un01.pdf>.Plenary paper prepared for presentation at the International Association of Agricultural Economists Conference,Gold Coast, Australia,12-18th August,2006.
- Wai,Y.L.,and Yamao,M.,(2014a),Prospects of the components of Myanmar food control system for health and trade efficacy ,Annals of Tropical Research,Vol.36(1),pp.1-16.
- Wai,Y.L.,and Yamao,M.,and Hosono,K.,(2015),Fishery food control for international markets: firms level adoption of public and private standards in Myanmar,International Journal of Advanced Research,Vol.3(5), pp.552-561.
- Wai,Y.L.,and Yamao,M.,and Amano,M.,(2016),Achieving food safety:A case study for import food monitoring of Japan,Advances in Economics and Business,Vol.4(1),pp.1-9.
- World Bank,(2007),Quality Systems and Standards for a Competitive Edge.,World Bank, Washington,DC.
- WTO(n.d.).Article 5.7 of Sanitary and phytosanitary SPS measures by World Trade Organization.Available:https://www.wto.org/english/rese/bookspe/analytic_index_e/sps_02_e.html.