

# Thailand's Key Products in Fishery and Livestock Sectors

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# 1. General Information of Thailand Agriculture





100

Phayao

2 Phrae

Sirikit

Phitsanulok Phetchabun

Betong 100° Petani MALAYSIA 103°

Uttaradit

Mekon8

Nong Khai

🔶 Loei

Tanen Range Chiang Rai

Lampang

humibol? Sukhothai

Bhumibol Su Dam Tak Dam Tak

Mae •Hong Son

Mae Sariang 103

Udon Thani

NORTHEASTERN Khon Kalasin

Sh

Ubon C

Tonle Sap

VIET NAM

200 km

Phnom Penh

Thailand







<u>Population</u> Total Population: 67.01 million Annual growth rate 0.8% Total labor force: 38.4 million



Non-agri. 59% : 39.54 million

Source: World Bank, 2013

Agri. 41% : 27.47 million

### Gross Domestic Products & share from Ag.Sector (at current market price)





# 2. Agricultural Production and Trade



### Export value of major agricultural product, 2012-2014





### Import value of major agricultural product, 2012-2014





### Share of export value by major country, 2014





### Share of import value by major country, 2014





# 3. Products of Fishery & Livestock sector



# **Major Fishery Product**





Shrimp





Squid&Cuttlefish





# **Production of Fishery Product**

Unit : 1,000 Ton

		Marine Fishery						Freshwater Fishery				
Year	Total	Sub-total	Fish	Shrimps	Crabs	Squids& Cuttlefishes	Molluscs	Others	Sub-total	Fish	Shrimps	Others
2010	3,062.6	2,356.7	1,345.0	614.1	31.8	126.9	201.6	37.3	705.9	676.9	23.3	5.7
2011	3,036.5	2,427.4	1,292.8	659.8	36.0	128.4	204.9	105.5	609.1	581.5	22.1	5.5
2012	2,991.6	2,317.9	1,260.6	655.0	40.6	119.9	200.1	41.7	673.7	648.6	19.9	5.2

#### **Marine Fisheries**



#### **Freshwater Fisheries**



Source: Department of Fisheries









Swine



Cattle



Fresh milk



**Buffalo** 

Major Livestock Product



Hen egg



Duck egg



Native Chicken

Meat duck

### **Production of Livestock Product**





Cattle (1,000 heads)Fresh milk (1,000 tons)

-----Buffaloes (1,000 heads)

Broilers (1,000 birds)
 Duck eggs (1,000 units)

### **Production of Livestock Product**





# 4. Loss and waste of Fishery & Livestock sector



### **Causes of Fishery Loss**

- □ Fishing method and kind of tools
- Degrading freshness , high cost of ice
- Distribution, equipment storage, and transportation
- □ Knowledge of people related to this supply chain
- Disease: Early Mortality Syndrome (EMS) in shrimp





# Waste from fishery product

### Solid Waste: bone, shell, skin and offal

### Liquid Waste: liquid from cleansing process

Source: Department of Fisheries



# **Quantity of Waste in Fishery Processing**

# Material Waste Oyster 75-80 % Crab 70-75 % Shrimp 50-55 % Tuna 40-50 % Salmon 30-35 %

Source: Department of Fisheries



# Waste and Utilization from livestock product

By product	Utilization
offal	meat products
oxtails	soup
cheek and head	ingredients of sausage
blood	complement of sausage
skin	gelatin

Source: Maejo University



### Table 1: Amount of losses at various stage

Fisheries	2009	2010	2011	Change			
(1000 metric ton)			2011	2010	2011		
Total production	3,164	3,058	2,756	-3.35	-9.88		
Losses and Waste							
Agricultural Product	259.45	250.76	225.99	-3.35	-9.88		
Post harvest	189.84	183.48	165.36	-3.35	-9.88		
Proccess and packaging	70.65	70.65	70.65	0.00	0.00		
Distribution	240.65	227.00	213.50	-5.67	-5.95		
Consumption	27.27	25.73	24.20	-5.67	-5.95		
Total	787.86	757.62	699.70	-3.84	-7.64		

Estimated data using Food balance sheet

### Table 2: Percentage of loss&waste at various stage

Agricultural Product	8.2%
Post harvest	6%
Process and packaging	9%
Distribution	15%
Consumption	2%

Source: Estimated South-South Eastern Asia parameter from FAO



### Table 1: Amount of losses at various stage

Livestock	2009	2010	2011	Change			
(1000 metric ton)			2011	2010	2011		
Total production	2,261	2,392	2,590	5.79	8.28		
Losses and Waste							
Agricultural Product	115.31	121.99	132.09	5.79	8.28		
Post harvest	6.78	7.18	7.77	5.79	8.28		
Proccess and packaging	2.80	2.60	2.10	-7.14	-19.23		
Distribution	88.16	91.92	100.60	4.26	9.44		
Consumption	134.00	139.72	152.90	4.26	9.44		
Total	347.06	363.41	395.46	4.71	8.82		

Estimated data using Food balance sheet

#### Table 2: Percentage of loss&waste at various stage

Agricultural Product	5.1%
Post harvest	0.3%
Process and packaging	5%
Distribution	5%
Consumption	8%

Source: Estimated South-South Eastern Asia parameter from FAO



# **5. Recommendation**

- Collecting data systematically along supply chain
- Technical capacity building for data collectors
- Mutual food loss definition
- Accepted method of calculating food loss and waste
- Awareness raising and networking to address food loss and waste reduction



