

# **COST & BENEFIT OF MARKET BASED CERTIFICATION IN INDONESIA**



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# Indonesia Fisheries



- More than **17,500 islands** along the equator (12 months growing season, tropical), **5,8 million km<sup>2</sup> of sea**, **National seawater +/- 3,1 mil km<sup>2</sup>**, **ZEE : +/- 3,0 mil km<sup>2</sup>**
- **Coastline : 95,181 km**, **Brackish water/tambak : 1,2 mil ha**, **Freshwater/kolam : 627.000 ha.**
- Indonesia has the largest potential of fisheries production (65 million tons/year) in the world.
- **Population 250 million (2014) --> 300 million (2025)**
- **Fish Consumption 35,4 kg/cap (2013) -> 38 kg (2015). Need additional of 1 million ton of fish within 2 years. Provides 65% of total animal protein intake to Indonesian diet.**
- **Global : AFTA (2005), CAFTA (2010), AEC (2015)**
- **Long-term seafood market growth drivers :**
  - **The rise of middle income class in Asia Pacific Countries**

# FISH PRODUCTS & MARKET DESTINATION

- ❁ Live Fish : Grouper, Lobster → Hongkong, Singapore & China
- ❁ Fresh Product :
  - ❁ Important Economic Fish → Singapore, Malaysia
  - ❁ Tuna (loin) → Japan, EU, USA
- ❁ Frozen Product → All Importing Countries
  - ❁ Shrimp/Prawn
  - ❁ Tuna
  - ❁ Cephalopode : sotong, gurita & squid
  - ❁ Fish: Tilapia, Snapper, Baramundi, Milkfish, Patin
  - ❁ Kekerangan; Soft shell crab
- ❁ Canned Product (tuna, mackarel, sardine, shrimp, cephalopode, pasteurized crabmeat, baby clam)
- ❁ Dried Product : Anchovy, salted fish & ell → Japan
- ❁ Value-added products → USA, Japan, EU
  - ❁ Breaded (tempura, fish ball, etc)
  - ❁ Fillet : tilapia, snapper, patin / pangasius,
  - ❁ Tuna loin, steak, sashimi, sushi.
- ❁ Saeweed & Carragenan → China, EU, Philipina

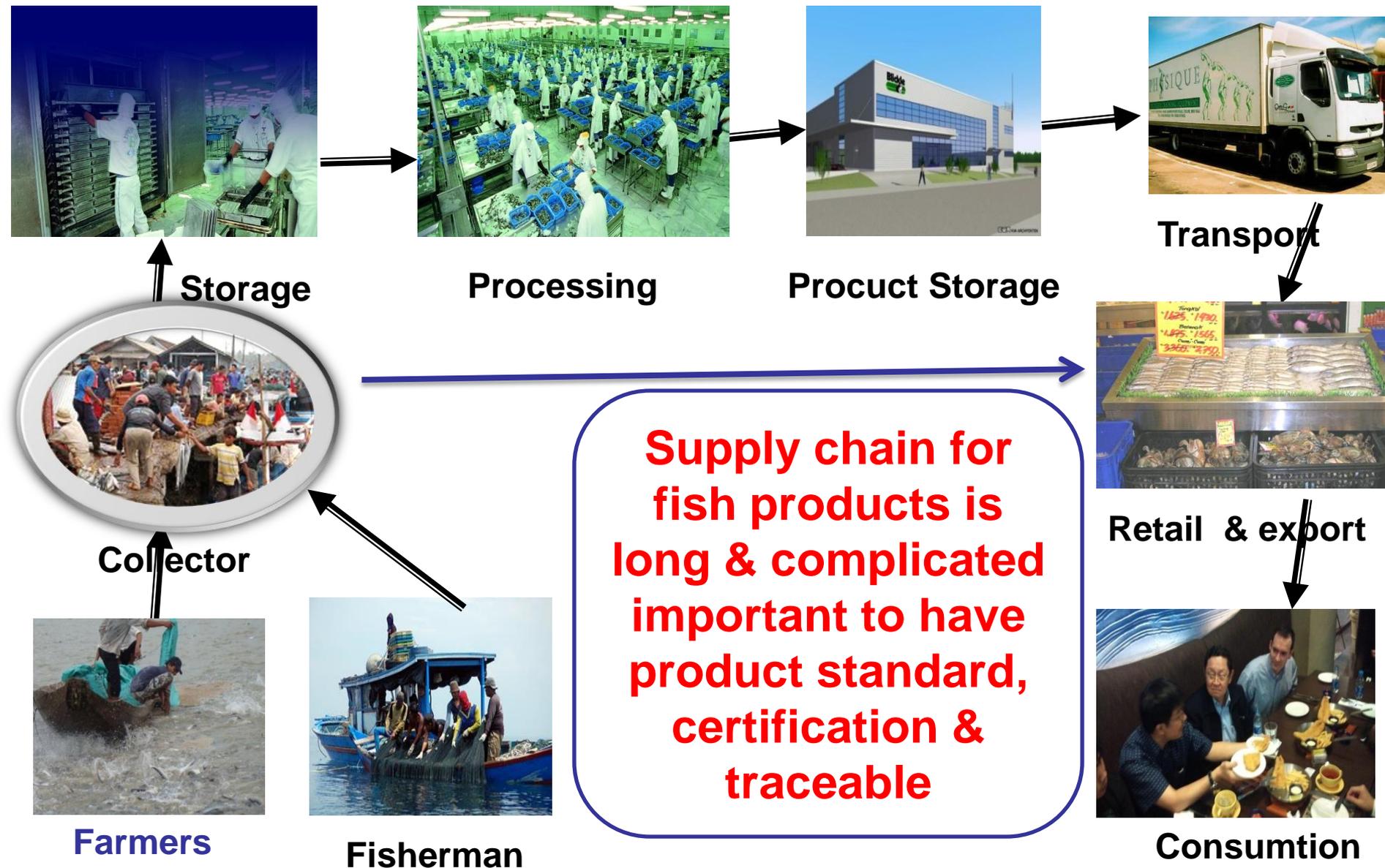


# INDONESIA FISH EXPORT

2008 - 2012 (value – in US \$ million)

	THN	TOTAL US \$ mil	SHRIMP US \$ mil	FISH US \$ mil	Tuna US \$ mil	Crab US \$ mil	Others US \$ mil
1	2008	2.699	1.165	734	347	214	238
2	2009	2.466	1.007	723	352	156	225
3	2010	2.863	1.056	898	383	208	317
4	2011	3.521	1.309	1.100	498	262	349
5	2012	3.854	1.304	965	749	329	505
6	2013	4.181	1.614	857	764	359	587

Sources : DJ P2HP - 2014 & BPS



**Fish/shrimp processing industry create employment (1.000 people to process 2.000 ton fish/shrimp). Not including the employment on farm, traders, feed mill, hatchery also the fisherman.**

# BUILDING THE “FUTURE“ FOR TRACEABILITY



## Key Legal Requirements:

- EU Food Law
- FDA Regulations
- JAPAN FOOD SANITATION LAW
- AUSTRALIA BIOSECURITY ACT

## Key International Standards:

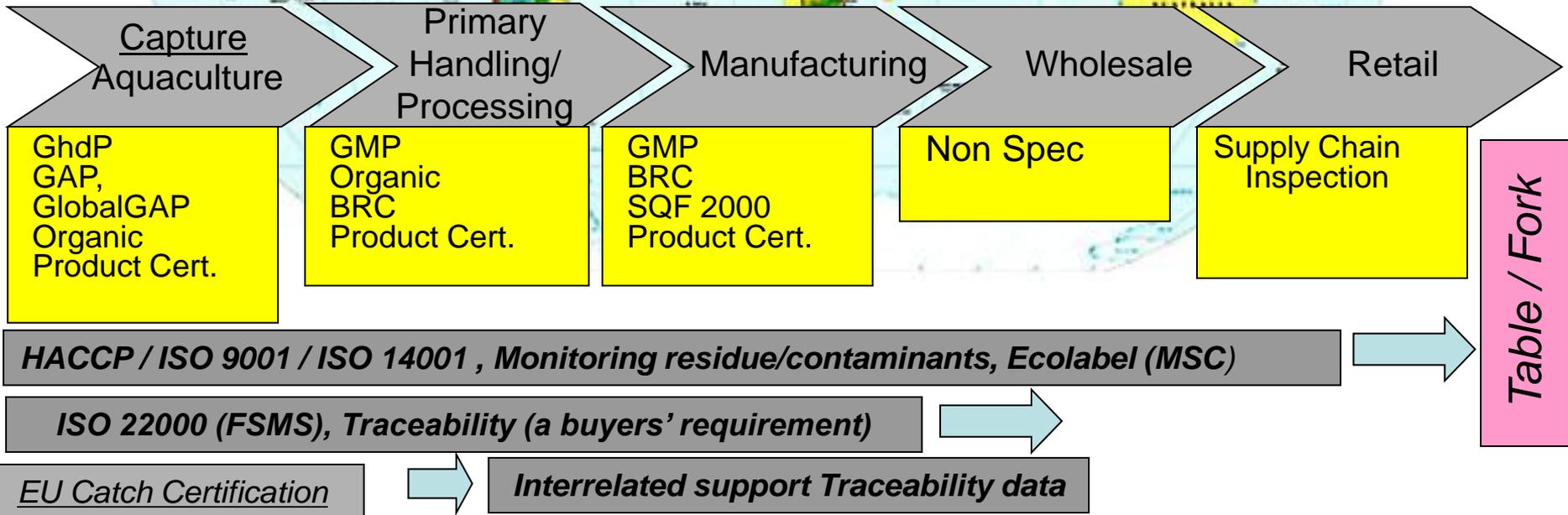
- Codex Standards (CAC)
- ISO Standards (9000, 9001, 14000, 22000, 26000), SNI
- HACCP, GMP, GAP, GRASS, etc.



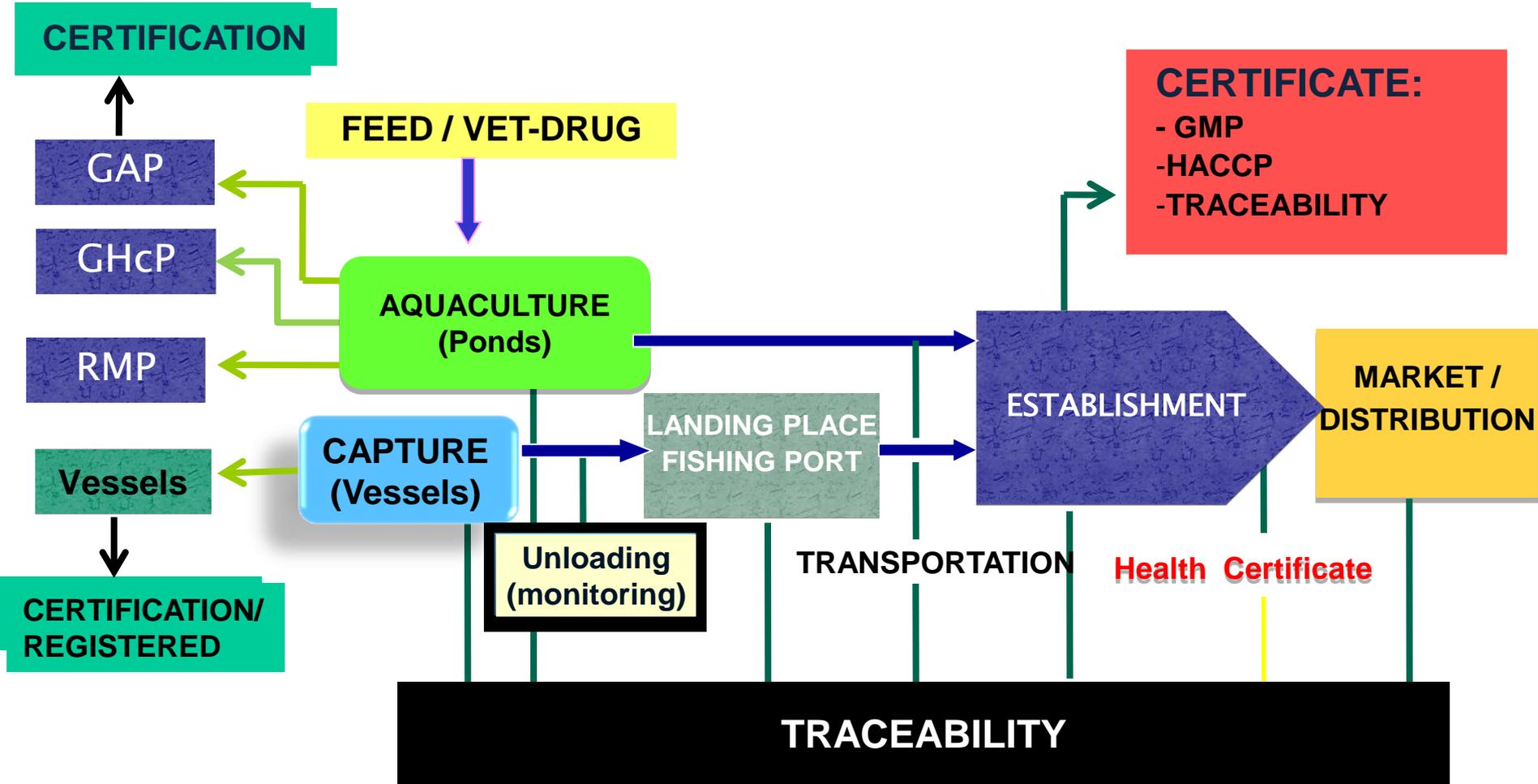
## Key Commercial Standards:

- Global Food Safety Initiative (GFSI), BAP
  - EUREPGAP, BRC, IFS
  - SQF (FMI)
- NGO (MSC, ASC, Dolphin free)

# Requirement Traceability From Farm / Sea to Retail



# SYSTEM OF QUALITY ASSURANCE AND SAFETY OF FISHERY PRODUCTS in INDONESIA



No matter how good a company organizes one element of a chain, if any other part of the chain doesn't perform, the whole chain is contaminated

# REGISTERED EXPORTERS TO MAIN DESTINATION EXPORT COUNTRIES

NO	COUNTRY	TOTAL Exporter
1	USA	235 UNIT
2	UNI EROPA	190 UNIT
3	CANADA	150 UNIT
4	CHINA	335 UNIT

## TOTAL SNI OF FISHERY PRODUCTS

There are 160 SNI related to fishery products ([Decree of MMAF No.8/KEPMEN-KP/2014](#) on Implementation of SNI on Fisheries Products) :

- 55 SNI on Method of Analysis
- 6 SNI on Packaging
- 99 SNI on Products
- There are 50 Standards on Capture fisheries and
- 130 Standards on Aquaculture/Marineculture



# THE FISHERIES/ FISH FARMING WORLD TODAY

## Two major sources of fish for use as food or feed :

- **Wild caught fish**, providing the world with food and feed.
  - Targeting wild fish stocks. Small to gigantic scale operations. Product comes as-it-is.
- **Farmed fish**, mainly providing the world with products for human consumption.
  - Fish farming uses small fish from the wild or hatched fish as stock for growing. Farmed fish is fed with fishmeal or agricultural products. Small to large scale operations. Farming practice has major influence on nutritional quality, food safety and fish size. Choice of species is based on market demand and technical considerations.

### ***Connection between fishing and aquaculture industry***

- Most farmed species eat products originating from fisheries, fish meal and fish oil.

# Marine, Aquaculture & Seafood Chain



- Fishing Vessel
- Fishing Gear
- Collecting & Handling
- Fishing Port



**Processing**



- Breeding
- Hatchery
- Pond culture
- Harvesting



**Seaweed**



**Carrageenan**



**Feed Mills**



**Fishmeal**



**Fish Oil**



**Food Supplements**



# Certification for fisheries



## Sea Caught :

- **MSC** (MARINE STEWARDSHIP COUNCIL)
- **FOS** (FRIEND OF THE SEA)



## Aquaculture :

- **ASC** (AQUACULTURE STEWARDSHIP COUNCIL)
- **BAP** (BEST AQUACULTURE PRACTICE)
- **GLOBALGAP**



**GLOBALG.A.P.**

# BEST AQUACULTURE PRACTICES (BAP)



- **Certification coverage :**
  - Processing Plants
  - Farms
  - Hatcheries
  - Feed Mills
- **1 Star** (Only cover Processing plants)
- **2 Star** (Processing plants + Farm)
- **3 Star** (Processing plants + Farm + Hatchery)
- **4 Star** (Processing plants + Farm + Hatchery + Feed Mill)

# STANDAR RECOGNIZED by GFSI



**BRC GLOBAL STANDARDS**  
THE WORLDWIDE STANDARDS OF CHOICE



global aquaculture  
**the alliance**

**CANADAGAP**   
Food Safety for Fresh Fruits and Vegetables



 **IFS**  
International  
Featured Standards



**GLOBALG.A.P.**  
The Global Partnership for Good Agricultural Practice

# FSSC 22000:2013

## Version-3

**ISO 22000:2005**



**ISO/TS 22002-1:2009**  
*(PAS 220:2008)*



**5 Additional Requirements**



# The Private Certificates in Indonesia

- The most popular certificates in Indonesia are **GlobalGAP, BAP** and **MSC**
- For Food Safety : **BRC-Food** (6<sup>th</sup> version), **SQF** and **GFSI (FSSC 22000)** are popular
- The 22000 is the most popular for food safety, but it was under ISO, we are not consider it as private standards.
- Private standards become more important in accessing new markets, but it depends on customer requirements (B to B).
- FSSC 22000,(GSFI) prerequisite more detail, from ISO 22000, only for MNCs suppliers.

# The cost of private standard certification in Indonesia

- The cost of ISO 22000 certification around US\$ 3.000; compared the cost of private standard certification (BRC) around **US\$ 6.000 – 7.000,-**
- The cost of BAP: **US\$ 2.500- 4.000** (for farms & hatchery) & **US\$6.000** (Processing & Feed mill).
- The cost private certification for big companies is not a problem since they get high revenue from it.
- But for small & medium companies, the cost of certificate still considered as an obstacle. This also not cost effective & complicated.
- For farms, GOI prepared the **IndoGAP(CBIB)**

# Indonesian fisheries company (processing plant) certified for Standar BAP & BRC

- [PT. Winaros Kawula Bahari](#)
- [PT. Bancar Makmur Indah](#)
- [PT. Bahari Makmur Sejati](#)
- [PT. Bancar Makmur Indah](#)
- [PT. Suri Tani Pemuka \(Ayu Bumi Sejati\)](#)
- [PT. Panca Mitra Multi Perdana](#)
- [PT. Surya Alam Tunggal](#)
- [PT. Centralpertiwi Bahari Processing Plant 2](#)
- [PT. Centralpertiwi Bahari Processing Plant 1](#)
- [PT. Kelola Mina Laut – Shrimp Unit](#)
- [PT. Kelola Mina Laut – Fish Unit](#)
- [PT. Kelola Mina Laut – Crab Unit Gresik](#)
- [PT. Kelola Mina Laut – Crab Unit Cikande](#)
- [PT. Mega Marine Pride](#)
- [PT. Sekar Bumi](#)
- [PT. Indokom Samudera Persada](#)
- [PT Bumi Menara Internusa - Lampung](#)
- [PT. Bumi Menara Internusa - Surabaya Plant](#)
- [PT. Bumi Menara Internusa - Dampit Plant](#)
- [PT. Makmur Jaya Sejahtera](#)
- [PT. Sinar Sejahtera Sentosa](#)
- [PT. Intimas Surya](#)
- [PT. Hatindo](#)
- [PT. Satu Enam Delapan](#)
- [PT. Toba Surimi Industries](#)
- [PT. Dempo Andalas Samudera](#)
- [PT. Khom Foods](#)
- [PT. Java Peppers Industries](#)
- [PT. Marindo Makmur Usaha Jaya](#)

# Indonesia aquaculture and hatchery certified

for standard: MSC/ASC-COC; FOS; BAP FARM & HATCHERY

- PT. Suri Tani Pemuka Medan (Ayu Bumi Sejati)
- PT. Artha Lautan Mulia (Suri Tani Pemuka – Tilapia Farm)
- PT. Panca Mitra Multi Perdana – West Kalimantan Site
- PT. Empang Kuningan – Shrimp Farm
- PT. Centralpertiwi Bahari – Shrimp Farm
- PT. Central Proteina Prima – Shrimp Hatchery

# **GAP CERTIFICATION in INDONESIA**

- 1. GlobalGAP**
- 2. Aquaculture Stewardship Council – Shrimp  
Aquaculture Dialogue (ASC- ShAD)**
- 3. Aquaculture Certification Council (ACC)**
- 4. Naturland (Organic Shrimp)**
- 5. IndoGAP (CBIB) → Official Control**

## **PRINCIPLES in IndoGAP**

- ❑ ***Biosecurity***: practices to minimize the disease risk contaminating facilities and to prevent spreading from one zone to another (free-zone)
- ❑ ***Food safety***: prevent contamination of biological, chemical or physical substances which are harmful for human health, from air, soil, water, seed, feed, fertilizer, and other source, in all process (pre-production, production, harvesting, handling and transportation/distribution)
- ❑ ***Environmental Friendly***: minimize the impact of development and operation of aquaculture farm to the environment

# **LEGAL BASED FOR INDOGAP CERTIFICATION**

- 1. Regulation of MMAF No. PER/19/MEN/2010**  
Regarding **Quality Assurance System and Safety on Fishery Product**
- 2. Decree of MMAF No. KEP. 02/MEN/2007**  
Regarding **Good Aquaculture Practices.**
- 3. Decree of Director General of Aquaculture No. 7/KEP-DJPB/2014** on 3 Januari 2014, Regarding **Guidelines of Good Aquaculture Practices Certification.** (Replace the Decree No. KEP 141-PB/2012)

# INDONESIA GAP Certified Fish Farms 2004 – 2013 (units)

	Type of Farm	2004 - 2008	2009	2010	2011	2012	2013 *)	Total **)
1	Individual	42	40	143	992	1,323	2,323	4,863
2	Farmer Groups	10	13	88	163	179	454	907
3	Company	72	37	25	35	34	17	220
	<b>TOTAL</b>	<b>124</b>	<b>90</b>	<b>256</b>	<b>1,190</b>	<b>1,536</b>	<b>2,794</b>	<b>5,990</b>

\*) up to December 2013

\*\*) Cumulative up to December 2013

Source : DJPB MOMAF – 2014.

# GAP Certified Fish Farms by Commodity

No	Type of Farm	2004 - 2008	2009	2010	2011	2012	2013 *)	Total **)
1	Shrimp	124	70	94	272	320	528	1,408
2	Tilapia	-	17	67	288	335	680	1,387
3	Grouper	-	-	11	17	44	18	90
4	Seabass	-	1	2	-	2	3	8
5	Seaweed	-	-	3	51	183	398	635
6	Catfish	-	2	45	361	351	673	1,432
7	Milkfish	-	-	1	47	83	116	247
8	Carp	-	-	7	71	122	118	318
9	Gourame	-	-	23	51	60	207	341
10	Macrobrac hium	-	-	2	12	16	18	48
11	Others	0	0	1	20	20	35	76
	<b>TOTAL</b>	<b>124</b>	<b>90</b>	<b>256</b>	<b>1,191</b>	<b>1,535</b>	<b>2,794</b>	<b>5,990</b>

\*) up to December 2013

\*\*) Cumulative up to December 2013

Sources : DJPB MOMAF – 2014.

## Registered Fish Feed, 2006-2012

No	Type of Feed	2006	2007	2008	2009	2010	2011	2012	2013*)	Total
1	Vannamei Shrimp	0	1	22	20	115	16	42	2	217
2	Black Tiger Shrimp	0	0	2	0	20	7	8	0	37
3	Anguila	0	0	3	0	0	0	0	0	3
4	Carp	5	0	6	8	13	3	29	0	64
5	Tilapia	0	0	5	3	2	11	16	4	41
6	Catfish	2	5	9	7	14	20	33	9	99
7	Gouramy	0	3	3	2	0	1	5	1	15
8	Silver Pompano	0	0	0	0	9	0	0	0	9
9	Milkfish	0	0	5	0	2	7	12	0	26
10	Grouper	0	0	0	0	0	12	7	16	36
11	Seabass	0	0	0	0	0	9	8	0	17
12	Ornamental Fish	0	22	0	22	52	18	29	10	168
13	Fish Seed	0	2	0	1	0	21	0	1	11
14	Lobster	0	0	0	0	0	0	8	0	8
15	Others	1	3	2	1	14	30	3	1	54
	<b>TOTAL</b>	<b>8</b>	<b>36</b>	<b>57</b>	<b>64</b>	<b>241</b>	<b>155</b>	<b>200</b>	<b>44</b>	<b>805</b>

\*) up to May2013

**WE CAN**



**BECOME MAIN  
PLAYER OF  
FISHERIES IN  
THE WORLD**

**THANK YOU**