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INDUSTRIAL DEVELOPMENT ORGANIZATION



**SUSTAINABLE DEVELOPMENT GOAL 9**  
INDUSTRY, INNOVATION AND INFRASTRUCTURE

# Peningkatan Daya Saing di Pasar Global Melalui Penguatan Rantai Nilai

**Success stories:  
SMART-Fish Fase 1 (2015-2019)**

**Global Quality and Standard Programme (GQSP) Indonesia  
SMART-Fish Phase 2 (2019 – 2022)**

Malang, 30 Oktober 2019



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs,  
Education and Research EAER  
State Secretariat for Economic Affairs SECO



[www.smart-fish-indonesia.org](http://www.smart-fish-indonesia.org)

# SMART-Fish Indonesia : Meningkatkan kemampuan perdagangan untuk 3 VC sektor Perikanan Indonesia 3 VALUE CHAINS, 6 KOMPONEN (2014-2019)



1 Public-private round table dialogue

2 Penguatan business services melalui Valcapfish Centre at STP

3 Pengembangan program pendidikan di STP (kurikulum, dll)

4 Pengembangan traceability system

5 Support pilot certification for sustainability schemes

6 Promosi untuk ekspor



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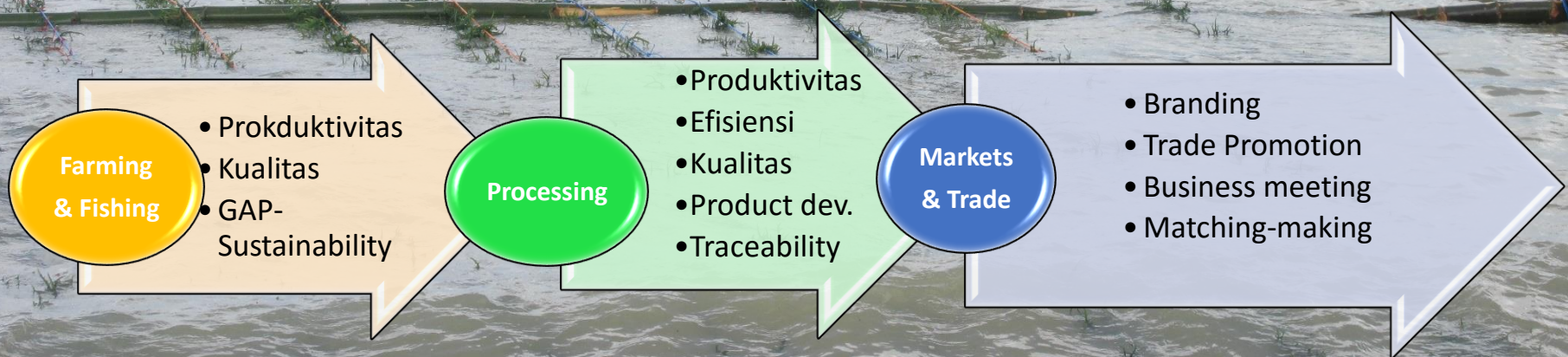
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# SMARTFish Video Programme



# SMART-Fish Fase 1 (2014-2019)

UNTUK MENINGKATKAN DAYA SAING DAN AKSES PASAR



Dukungan Kebijakan Pemerintah & Program Pendidikan: STP





# DEVELOPING SUSTAINABLE & TRACEABLE INDUSTRY



**Farming level**

**Processing level**

**Market linkages**

Component 1: **ROUNDTABLES**

Component 2: **DEMO FARMS**

Component 3: **CURRICULUM DEVELOPMENT**

Component 4: **TRACEABILITY SYSTEM**

Component 5: **CERTIFICATION**

Component 6: **TRADE PROMOTION**



Farmers partners



KOSPERMINDO



PT. NARFI PUTRA BINA SAKTI



Algas



ALGALINDO PERDANA



GUMINDO



PT. MARINAL INDOPRIMA



APCI



IPNLF



AP2HI



SIPPO



22nd ISS



IFFA



Yayasan Masyarakat dan Perikanan Indonesia







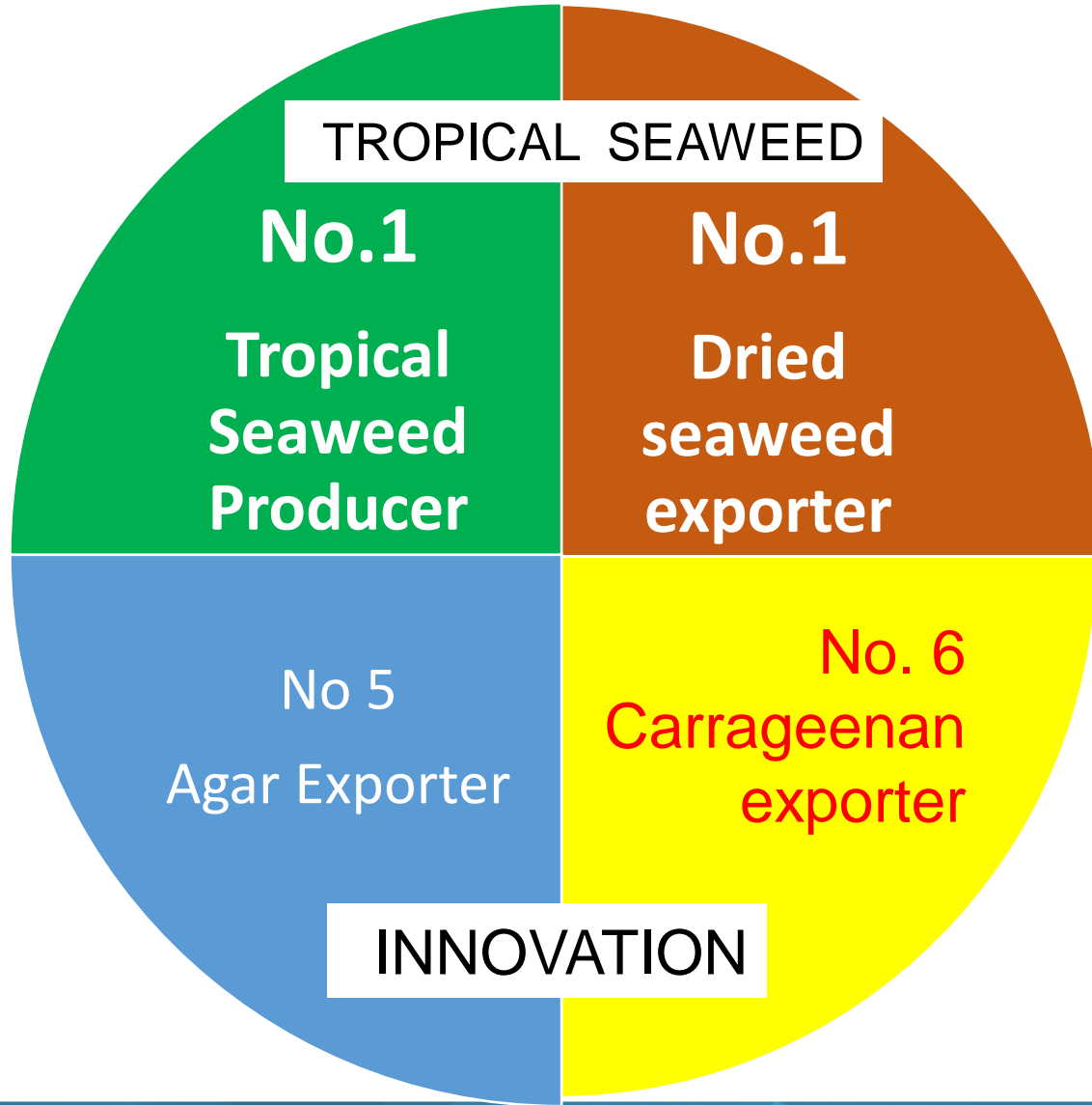
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# RUMPUT LAUT INDONESIA

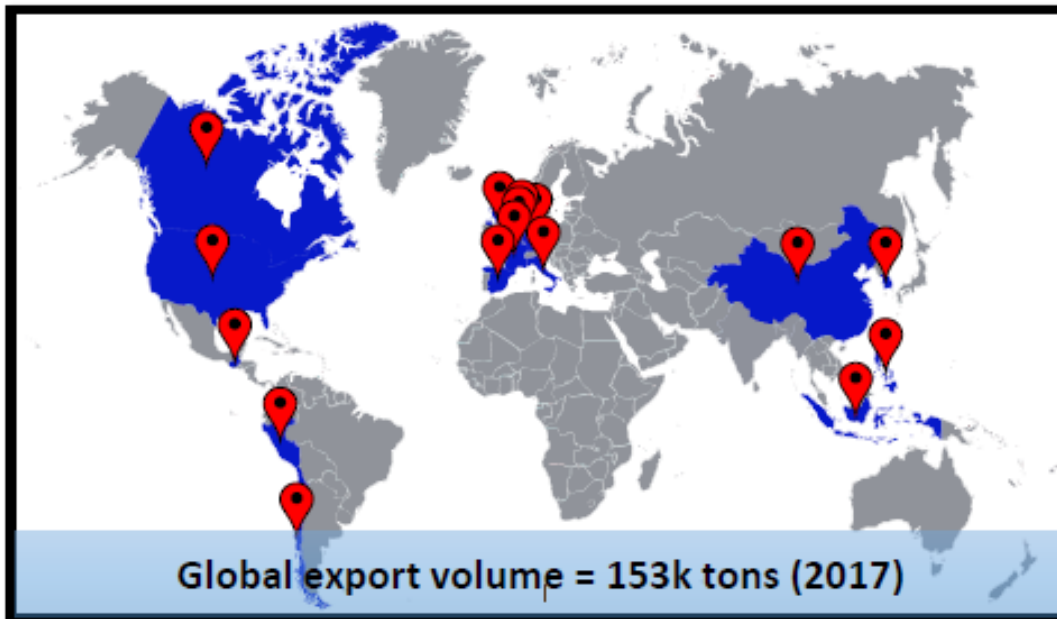






# DIMANA POSISI RUMPUT LAUT INDONESIA?

Largest global exporters of carrageenan (in volume)\*



## Asia:

- **China (37%)**
- **Philippines (17.7%)**
- >> Indonesia (3.8%) <<
- Republic of Korea (1.5%)

## Europe:

- **Spain (6.6%)**
- **Germany (5.4%)**
- **United Kingdom (4.2%)**
- France (3.5%)
- Belgium (2.1%)
- Italy (1.4%)
- Netherlands (1.5%)

**Rest of World (4.3%)**

## Latin America:

- Chile (3.3%)
- Peru (1.5%)
- Guatemala (0.9%)

## North America:

- USA (3.3%)
- Canada (1.7%)

\* Includes countries with > 1,000 tons of export volume in 2017 (source: ITC)

## Major suppliers to top global markets

Exporters to Spain			
	Share	Growth (value, volume)	
1	China	36.6%	(13% ↑ 27% ↑ )
2	Philippines	14.2%	(13% ↑ 25% ↑ )
3	Netherlands	13.4%	(44% ↑ 51% ↑ )
4	France	11.1%	(4% ↑ 3% ↑ )
5	Chile	6.1%	(18% ↑ 18% ↑ )
14	Indonesia	0.4%	(N/A 54% ↑ )

Exporters to Germany			
	Share	Growth (value, volume)	
1	France	22.3%	(-10% ↓ -13% ↓ )
2	China	21.1%	(0% → 7% ↑ )
3	Spain	10.5%	(8% ↑ 14% ↑ )
4	India	8.2%	(0% → -7% ↓ )
5	Belgium	4.6%	(1% ↑ -12% ↓ )
15	Indonesia	1.1%	(-50% ↓ -47% ↓ )

Exporters to France			
	Share	Growth (value, volume)	
1	India	15.2%	(30% ↑ 13% ↑ )
2	Philippines	11.0%	(-4% ↓ -5% ↓ )
3	Belgium	9.4%	(16% ↑ 6% ↑ )
4	Germany	9.2%	(-3% ↓ 2% ↑ )
5	Indonesia	7.8%	(-6% ↓ -4% ↓ )

Annual import decline between 2013-2017  
 Annual import growth between 2013-2017  
 Annual import growth stagnation 2013-2017

Exporters to Mexico			
	Share	Growth (value, volume)	
1	Spain	19.1%	(12% ↑ 15% ↑ )
2	Philippines	17.6%	(0% ↓ 4% ↓ )
3	USA	17.3%	(-6% ↑ -12% ↑ )
4	Chile	15.5%	(14% ↑ 16% ↑ )
5	China	7.1%	(31% ↓ 38% ↓ )

Exporters to USA			
	Share	Growth (value, volume)	
1	Philippines	36.9%	(-9% ↓ -3% ↓ )
2	Chile	13.8%	(-17% ↓ -15% ↓ )
3	France	13.5%	(2% ↑ 16% ↑ )
4	China	7.1%	(-10% ↓ -6% ↓ )
5	Spain	5.1%	(-2% ↓ 1% ↑ )
6	Indonesia	4.8%	(-4% ↓ 4% ↑ )

\* Share / growth percentages based on (total) import of country 2017 (source: ITC)



# Rumput Laut



**33**  
districts

**1067** farmers/extension  
services trained

**857**  
adopted SOPs

**USD 1.98 million**  
additional profit for seaweed farmers

**397**  
persons trained  
in INSPIRED

**4**  
processing  
companies  
implemented

**USD 1.86 million**  
benefits and savings

<http://www.smartfishindonesia.org/apps/>

- Tantangan : kualitas tidak konsisten, biaya produksi tinggi, inovasi (R&D yang terbatas)
- **SMART-Fish SOP** melalui demo farm rumput laut → produktivitas dan peningkatan kualitas panen → **produksi lebih tinggi, kualitas lebih baik dan biaya produksi lebih rendah**
- **SeaweedTrace** (Ketelursuran)
- **INSPIRED** (Integrasi Produktivitas Keberlanjutan dan Efisiensi Sumber Daya)
- **TSIN** (Tropical Seaweed Innovation Network / Jaringan Inovasi Rumput Laut Tropis)



# SOP Seaweed dan Aplikasi



Download SMART-Fish Mobile Apps



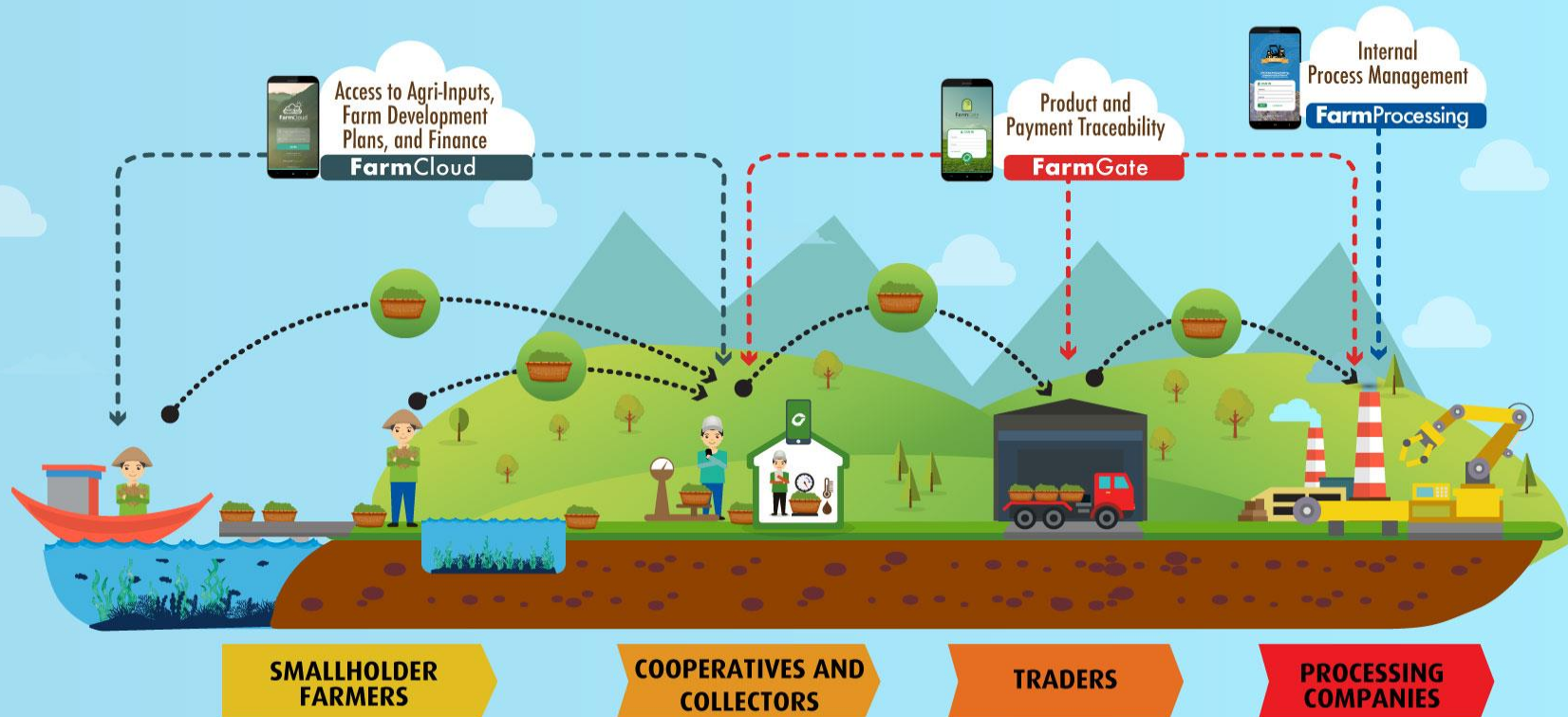
**SMART-Fish**  
Mobile apps.





# Integration of Technology into transparent and sustainable Supply Chains

## Menghubungkan pembudidaya dengan pelayanan dan Markets Traceability Premiums



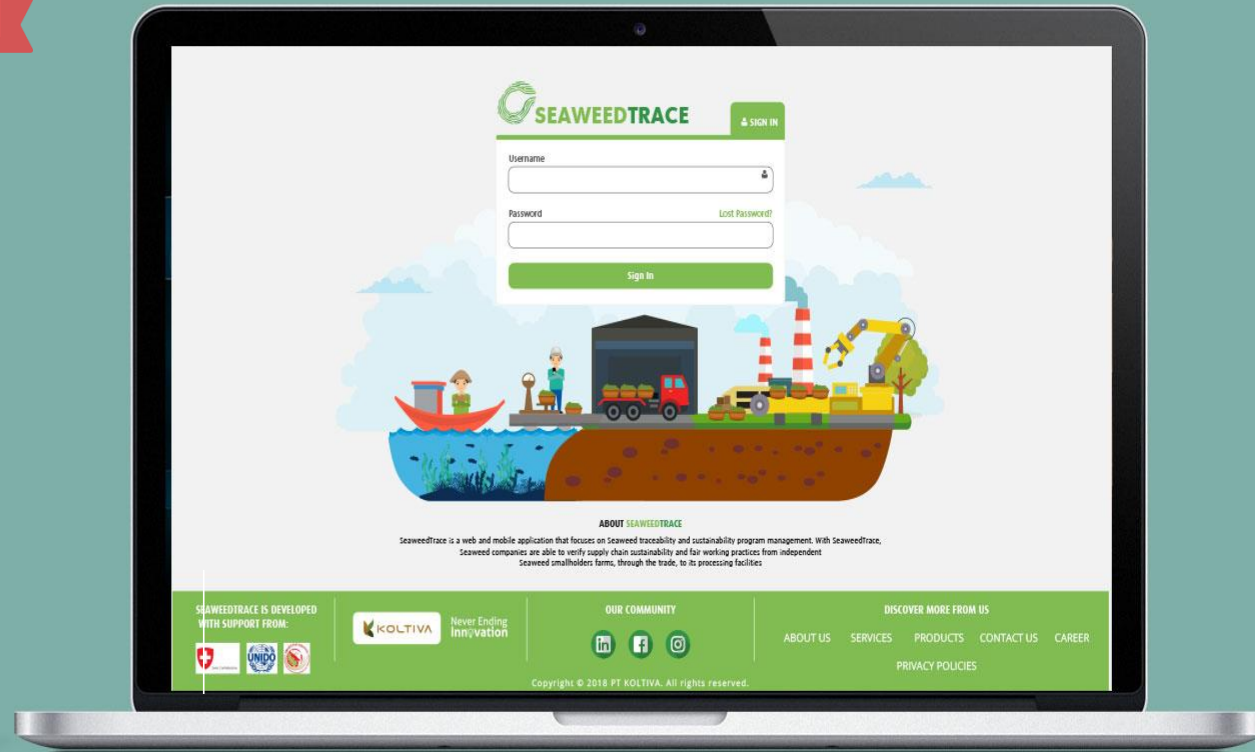
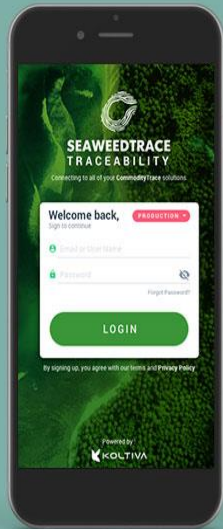


## SeaweedTrace Cloud-Based Sustainability Platform is ready for registered Pilot Project users



Traceability App

Data Collection App



Web Application

<https://app.seaweedtrace.com/>

<https://play.google.com/store/apps/details?id=com.koltiva.seaweedtrace>





## Pilot Partners



PILOTING



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**TSIN** Tropical Seaweed  
Innovation Network

## CONNECTING INNOVATION TO BUSINESS



<https://www.seaweednetwork.id/>





**TSIN** Tropical  
Seaweed  
Innovation  
Network

### TSIN - NETWORK

**20**

R&D Center

**19**

Industry

**8**

University

### TSIN - SERVICES

**4**

Category

1. Analysis
2. Consultation
3. Certification
4. Training

**19**

Sub Category

### TSIN - EXPERTS

**161**

Experts

**7**

Expertise

1. Taxonomy
2. Monitoring
3. Aquaculture
4. Genetics
5. Processing Technology
6. Biotechnology
7. Socio-economy

### PRODUCT DETAILS

1. Product Description
2. Product Specification
3. Photo (Size Ratio 1:1)



# Branding dan Promosi (ASTRULI)



SIAL Jakarta,  
ISS Jeju Korea





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# PATIN



# Patin Indonesia di Pasar Global?

## Top 10 global importers of Vietnamese pangasius

	Importing country	Value exported 2017 (US\$ million)	Y-o-Y growth 2016/2017	Value exported Jan-Feb 2018 (US\$ million)	Growth 2017/2018
1	China	410.8	34.8% ↑	55.9	41.8% ↑
2	USA	344.4	-11.1% ↓	42.1	15% ↑
3	Brazil	104.7	53.9% ↑	16	-30.3% ↓
4	Mexico	104.2	23.6% ↑	17.9	14.9% ↑
5	Saudi Arabia	53.4	4.2% ↑	10.5	54.8% ↑
6	Thailand	51	8.8% ↑	13.3	107.2% ↑
7	Netherlands	46	-3.2% ↓	7	17.2% ↑
8	UK	45.7	2.5% ↑	Not available	Not available
9	Singapore	38	2.8% ↑	6.5	38.5% ↑
10	Philippines	31	11.9% ↑	5.4	39.5% ↑
	Total	1.788	4.3% ↑	264.7	15.7% ↑
	EU total	203	-22.3% ↓	22.4	-31.1% ↓
	ASEAN total	143.2	5.9% ↑	29.9	69.1% ↑



# Potential markets for (Indonesian) pangasius

- Based on:

- Current exports by Vietnam
- Market diversification opportunities for Indonesia and Vietnam and
- News articles and reports

The following markets could be considered at potential destinations for Indonesian pangasius:

- **China** (Strong growth in demand)
- **Thailand** (ASEAN) (Strong growth in demand)
- **USA** (Despite anti-dumping tax still large market size and growth in demand)
- **Brazil** (Despite recent plunges in demand for Vietnamese pangasius the market is still growing with large demand.)
- **UK** (The only growing European market)
- **Poland** (Growing market in Eastern Europe)
- **Middle-East** (New market for Vietnamese companies)



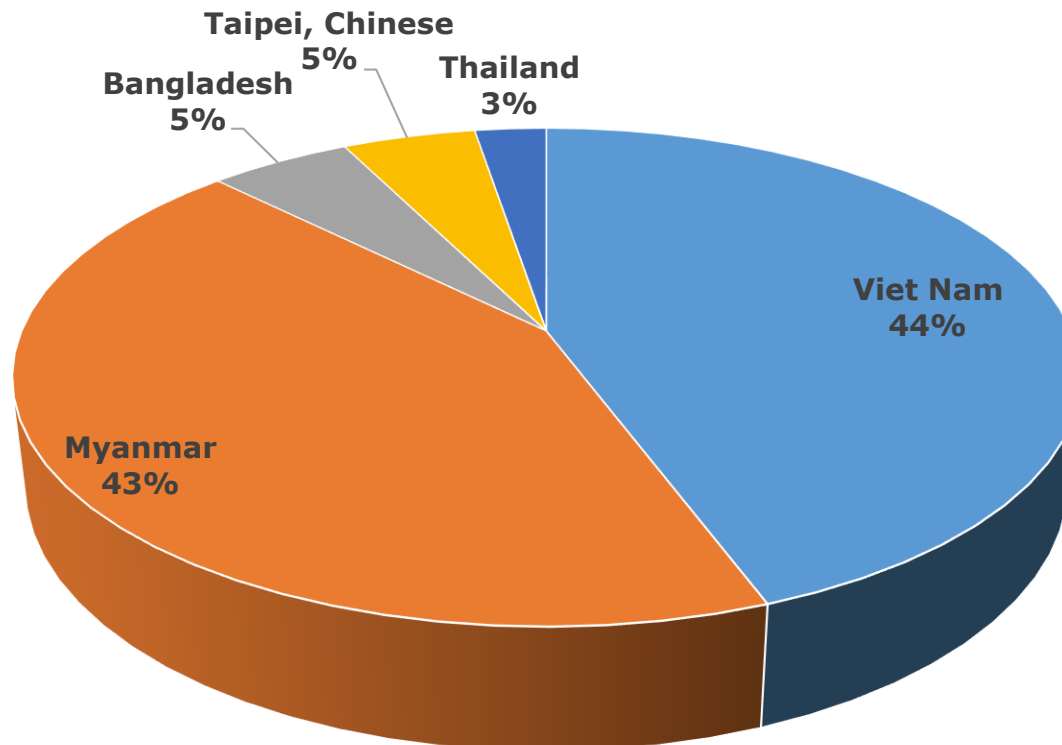
## Peluang Ekspor

No	Importers	2017	2018
	World	1,501,060	1,387,372
1	USA	401,891	571,433
2	China	114,799	316,374
3	Mexico	107,708	100,898
4	Brazil	94,783	84,246
5	United Kingdom	54,053	48,854
6	Thailand	51,229	72,630
7	Netherlands	47,129	60,578
8	Saudi Arabia	43,786	53,271
9	Germany	37,916	37,236
10	Singapore	34,318	41,852

Sumber: TradeMap



## Market Share Catfish di Saudi Arabia 2017 (ton)



Sumber: PDS PKP, KKP 2019

- Tantangan : kualitas tidak konsisten (warna daging, bau tanah, biaya produksi tinggi, skala produksi (nilai tambah hasil samping)
- Pengenalan **formulasi pakan mandiri dengan biaya terkecil (LCF)** dan praktik budidaya ikan patin yang baik (**SOP**) termasuk probiotik
  - produksi yang lebih tinggi, rasio konversi pakan yang lebih baik dan kualitas ikan yang lebih baik (daging cenderung putih dan tidak bau tanah)
- Pada industry pengolah , adopsi SOP oleh produsen fillet patin menghasilkan produktivitas tinggi dan keuntungan tambahan.

## Pangasius/ PATIN



<http://www.smartfishindonesia.org/apps/>





## Download SMART-Fish Mobile Apps



**SMART-Fish**  
Mobile apps.



# Branding dan Promosi



SEAFEX Dubai,  
SIAL Jakarta,  
Jeddah Expo



Jeddah: 19  
potential buyers; 9  
serious importers  
of Indonesian  
pangasius: USD 23  
million/year

Dubai: 49  
potential buyers  
for Indonesian  
pangasius; USD13  
million/year





## Ekspor Perdana APCI ke KSA



- Partisipasi pada pameran SEAFEX di Dubai, Oktober 2018 – bersama SMART-Fish UNIDO dan KKP
- Partisipasi pada Indonesia Expo 2018 di Jeddah – bersama SMART-Fish UNIDO dan KKP
- Partisipasi pada Hajj and Umrah Expo di Jeddah
- Kesepakatan kerjasama Adib Food – APCI dengan Said Bawazir Trading Corporation
- Ekspor perdana tanggal 27 Mei 2019 sejumlah 3 kontainer = 64.500 kg
- Ekspor berikutnya tanggal 13 Juni 2019 sejumlah 5 kontainer = 107.500 kg



# SMART-FISH IN NUMBERS



## USD 36 million

POTENTIAL SALES/YEAR

- Potential business deals in the Middle East markets for pangasius fillet from Seaflex Dubai Seafood and Jeddah Exhibition
- USD 35'000 first ever export contract to Saudi targeting Pilgrimage market

## 5'939 participants

- 145 capacity building related activities jointly organized with the programme partners (MMAF, other ministries and agencies, associations, NGOs)
- 3'994 participants from private sectors
- 1'945 participants from government sector

## 2'134 farmers / extension officers TRAINED

- 1'389 seaweed farmers in 13 districts, 5 provinces
- 593 pangasius farmers in 7 districts, 6 provinces
- 152 extension officers in 19 districts, 11 provinces

## USD 11.8 million

INVESTMENTS

- **Pangasius farmers: USD 353'000** for implementing SOP and pond expansion
- **Processors: USD 6.9 million** (improve efficiency, new lines, new facilities)
- **Government: USD 4.4 million** (direct investment for feed machines, seeds, feed raw materials, promotion)

## USD 2.3 million

ADDITIONAL PROFITS TO 1'292 SOP ADOPTERS/FARMERS

- 857 seaweed farmers adopted SOP gained additional profits USD1.98 million/year
- 435 pangasius farmers adopted SOP gained USD 318'000/harvest
- 70 small scale feed producers using LCF method 30% reduced feed cost

## USD 1.86 million

BENEFITS FROM INSPIRED APPROACH

- 397 participants from private and government sectors trained on INSPIRED approach
- USD 910'000 / year extra benefits for 5 companies implementing INSPIRED approach
- USD 953'000 saving / year (less energy, water and improve efficiency) from 4 seaweed processing plants

## 22 Digital platforms

- SeaweedTrace (External Traceability)
- INSPIRED Light tool (Internal traceability)
- SOPs application for seaweed farming and LCF
- Tropical Seaweed Innovation Network (TSIN)
- 3 Websites-On line marketing tools for Indonesian Pangasius, Indonesian Tuna and Indonesia Seaweed Generic Brands
- 15 Websites templates for associations members

## USD 9,05 million

YEAR PROJECTED BENEFITS FROM UP-SCALING THEMATIC INTERNSHIP PROGRAMME AT STP

- Processing: USD 2.54 million/year
- Aquaculture: USD 1.57 million/year
- Aquatic resources: USD 4.94 million/year

## USD 8 million

YEAR / CONTRACT

- Contracts signed between Pangasius farmers and fillet processors, retailers and restaurant chain during pangasius business meeting jointly organized by MMAF, SMART-Fish and APCI

## USD 1.5 million

YEAR SALES FOR MICRO FAMILY BASED SEAWEED PROCESSORS

- 461 women in 9 districts trained on seaweed based food and non-food processing, SOP registration and certification
- 18 products commercially produced and sold
- 27 products obtained Halal certificate
- 8 products obtained P-IRT
- 4 brands registered at HAKI







# SMART-Fish Phase 2 (2019 – 2022)

## A country project within Global Quality and Standards Programme



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

Swiss Confederation





# Overview

## OVERALL OBJECTIVE

Memperluas akses pasar bagi UKM dan Industri baik untuk pasar domestik maupun internasional melalui penguatan kapasitas kepatuhan baik dalam hal kualitas maupun kepatuhan terhadap standard di sektor Perikanan

## VALUE CHAINS

Perikanan Budidaya (Udang, Patin, Lele, Nila, Bandeng dan Rumput Laut)

## DONOR

Swiss Confederation, through the Swiss State Secretariat for Economic Affairs (SECO)

## IMPLEMENTING AGENCY

United Nations Industrial Development Organization, UNIDO

## TOTAL BUDGET

\$1,751,500

## DURATION

2019 -2022  
(3yrs)

## COUNTERPARTS

KKP Other counterparts: BSN, Mol

## 3 Outcomes GQSP

### Outcome 2

**Peningkatan kepatuhan UKM dengan standar internasional dan regulasi teknis.**

Example:

- Specialized training
- Capacity building and preparation for certifications
- Strengthening of clusters, networks and quality consortia
- Strengthening relevant support institutions



### Outcome 1

**Peningkatan kompetensi teknis dan keberlanjutan Sistem Quality Infrastructure Nasional**

Example:

- Capacity building and training
- Use of best practices
- Improve management systems
- International recognition

### Outcome 3

**Kesadaran akan kualitas ditingkatkan**

Example:

- Advocacy
- Up-scaling of knowledge dissemination
- Advice for informed policy decisions on standards and compliance
- Support for policy development





# Countries





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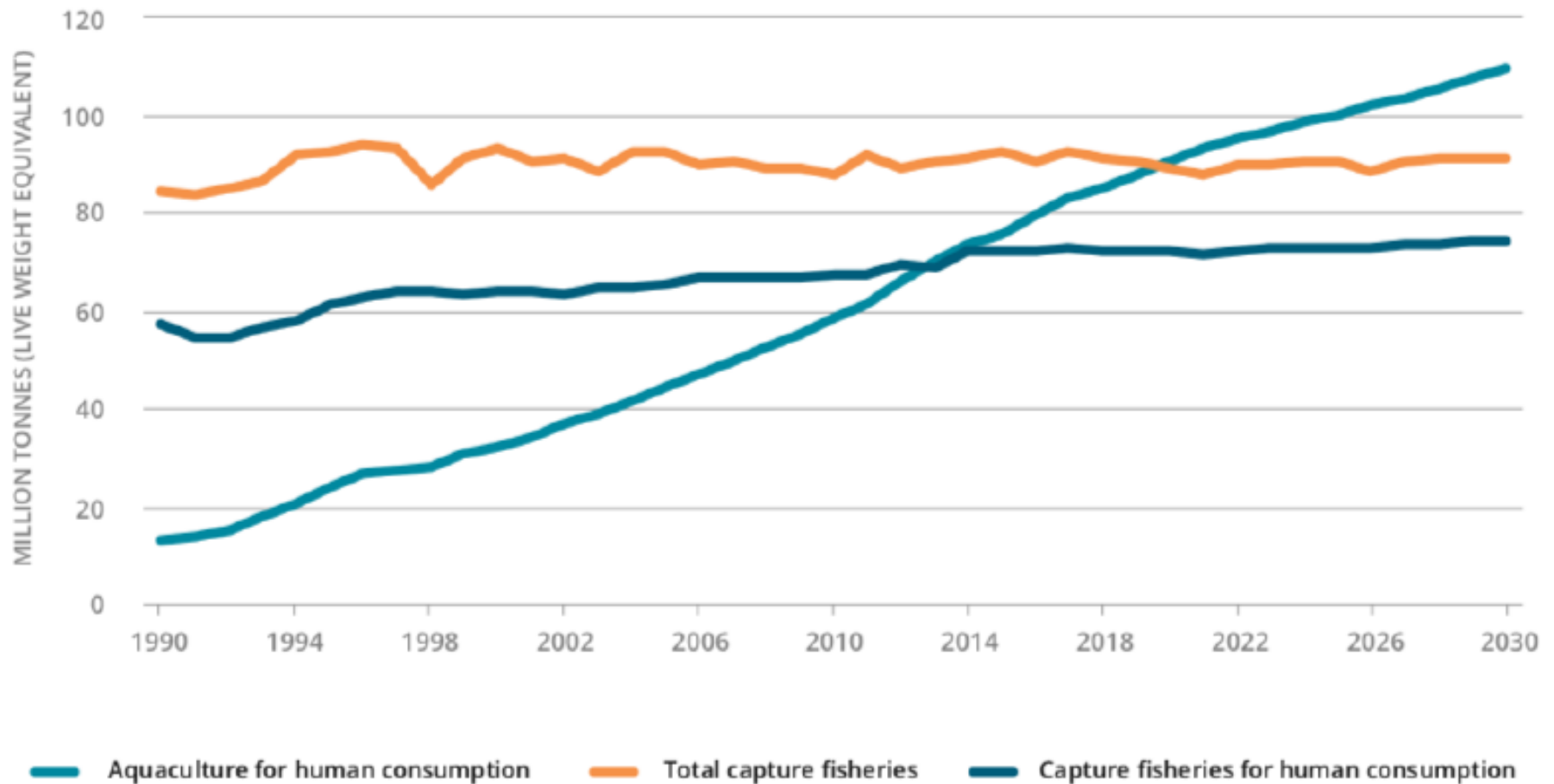


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# TREND PASAR GLOBAL KOMODITI BUDIDAYA



# Where is the global aquaculture market heading to? What are the projections?



Note: Excludes aquatic mammals, crocodiles, alligators and caimans, seaweeds and other aquatic plants.

Source: FAO



# Main Producers (1)

	The World's leading aquaculture producers	Total production (1000 tons)	Country's share in total aquaculture	Growth between 2010-2016	Product 1		Product 2		Product 3		Product 4	
					% of national total	Growth 2010-2016	% of national total	Growth 2010-2016	% of national total	Growth 2010-2016	% of national total	Growth 2010-2016
1	China	63722	57.8%	4.9%	Japanese kelp		Grass carp		Cupped oysters		Silver carp	
					11.5%	8.7%	9.3%	5.7%	7.6%	4.8%	7.1%	3.8%
2	Indonesia	16616	15.1%	17.6%	Eucheuma seaweeds		Gracilaria seaweeds		Nile Tilapia		Torpedo shaped catfishes	
					62.8%	20.6%	7.2%	15%	6.9%	17.9%	5.2%	23.7%
3	India	5703	5.2%	7%	Catla (Indian carp)		Roho labeo (carp)		Whiteleg shrimp		Silver carp	
					47.3%	0%	15.8%	21.6%	8.1%	29.8%	6.3%	18.5%
4	Viet Nam	3635	3.3%	5.1%	Panga catfishes		Whiteleg shrimp		Cyprinids		Giant tiger prawn	
					32.9%	0.8%	17%	9.9%	10.2%	-3.8%	6.7%	2.3%
5	Bangladesh	2204	2%	9.1%	Striped catfish		Tilapias		Roho labeo (carp)		Silver carp	
					22.5%	25.6%	15.5%	54.9%	11.9%	0.5%	8.2%	-1.3%

Source: FAO

# Main Producers (2)

	The World's leading aquaculture producers	Total production (1000 tons)	Country's share in total aquaculture	Growth between 2010-2016	Product 1		Product 2		Product 3		Product 4	
					% of national total	Growth 2010-2016	% of national total	Growth 2010-2016	% of national total	Growth 2010-2016	% of national total	Growth 2010-2016
6	Philippines	2201	2%	-2.4%	Elkhorn sea moss		Milkfish		Nile tilapia		Spiny eucheuma	
					59.1%	-4.1%	18.1%	2.2%	7.3%	-0.7%	4.7%	-3.3%
7	Korea, Republic of	1859	1.7%	5.1%	Wakame		Laver (Nori)		Japanese kelp		Pacific cupped oyster	
					26.7%	3.9%	22%	9.7%	21.4%	8.7%	14.5%	0.1%
8	Egypt	1371	1.2%	6.9%	Nile Tilapia		Mulletts		Cyprinids		Common carp	
					68.6%	9.1%	11.2%	4.8%	11%	-1%	3.6%	7.9%
9	Norway	1326	1.2%	4.5%	Atlantic salmon		Rainbow trout		Blue mussel		Atlantic halibut	
					93%	4.6%	6.6%	8.2%	0.2%	2%	0.1%	-1.6%
10	Japan	1068	1%	-1.2%	Laver (nori)		Yesso scallop		Pacific cupped Oyster		Japanese amberjack	
					28.2%	-1.5%	20.1%	-0.4%	14.9%	-3.8%	13.2%	0.2%

# Main Species (1)

	Leading global aquaculture products	Total global production (1000 tons)	Share of total aquaculture production	Growth 2010-2016	Producer 1 (share of total produce)	Producer 2 (share of total produce)	Producer 3 (share of total produce)	Producer 4 (share of total produce)	Total# countries producing species
1	Eucheuma seaweeds nei	10519	9,5%	20,2%	Indonesia (99.2%)	China (0.5%)	Madagascar (0.2%)	Tanzania (0.1%)	9
2	Japanese kelp	8219	7,5%	8,1%	China (88.9%)	Dem people's rep. Korea (5.9%)	Rep. of Korea (4.8%)	Japan (0.3%)	4
3	Grass carp(=White amur)	6068	5,5%	5,7%	China (97.2%)	Bangladesh (0.6%)	Iran (0.5%)	Pakistan (0.4%)	40
4	Silver carp	5301	4,8%	4,4%	China (85%)	India (3.4%)	Bangladesh (3.4%)	Iran (2.1%)	39
5	Cupped oysters nei	4864	4,4%	4,8%	China (99.4%)	Thailand (0.4%)	Netherlands (0.1%)	Brazil (0.1%)	9
6	Common carp	4557	4,1%	4,9%	China (76.8%)	Indonesia (10.9%)	Viet Nam (2.4%)	Bangladesh (1.6%)	80
7	Japanese carpet shell	4229	3,8%	2,7%	China (98.7%)	Italy (0.8%)	Rep. of Korea (0.3%)	USA (0.1%)	8
8	Nile tilapia	4200	3,8%	8,8%	China (33.3%)	Indonesia (27.4%)	Egypt (22.4%)	Thailand (5%)	76
9	Whiteleg shrimp	4156	3,8%	7,5%	China (40.2%)	Indonesia (11.8%)	India (11.1%)	Ecuador (10.2%)	34
10	Gracilaria seaweeds	4150	3,8%	16,1%	China (70.7%)	Indonesia (28.8%)	Chile (0.4%)	Viet Nam (0.2%)	7

Source: FAO



# Main Species (2)

	Leading global aquaculture products	Total global production (1000 tons)	Share of total aquaculture production	Growth 2010-2016	Producer 1 (share of total produce)	Producer 2 (share of total produce)	Producer 3 (share of total produce)	Producer 4 (share of total produce)	Total # countries producing species
11	Bighead carp	3527	3,2%	5,3%	China (98.7%)	Myanmar (0.3%)	Iran (0.3%)	People's Dem. Rep. Lao (0.3%)	21
12	Carassius spp	3006	2,7%	5,2%	China (99.97%)	Romania (0.03%)	Lithuania (0.001%)	-	3
13	Catla	2961	2,7%	-0,1%	India (91.2%)	Bangladesh (5.4%)	Myanmar (2.2%)	Pakistan (0.8%)	8
14	Freshwater fishes nei	2362	2,1%	9,4%	India (32.7%)	China (31.6%)	Viet Nam (26.1%)	Indonesia (5.7%)	63
15	Atlantic salmon	2248	2,0%	7,7%	Norway (54.9%)	Chile (23.7%)	UK (7.3%)	Canada (5.5%)	15
16	Wakame	2070	1,9%	5,1%	China (73.7%)	Rep. of Korea (24%)	Japan (2.3%)	-	3
17	Scallops nei	1861	1,7%	4,8%	China (99.9%)	Canada (0.002%)	-	-	2
18	Roho labeo	1843	1,7%	8,4%	India (48.8%)	Myanmar (33.4%)	Bangladesh (14.2%)	Pakistan (2.4%)	10
19	Pangas catfishes	1758	1,6%	4,9%	Viet Nam (68%)	Indonesia (24.9%)	Cambodia (3.8%)	Myanmar (2.4%)	7
20	Elkhorn sea moss	1527	1,4%	-3,5%	Philippines (85.2%)	Malaysia (13.5%)	Solomon Islands (0.7%)	Papua New Guinea (0.3%)	11

Source: FAO

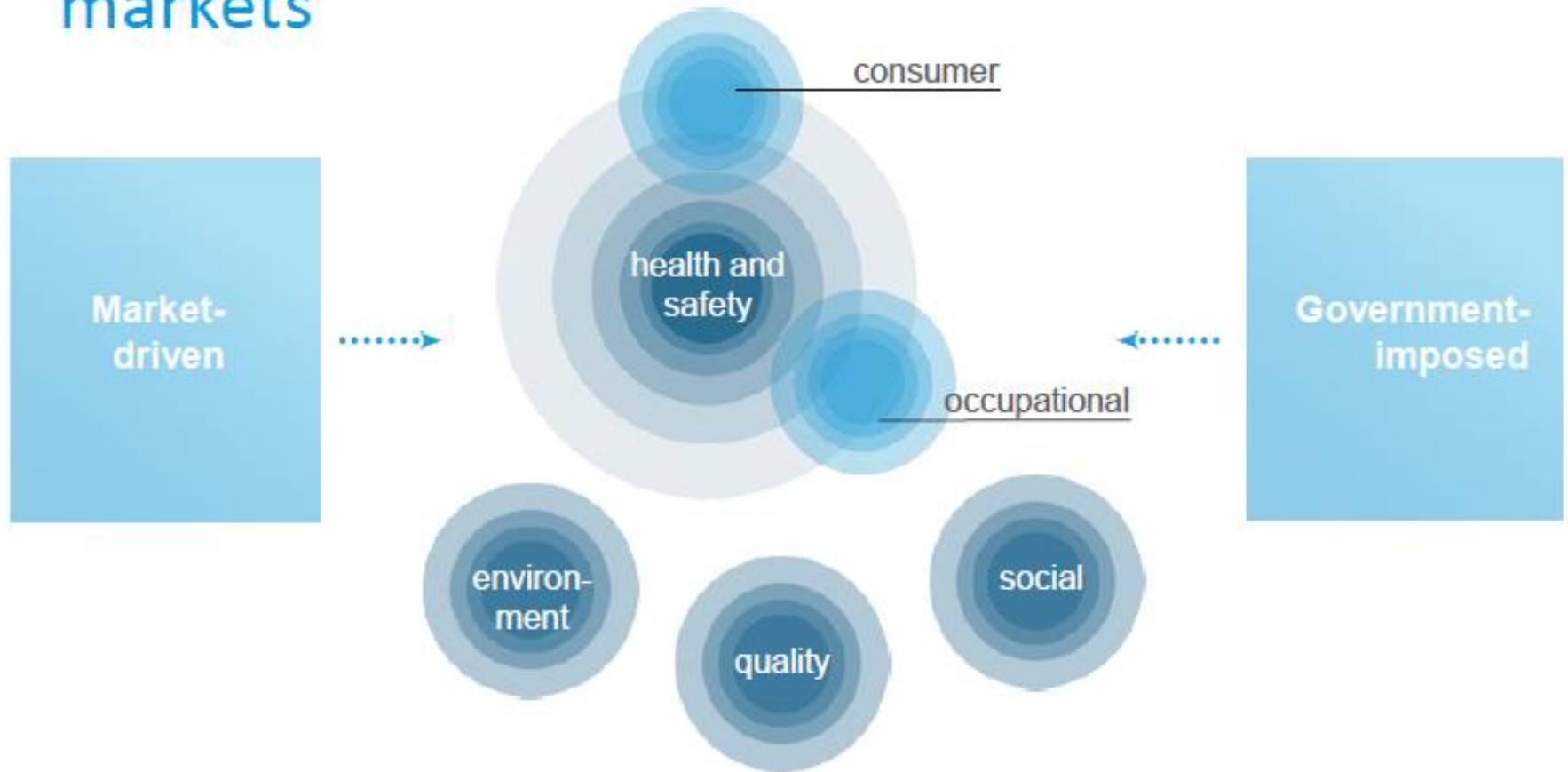
[www.smart-fish-indonesia.org](http://www.smart-fish-indonesia.org)



## KESIMPULAN

1. Indonesia adalah salah satu dari 4 top produsen dari 6 spesies utama dari 20 spesies yang paling banyak dibudidayakan
2. Dari 6 spesies ini, Indonesia berada di peringkat 2 teratas dunia produsen.
3. Indonesia menunjukkan tingkat pertumbuhan tertinggi dari 10 negara teratas.
4. Indonesia sejauh ini merupakan produsen *Eucheuma* utama di Dunia rumput laut.
5. Keenam spesies yang diproduksi oleh Indonesia semuanya menunjukkan positif pertumbuhan antara 2010-2016.
6. Cina adalah produsen utama dari 13 dari 20 yang paling banyak diproduksi spesies akuakultur. Spesies ikan mas menonjol sebagai spesies ikan terkemuka.

# Access requirements to high potential markets







# Access requirements to (Western) priority markets

- Government imposed - Legal requirements
  - Strict requirements for food safety and traceability
  - Packaging and labelling
  - Health certificates
- Market driven - Buyer requirements
  - Quality
  - Sustainability (environmental and social responsibility)



# Food legislation in Western markets very strict

International food laws cover:

- contaminants
- additives
- contact materials
- hygiene
- labelling
- traceability

Based on Codex Alimentarius:

<http://www.fao.org/fao-who-codexalimentarius>

Standards:

For food additives: CODEX STAN 192-1995

Code of Practice:

General principles of food hygiene:

CAC/RCP 1-1969

EU food law: [https://ec.europa.eu/food/safety\\_en](https://ec.europa.eu/food/safety_en)

USA: <https://www.ams.usda.gov/>

[Asia-Pacific Food Law](#)

HACCP as a minimum requirement



## Fase Awal GQSP (s/d Desember 2019)

- **Inception Phase GQSP sampai dengan Desember 2019**
- **Tujuan**
  1. melakukan *gap dan need assessments* yang berkaitan dengan aspek “quality dan standards” produk Perikanan (aspek- aspek kelembagaan dan quality infrastructure, tantangan kepatuhan terhadap standar dan proses sertifikasi)
  2. identifikasi kegiatan atau intervensi SMART-Fish GQSP yang dapat mendukung dan memperkuat program strategi Propinsi Jawa (identifikasi peluang kolaborasi dengan Propinsi dan Kabupaten atau organisasi yang relevan) (dimulai awal 2020-2022), Identifikasi **lokasi proyek dan penerima manfaat**, termasuk arah kebijakan dan prioritas program 5 tahun ke depan
  3. Mengembangkan rencana aksi / roadmap bersama dengan mitra yang relevan untuk setiap kegiatan / intervensi proyek