



Ministry of Marine Affairs and Fisheries of the Republic of Indonesia

Cold Chain Market: The Current Status of The Market and The Foreign Investment Laws in Indonesia

*13th Business Forum Program
Korean Maritime Institute
Seoul, November 8th 2017*

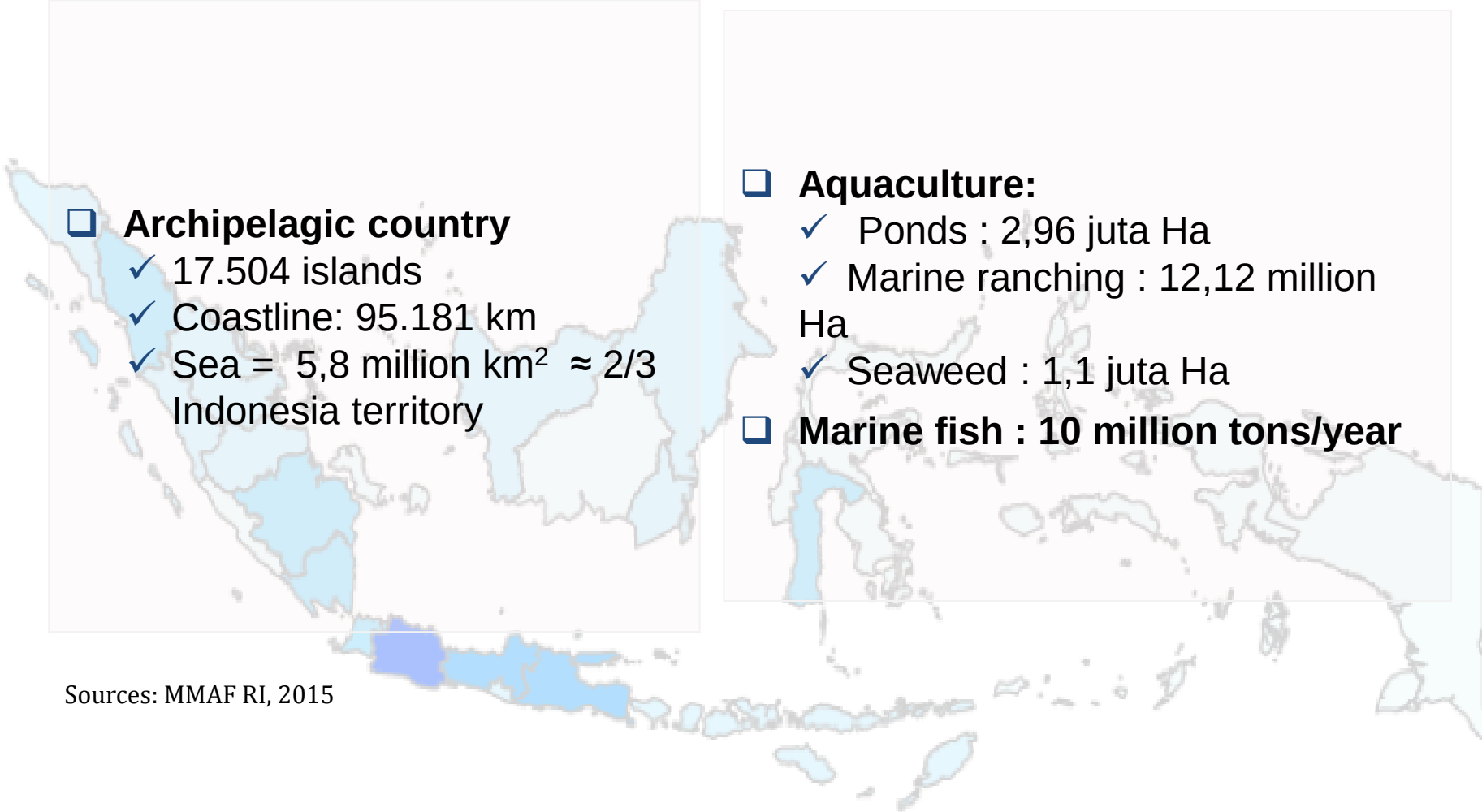




PART I

CURRENT STATUS OF INDONESIAN FISHERIES SUPPLY CHAIN

INDONESIA MARINE & FISHERIES RESOURCES



□ Archipelagic country

- ✓ 17.504 islands
- ✓ Coastline: 95.181 km
- ✓ Sea = 5,8 million km² $\approx$ 2/3 Indonesia territory

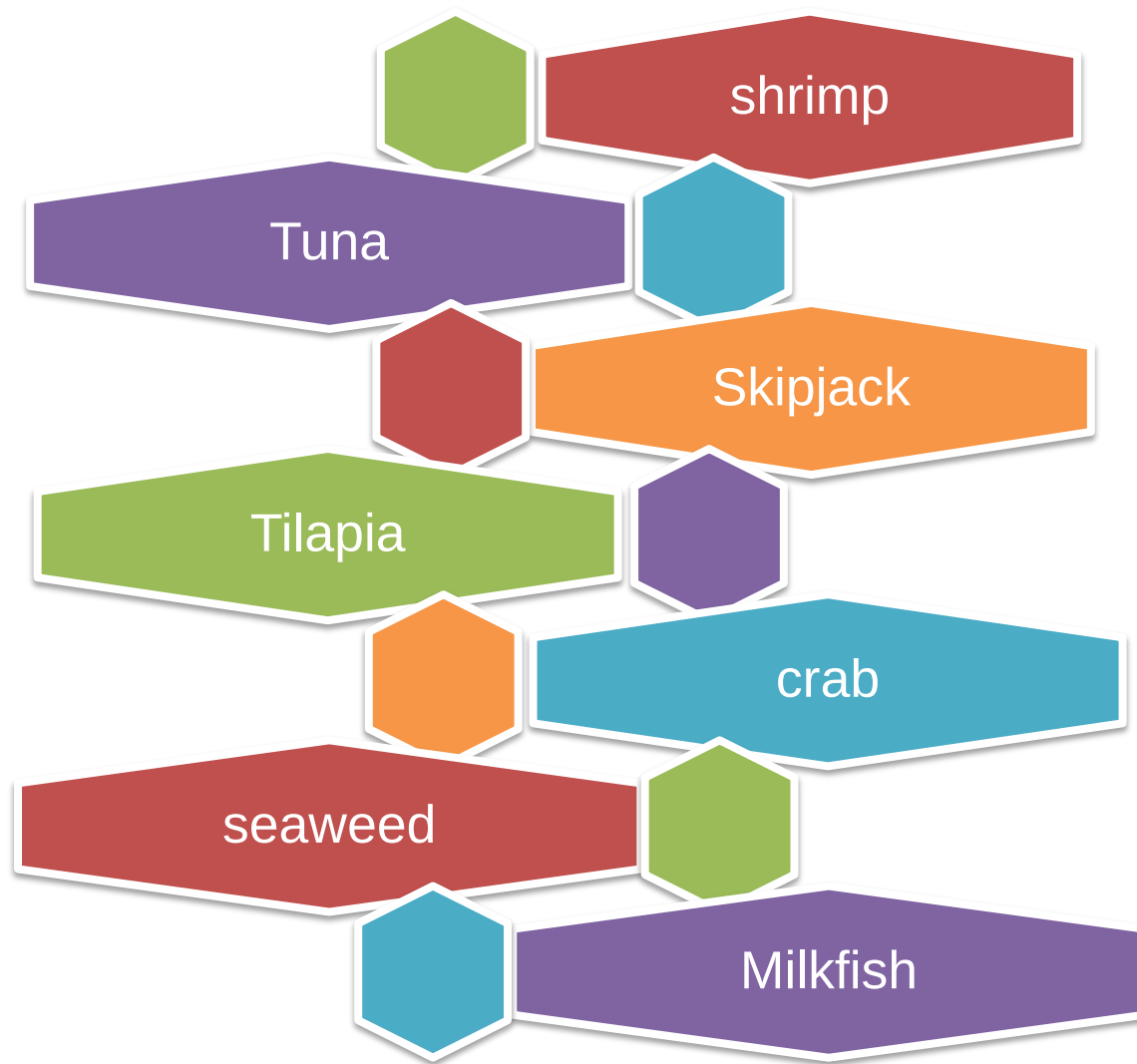
□ Aquaculture:

- ✓ Ponds : 2,96 juta Ha
- ✓ Marine ranching : 12,12 million Ha
- ✓ Seaweed : 1,1 juta Ha

□ Marine fish : 10 million tons/year

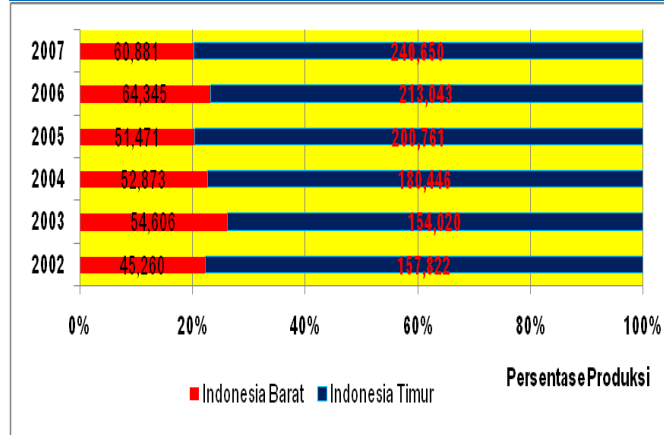
Sources: MMAF RI, 2015

Main commodities

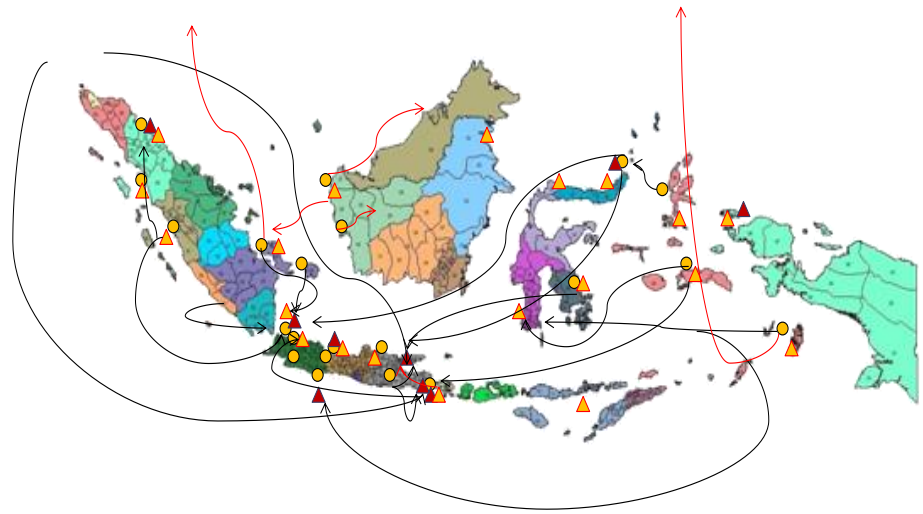
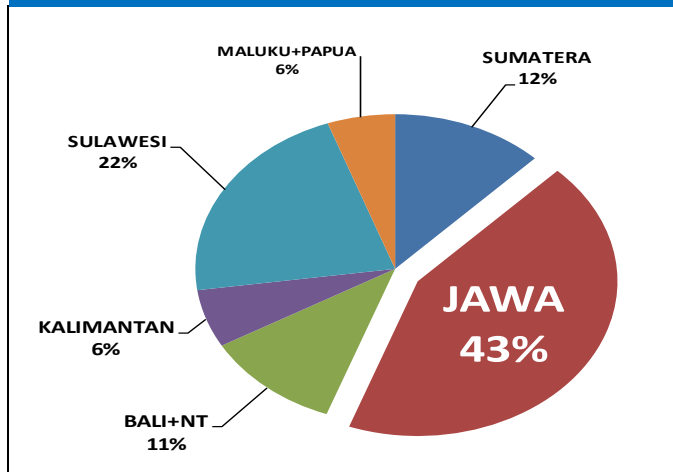


CHALLENGES: SUPPLY SIDE

Disparities of Production

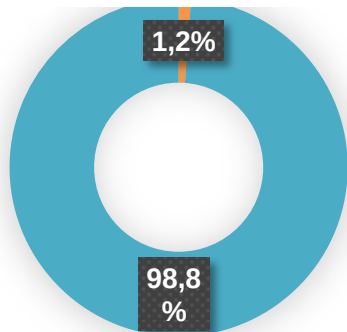
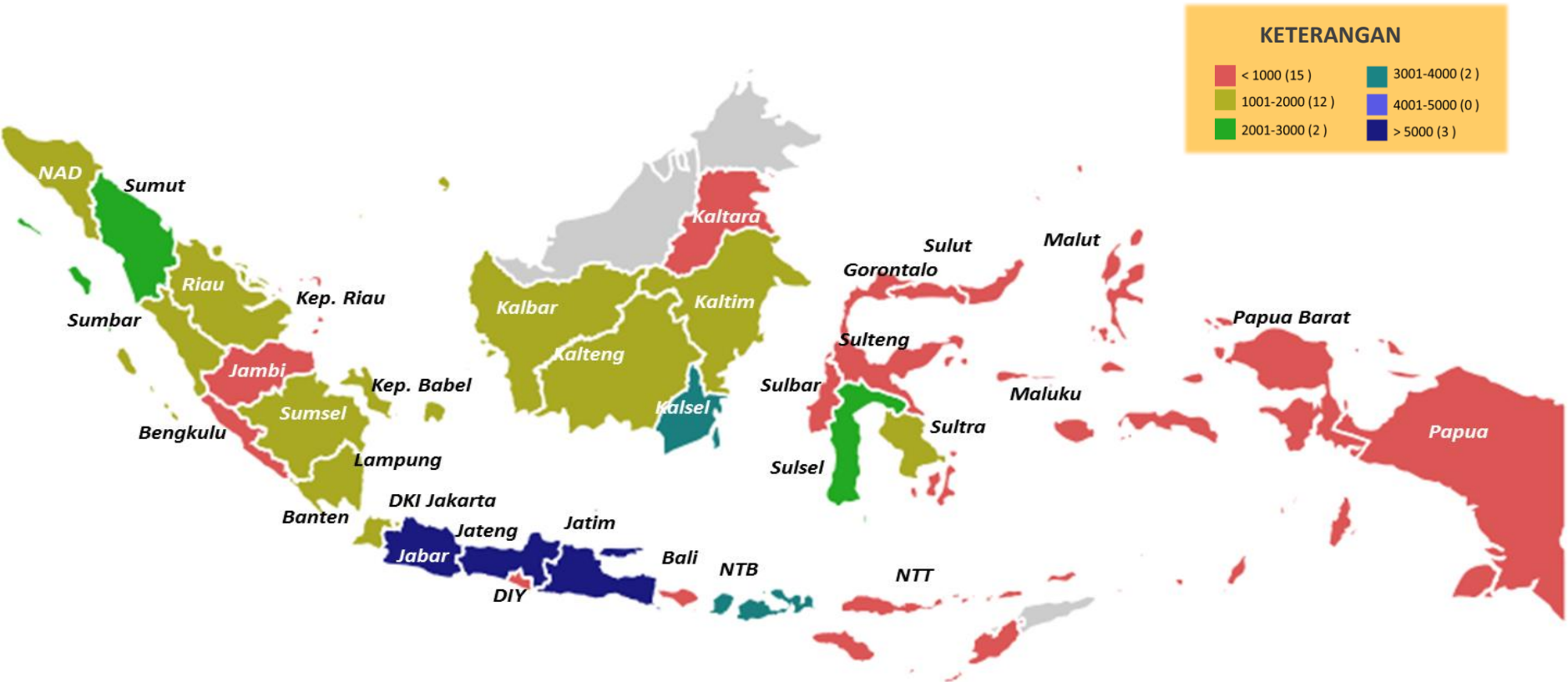


Disparities of Industrial Area



1. Length of distribution chain → High Logistic Cost
2. Un-proportional margin between business units involved
3. Disparity and stability of fish price
4. Uncertainty of fish quality, continuity, and traceability

LOCATION GAP



Total : 61.603 unit

- **Big industry = 718 unit***
- **SME = 60.885 unit****

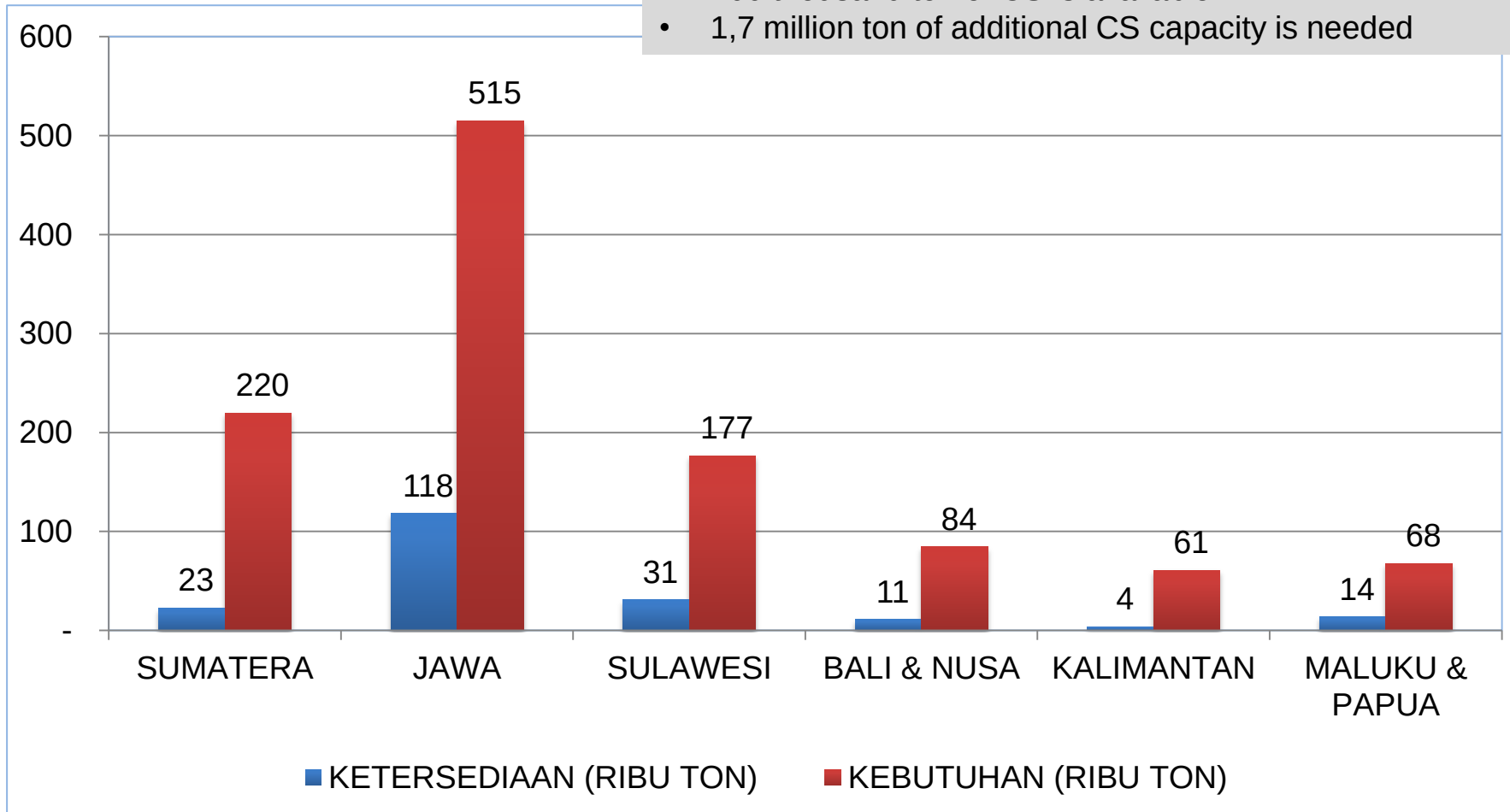
Sources:

*) Processing license MMAF, 2015

**) Statistics Buerau, 2015

INFRASTRUCTURE GAP: COLD STORAGE

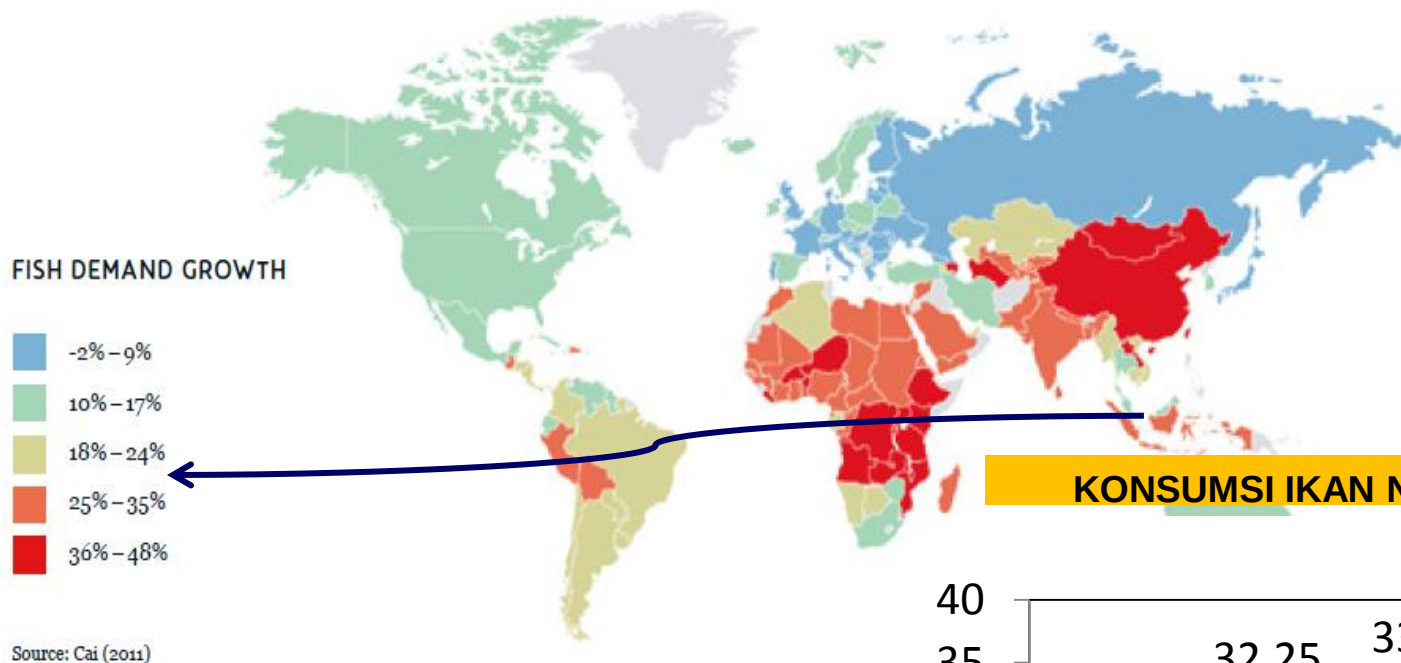
- 200 thousand ton of CS is available
- 1,7 million ton of additional CS capacity is needed



Need cold storage : 1,7 million ton (2017)

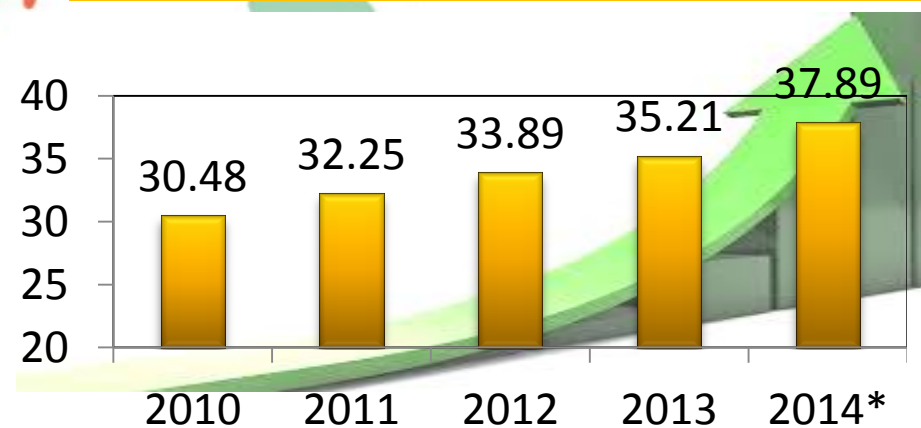
CHALLENGES: DEMAND SIDE

GROWTH IN OVERALL REQUIREMENTS FOR FISH



2009 – 2013 Tingkat konsumsi ikan domestik rata-rata naik sebesar 5,20 % per tahun

KONSUMSI IKAN NASIONAL 2010 - 2014

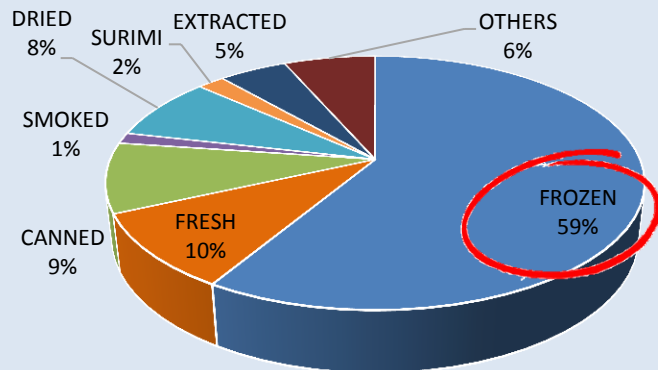


Sumber: BPS

Cold Storage is the Main Key for Fishery Industries

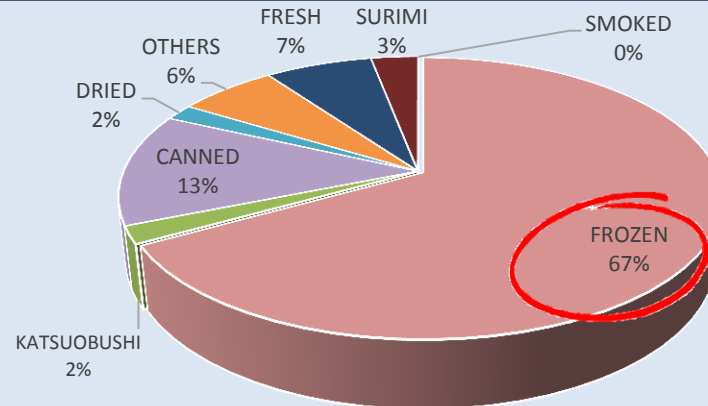
Fresh and frozen are precious products

Number of fishery industries by processing types (2015)



Jenis Pengolahan	Fishery Industries/ UPI (Unit)	Capacity (Ton/Year)
Frozen	421	1.572.515
Fresh	69	166.732
Canned	64	491.460
Smoked	10	31.268
Dried	58	83.764
Surimi	14	63.000
Extracted	35	90.480
Others	47	53.345
Total	718	2.552.564

Volume of fishery products by processing types (2015)



Produk Olahan	Volume (Ton)
Frozen	414,735
Katsuobushi	12,383
Canned	80,752
Dried	11,574
Others	39,433
Fresh	42,814
Surimi	18,747
Smoked	382
Total	620,819

Sources: MMAF 2015)

CHALLENGES: ACTORS CONTRIBUTION



Cold Storage built by MMAF
(2015)



Cold Storage built by MMAF
(2016)

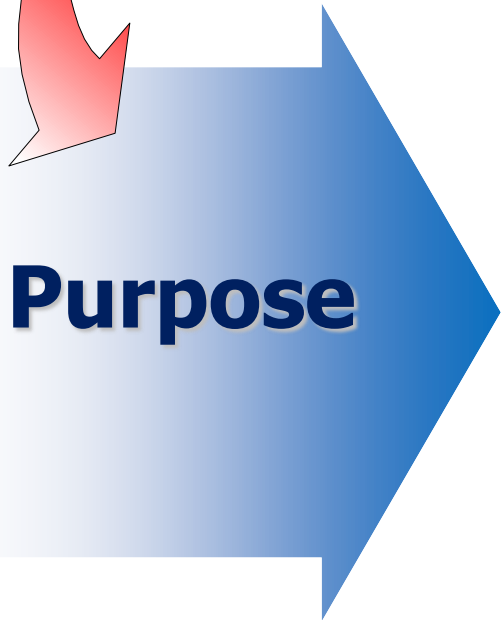


Cold Storage owned by
private company

National Fish Logistic System (Sistem Logistik Ikan Nasional/SLIN)



Fish and fishery supply chain management systems as well as information ranging from procurement, storage, transportation to distribution, as a unity of policies to increase capacity and stabilization of upstream-downstream fisheries production systems, controlling disparities and price stabilization, and to meet consumption needs in country



Purpose

1

Increasing capacity and stability of national fish production and marketing system

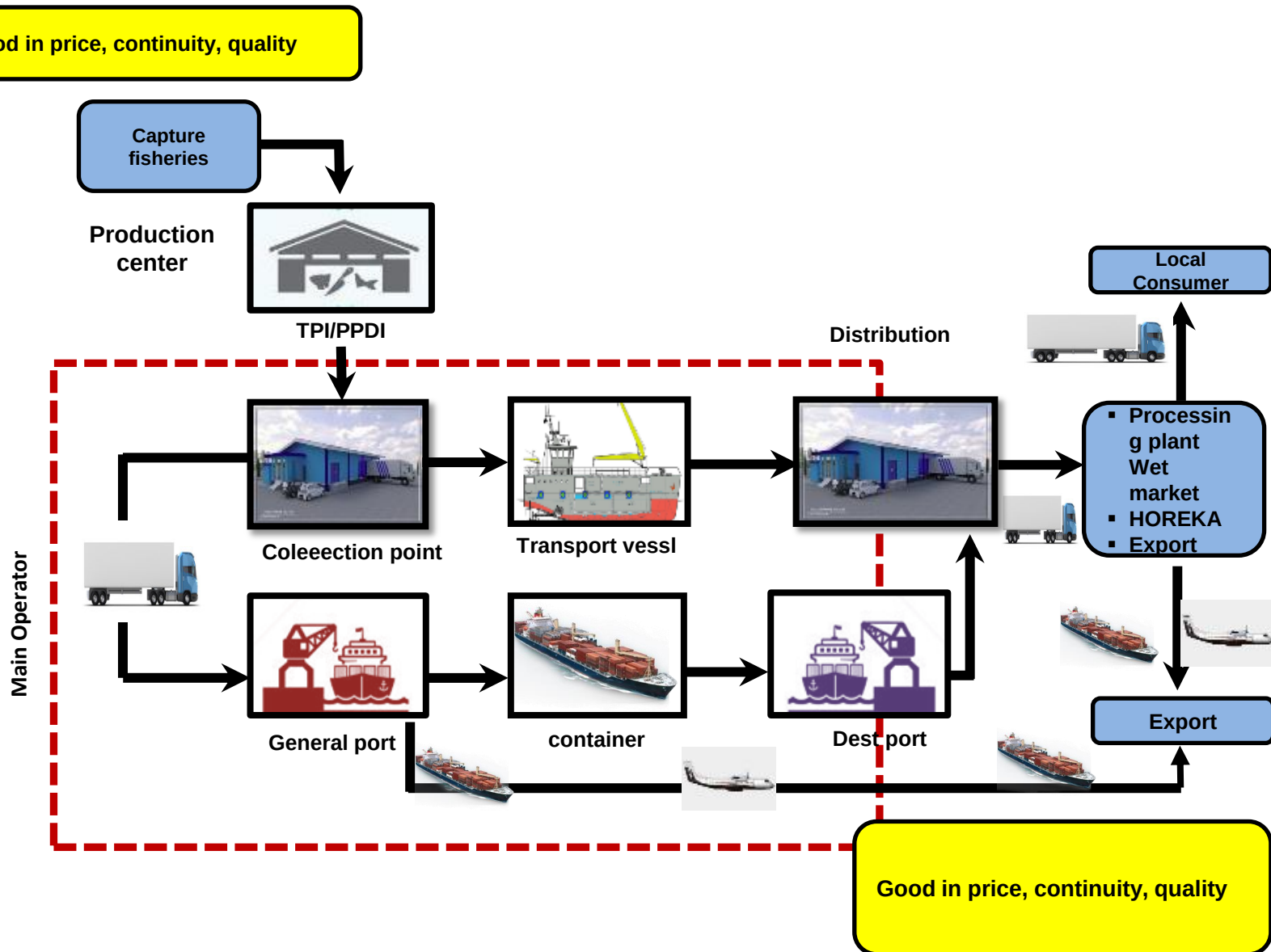
2

Strengthening and expanding connectivity between upstream and downstream, as well as efficiency of marketing

3

Increasing efficiency of fish supply chain management, raw material, production equipment, as well as information from upstream to downstream.

SLIN IMPLEMENTATION



SLIN: GOVERNMENT INTERVENTION

FISHERMAN



Coolbox & Chest Freezer

SME/COOPERATIVES AS COLLECTOR



CS Mobile, Ice Flake Machine

LOCAL PROCESSOR



Cold Storage & ABF

BIG DISTRIBUTOR



CS Mobile & Cold Storage

REGIONAL DISTRIBUTOR

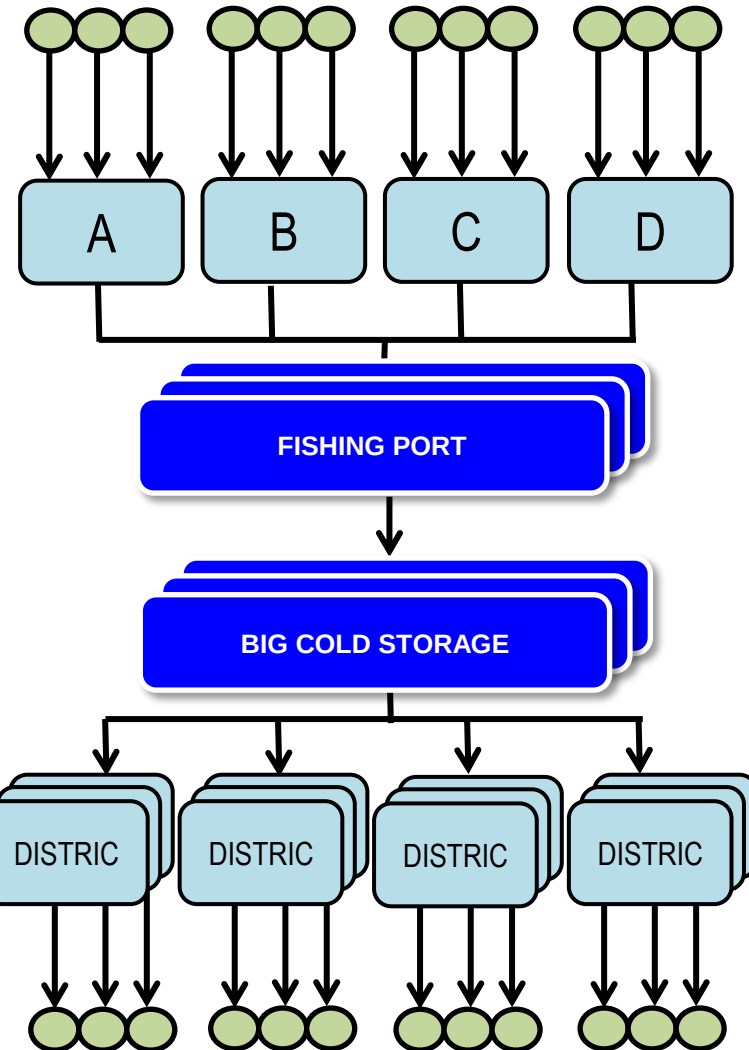


Medium CS Mobile & mini cold storage

RETAILER



Small CS mobile & Chest Freezer



PART II

MARINE AND FISHERIES INVESTMENT POLICY:

Current Status and Opportunities



SEA IS OUR FUTURE

We have to work as hard as we can to restore Indonesia as a maritime power. The oceans, the seas, the straits and the bays are the future of our civilization. For far too long, we have turned our backs on the seas, the oceans, the straits and the bays.

Now is the time to restore *Jalesveva Jayamahe* [At sea we are victorious], the motto of our forefathers. We should return back to sailing the seas.

Joko Widodo, 20 October 2014

2015-2019

Investment Opportunities in Indonesia

Investment Priority Sectors

Infrastructure		35 GW power generation	24 Sea ports		
Agriculture		Food estate	Corn Plantation	Cattle	
Industry	Labor-intensive industry	Textile	Food & Beverages	Furniture	Toys
	Import-substitution industry	Chemical & Pharmaceutical	Iron & Steel		
	Export-oriented industry	Electronics	CPO & derivative products	Wood products, pulp & paper	Automotive
		Machinery	Rubber products	Fish & derivative products	Shrimp
	Downstream industry of natural resources	Cacao	Sugar	Smelter	
Maritime		Ship building	Fishing industry	Cold storage	
Tourism, SEZ & Industrial Park		Strategic tourism areas	MICE	8+11 SEZs	15 New Ind. Parks

Source : The Investment Coordinating Board of the Republic of Indonesia

National Development Plan 2015-2019

24 Seaports Capacity Development

**Cargo Flow
in Indonesia:**

8.8 million TEU
in 2009

30 million TEU
in 2020 (est.)

48 million TEU
in 2030 (est.)

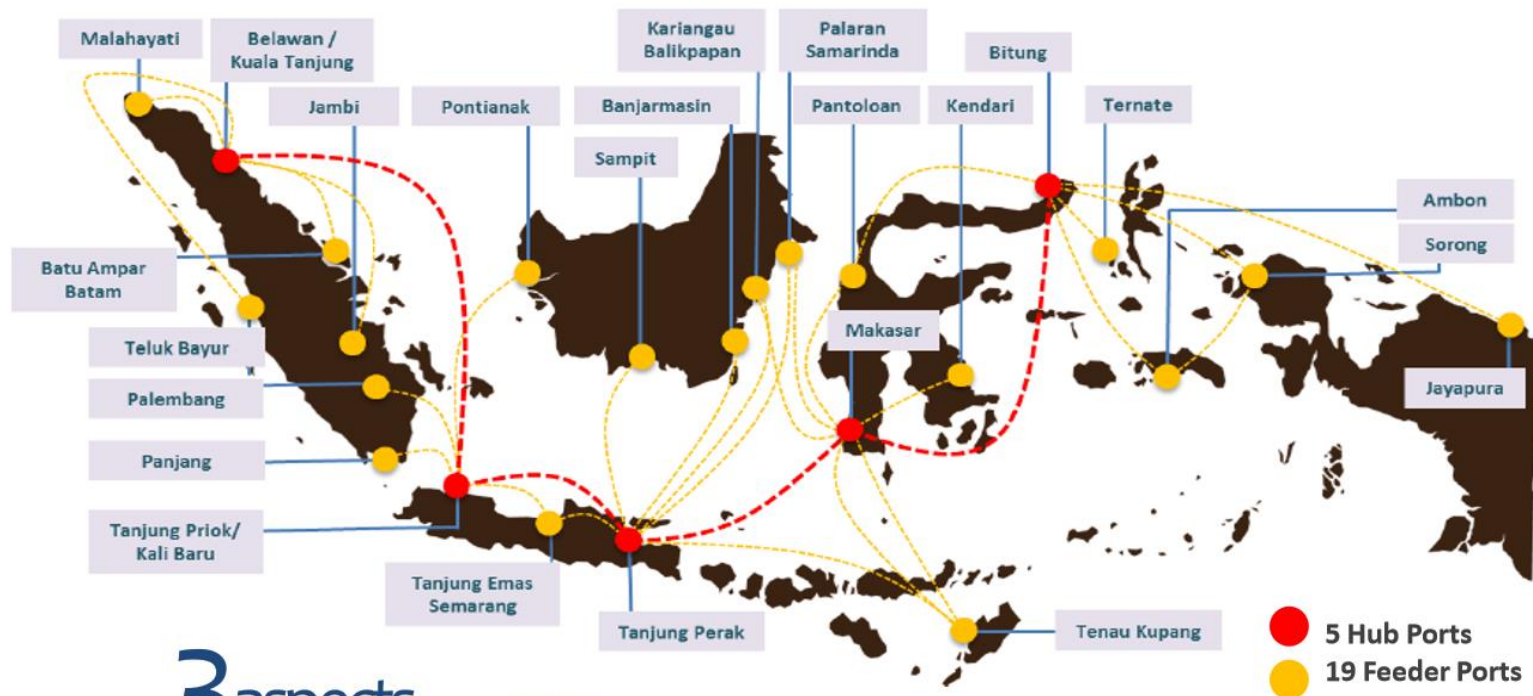
TEU: Twenty-feet Equivalent Unit, an inexact unit of cargo capacity often used to describe the capacity of container ships and container terminals.



National Development Plan 2015-2019

“Sea Toll” Development Plan

Indonesia’s Logistic Route



3 aspects
of Maritime
Industry

Service: Shipping, Ship Building

Infrastructure/Logistics: Seaports, Cold Storage, Storage Tank

ICT & Human Capital: ICT for Maritime, Capacity Building

FOREIGN INVESTMENT IN MARINE AND FISHERIES SECTOR IN INDONESIA BY COUNTRY OF ORIGIN, 2013-2017*

(USD 000)

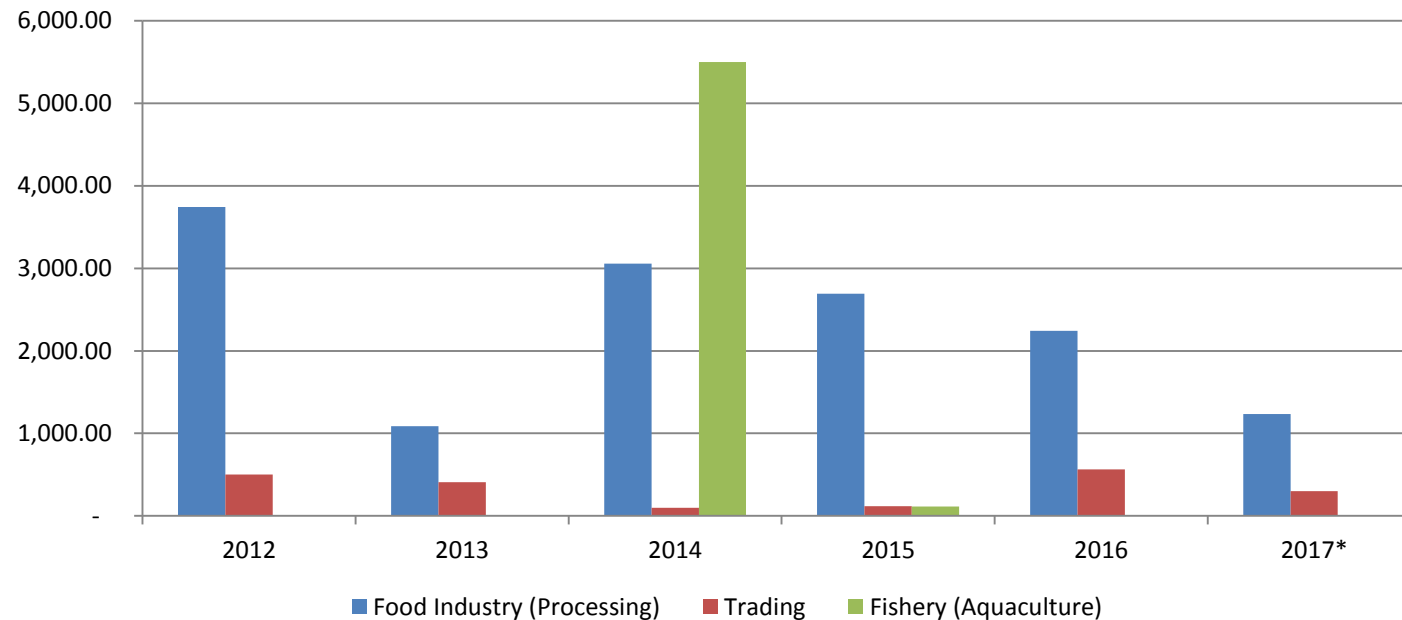
COUNTRY	2013	2014	2015	2016	2017*
Singapore	1,825	3,991	2,494	6,931	34,604
China	5,609	7,377	5,659	5,416	4,712
Belgium				-	3,319
Australia	-	-	-	5	3,169
Japan	6,776	14,105	853	24,180	2,798
Philippines	-	11,293	76	5,550	2,500
Korea, Republic of	1,497	8,655	2,926	2,808	1,534
Hongkong			7,593	36,346	1,083
Thailand	4,240	-	-	-	761
Italia		10	-	1	620
India	119	355			600
United Kingdom		476	856	-	226
Taiwan	440	1,796	3,176	2,319	210
British Virgin Islands	1,653	86,604	52,980	7,511	83
Malaysia	4,135	1,615	887	232	-
Pakistan			100		-
Samoa	-	2	211	1,100	-
New Zealand	-	1,148	-	-	-
United States of America	56	21	-	288	
Country Combined	7,322	17,019	4,998		
Total	33,673	154,466	82,808	92,686	56,218

- In the first half of 2017, Korean investment reach 1.5 Million USD (2.7% of total foreign investment entering Indonesia).
- Korean investment decreased significantly from 2014 to 2016. The highest investment was in 2014 dominated by fishery sector.

Source: Indonesia Investment
Coordinating Board, analyzed by MMAF
* Jan-Jun 2017

KOREA INVESTMENT REALIZATION IN MARINE AND FISHERIES SECTOR, 2012 - 2017*

(USD 000)



BUSINESS FIELDS	2012	2013	2014	2015	2016	2017*	2012-2016 (%)	2015-2016 (%)
Food Industry (Processing)	3,742.40	1,087.90	3,055.00	2,691.70	2,243.40	1,233.50	20.33%	-16.65%
Trading	500.00	409.20	100.00	119.50	564.70	300.00	74.58%	372.55%
Fishery	-	-	5,500.00	115.00	-	-	-	-100.00%
TOTAL	4,242.40	1,497.10	8,655.00	2,926.20	2,808.10	1,533.50	85.80%	-4.04%

Source: Indonesia Investment Coordinating Board, analyzed by MMAF

* Jan-Jun 2017



Indonesian fishery industry Supply trend

Indonesia is the second largest marine fishery producer and the third largest farmed fish producer in the world. However, it is not included 10 largest fish exporter in the world because approximately 85% of total Indonesian fish product is consumed in Indonesia.

Marine Fishery Production in 2012-14

	Country	Production (thousand tonnes)		Share in world total 2014	Increase 2012- 2014
		2012	2014		
1	China	13,870	14,811	18.2%	6.8%
2	Indonesia	5,420	6,017	7.4%	11.0%
3	USA	5,108	4,954	6.1%	-3.0%
4	Russia	4,069	4,001	4.9%	-1.7%
5	Japan	3,611	3,630	4.5%	0.5%
6	Peru	4,808	3,549	4.4%	-26.2%
7	India	3,402	3,419	4.2%	0.5%
8	Vietnam	2,419	2,711	3.3%	12.1%
9	Myanmar	2,333	2,702	3.3%	15.8%
10	Norway	2,150	2,301	2.8%	7.0%
World total		79,706	81,549	100.0%	2.3%

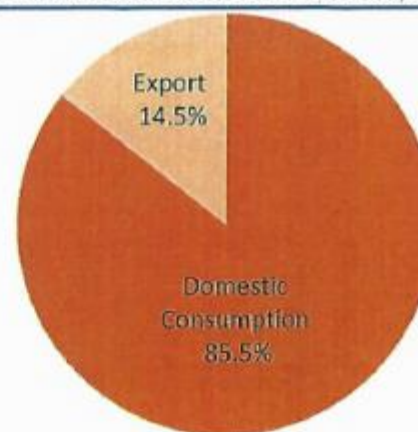
Farmed Food Fish Production in 2012-14

	Country	Production (thousand tonnes)		Share in world total 2014	Increase 2012- 2014
		2012	2014		
1	China	41,108	45,469	61.6%	10.6%
2	India	4,209	4,881	6.6%	16.0%
3	Indonesia	3,068	4,254	5.8%	38.7%
4	Vietnam	3,081	3,397	4.6%	10.3%
5	Bangladesh	1,726	1,957	2.7%	13.4%
6	Chile	1,071	1,215	1.6%	13.4%
7	Norway	1,321	1,333	1.8%	0.9%
8	Egypt	1,018	1,137	1.5%	11.7%
9	Myanmar	885	962	1.3%	8.7%
10	Thailand	1,234	935	1.3%	-24.2%
11	Philippines	791	788	1.1%	-0.4%
12	Japan	633	657	0.9%	3.8%
World total		66,633	73,784	100.0%	10.7%

Major Fish Exporter in the World in 2014

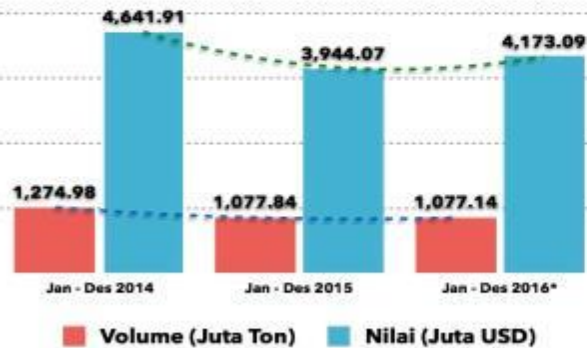
	Country	value	share in world total
1	China	20,980	14.2%
2	Norway	10,803	7.3%
3	Vietnam	8,029	5.4%
4	Thailand	6,565	4.4%
5	USA	6,144	4.1%
6	Chile	5,854	4.0%
7	India	5,604	3.8%
8	Denmark	4,765	3.2%
9	Netherlands	4,555	3.1%
10	Canada	4,503	3.0%
rest of the world		70,346	47.5%
World total		148,147	100.0%

Destination of Indonesian Fish Products in 2012



KINERJA EKSPOR NASIONAL

JANUARI - DESEMBER 2015 VS JANUARI - DESEMBER 2016*



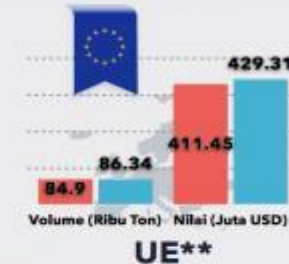
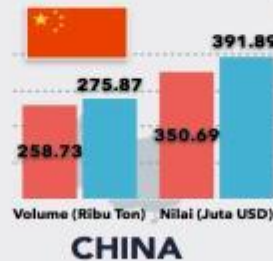
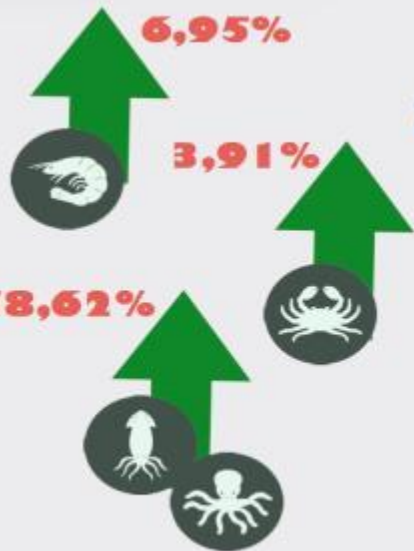
Nilai ekspor
meningkat
5,81%



* Data sementara
** Termasuk UK

KINERJA EKSPOR DI PASAR TUJUAN

JANUARI - DESEMBER 2015
VS JANUARI - DESEMBER 2016*



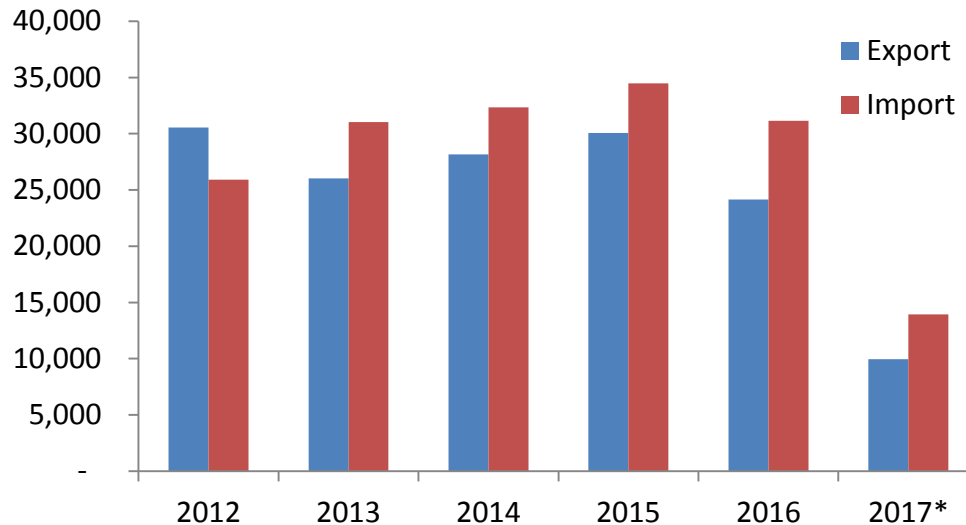
Sumber data : BPS, 2014 - 2016*, diolah

* Including UK

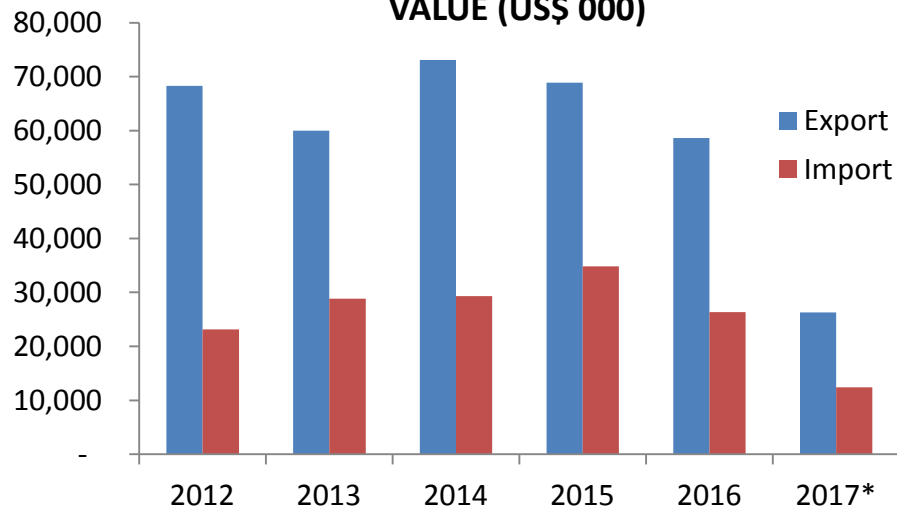
EXPORT-IMPORT OF FISHERY PRODUCTS (INDONESIA-KOREA)



VOLUME (TON)



VALUE (US\$ 000)



- Main Product exported to Korea: Seaweed, Shrimp, Tunas, Skipjack with the total value in 2016 amounted US\$ 58.6 Million
- Main Product imported from Korea Fish meal, Fish oil, and Mackarel with the total value in 2016 amounted US\$ 26.3 Million

Source: National Statistic Bureau,
analyzed by MMAF

* Temporary figure (Jan-Jun 2017)

GOVERNMENT VISION : SEA IS OUR FUTURE

SEA IS OUR FUTURE

To achieve sovereign, independent, and sustainable management of marine and fisheries resources for the people's prosperity



SOVEREIGNTY

- Surveillance of marine and fishery resources;
- Fish Quarantine, Quality control, food safety and bio safety



PROSPERITY

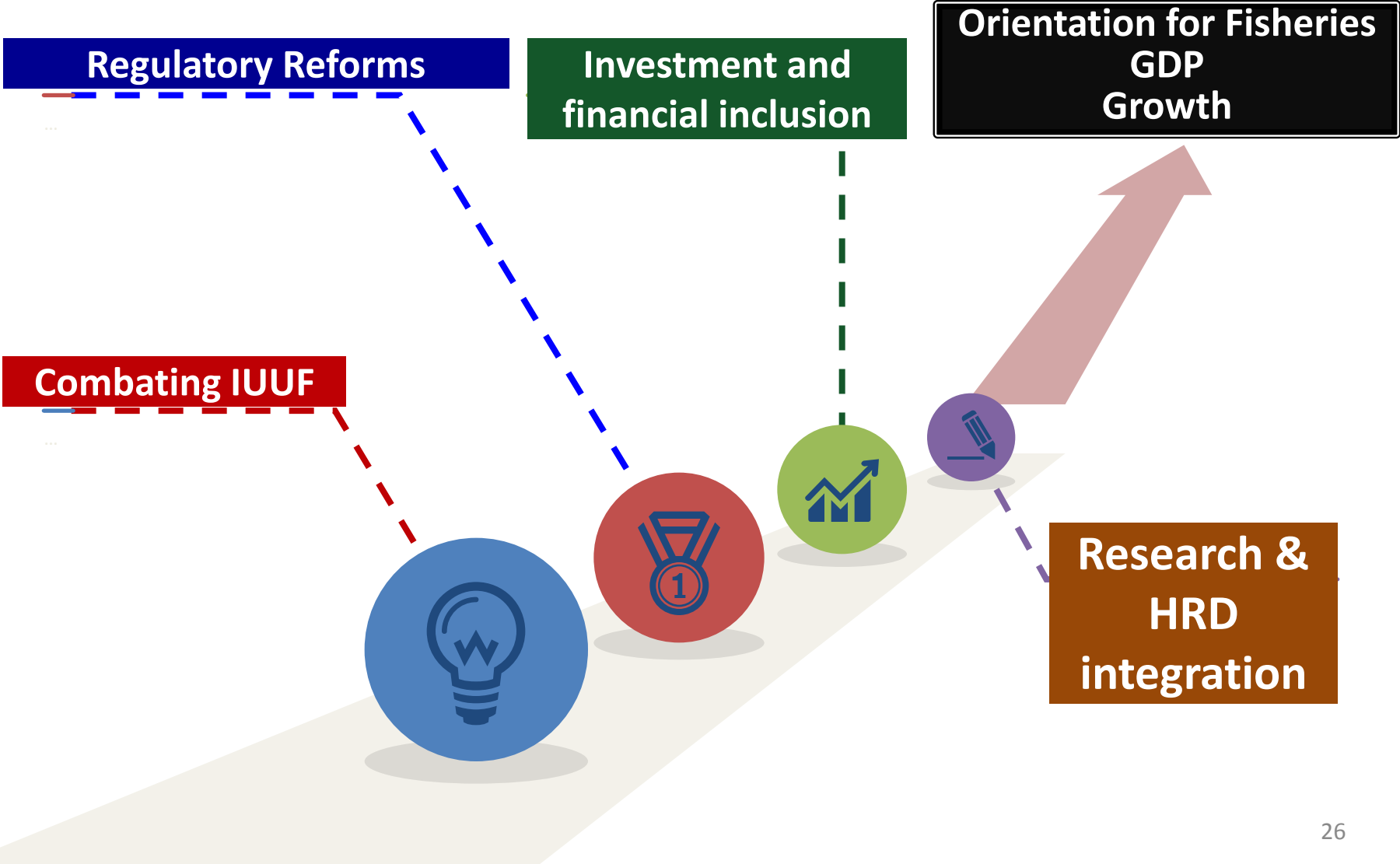
- Human Resources scaling up
- Innovation in technology



SUSTAINABILITY

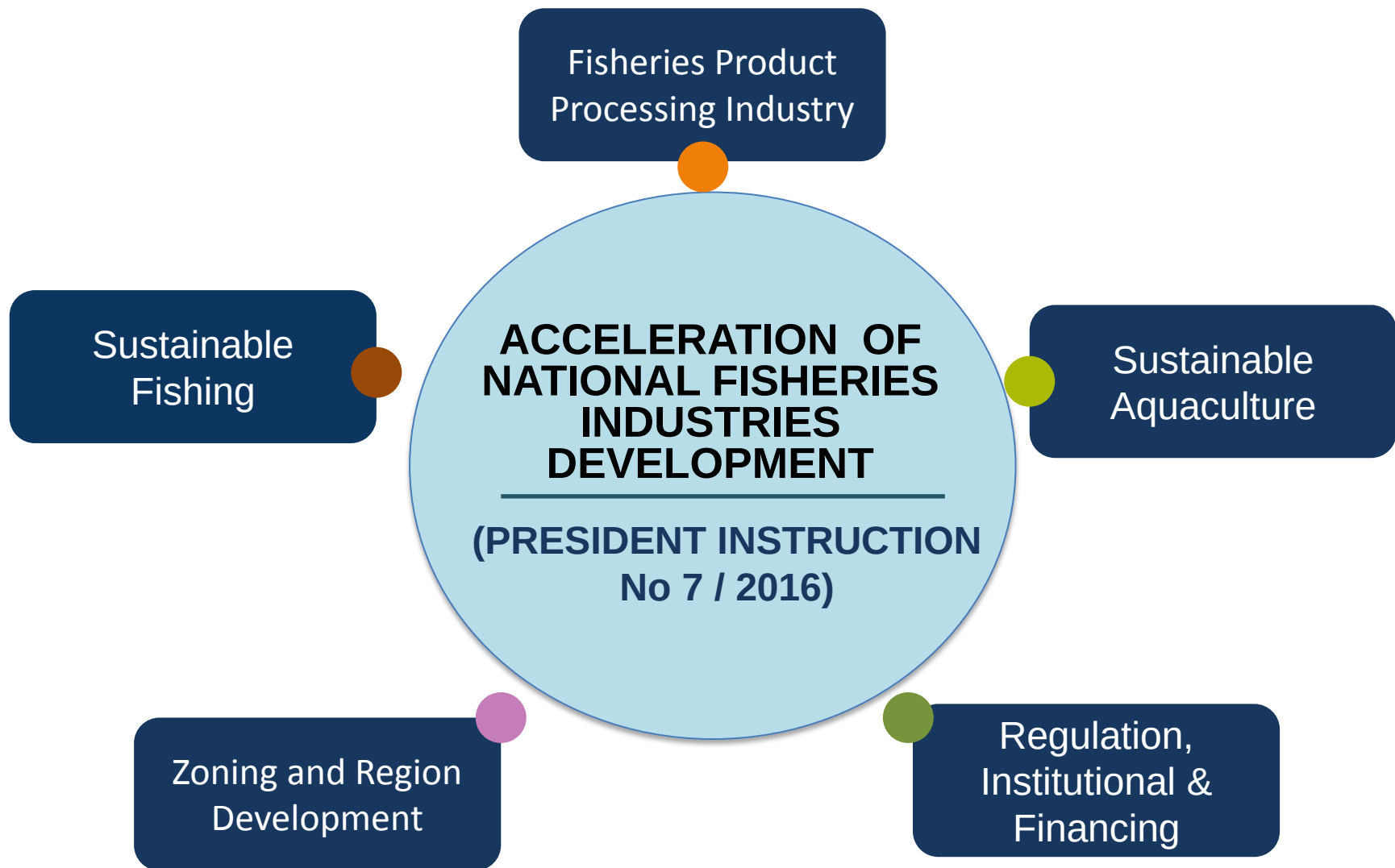
- Marine spatial, conservation and bio diversity
- Business Sustainability
- Marine and fishery products competitiveness

Stages for Fisheries Reform



NATIONAL FISHERIES INDUSTRY ACCELERATION PROGRAM

(Perpres 3/2017)



1. Towards Sustainable, Legal, Reported & Regulated Fishing (LRRF)

- Establishment of Presidential IUUF Task Force: multi door and one-roof enforcement for IUUF
- Increasing capacity for monitoring, control & surveillance
- Fisheries diplomacy: exclusive right for Indonesian fishermen in Indonesia's EEZ, greater role of Indonesia's interests in multilateral, RFMO processes
- Implementation of National Marine Spatial Plan and increase of marine protected areas
- Quota-based system: increasing capacity for stock assessment, improvement of licensing system, allocation of fisheries quota based on allowed season, location, species and fishing gear
- One Data on Fisheries: improvement of data collection process, increasing capacity for human resources and infrastructure for data collection, implementation of traceability system

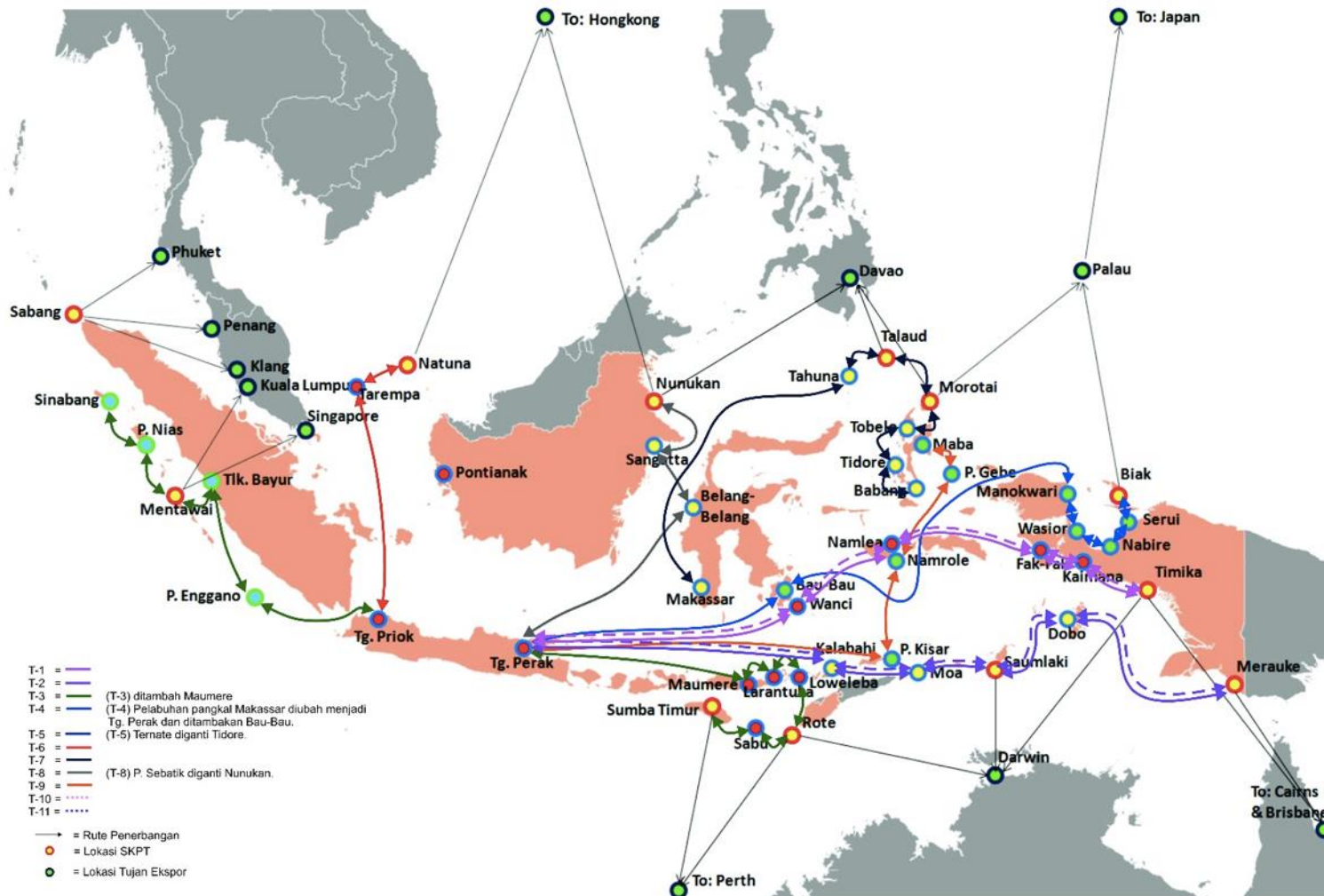
2. Upscaling Investment in Fisheries

- Increasing domestic capacity for capture fisheries (small scale and industrial)
- Facilitating greater foreign investment for cold chain system, processing and distribution of seafood products
- Enabling market access through collaboration with Fisheries State Own Enterprise



3. Creating new export gateways from Indonesia's outer islands

Location plan in 12 SKPT 2017 & sea toll roadmap 2017



12 location for SKPT 2017

1. Natuna
2. Saumlaki
3. Merauke
4. Mentawai
5. Nunukan
6. Talaud
7. Morotai
8. Biak Numfor
9. Mimika
10. Rote Ndao
11. Sumba Timur
12. Sabang

Sumber:

- Rute Tol Laut: Kementerian Perhubungan, 2016
- SKPT 2017: KKP, 2016

Priority Program 2017: Integrated Fisheries Industry at 12 Outermost Islands



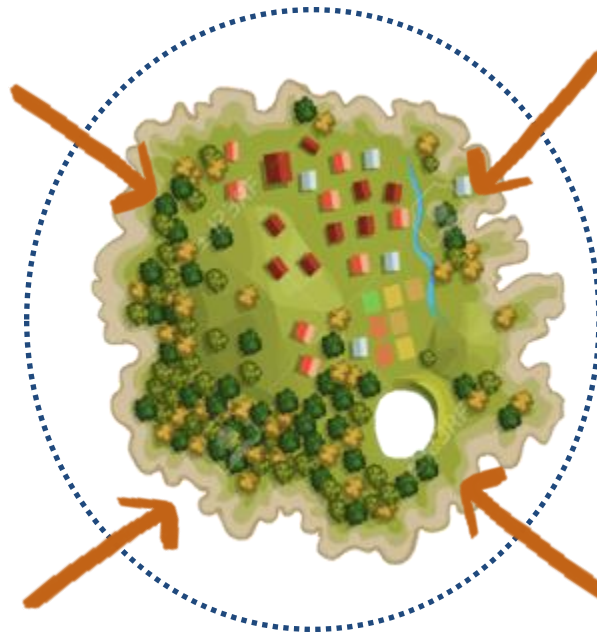
CAPTURE FISHERIES

- Vessels and Fishing gears
- Carrier vessel
- Fishing Port
- Solar Packed Dealer for Fishermen

AQUACULTURE

- Integrated Offshore Floating Cage
- Seaweed nursery, Seaweed culture & rack (para-para)
- Revitalization of Local seed development center
- Biofloc
- Excavator

Integrated Planning



Downstream & Competitiveness

- Integrated Cold Storage (500 ton)
- Ice Flake Machine (10 ton & 1,5 ton)
- Coolbox
- Seaweed Storage
- 4-wheel and 6-wheel vehicles

Marine Spatial Planning

- Floating Jetty
- Breakwater tripod
- Secretariat support

Certain types of activities are fully or partially restricted when it comes to FDI. Key areas relevant to the fisheries sector are detailed below

Require Partnership with local :

1. Rearing of Fish
2. Hatchery of Fish
3. Processing of Fishery Products
4. Manufacture of wooden ships
5. Manufacture of device and fittings of wooden ships for marine tourism and fishing

Businesses which are not regulated in **Presidential Regulation 44 /2016** are open for Foreign Capital Investment, for example Cold Storage

Subject to have recommendation from the Minister of Forestry and Environment

Coral/Ornamental Coral Culture

CLOSED to FDI

1. Capture Fisheries
2. Fishing of species listed in Convention on International Trade in Endangered Species of Wild Fauna and Flora)
3. Salvage of Sunken Ship Treasure
4. Sea Sand Quarrying

Investment Incentives

Tax allowance

Government
Regulation No.18/2015

Tax holiday/ Tax Exemption

Ministry of Finance
Regulation No.159/
PMK.010/2015)

Import duty exemption

Ministry of Finance
Regulation No.176/
PMK.011/ 2009

Criteria and/or conditions of income tax facilities for investment



As per Decree of the Minister of Marine Affairs and Fisheries No. 17/PERMEN-KP/2015

No	Business Field	Minimum value of Investment (in Indonesian Rupiah - IDR)	Minimum output to be exported (volume)	Minimum absorption of workforce
1	Aquaculture of marine fish	IDR 25 billion	80%	100 people, 90% of which must be Indonesian workforce
2	Floating net aquaculture of freshwater fish	IDR 10 billion	n.a.	50 people, 90% of which must be Indonesian workforce
3	Cold storage facility for fish products	IDR 25 billion	50%	
4	Processing of fish products into floss, paste or surimi	IDR 25 billion		
5	Processing and preservation of fish and aquatic fish (except Shrimp or Prawns) and packaged into cans	IDR 30 billion		
6	Processing and preservation of Shrimp or Prawns and packaged into cans	IDR 30 billion		
7	Cold storage facilities for other types of fish products	IDR 20 billion		
8	Processing and preservation of other types of fish	IDR 15 billion	30%	

PROCEDURE OF 3 HOURS INVESTMENT LICENSING SERVICE



**Investor arrives at BKPM
and takes a queue number**



Investor consults with Director of Investment Service
regarding his/her investment plan and also submits the
required data and documents



Investor waits while the Priority
Investment Officer Works on the
Investment Licenses



Requirement for utilizing the 3 hours services

1. Planned value of investment at least IDR 100 billion,
2. and / or absorbing at least 1,000 local workers
3. Application must be submitted directly by at least one candidate of the proposed company shareholder

Prepare your documents!

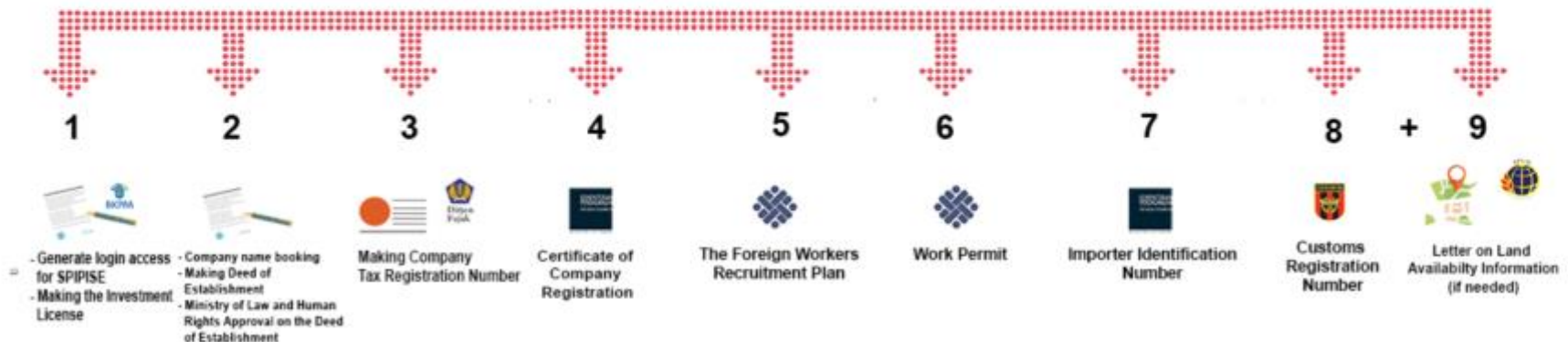
1. Investor identity as the prospective shareholders - ID Card / Passport and / or Deed of Establishment (Indonesian company) or Article of Association (foreign company)
2. Flowchart on business activities workflow from raw material production until finished products



8+1 Products are ready

1. Investment License
2. Deed of Establishment and Approval
3. Tax Registration Number
4. Certificate of Company Registration
5. The Foreign Workers Recruitment Plan
6. Work Permit
7. Importer Identification Number
8. Customs Registration Number
9. Letter on Land Availability Information

The Priority Investment Officer works on the investment licenses
for the investor on 3 Hours Investment Licensing Service with the "8 + 1 Products"



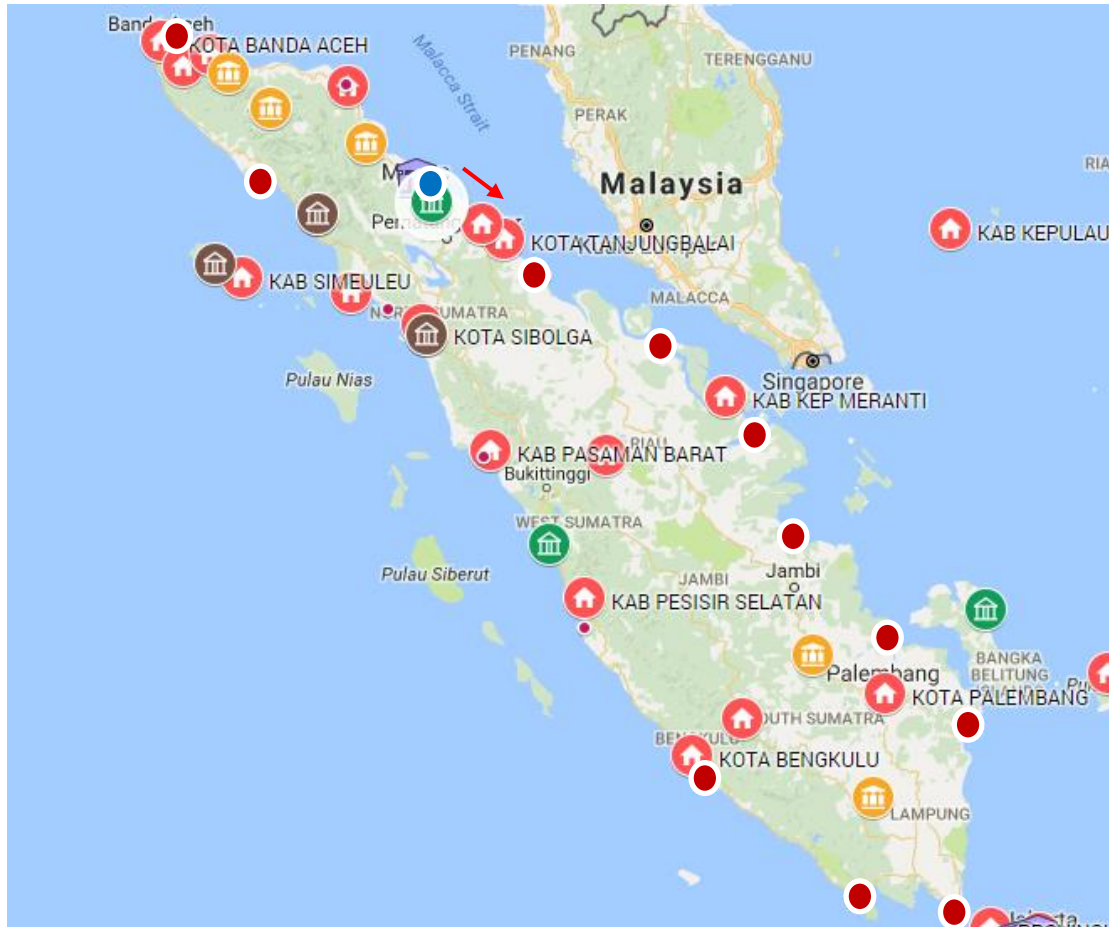
CONCLUSION

- MMAF highly concern on the issue of supply chain and put high priority on the provision of cold chain system to support sustainable business and investment in fishery sector
- MMAF welcome stakeholders to contribute in MMAF program and to invest in fisheries industry development from upstream to downstream, particularly in the Integrated Marine and Fisheries Center (SKPT)

THANK YOU



Distribution of Cold Chain Infrastructure in Sumatera



Start point measurement :
Belawan Medan Port

Conclusion :

- ❖ Based on planning to build new cold storages per 300 km along Sumatera coastline, additional 7 new cold storages are needed in these regions :
 1. Rokan Hilir - Kab. Siak
 2. Indragiri Hilir - Muaro Jambi
 3. Muaro Jambi - . Oki
 4. Oki - . Tulang Bawang
 5. Tulang Bawang -Lampung Selatan
 6. Lampung Selatan - Lampung Barat
 7. Nagan Raya - Banda Aceh
- ❖ IFM 10 Ton will also be provided along the coastline by 300 km in di East and West Coastline in Sumatera Island

Legenda :

	SCS DIBANGUN DIT. PH		CS IMPORTIR
	ICS DIBANGUN DIT. BMDP		SCS 2017 DIBANGUN DIT. SISLOG
	ICS 2017 DIBANGUN DIT. BMDP		ARAH PENGUKURAN
	TITIK PENGUKURAN PER 300 KM		TITIK AWAL PENGUKURAN

Distribution of Cold Chain Infrastructure in Java



Start point measurement:

Muara Baru Port

Legenda :

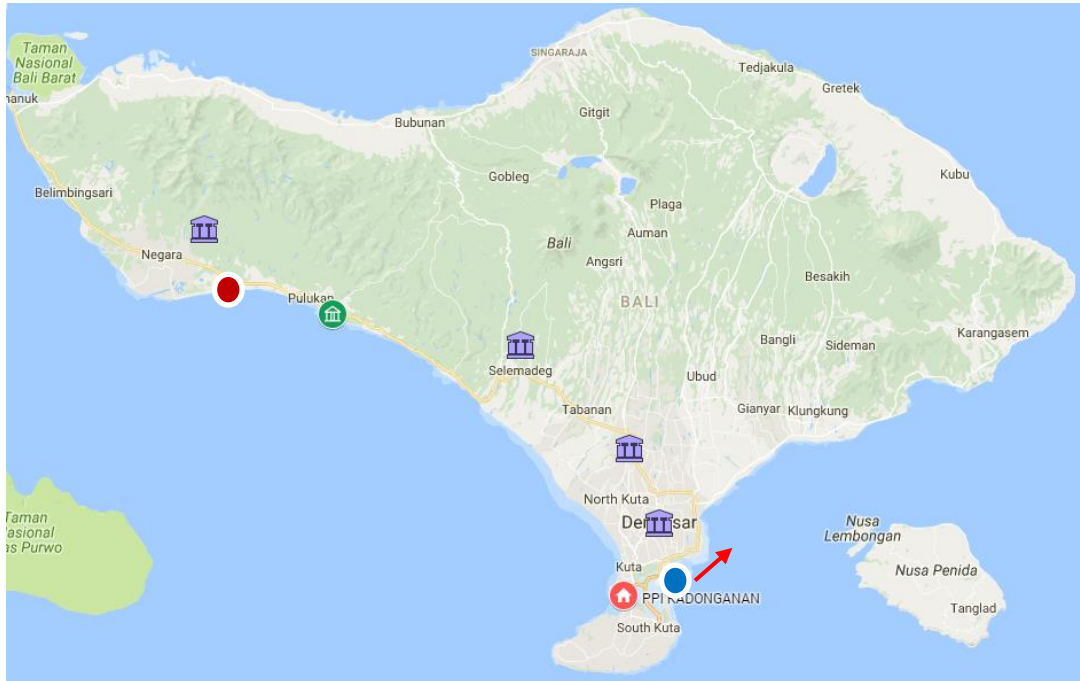
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|--|-----------------------------|--|----------------------------------|
| | SCS DIBANGUN
DIT. PH | | SCS 2017 DIBANGUN
DIT. SISLOG |
| | ICS DIBANGUN
DIT. BMDP | | ICS 2017 DIBANGUN
DIT. BMDP |
| | SCS DIBANGUNDIT.
SISLOG | | CS IMPORTIR |
| | ARAH PENGUKURAN | | IFM 10 TON |
| | TITIK PENGUKURAN PER 300 KM | | |
| | TITIK AWAL PENGUKURAN | | |

Conclusion:

Based on planning to build new cold storages per 300 km along Java coastline, additional 2 new cold storages are needed in these regions :

1. Pacitan - Cilacap
 2. Cilacap - Sukabumi
- ❖ IFM 10 Ton will also be provided along the coastline by 300 km in 7 regions along South and North Beach Java except Gresik and Situbondo

Distribution of Cold Chain Infrastructure in Bali



Start Point Measurement:
Benoa Port, Bali

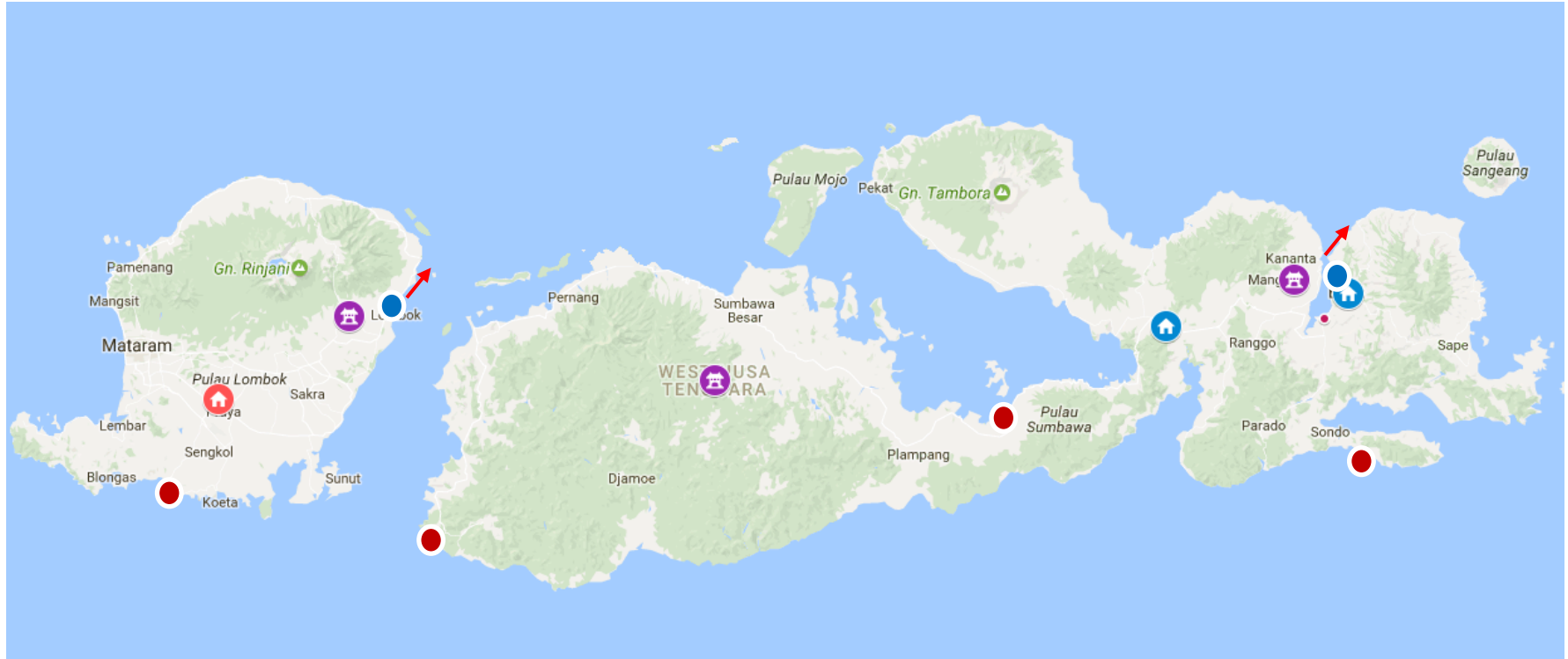
Conclusion :

- ❖ Based on planning to build new cold storages per 300 km along Papua and Papua Barat coastline, additional new cold storages are needed in Denpasar and Jembara
- ❖ IFM 10 Ton will also be provided along the coastline by 300 km along Bali coastline

Legenda :

-  SCS DIBANGUN DIT. PH
-  SCS 2017 DIBANGUN DIT. SISLOG
-  CS IMPORTIR
-  TITIK PENGUKURAN PER 300 KM
-  TITIK AWAL PENGUKURAN
-  ARAH PENGUKURAN

Distribution of Cold Chain Infrastructure in West Nusa Tenggara



Start Point Measurement:

Bima Port

Legenda :



SCS DIBANGUN DIT. SISLOG



IFM 10 TON DIBANGUN DIT. SISLOG



SCS DIBANGUN DIT. PH



TITIK PENGUKURAN 300 KM



TITIK AWAL PENGUKURAN

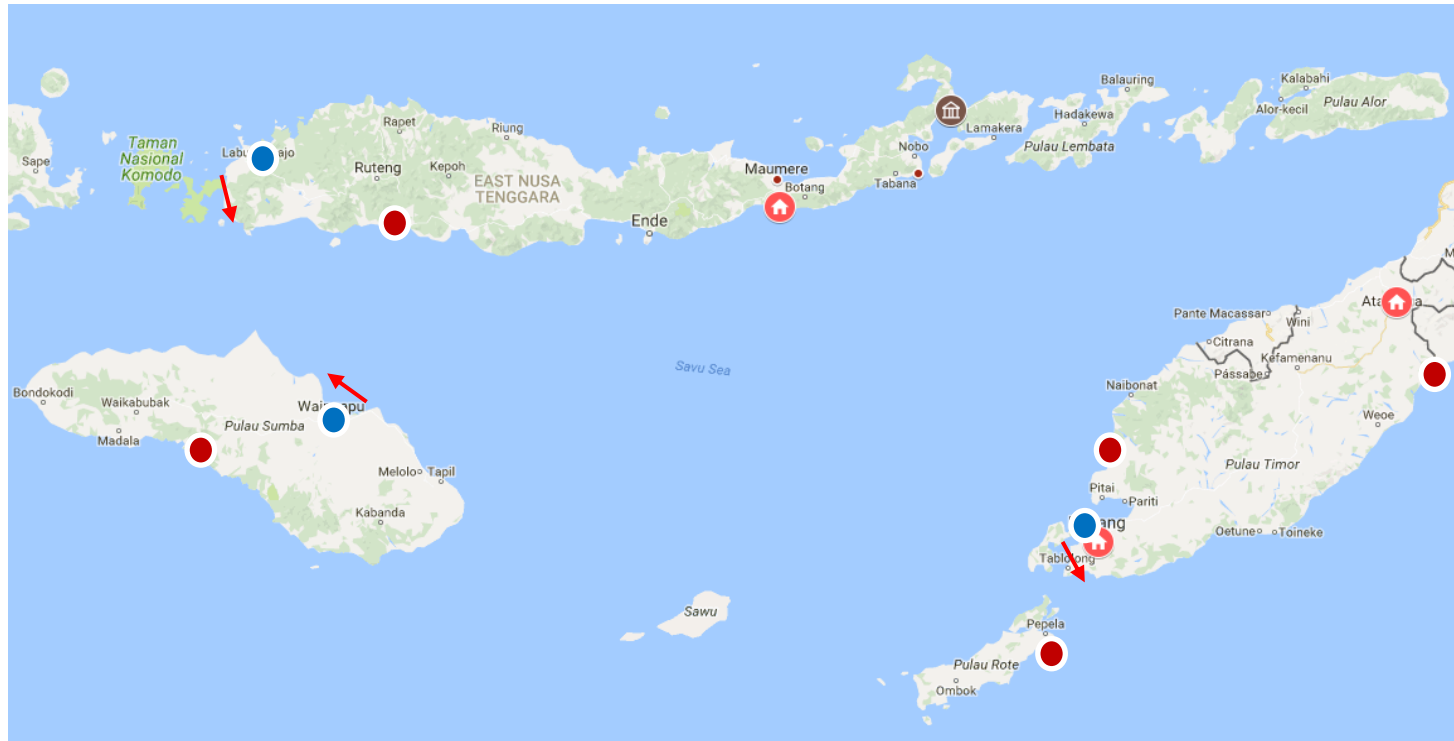


ARAH PENGUKURAN

Conclusion :

- ❖ Based on planning to build new cold storages per 300 km along West Nusa Tenggara coastline, additional 4 new cold storages are needed in these regions :
 1. Kota Bima - Kab. Bima
 2. Kab. Bima - kab. Sumbawa Barat
 3. Kab. Sumbawa Barat - Kab. Sumbawa
 4. Kab. Lombok Timur -Kab. Lombok Tengah
- ❖ IFM 10 Ton will also be provided along the coastline by 300 km :
 1. Kota Bima - Kab. Bima
 2. Kab. Bima - kab. Sumbawa Barat

Distribution of Cold Chain Infrastructure in East Nusa Tenggara



Start Point Measurement:

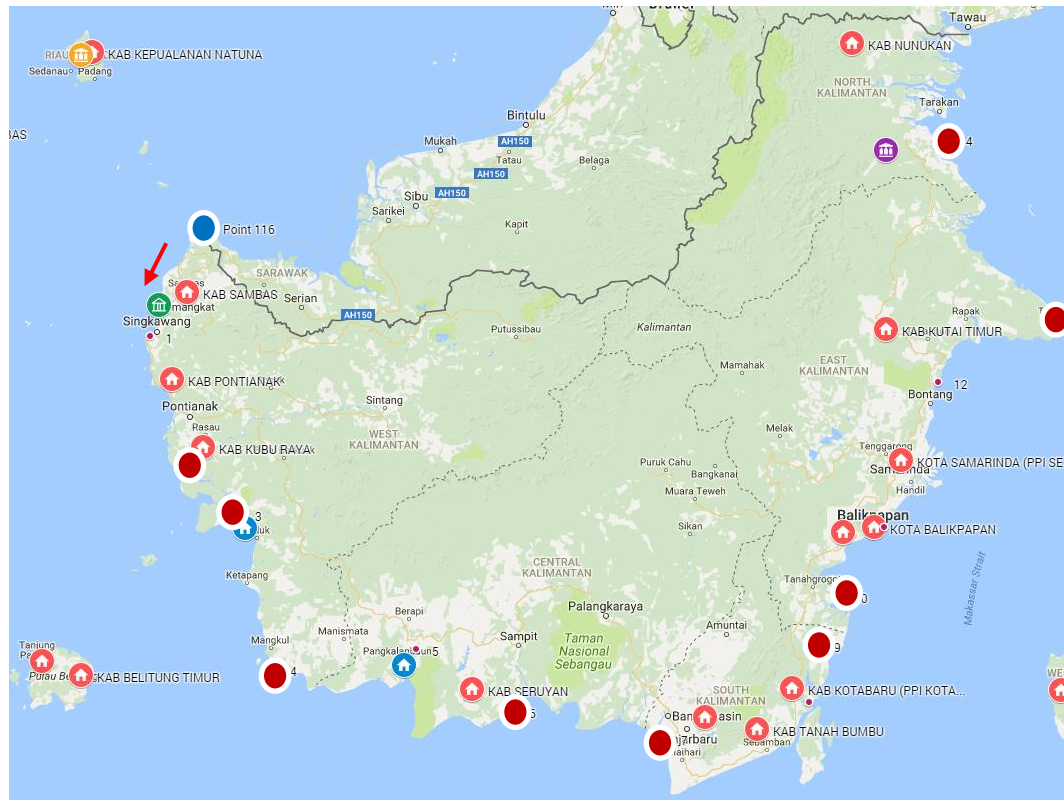
Tenau Kupang Port

- Legenda :**
-  ICS 2017 DIBANGUN DIT. BMDP
 -  SCS DIBANGUN DIT. PH
 -  TITIK PENGUKURAN 300 KM
 -  TITIK AWAL PENGUKURAN
 -  ARAH PENGUKURAN

Conclusion :

- ❖ Based on planning to build new cold storages per 300 km along East Nusa Tenggara coastline, additional 7 new cold storages are needed in these regions :
 1. Antara Kota Kupang dengan Kab. Belu
 2. Antara Kab. Belu dengan Kab. Kupang
 3. Antara Kab. Manggarai Barat dengan Kab. Ngada
 4. Antara Kab. Sumba Timur dengan Sumba Barat
 5. Kab. Lembata
 6. Kab. Rote Ndao
 7. Kab. Alor
- ❖ Additional IFM 10 Ton in 8 region di East Nusa Tenggara coast line

Distribution of Cold Chain Infrastructure in Kalimantan



Start Point of Measurement :
Sambas Regency

Kesimpulan :

Based on planning to build new cold storages per 300 km along Kalimantan coastline, additional 5 new cold storages are needed in these regions :

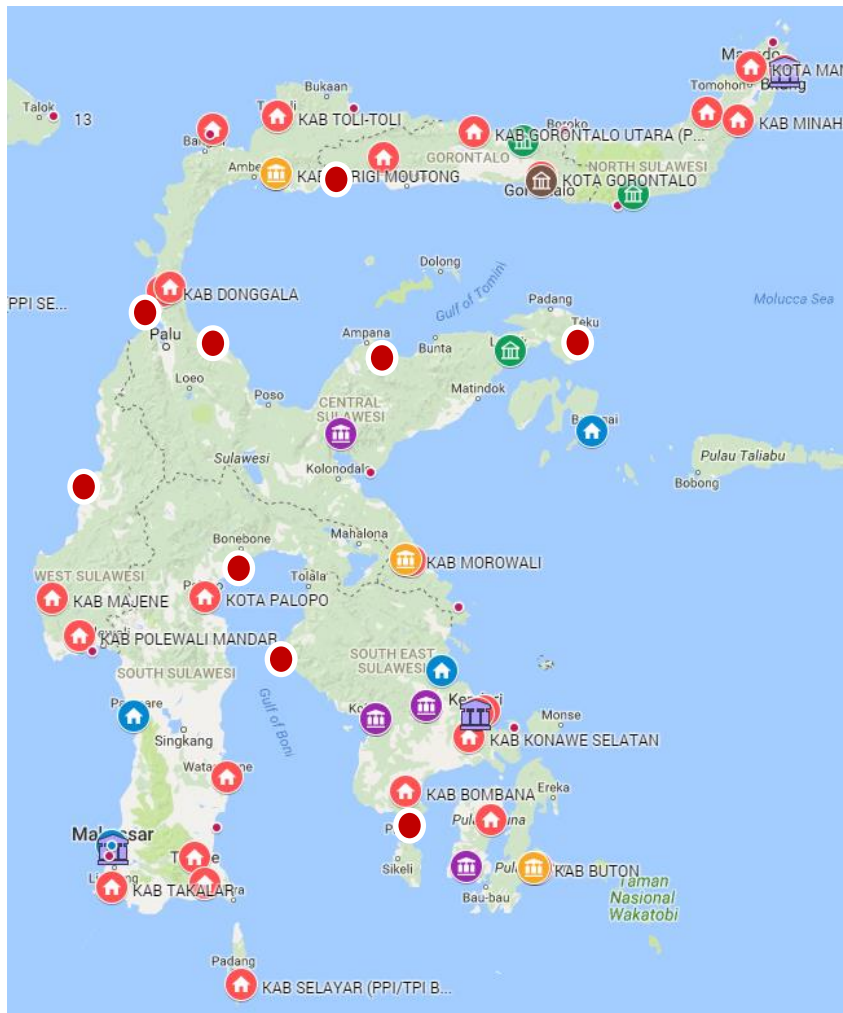
1. Kayong Utara - Ketapang
2. Kubu Raya - Kayong Utara
3. Seruyan - Tanah Laut
4. Kotabaru - Paser
5. Kutai Timur - Kab. Bulungan

❖ IFM 10 Ton will also be provided along the coastline by 300 km except Kutai Timur - Kab. Bulungan

Legenda :

- | | | | | | |
|--|------------------------|---|-------------------------------|---|---------------------------|
|  | SCS DIBANGUN DIT. PH |  | IFM 10 TON DIBANGUN |  | SCS. DIBANGUN DIT. SISLOG |
|  | ICS DIBANGUN DIT. BMDP |  | SCS 2017 DIBANGUN DIT. SISLOG | | |
|  | TITIK AWAL PENGUKURAN |  | TITIK PENGUKURAN PER 300 KM |  | ARAH PENGUKURAN |

Distribution of Cold Chain Infrastructure in Sulawesi



Legenda :

- | | | | | | |
|---|-----------------------------|---|-------------------------------|---|-----------------------------|
|  | SCS DIBANGUN DIT. PH |  | ICS DIBANGUN DIT. BMDP |  | ICS 2017 DIBANGUN DIT. BMDP |
|  | SCS DIBANGUN DIT. SISLOG |  | SCS 2017 DIBANGUN DIT. SISLOG |  | IFM 10 TON |
|  | TITIK PENGUKURAN PER 300 KM |  | TITIK AWAL PENGUKURAN |  | ARAH PENGUKURAN |

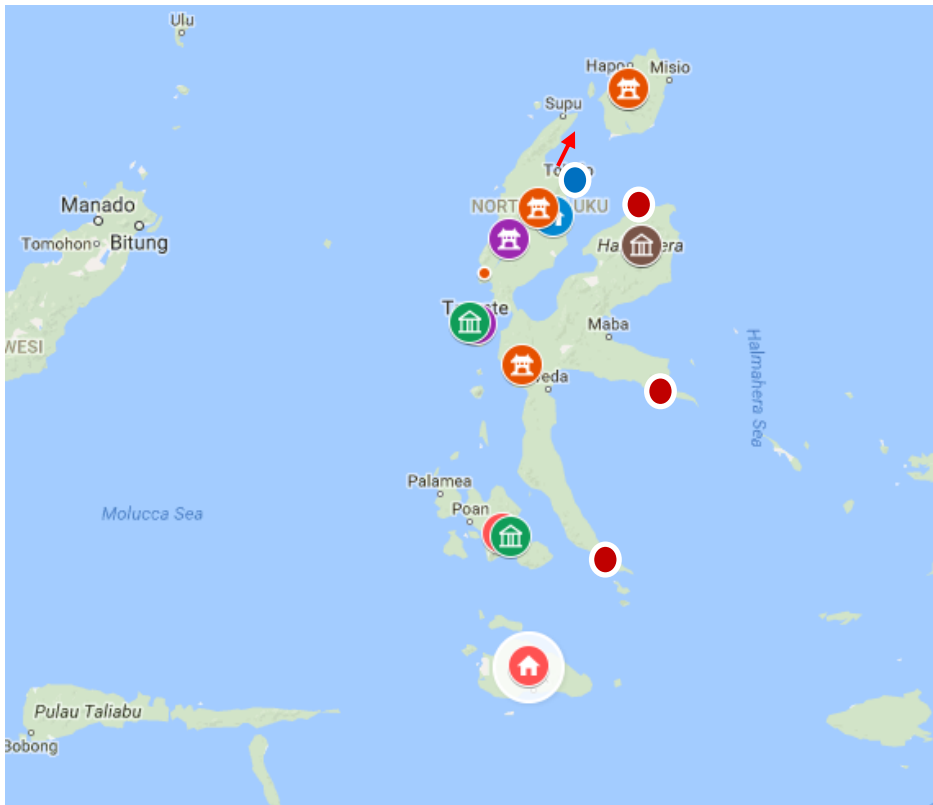
Start Point of Measurement:

Soekarno Hatta Makassar Port

Conclusion :

- ❖ Based on planning to build new cold storages per 300 km along Sulawesi, additional 5 new cold storages are needed in these regions :
 1. Between Mamuju Regency with Donggala Regency
 2. Between Moutong Regency with Poso Regency
 3. Between Tojo Unauna Regency with Banggai Regency
 4. Between Bombana Regency with Kolaka Regency
 5. Between Kolaka Regency with North Kolaka Regency
- ❖ Based on the same distance, there is still a vacancy provision of IFM capacity 10 ton in 16 coastal land in Sulawesi, except :
- ❖ IFM 10 Ton will also be provided along the coastline by 300 km in 16 regions along Sulawesi Coastline except :
 1. Bombana Regency - Kolaka Regency
 2. Morowali Regency - Konawe Regency
 3. Banggai Regency - Morowali Regency

Distribution of Cold Chain Infrastructure in North Molucas



Start Point of Measurement:

Tobelo Port

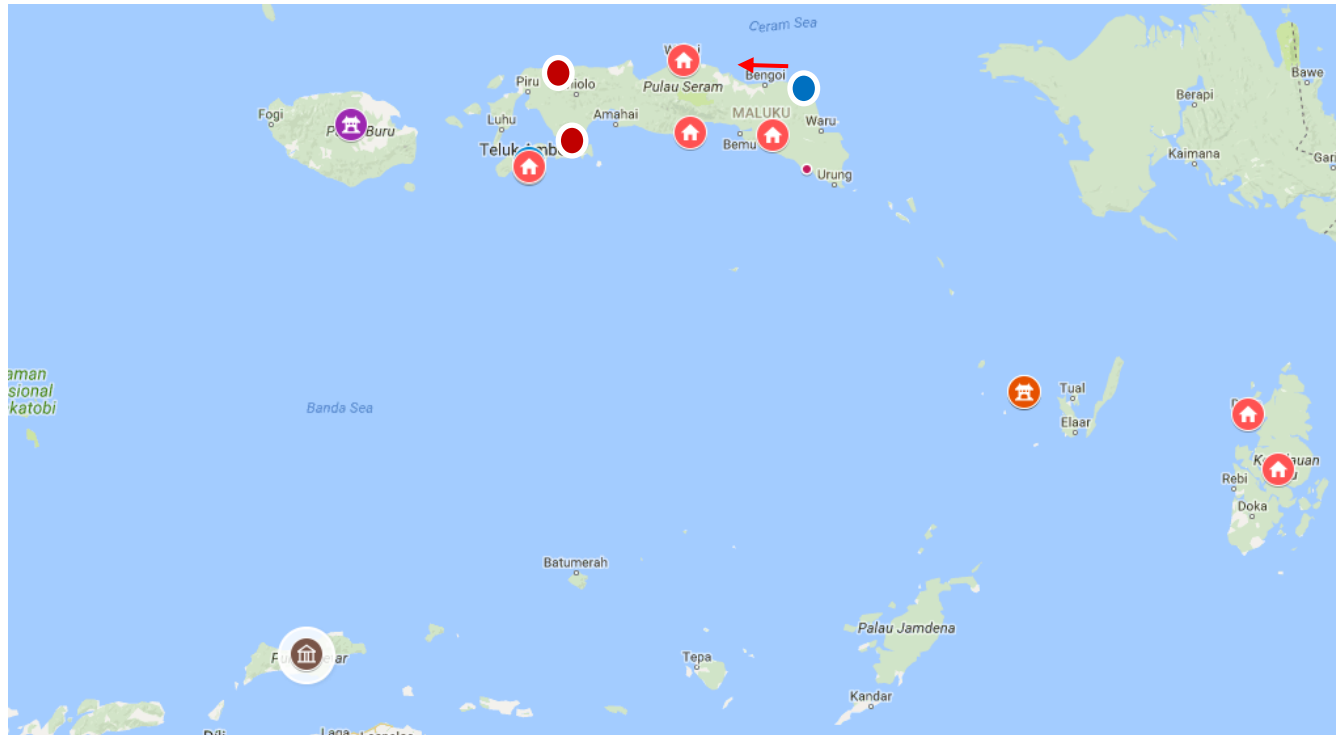
Conclusion :

- ❖ Based on planning to build new cold storages per 300 km along North Maluku coastline, additional 5 new cold storages are needed in these regions :
 1. Between Tidore City with South Halmahera Regency
 2. Between south Halmahera with middle Halmahera
 3. Between middle Halmahera with East Halmahera.
 4. Obi Island, South Halmahera Regency
 5. Taliabu Island, Taliabu Regency
- ❖ IFM 10 Ton will also be provided in 4 region:
 1. Between Tidore City with south Halmahera Regency
 2. Between South Halmahera and middle Halmahera Regency
 3. Obi Island, South Halmahera
 4. Taliabu island, Taliabu Regency

Legenda :

- | | | |
|---|---|---|
|  ICS DIBANGUN DIT. BMDP |  IFM 10 TON |  CS DIBANGUN DIT. PH |
|  SCS DIBANGUN DIT.SISLOG |  SCS 2017 DIBANGUN DIT. SISLOG | |
|  TITIK AWAL PENGUKURAN |  ICS 2017 DIBANGUN DIT. BMDP | |
|  ARAH PENGUKURAN |  TITIK PENGUKURAN PER 300 KM | |

Distribution of Cold Chain Infrastructure in Maluku



Start Point of Measurement :

East Seram Regency

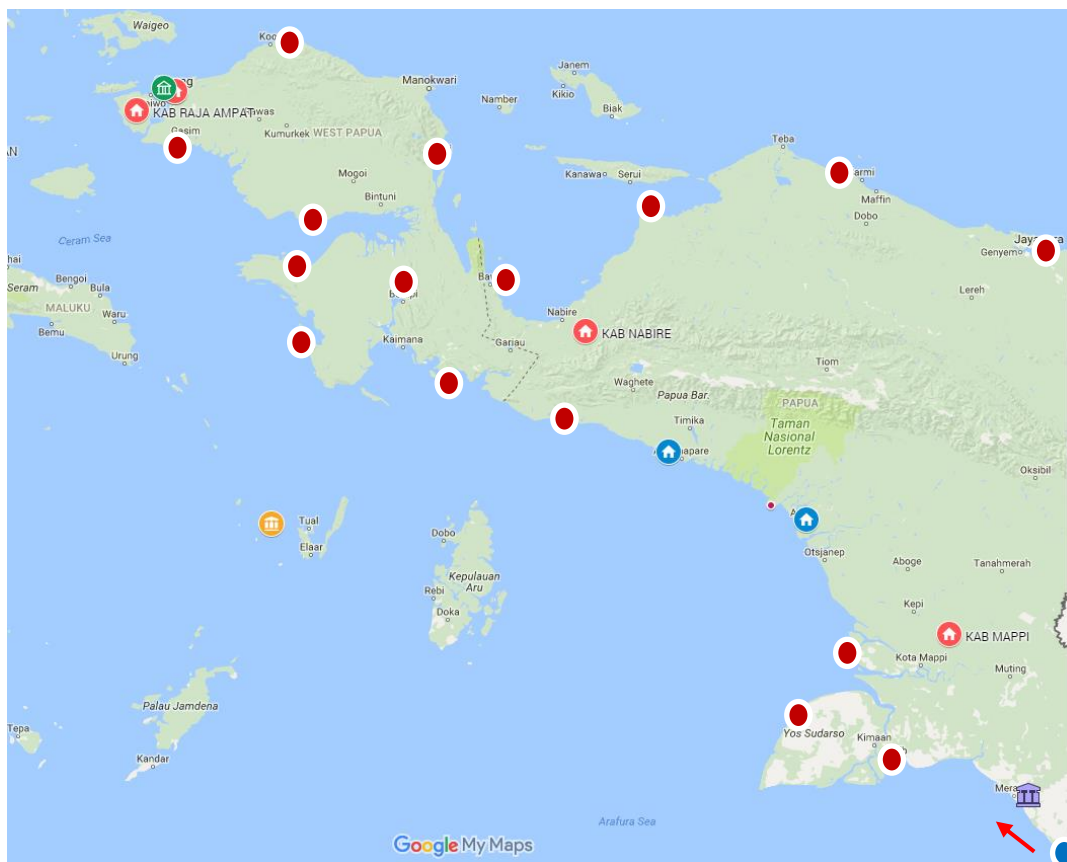
Legenda :

-  SCS DIBANGUN DIT. SISLOG
-  ICS DIBANGUN DIT. BMDP
-  IFM 10 TON
-  ICS 2017 DIBANGUN DIT. BMDP
-  SCS DIBANGUN DIT. PH
-  TITIK AWAL PENGUKURAN
-  TITIK PENGUKURAN 300 KM
-  ARAH PENGUKURAN

Conclusion :

- ❖ Based on planning to build new cold storages per 300 km along Maluku coastline, additional 3 new cold storages are needed in these regions :
 1. West Seram Regency
 2. Aru Island Regency
 3. Yamdena Island, Maluku Tenggara Regency
- ❖ IFM 10 Ton will also be provided in 6 regions:
 1. Between East Seram with middle Seram in North beach
 2. West Seram Regency
 3. Between West Seram with East Seram.
 4. Island Aru
 5. Yamdena Island, South East Molucas
 6. Wetar Island, Maluku Barat Daya Regency

Distribution of Cold Chain Infrastructure in Papua and West Papua



Start Point of Measurement :
Distrik Maukenjeri, Merauke

Conclusion :

❖ Based on planning to build new cold storages per 300 km along Papua and Papua Barat coastline, additional 10 new cold storages are needed in these regions:

1. Merauke - Mappi
2. Mimika - Kaimana
3. Kaimana - Fak-Fak
4. Fak-Fak - Teluk Bintuni
5. Fak-Fak - South Sorong
6. Sorong - Manokwari
7. Manokwari - Wondana
8. Nabire - Waropen
9. Waropen - Sarmi
10. Sarmi - Jayapura

❖ IFM 10 Ton will also provided in 17 region

Legenda :



SCS DIBANGUN DIT. PH



SCS DIBANGUN DIT. SISLOG



ICS DIBANGUN DIT. BMDP



TITIK PENGUKURAN 300 KM



CS IMPORTIR



ARAH PENGUKURAN



TITIK AWAL PENGUKURAN