

Blue Economy Policy

Solution for Fish Resource Sustainability and Promotion of Fisher Welfare



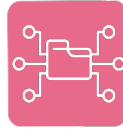
FAO Regional Workshop on **understanding fisheries support measures in the Asian context**

Venue : *Bangkok, Thailand*
Dates : *17 to 19 October, 2023*

Mr. Trian Yunanda
Secretary for the Directorate General of Capture Fisheries
Ministry of Marine Affairs and Fisheries
Republic of Indonesia

Organisers : *FAO, with the participation of the Organisation for Economic Co-operation and Development (OECD)*
and technical support from INFOFISH

Contents of Presentation



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of Support Provided by
Government



Beneficiaries of the
Support

1. Institutional Framework



MINISTRY OF MARINE AFFAIRS AND FISHERIES

Inspectorate General

Secretariat General

Directorate
General of
Marine Spatial
and Ocean
Management

**Directorate
General of
Capture
Fisheries**

Directorate
General of
Aquaculture

Directorate
General of
Competitiveness

Directorate
General of
Surveillance

Agency of
Extension and
Human
Resource
Development

Agency of
Quality
Control



SALINAN

PERATURAN PRESIDEN REPUBLIK INDONESIA
NOMOR 38 TAHUN 2023
TENTANG
KEMENTERIAN KELAUTAN DAN PERIKANAN

DENGAN RAHMAT TUHAN YANG MAHA ESA

PRESIDEN REPUBLIK INDONESIA,

Menimbang : bahwa sebagai tindak lanjut ditetapkan Keputusan Presiden Nomor 113/P Tahun 2019 tentang Pembentukan Kementerian Negara dan Pengangkatan Menteri Negara Kabinet Indonesia Maju Periode Tahun 2019-2024 dan untuk melaksanakan ketentuan Pasal 11 Undang-Undang Nomor 39 Tahun 2008 tentang Kementerian Negara, perlu menetapkan Peraturan Presiden tentang Kementerian Kelautan dan Perikanan;

Pursuant to Presidential Regulation Number 38 of 2023 on the Ministry of Marine Affairs and Fisheries:

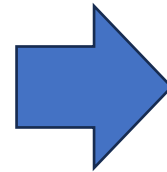
- **Article 14:**

Directorate General of Capture Fisheries (DGCF) has the duty to **conduct policy formulation and implementation in the management of capture fisheries.**

- **Article 15:**

In carrying out Article 14, DGCF performs the function to:

- a. formulate policy;
- b. implement policy;
- c. set norms, standards, procedures, and criteria;
- d. provide technical guidance and supervision;
- e. monitor and evaluate



- management of fish resources;
- management of fishing vessels and fishing gear;
- management of fishing ports;
- management of licensing and fisher affairs;

Relevant Ministries/Agencies

 KEMENTERIAN KOORDINATOR BIDANG POLITIK, HUKUM, DAN KEAMANAN REPUBLIK INDONESIA	 KEMENTERIAN KOORDINATOR BIDANG PEREKONOMIAN REPUBLIK INDONESIA	 KEMENTERIAN KOORDINATOR BIDANG PEMBANGUNAN MANUSIA DAN KEBUDAYAAN REPUBLIK INDONESIA	 KEMENTERIAN KOORDINATOR BIDANG KEMARITIMAN DAN INVESTASI REPUBLIK INDONESIA	 KEMENTERIAN SEKRETARIAT NEGARA REPUBLIK INDONESIA	 KEMENTERIAN DALAM NEGERI REPUBLIK INDONESIA	 KEMENTERIAN LUAR NEGERI REPUBLIK INDONESIA	 KEMENTERIAN PERTAHANAN REPUBLIK INDONESIA	
 KEMENTERIAN PERDAGANGAN REPUBLIK INDONESIA	 KEMENTERIAN ENERGI DAN SUMBER DAYA MINERAL REPUBLIK INDONESIA	 KEMENTERIAN PEKERJAAN UMUM DAN PERUMAHAN RAKYAT REPUBLIK INDONESIA	 KEMENTERIAN PERHUBUNGAN REPUBLIK INDONESIA	 KEMKOMINFO	 KEMENTERIAN PERTANIAN REPUBLIK INDONESIA	 KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET, DAN TEKNOLOGI REPUBLIK INDONESIA	 KEMENTERIAN KESEHATAN REPUBLIK INDONESIA	 KEMENTERIAN SOSIAL REPUBLIK INDONESIA
 KEMENTERIAN LINGKUNGAN HIDUP DAN KEHUTANAN REPUBLIK INDONESIA	 KEMENTERIAN KELAUTAN DAN PERIKANAN	 KEMENTERIAN DESA, PEMBANGUNAN DAERAH TERTINGGAL, DAN TRANSMIGRASI REPUBLIK INDONESIA	 KEMENTERIAN AGAMA REPUBLIK INDONESIA	 Kementerian PPN/ Bappenas	 panrb KEMENTERIAN PENDAYAGUNAAN APARATUR NEGARA DAN REFORMASI BIROKRASI	 BUMN KEMENTERIAN BADAN USAHA MILIK NEGARA REPUBLIK INDONESIA	 KEMEN KOPUKM Kementerian Koperasi dan UKM Republik Indonesia	 KEMENTERIAN PARIWISATA DAN EKONOMI KREATIF REPUBLIK INDONESIA
 KEMENTERIAN AGAMA REPUBLIK INDONESIA	 KEMENTERIAN HUKUM DAN HAK ASASI MANUSIA REPUBLIK INDONESIA	 KEMENTERIAN KEUANGAN REPUBLIK INDONESIA	 KEMENTERIAN KETENAGAKERJAAN REPUBLIK INDONESIA	 Kementerian Perindustrian REPUBLIK INDONESIA	 KEMENTERIAN PEMBERDAYAAN PEREMPUAN DAN PERLINDUNGAN ANAK REPUBLIK INDONESIA	 KEMENTERIAN INVESTASI/BKPM	 KEMENTERIAN PEMUDA DAN OLAHRAHA REPUBLIK INDONESIA	

2. Economic Relevance



PROJECTION OF GLOBAL NEED FOR FOOD

FAO Regional Workshop on
**understanding fisheries support measures
in the Asian context**
17–19 October, 2023 Bangkok, Thailand

World population is estimated to **grow by more than one third** by 2050.
FAO predicts that **global need for protein will rise by 70%**

World Population (billion people)

1990 5.3

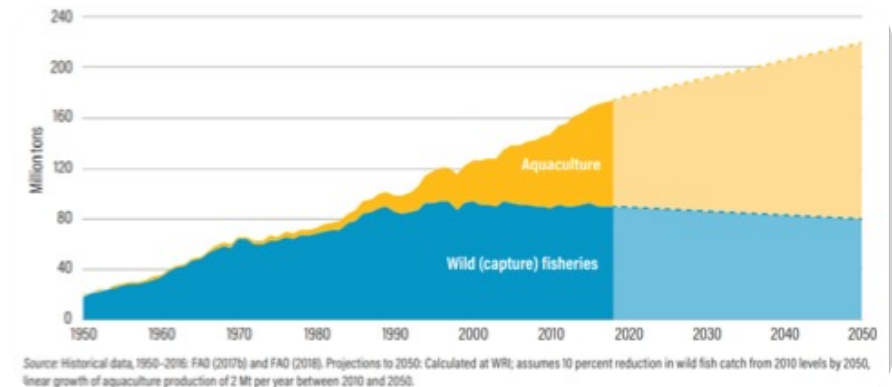
2015 7.3

2030 *) 8.5

2050 *) 9.7

2100 *) 11.2

Source : World Economic Forum, United Nations, FAO



- **Global fish demand will double between 2020 and 2050.**
- **Aquaculture** is expected to contribute to optimum and sustainable production increase
- **Fisheries** stabilizes supply with increasingly hygienic and high-quality products

MARINE AND FISHERIES ROLES IN INDONESIA

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Islands	Coverage area	Coastline	Total population	Population in the coastal areas
17,504	6.8 million km ²	108,000 km ²	+ 270 million people	+ 140 million people



Source of livelihood and life for coastal communities

- **The potential of Indonesia's marine fish resources** is estimated **at 12.01 million tons/year** spread across Indonesian territorial waters
- **National fish consumption** 55.16 kg/capita/year by 2021, while the provisional figure **for 2022 is 56.48 kg/capita/year**.
- **National fish demand for consumption** **13.11 million tons by 2022**.



Contributing to GDP

- **Fisheries production 24.87 million tons**, including seaweed/algae (2022)
- **Fisheries export value USD 6.24 billion**, main commodities shrimp, tuna, octopus, seaweed, and crab (2022)
- **Fisheries GDP is 2.54%** of national GDP (third quarter of 2022)
- **Maritime sector GDP is 26.86%** of national GDP (2020)**



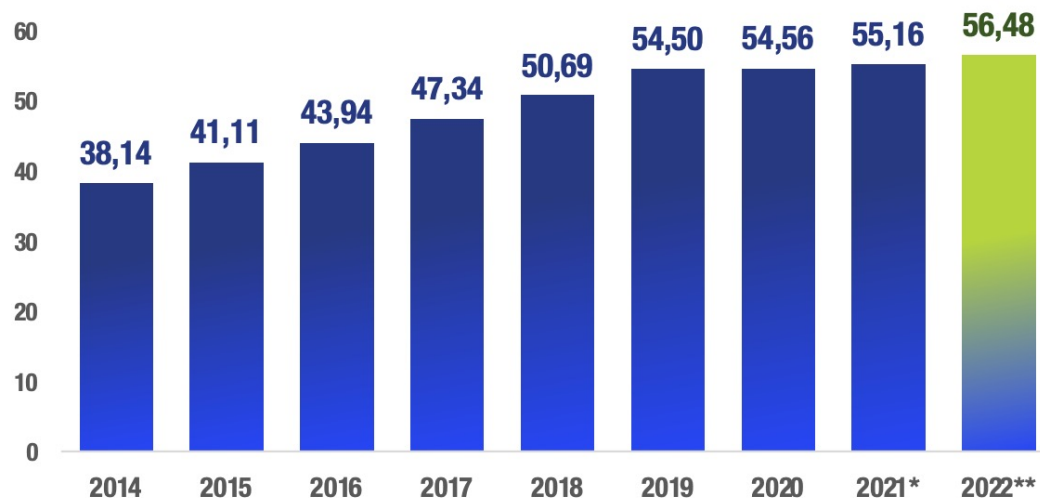
Environmental Buffer

- Having 21% of global **mangrove** area (3.49 million ha)
- The largest **seagrass meadow** in the world (8.3 – 18.34 million ha)
- Economic potential by mangrove and seagrass ecosystem for **carbon sequestration**
- Estimates of annual coral reef-based tourism valued at approx. **USD 3.1 billion** (UNEP, 2018)***

Sources: KKP, BPS, World Bank

DOMESTIC FISH CONSUMPTION AVERAGE VALUE YEAR 2014-2022

(KG/CAPITA/YEAR – EQUAL TO ONE WHOLE
FRESH FISH)

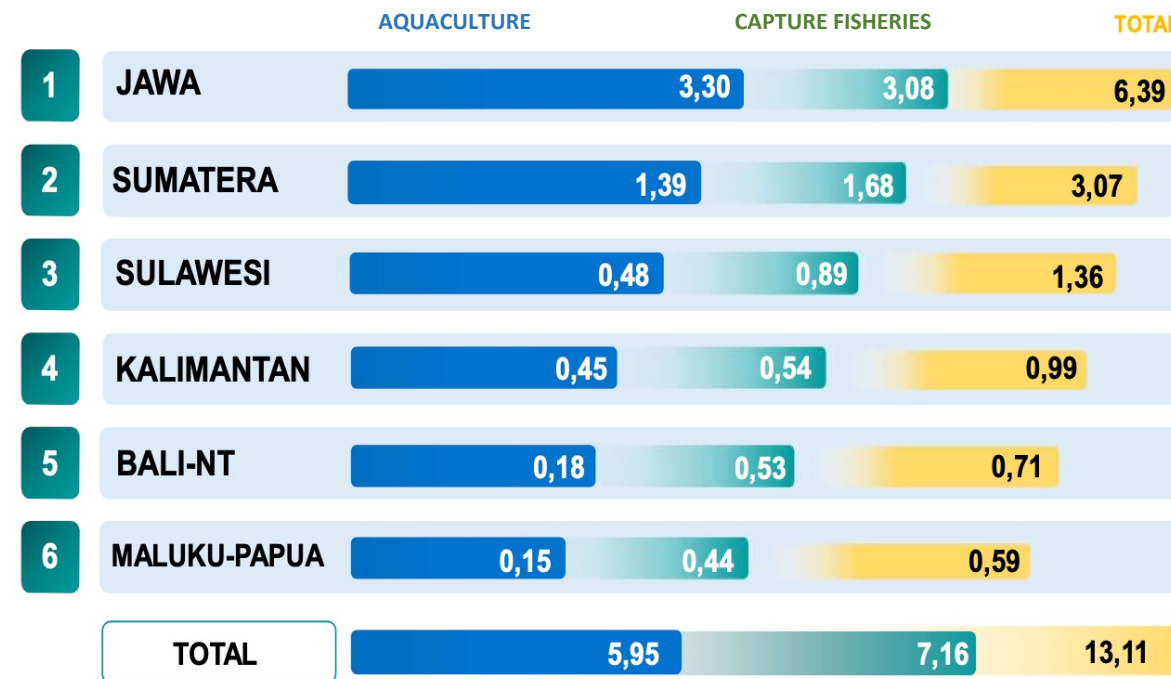


SOURCE: Statistic of Indonesia analyzed by Ditjen PDS-KKP

* Calculated Number year 2021

** temporary number year 2022

DOMESTIC CONSUMED FISH FOR CONSUMPTION NEEDS YEAR 2022



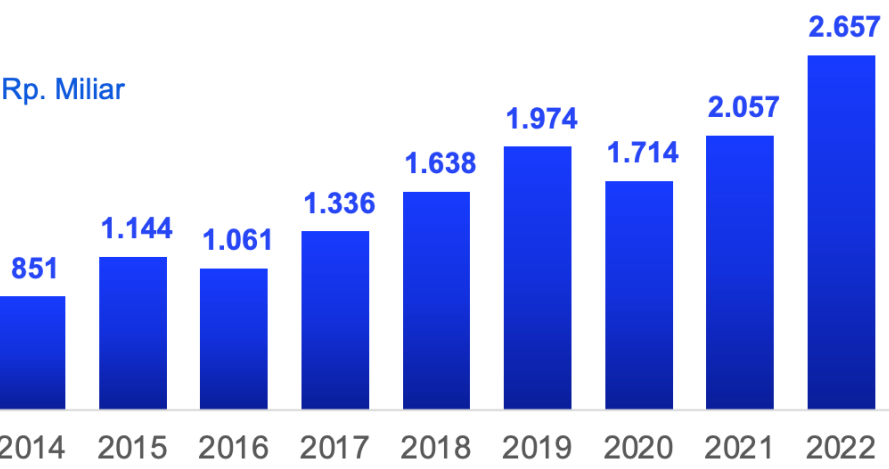
JUTA TON

SOURCE : Statistic of Indonesia Data analyzed by DJPDS KKP

- Fish Consumption Value Year Tahun 2022 was **56,48 kg/capita/year**, and contributed to stunting decrease.
- **Domestic consumed fish value was 13,11 million ton and supplied by domestic production**, which are from capture fisheries in a number of 7,16 million ton and from aquaculture 5,95 million ton.
- **Fisheries production support national food security, especially protein needs supply**

Tax Revenue Performance

Fisheries sector year 2014-2022

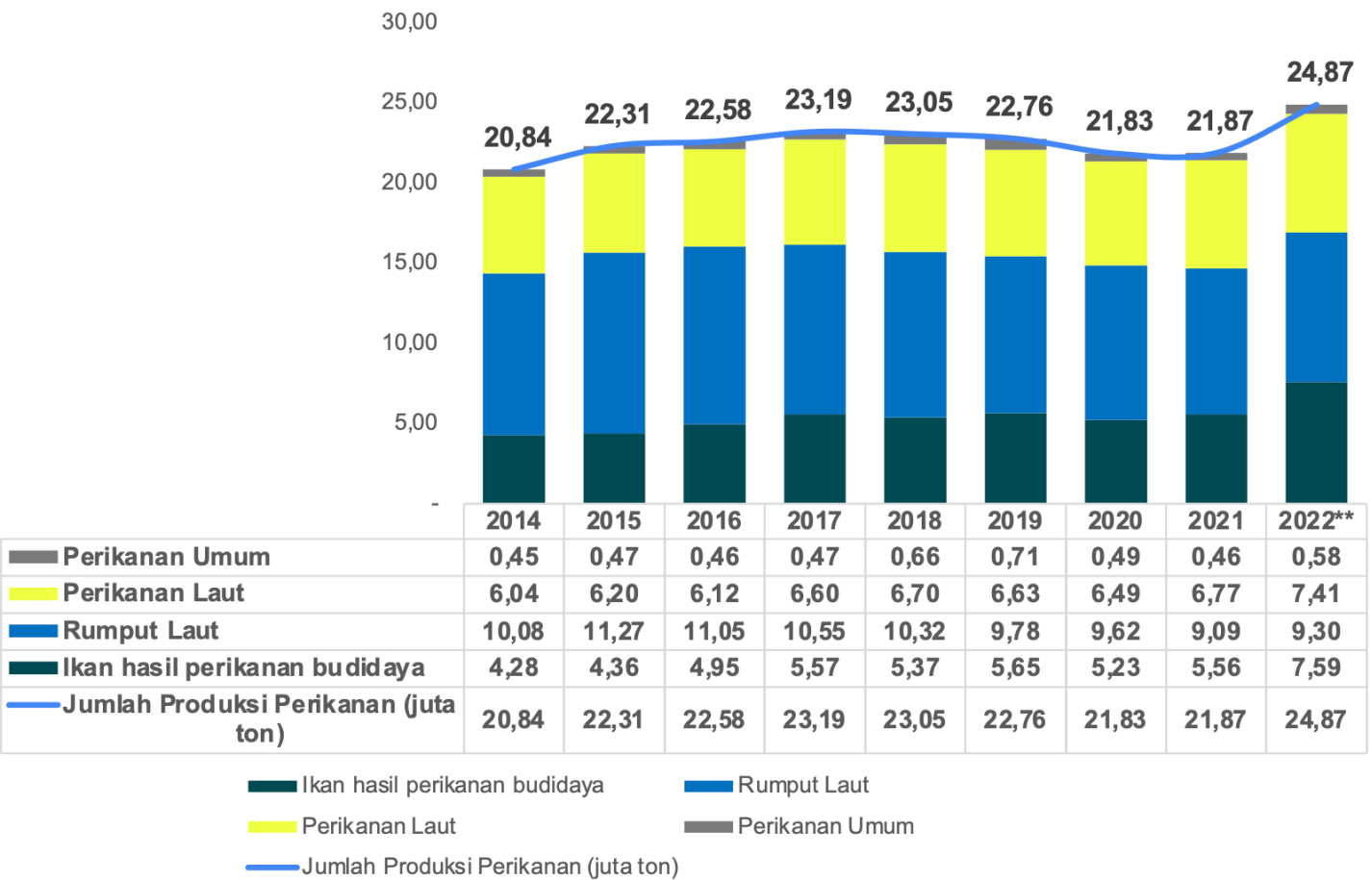


No	Fisheries Sector Business	Total Value Year 2021 (Rp)	Total Value Year 2022 (Rp)
1.	Aquaculture	139.954.323.531	200.259.359.280
2.	Industry	1.004.079.613.810	1.023.879.429.984
3.	Services	151.769.962.715	148.852.037.357
4.	Trade	599.014.202.303	940.754.418.478
5.	Capture Fisheries	161.696.222.432	343.403.332.130
	Total	2.056.514.324.791	2.657.148.577.229

Sumber: MRP, BPS, Dirjen Pajuk, 20 Desember 2022

Fisheries Production

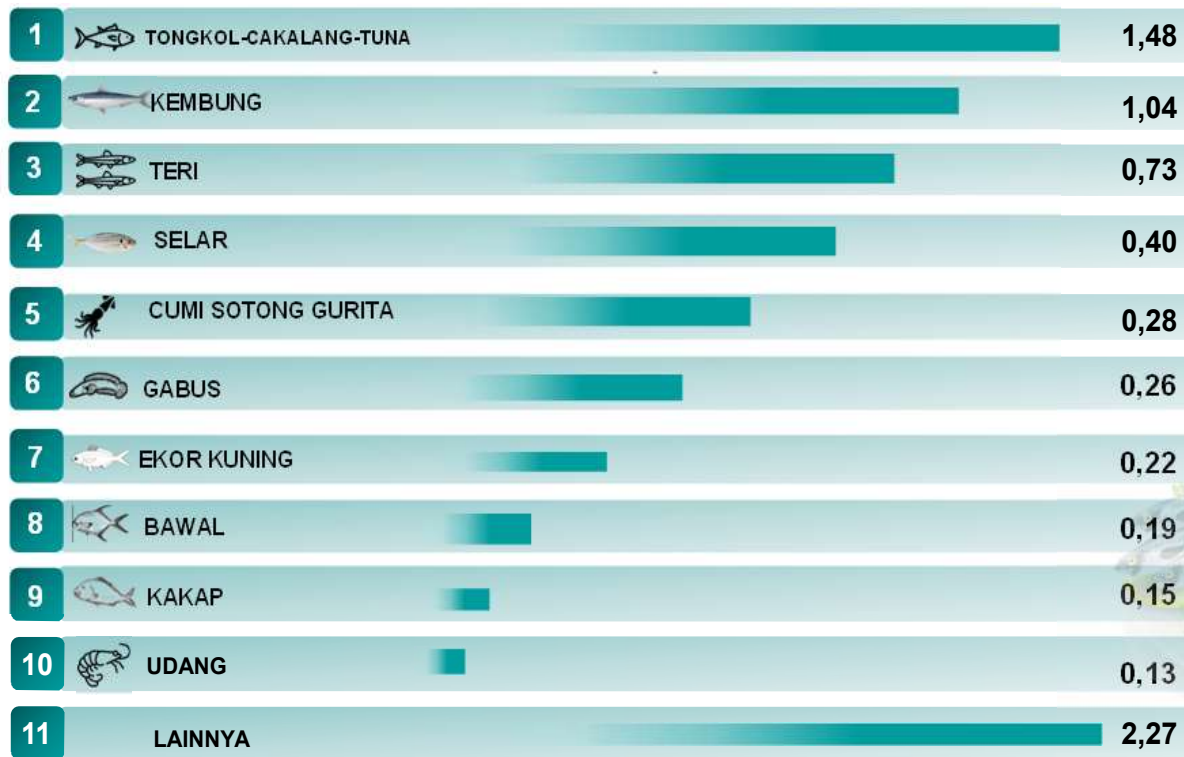
Capture and Aquaculture 2014-2022



Source : One Data MMAF, 11 January 2023

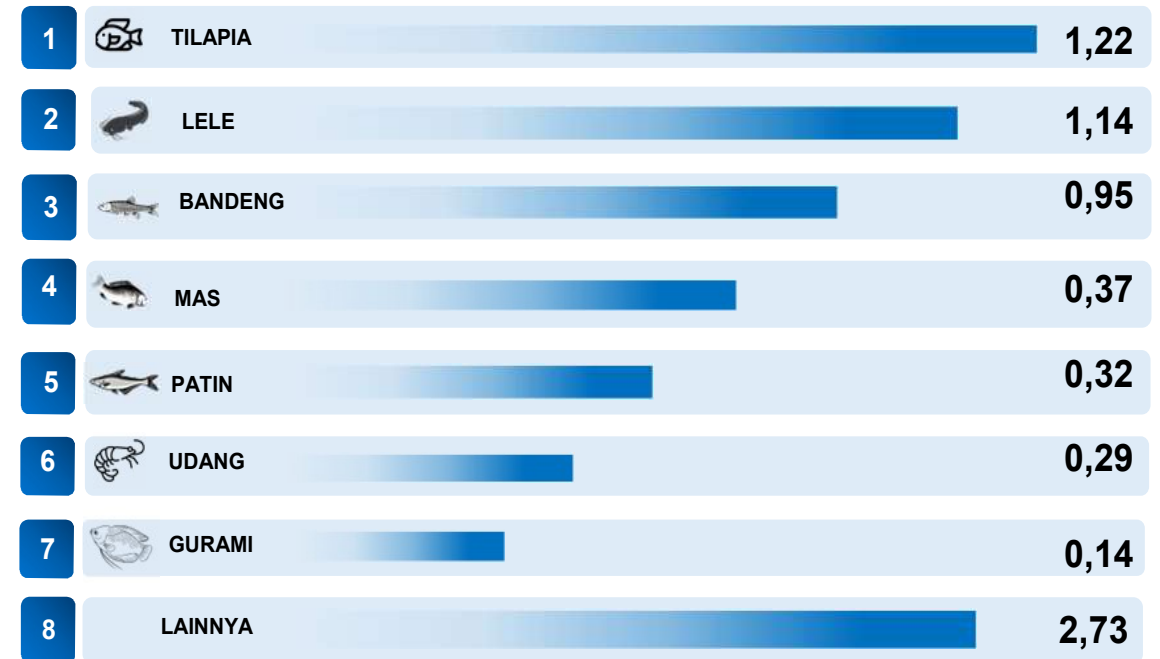
2021 : Fixed Number
**2022 : Temporary Number

DOMESTIC DEMAND OF WILD CAUGHT FISH YEAR 2022



TOTAL : 7,16 Million Ton

DOMESTIC DEMAND OF AQUACULTURE FISH YEAR 2022



TOTAL : 5,95 Million Ton

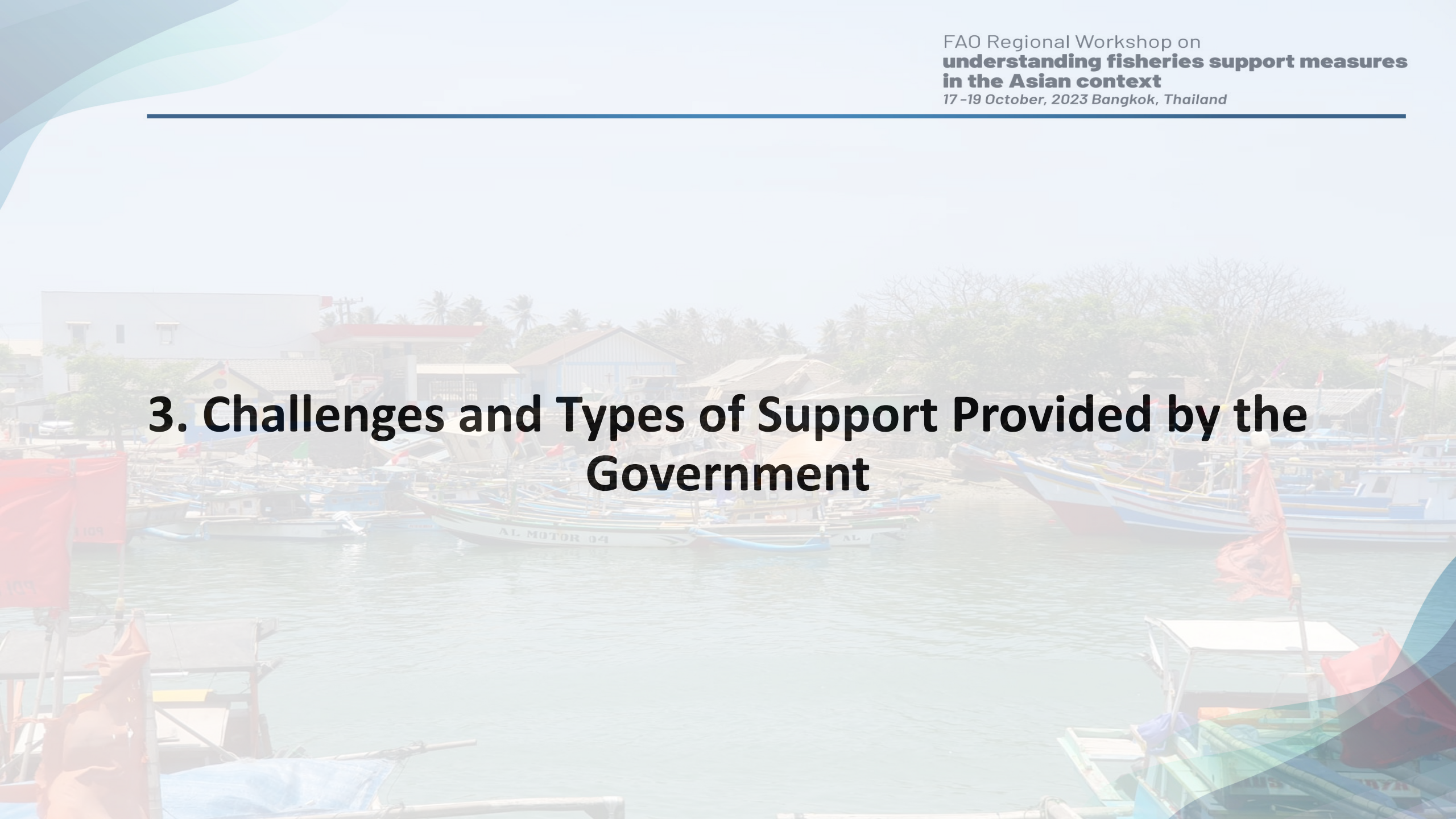
Source : BPS processed by DJPDS, MMAF

GLOBAL SEAFOOD MARKET AND INDONESIA SHARE

2018-2022 (US\$ Million)

No	Main Commodities	2018 (USD Million)			2019 (USD Million)			2020 (USD Million)			2021 (USD Million)			2022* (USD Million)			Trend 2018-2022 (%/Year)		
		Global Demand	Indonesian Exports	Indonesian Share	Global Demand	Indonesian Exports	Indonesian Share	Global Demand	Indonesian Exports	Indonesian Share	Global Demand	Indonesian Exports	Indonesian Share	Global Demand	Indonesian Exports	Indonesian Share	Global Demand	Indonesian Exports	Indonesian Share
1	Salmon-Trout	28,892	17	0.06%	28,553	6	0.02%	26,712	6	0.02%	32,381	4	0.01%	36,433	9	0.02%	6.53%	7.69%	0.28%
2	Shrimps	23,183	1,742	7.51%	24,498	1,719	7.02%	23,483	2,040	8.69%	28,371	2,229	7.86%	30,360	2,157	7.11%	7.34%	5.85%	-0.49%
3	Tunas	15,643	714	4.56%	14,993	748	4.99%	14,657	724	4.94%	14,659	733	5.00%	16,732	960	5.74%	1.94%	8.45%	6.08%
4	Squids & Octopus	10,508	555	5.28%	9,899	556	5.62%	8,476	509	6.01%	10,698	619	5.79%	11,729	737	6.28%	3.92%	8.12%	4.58%
5	Crabs	5,760	473	8.21%	5,806	393	6.78%	5,397	368	6.81%	7,833	613	7.83%	7,430	484	6.52%	8.44%	5.60%	-4.69%
7	Fish meal	5,185	5	0.10%	4,913	20	0.41%	4,963	15	0.31%	5,728	7	0.12%	6,380	16	0.26%	5.64%	84.36%	81.71%
8	Cod	5,663	0	0.00%	5,640	0	0.01%	5,171	0	0.00%	5,226	0	0.00%	5,999	34	0.57%	1.78%	39169.09%	34144.44%
6	Lobster	4,763	30	0.63%	4,938	33	0.67%	4,123	76	1.85%	5,903	29	0.48%	5,403	26	0.48%	5.47%	16.93%	26.53%
9	Bivalves	4,608	17	0.37%	4,524	17	0.38%	3,914	13	0.34%	4,969	11	0.22%	5,340	14	0.26%	4.78%	-2.97%	-6.17%
10	Mackerel	4,396	6	0.14%	4,488	10	0.22%	4,439	68	1.54%	4,760	26	0.54%	4,227	7	0.17%	-0.74%	129.71%	131.01%
12	Seaweed	2,569	292	11.36%	2,599	325	12.50%	2,498	280	11.19%	2,800	345	12.33%	3,685	600	16.29%	10.24%	23.69%	10.47%
11	Alaska Pollack	2,832	0	0.00%	3,174	0	0.00%	2,866	0	0.00%	2,848	0	0.00%	3,598	5	0.13%	7.02%	0.00%	0.00%
13	Fish oil	2,021	1	0.05%	2,123	0	0.02%	2,359	5	0.19%	2,498	3	0.10%	3,213	2	0.07%	12.67%	291.78%	250.68%
19	Catfish	1,950	4	0.21%	1,927	6	0.30%	1,419	7	0.49%	1,449	4	0.26%	2,262	4	0.16%	7.67%	1.84%	4.44%
15	Sardines	1,888	28	1.49%	1,912	28	1.44%	2,092	36	1.72%	1,933	51	2.63%	2,157	51	2.37%	3.67%	17.64%	14.82%
14	Fish egg	1,724	41	2.37%	1,574	52	3.27%	1,478	50	3.41%	2,083	77	3.67%	2,093	70	3.33%	6.65%	16.71%	10.17%
18	Tilapia	1,418	60	4.27%	1,172	67	5.71%	1,287	78	6.09%	1,491	66	4.42%	1,633	79	4.81%	4.46%	7.74%	5.47%
17	Hake	1,699	0	0.00%	1,677	0	0.00%	1,528	0	0.00%	1,607	0	0.00%	1,580	0	0.00%	-1.67%	0.00%	0.00%
16	Herring	1,526	0	0.00%	1,567	0	0.00%	1,682	0	0.00%	1,681	0	0.00%	1,550	0	0.00%	0.54%	0.00%	0.00%
20	Eels	1,390	14	1.01%	1,353	17	1.29%	1,006	16	1.59%	1,214	14	1.13%	1,542	14	0.93%	4.84%	1.53%	1.09%
22	Pearls	1,420	48	3.40%	982	48	4.84%	572	40	7.05%	978	44	4.55%	1,131	55	4.83%	3.52%	4.11%	14.69%
21	Flatfish	973	0	0.03%	1,129	0	0.03%	949	0	0.04%	1,075	0	0.02%	1,119	0	0.02%	4.38%	-9.46%	-11.15%
24	Seabass	761	0	0.01%	757	0	0.01%	726	0	0.01%	932	0	0.01%	979	0	0.00%	7.20%	-27.65%	-33.57%
23	Seabream	743	0	0.00%	735	0	0.00%	779	0	0.00%	952	0	0.00%	923	0	0.01%	6.03%	0.00%	0.00%
25	Haddock	693	0	0.00%	668	0	0.00%	633	0	0.00%	670	0	0.03%	850	0	0.00%	5.95%	0.00%	0.00%
	Others	31,267	812	2.60%	31,136	891	2.86%	28,658	872	3.04%	31,299	845	2.70%	32,723	918	2.80%	1.35%	3.27%	2.28%
	GRAND TOTAL	163,474	4,860	2.97%	162,740	4,936	3.03%	151,866	5,205	3.43%	176,040	5,719	3.25%	191,070	6,242	3.27%	4.33%	6.51%	2.59%

3. Challenges and Types of Support Provided by the Government



BLUE ECONOMY POLICY

FAO Regional Workshop on
**understanding fisheries support measures
in the Asian context**
17–19 October, 2023 Bangkok, Thailand



1

Expanding Marine Conservation Areas up to 30% of Indonesian Waters

- Increasing the protection of important habitats for fish spawning, and
- Maintaining the ocean ability to sequester CO₂ and produce O₂.



2

Quota-based Fishing Policy

- Maintaining the sustainability of fish resources,
- Increasing regional economic growth, and
- Increasing the fisher welfare



3

Development of Sustainable Aquaculture

- Reducing pressure on marine fish resources stocks,
- Supplying the protein needs of the society and commodity-based export markets



4

Protecting and Maintaining Coastal Areas and Small Islands

- Reducing negative impacts of human activities,
- Preserving and maintaining the coastal ecosystems and small islands quality



5

Marine Debris Clean-up

- Through the fishers' participation program to keep the ocean clean for a healthy marine ecosystem


Implementation of Blue Economy # 1: **Expansion of Marine Conservation Areas**

Indonesia seas are home for most world's coral reef, seagrass, and 17% of global blue carbon

CHALLENGES

Degradation of marine biodiversity due to human activities

 **19,6**
kha/year
rate of mangrove
deforestation (KLHK,
2020)

71,2%
of coral reef not in
good condition (LIPI,
2018) 

POLICY

Expanding Indonesia marine conservation areas

- Target area: 32,5 million hectare in 2030
- Until 2021, expansion reached 28,4 million hectare
- **Expanding conservation areas of closed seas with the target 30% of breadth of Indonesia seas**

TARGET

Increasing blue carbon sequestration to control climate change



Increasing fish stock through protection of spawning ground



Implementation of Blue Economy # 2: Quota-based Fishing Policy

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CHALLENGES

- Fish stock decrease due to overfishing and IUU fishing
- Unsustainable fish quality
- Inefficient industry and business chain

35% of fish stock
is over-exploited,
54% is fully-exploited
(KKP, 2022)

\$4 billion/year

Loss due to illegal
fishing or equivalent to
Rp 56,13 trillion (IOJI 2021)

POLICY

Quota-based fishing (PIT) and fishing zone

- Quota-based fishing zone is divided into 6 zones
- Distribution of quotas is on the best basic data base and scientific analysis as well as expert judgment. **Existing fishing vessels that have complete, legal and active documents are a priority**
- All fishing activities will be monitored by satellite



TARGET

**Realizing Legal,
Regulated, and
Reported Fishing
in Indonesia**



**Maintaining fish
stock**



**Improving
community
welfare**

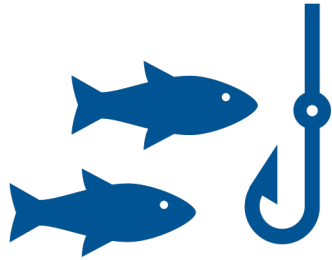


**Increasing marine
& fisheries sector
contribution to
national economy**



Implementation of Blue Economy # 2: Quota-based Fishing Policy

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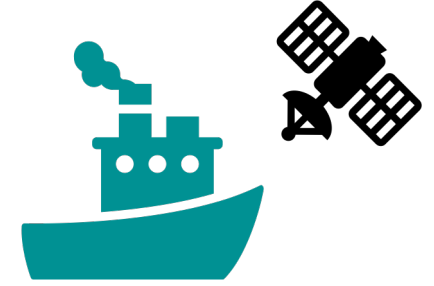
Limiting the number of fish catches to help prevent overfishing



Fishers are required to accurately monitor and report their catch



- The unloading of caught fish must be carried out at the home fishing port



- Fishing activities will be monitored using satellite-based technology
- Surveillance vessels are digitally linked to one another

QUOTA-BASED FISHING ZONES

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Zone
01

WPPNRI 711

(Karimata Strait, Natuna Sea and North Natuna Sea)

Zone
02

WPPNRI 716

(Sulawesi Sea and north of Halmahera Island)

WPPNRI 717

(Cendrawasih Bay and the Pacific Ocean) and the High Seas of the Pacific Ocean

Zone
03

WPPNRI 715

(Tomini Bay, Maluku Sea, Halmahera Sea, Seram Sea and Berau Bay)

WPPNRI 718

(Aru Sea, Arafuru Sea, and the East Timor Sea)

WPPNRI 714

(Tolo Bay and the Banda Sea)

Zone
04

WPPNRI 572

(Indian Ocean west of Sumatra and the Sunda Strait)

WPPNRI 573

(Indian Ocean south of Java to the south of Nusa Tenggara, the Sawu Sea and the western part of the Timor Sea), and the High Seas (Indian Ocean)

05

Zone
05

WPPNRI 571

(Malacca Strait and Andaman Sea).

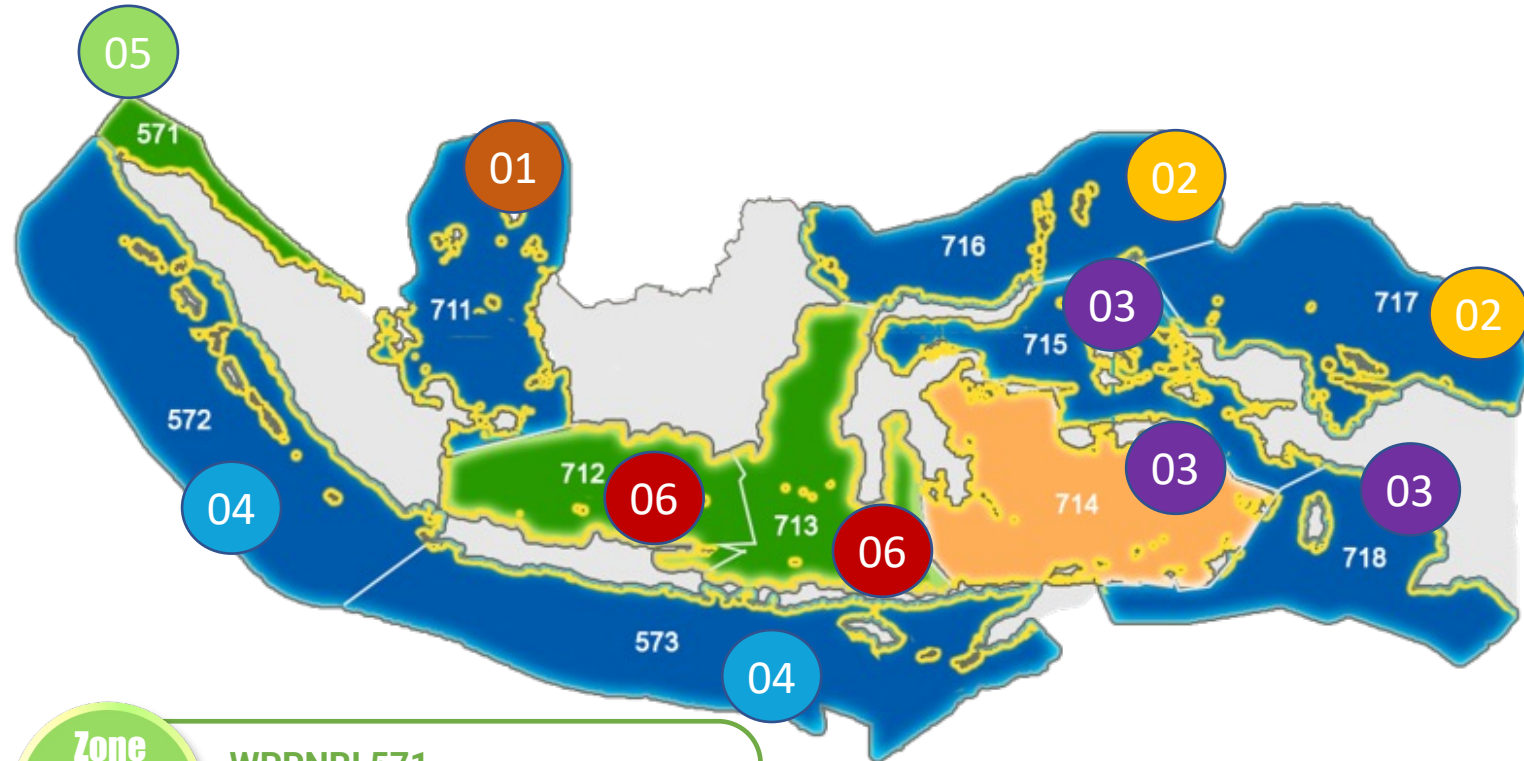
Zone
06

WPPNRI 712

(Java Sea)

WPPNRI 713

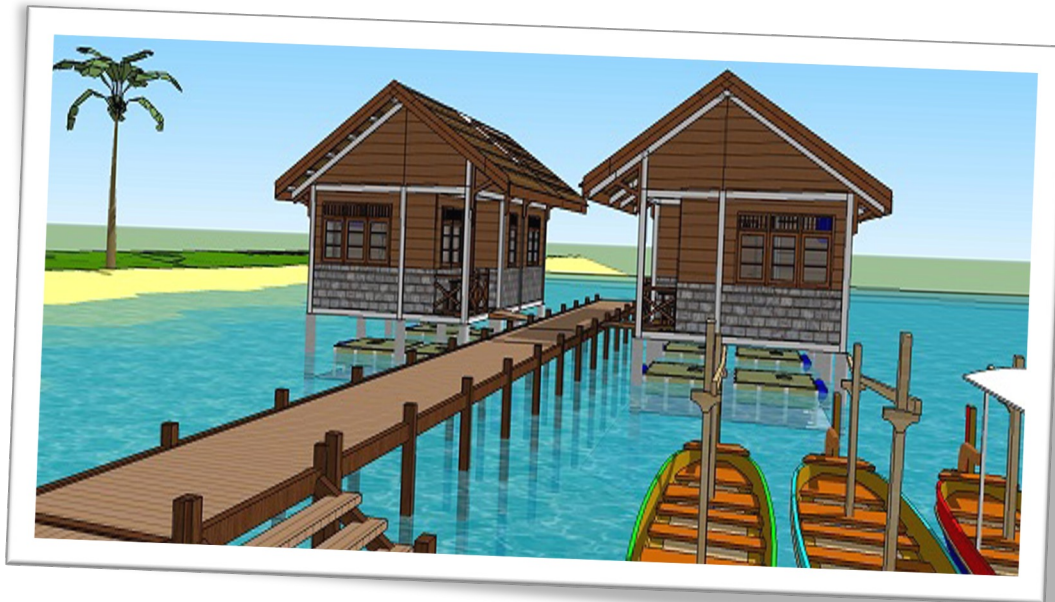
(Makassar Strait, Bone Bay, Flores Sea and Bali Sea)



The 6 zones are an integrated and sustainable unit of economic development and ecosystem management

WPPNRI: Fisheries Management
Areas of the Republic of Indonesia

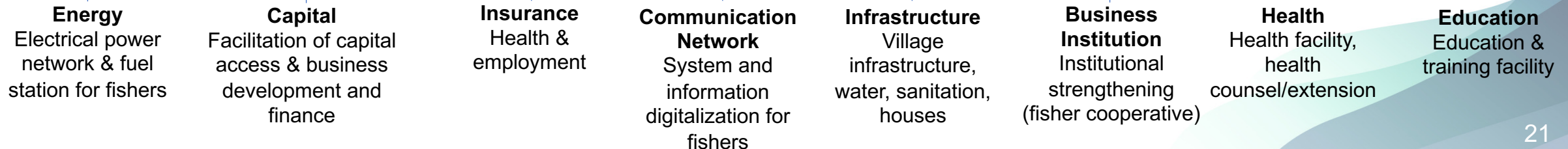
DEVELOPED FISHING VILLAGE (KAMPUNG NELAYAN MAJU) TO PROMOTE QUALITY & PRODUCTIVITY OF LIVELIHOOD OF FISHER & FAMILY



“
*Sinergy between MMAF and related Ministries/Agencies
to build fishing village -> developed, clean, and healthy
village to promote quality and productivity of the
livelihood of the fishers and families.*
”



ACTIVITY SCOPE



Implementation of Blue Economy # 3: **Development of Marine, Coastal and Inland Culture**

CHALLENGES

High need for protein



Increasing the value of fish/shrimp exports



Environmentally unfriendly aquaculture practices



Lack of aquaculture land that meets the requirements



Several endemic fish commodities are threatened with extinction



POLICY

Development of marine, coastal and inland culture

- The aquaculture sector is an important factor that is promoted to respond to population growth and protein needs
- Indonesia needs to develop superior fishery products such as **shrimp, crab, lobster** and **seaweed**
- Aquaculture products will form the majority of Indonesia's fishery export value
- Seaweed has a strategic value to sequester carbon and is the main raw material for various industries

TARGET

Reducing fishing activities in the sea to maintain fish population



Eliminate poverty



Increasing fish production for export and domestic markets



Preventing the extinction of commodities with high economic value



Implementation of Blue Economy # 4:

Sustainable Management of the Coast and Small Islands

CHALLENGES

Unlawful use of sea space
and small islands



Violations against the utilization of
sea space in 2022:
reclamation 6 cases, marine
buildings 8 cases, sea cables 2
cases, utilization of protected fish
species 2 cases, mining, pollution
(KKP, 2022)

POLICY

**Active management of
coasts and small islands
based on sustainability**

- Implement a comprehensive Marine Spatial Plan, both on the coast and on small islands.
- All activities that utilize sea space must be in accordance with sea space allocation, carrying capacity, and impact mitigation.
- Every implementation of the utilization of sea space must have **PKKPRL (Approval of Conformity of Marine Space Utilization Activities)**

TARGET

Protecting the coast and small
islands from being damaged
by economic activity



Implementation of Blue Economy # 5: Management of Marine Debris

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Indonesia's concrete steps towards marine debris

CHALLENGES

The increasing amount of waste
that pollutes the sea

#2

Indonesia's rank as
the largest contributor
to marine debris in
the world (Jambeck, 2015)

0,27 – 0,59
million ton/year

trash entered the
Indonesian seas during
2018 (LIPI, 2018)

The marine & fisheries sector
contributes marine debris from
ALDFG.

The movement of currents
causes accumulation of
garbage in the middle of the
sea



Great Pacific Garbage Patch

POLICY

- Starting 2022 : ***Bulan Cinta Laut***
(Love-the-Ocean Month) program



One month a year
fishers are asked not to
fish



Fishers pick up and
collect debris



Debris will be paid
according to the lowest fish
price



Debris is processed to
obtain economic value

TARGET

2025 target: Reduce
marine debris by 70%.



Increasing the involvement of
fishers, communities and partners
in controlling waste at sea



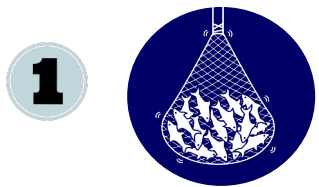
Creating a circular economy
from marine debris



4. Beneficiaries of the Support



Who benefit from the support?



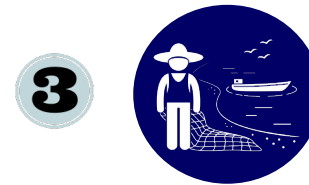
1

Small-scale
fisheries



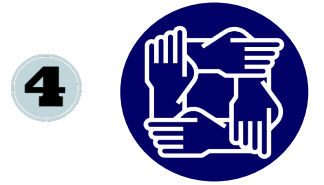
2

Medium-or large-scale
domestic commercial
fisheries



3

Coastal fisheries



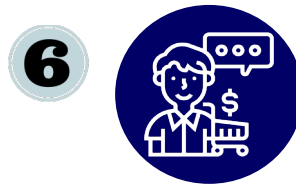
4

Producer
Associations



5

Cooperatives



6

Consumer



7

Government



Terima Kasih.