Catch Quota of FishTuna and Cakalang in WPPNRI **714**

Calculation of Tuna and Skipjack Catch Quota

Data used:

a. *Catch Limit*/Quota from RFMOs

b. HCR from HS Tuna Cakalang in AW (WPPNRI 713, 714, 715)

c. Production data series over 15 Years from Statistics Capture fisheries

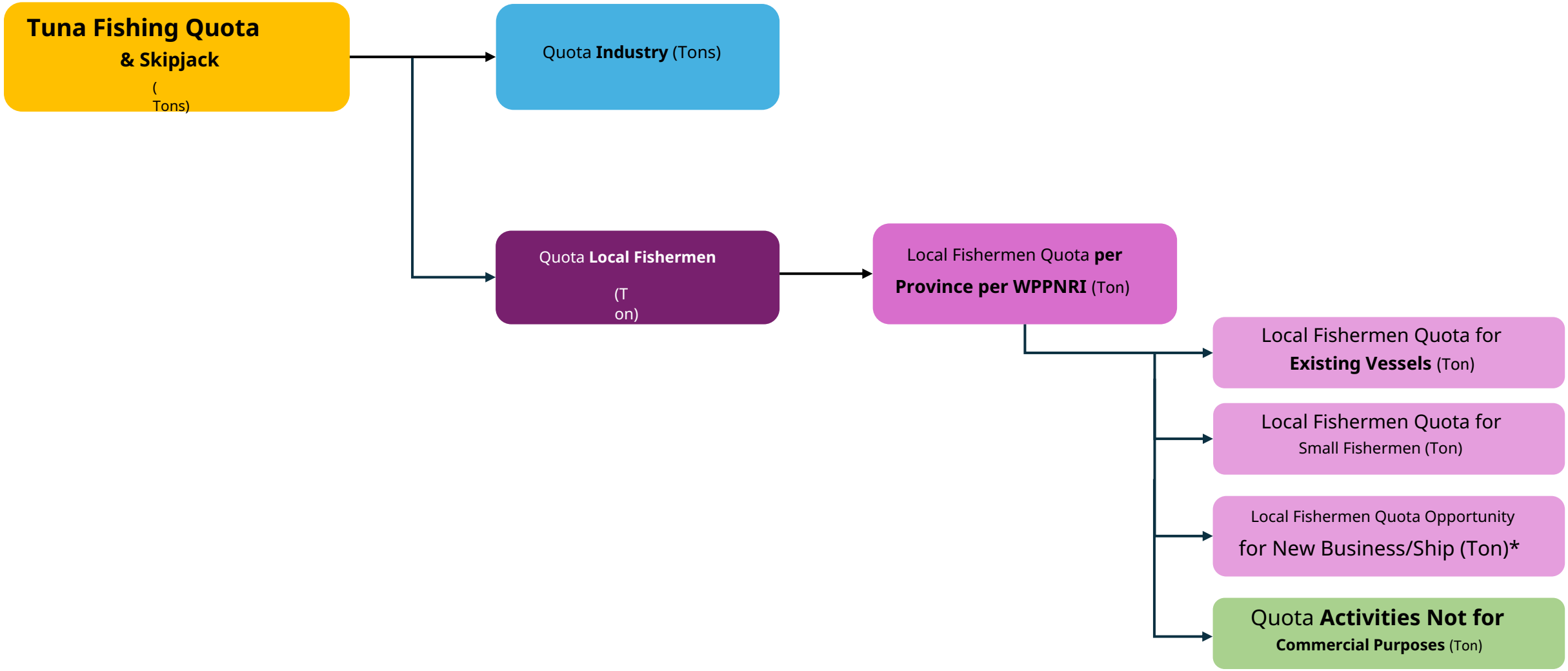
Type/Zone/WPPNRI	Zone 1	Zone 2		Zone 5	Zone 4		Zone 6		Zone 3		
	711	716	717	571	572	573	712	713	714	715	718
Albacore					the highest average production is calculated based on series 3 (three) consecutive years within the time period time 15 years		Not included migration area Skipjack Tuna	Referring to harvest control rules-HCR in archipelagic water: latest catch (2021) reduced by catch reduction of 10%			average production highest calculated in series 3 (three) consecutive years within the time period 15 years
Bigeye Tuna		Catch Limit that established by WCPFC for Indonesia		Catch Limit set by IOTC for Indonesia							
Yellowfin Tuna				Catch Limit set by IOTC for Indonesia							
Cakalang	average production highest is calculated based on series 3 (three) years consecutive within the period time 15 years			the highest average production is calculated over series 3 (three) consecutive years within a time period of 15 years							
Southern Bluefin Tuna						Quota Catches that are set by CCSBT for Indonesia					

Notes:

a. Size of the catch quota The available catch limit/quota for tuna and Cakalang from the RFMO is utilized at 100%. ;

b. The size of the tuna and Cakalang catch quota based on *historical catch* for 15 years refers to the JTB Large Pelagic in each WPPNRI as stated in the Ministerial Decree KP Number 19 Year 2022 and/or stock status in RFMO;

Distribution Tuna and Skipjack Catch Quota



Distribution of Local Fishermen Quota for Tuna and Cakalang to Provinces

$$KPI_{ip} = \frac{FP_{ip}}{\sum_{d}^{d} = FP_{p}} \times KPI_{NL}$$

$$F_{Pp} = \text{T\_rata}_i \times (W1 + CF1 + CF2)$$

F_{Pp} : Weighting Factor

KPI_{ip} : Catch quota for the i-th Province

KPI_{NL}: Catch quota for local fishermen in the i-th WPPNRI

T_rata_i : Rata-rata hasil tangkapan tuna cakalang yang dilaporkan dalam waktu 5 tahun terakhir (ton)

W1 : Hasil penilaian variabel jumlah dan ukuran kapal penangkap ikan s.d 30 GT dan/atau jumlah alat penangkapan ikan yang menargetkan tuna cakalang

CF1 : Hasil penilaian kepatuhan pendataan penangkapan ikan (LBPI)

CF2 : Hasil penilaian luasan kawasan konservasi

Prinsip Pengelolaan

- Perikanan yang berkelanjutan
- Pemanfaatan yang berkeadilan
- Tanggung jawab social dan kepatuhan

Weighting has been conducted using the method (*analytical hierarchy process*) AHP with the results:

No.	Variable	Value		
		High	Medium	Low
1	Number and size of ships fishing vessels up to 30 GT and/or the number of equipment fish capture	0.55	0.50	0.45
2	Compliance with Log Data Fish Catch Book (LBPI)	0.33	0.28	0.23
3	Conservation Area	0.12	0.07	0.03

Penilaian Variabel

1. **Penilaian bobot untuk Variabel 1 (W1):**
   (a) tinggi apabila jumlah dan ukuran kapal penangkap ikan/jumlah alat penangkapan ikan yang menargetkan tuna cakalang > Median + 25% dari Median;
   (b) sedang apabila jumlah dan ukuran kapal penangkap ikan/jumlah alat penangkapan ikan yang menargetkan tuna cakalang berada di antara Median - 25% dari Median dan Median + 25% dari Median; serta
   (c) rendah apabila jumlah dan ukuran kapal penangkap ikan/jumlah alat penangkapan ikan yang menargetkan tuna cakalang < Median - 25% dari Median.
2. **Penilaian bobot untuk Variabel 2 (CF1):**
   (a) tinggi apabila kepatuhan pelaporan *log book* >80%;
   (b) sedang apabila kepatuhan pelaporan *log book* berada diantara 60%-80%;dan
   (c) rendah apabila kepatuhan pelaporan *log book* <60%
3. **Penilaian bobot untuk Variabel 3 (CF2):**
   (a) tinggi apabila luasan konservasi > Median + 25% dari Median;
   (b) sedang apabila luasan konservasi berada di antara Median - 25% dari Median dan Median + 25% dari Median; serta
   (c) rendah apabilan luasan konservasi < Median - 25% dari Median.

Data Local Fishermen Quota Distribution Variables for Tuna and Cakalang to Province

Average Data-Average Tuna and Cakalang Production 2018-2023

PROV	13 Albakora	14 Cakalang	15 Tuna Mata Besar	16 Tuna Sirip Biru Selatan	17 Tuna Sirip Kuning
WPP-RI 714					
Nusa Tenggara Timur	-	115	0	-	1
Sulawesi Tengah	-	7,433	2,036	-	862
Sulawesi Tenggara	-	19,732	2,058	-	10,634
Maluku	-	24,686	4,416	-	29,286
Maluku Utara	-	672	-	-	651

Source: Pusdatin –Setjen

Data on Vessels up to 30 GT and API targeting tuna 2023

WPP-RI	Provinsi	Total Kapal Penangkap Ikan s.d. 30 GT dan/atau API 2023
714	NUSA TENGGARA TIMUR	453
	SULAWESI TENGAH	18,215
	SULAWESI TENGGARA	46,812
	MALUKU	41,271
	MALUKU UTARA	44

Source: Pusdatin –Setjen

LBPI Data 2024

WPP-RI	Provinsi	Kepatuhan Pendataan Penangkapan Ikan 2024 (CF1)
714	NUSA TENGGARA TIMUR	0.00%
	SULAWESI TENGAH	0.01%
	SULAWESI TENGGARA	91.66%
	MALUKU	8.33%
	MALUKU UTARA	0.00%

Source: Dit. PSDI - DJPT

MPA Data 2023 TW I

Province	Conservation Area Size (Ha) (TW II 2023) (CF2)
EAST NUSA TENGGARA	721,164.49
CENTRAL SULAWESI	1,149,559.25
SOUTHEAST SULAWESI	1,760,810.59
MALUKU	3,516,791.51
NORTH MALUKU	-

Source: Dit. KKHL - DJPRL

Simulation of the Calculation of Tuna and Skipjack Catch Quota in the Province

Allowed Catch Amount (JTB) in WPP 714

Fish Type	Cakalang	Bigeye Tuna Large	Yellowfin Tuna Yellow
J	17,197	1,096	14,994

WPP : 714
Kelompok SDI : Cakalang
JTB : 17,197

No. Kode	Provinsi	Tangkapan rata-rata 5 tahun (T)	Jumlah Kapal Penangkap Ikan dan/atau API (W1)					Kepatuhan pendataan logbook (CF1)					Luasan Konservasi (CF3)					Faktor Pembobotan	Kuota Penangkapan Ikan	Kuota Kegiatan Bukan untuk Tujuan Komersial
		prod	data	T	S	R	bobot	data	T	S	R	bobot	data	T	S	R	bobot			
714-01	Nusa Tenggara Timur	115	453	0	0	1	0.5	-	0	0	1	0.2	721,164.49	0	0	1	0.03	81.31	28.86	0.00
714-02	Sulawesi Tengah	7,433	18,215	0	1	0	0.5	0.00	0	0	1	0.2	1,149,559.25	0	1	0	0.07	5,946.28	2,110.46	0.21
714-03	Sulawesi Tenggara	19,732	46,812	1	0	0	0.6	0.92	1	0	0	0.3	1,760,810.59	1	0	0	0.12	19,731.85	7,003.26	0.70
714-04	Maluku	24,686	41,271	1	0	0	0.6	0.08	0	0	1	0.2	3,516,791.51	1	0	0	0.12	22,217.34	7,885.42	0.79
714-05	Maluku Utara	672	44	0	0	1	0.5	-	0	0	1	0.2	-	0	0	1	0.03	477.28	169.40	0.02
	atas		22,769					80%					1,436,949.06					48,454	17,197	2
	median		18,215					0%					1,149,559.25							
	bawah		13,661					60%					862,169.44							

Cakalang Catch Quota: 17,195 tons Local Fishermen's Quota: 17,197 tons

Simulation of the Calculation of Tuna and Skipjack Catch Quota in the Province

Allowed Catch Amount (JTB) in WPP 714

Fish Type	Cakalang	Bigeye Tuna Large	Yellowfin Tuna Yellow
J	17,197	1,096	14,994

WPP : 714
Kelompok SDI : Tuna Mata Besar
JTB : 1,096

No. Kode	Provinsi	Tangkapan rata-rata 5 tahun (T)	Jumlah Kapal Penangkap Ikan dan/atau API (W1)					Kepatuhan pendataan logbook (CF1)					Luasan Konservasi (CF3)					Faktor Pembobotan	Kuota Penangkapan Ikan	Kuota Kegiatan Bukan untuk Tujuan Komersial
		prod	data	T	S	R	bobot	data	T	S	R	bobot	data	T	S	R	bobot			
714-01	Nusa Tenggara Timur	0.37	453	0	0	1	0.5	-	0	0	1	0.2	721,164.49	0	0	1	0.03	0.26	0.04	0.00
714-02	Sulawesi Tengah	2,036.06	18,215	0	1	0	0.5	0.00	0	0	1	0.2	1,149,559.25	0	1	0	0.07	1,628.85	233.13	0.02
714-03	Sulawesi Tenggara	2,057.75	46,812	1	0	0	0.6	0.92	1	0	0	0.3	1,760,810.59	1	0	0	0.12	2,057.75	294.51	0.03
714-04	Maluku	4,415.60	41,271	1	0	0	0.6	0.08	0	0	1	0.2	3,516,791.51	1	0	0	0.12	3,974.04	568.78	0.06
714-05	Maluku Utara	0.19	44	0	0	1	0.5	-	0	0	1	0.2	-	0	0	1	0.03	0.13	0.02	0.00
	atas		22,769					80%					1,436,949.06					7,661	1,096	0.11
	median		18,215					0%					1,149,559.25							
	bawah		13,661					60%					862,169.44							

Bigeye Tuna Catch Quota: 1,096.37 tons Local Fishermen Quota: 1,096.48 tons

Simulation of the Calculation of Tuna and Skipjack Fishing Quota in the Province

Allowed Catch Amount in WPP 714

Fish Type	Cakalang	Bigeye Tuna Large	Yellowfin Tuna Yellow
J	17,197	1,096	14,994

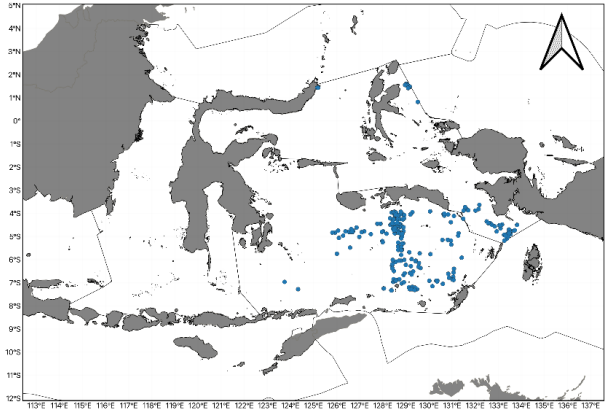
	median	18,215	0%	1,149,559.25
	bawah	13,661	60%	862,169.44

WPP: 714
Kelompok SDI: Tuna Sirip Kuning
JTB: 14,994

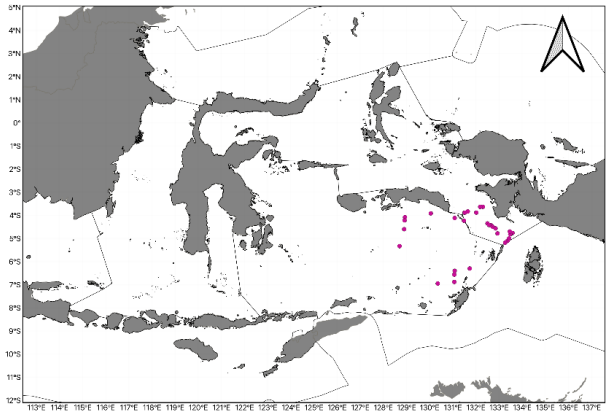
No. Kode	Provinsi	Tangkapan rata-rata 5 tahun (T)	Jumlah Kapal Penangkap Ikan dan/atau API (W1)					Kepatuhan pendataan logbook (CF1)					Luasan Konservasi (CF3)					Faktor Pembobotan	Kuota Penangkapan Ikan	Kuota Kegiatan Bukan untuk Tujuan Komersial	
		prod	data	T	S	R	bobot	data	T	S	R	bobot	data	T	S	R	bobot				
714-01	Nusa Tenggara Timur	1	453	0	0	1	0.5	-	0	0	1	0.2	721,164.49	0	0	1	0.03	0.45	0.18	0.00	N
714-02	Sulawesi Tengah	862	18,215	0	1	0	0.5	0.00	0	0	1	0.2	1,149,559.25	0	1	0	0.07	689.89	271.19	0.03	S
714-03	Sulawesi Tenggara	10,634	46,812	1	0	0	0.6	0.92	1	0	0	0.3	1,760,810.59	1	0	0	0.12	10,634.14	4,180.19	0.42	S
714-04	Maluku	29,286	41,271	1	0	0	0.6	0.08	0	0	1	0.2	3,516,791.51	1	0	0	0.12	26,357.55	10,360.93	1.04	N
714-05	Maluku Utara	651	44	0	0	1	0.5	-	0	0	1	0.2	-	0	0	1	0.03	462.01	181.61	0.02	N
	atas		22,769					80%					1,436,949.06					38,144	14,994	1	
	median		18,215					0%					1,149,559.25								
	bawah		13,661					60%					862,169.44								

Tuna Fishing Quota for Yellowfin Tuna: 14,993 tons
Local Fishermen Quota: **14,994** tons

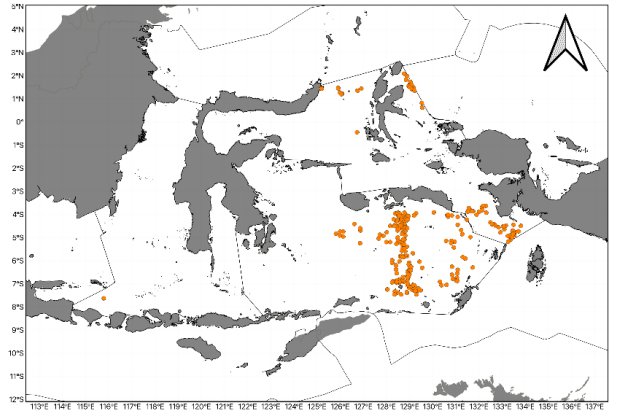
Fishing Ground (LL) in FMAs 713, 714, 715



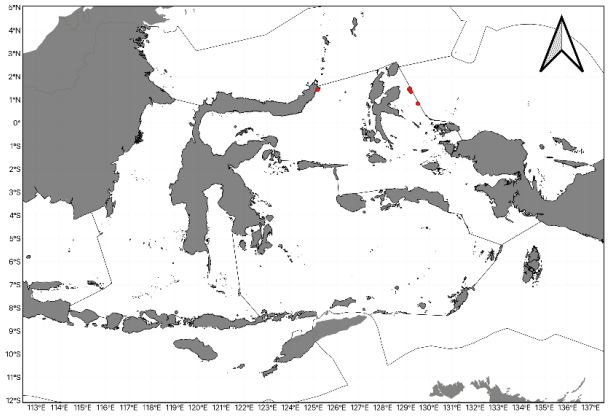
BET



SKJ

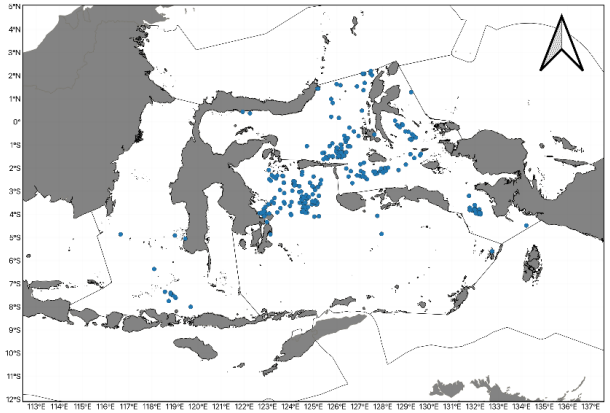


YFT

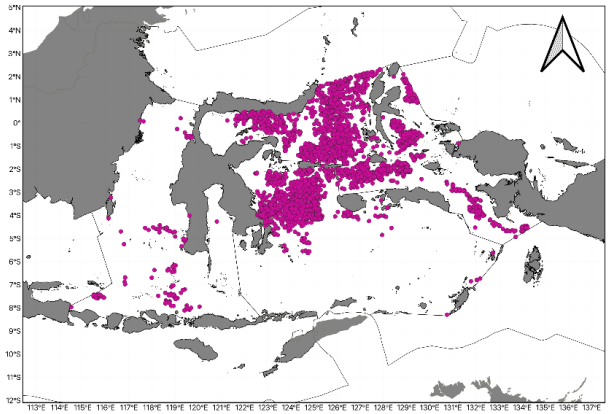


ALB

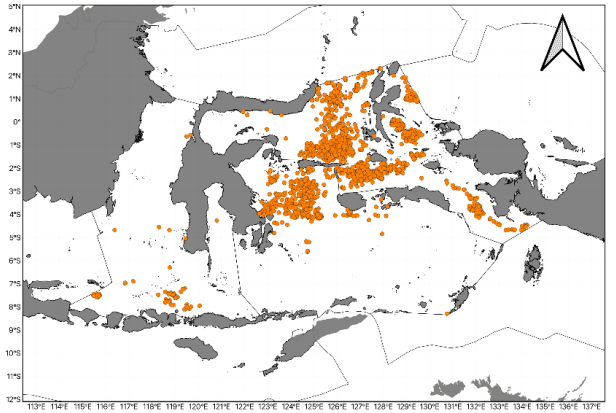
Fishing Ground (PS) in FMAs 713, 714, 715



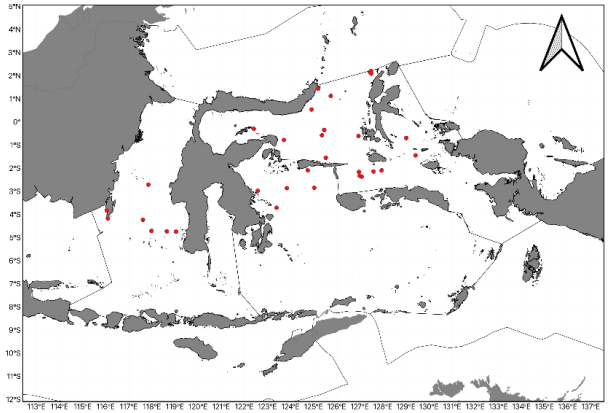
BET



SKJ

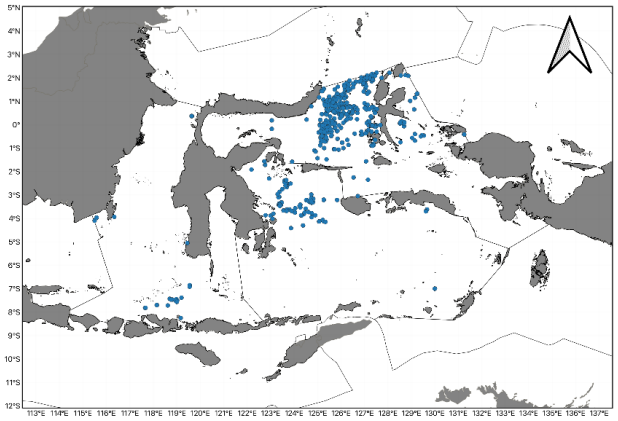


YFT

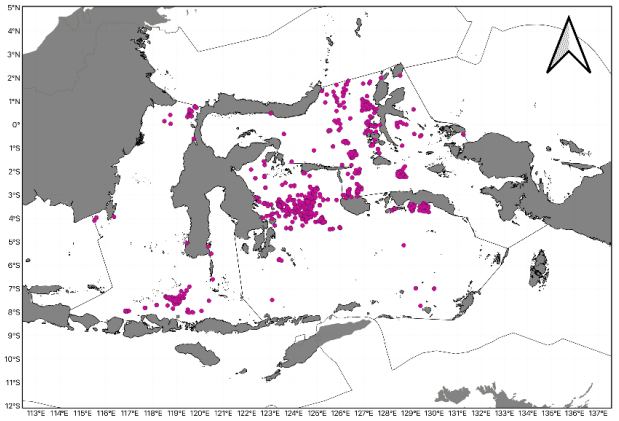


ALB

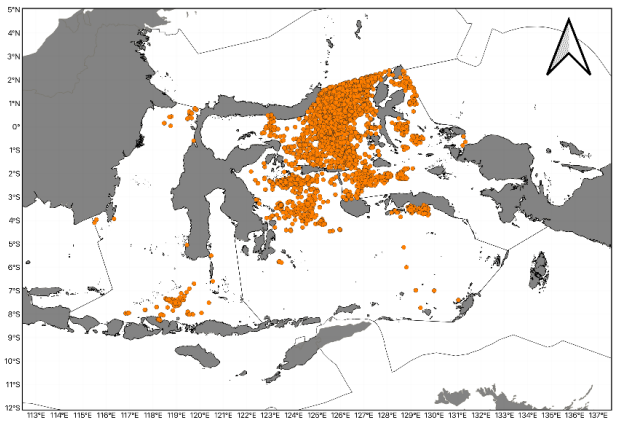
Fishing Ground (HL) in FMAs 713, 714, 715



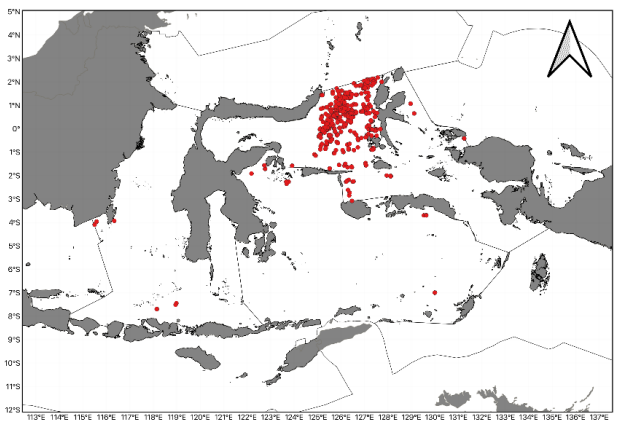
BET



SKJ

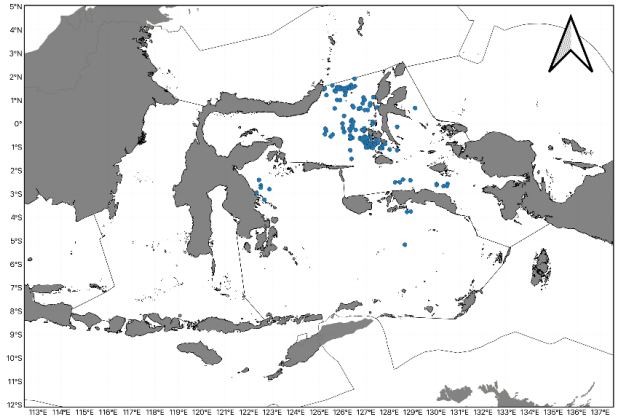


YFT

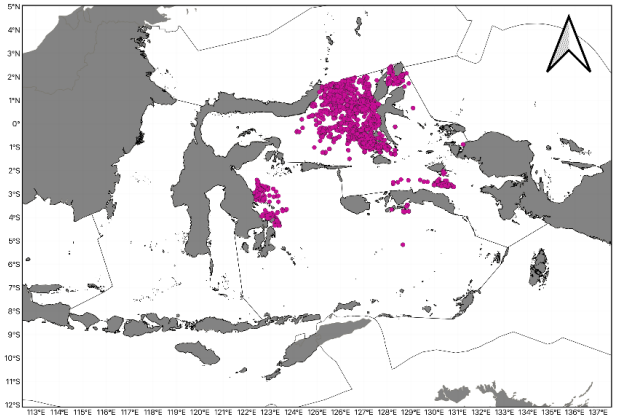


ALB

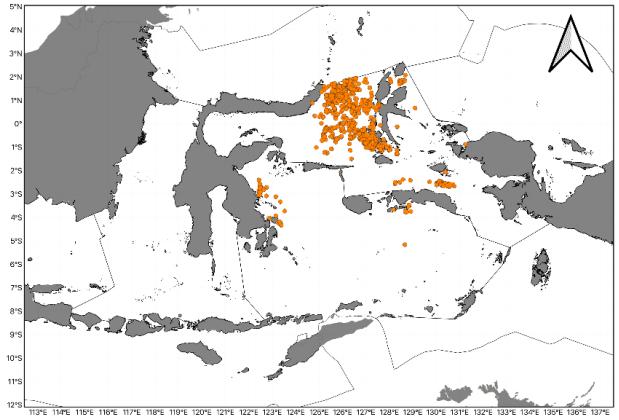
Fishing Ground (PL) in FMAs 713, 714, 715



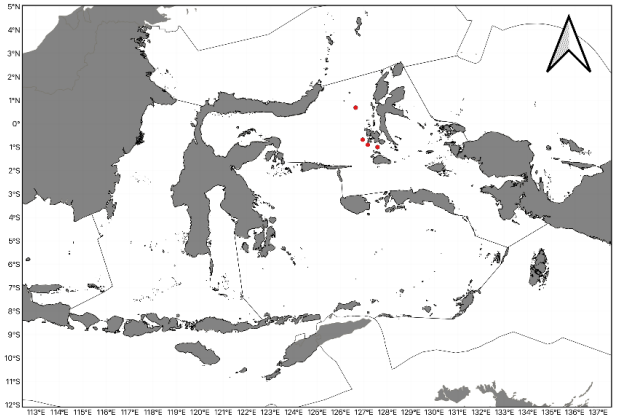
BET



SKJ



YFT



ALB

Guidelines for Distributing the Local Fishermen Quota for Tuna and Skipjack Tuna in the Province to Business Actors/Fishermen

1.	**Local Fishermen Quota (for vessels 5-30 GT and vessels < 5 GT)**		
	a.	Calculating the Total Quota Requirement Based on the Number of Existing Vessels	
		(Total GT API x Productivity API x Composition of Skipjack Tuna API)1 + ... + (Total GT API x Productivity API x Composition of Skipjack Tuna API)n	
	b.	Calculating Quota Needs Per Existing Vessel	
		1)	Based on Productivity: GT API x Productivity API x Composition of Skipjack Tuna API
		2)	*Historical Catch :* considering several variables that support increased compliance and strengthening data collection
	c.	Approach to Providing Quota for Old Ships (Existing)	
		Historical Catch : considering several variables that support increased compliance and strengthening data collection	
	d.	Approach to Allocating Quotas for New Ships	
		Based on Productivity: GT API x Productivity API x Composition of Skipjack Tuna API	
2.	**Quota for Non-Commercial Activities**		
	The amount is in accordance with what has been established and/or based on the calculation of non-commercial activity data in the province		

Klarifikasi data ?

Terima Kasih