







Monthly Statistical Report for Scientific Catch Monitoring Survey at Marine Landing Sites in Cambodia

October 2021

By Marine Fisheries Research and Development Institute

MaFReDI, with technical assistance from FAO CAPFISH project under EU budget support, is currently piloting scientific catch monitoring at marine landing sites in the four coastal provinces in Cambodia. The aim is to obtain better information on catch and effort by marine fisheries in Cambodia, and to develop a sustainable catch monitoring methodology for implementation by provincial fisheries administrations, supported by MaFReDI. Coverage of landing sites and fishery sectors is gradually expanded, since the start of catch monitoring in July 2021. The current statistical report, provides preliminary analysis based on sample data and focuses on the main indicators that are covered by the catch monitoring sample survey. Therefore, the results do not represent final estimates and may be changed in future updates.

A description of the methodology can be found in: Fisheries Administration (FiA). 2021. Manual for Fish Catch Monitoring Assessment for Marine Fisheries in Cambodia. Marine Fisheries Research and Development Institute of the Fisheries Administration, Phnom Penh, Cambodia. 38 pages.

Data collection for October 2021 was conducted at 5 fish landing sites in Kampot, Preah Sihanouk and Koh Kong provinces.

**Table 1.** Number of random selected landings recorded by vessel class and landing site.

		Small-	Middle-
Province	Landing Site	Scale	Scale
Kampot	Kampong Kandal	18	10
Kampot	Trapang Ropov	13	15
Koh Kong	Oknha Lyon Phat <sup>1</sup>	2	26
Preah Sihanouk	Steung Hav		28
Preah Sihanouk	Tonum Rolok	1	27
Total		34	106

Middle-scale vessels includes vessel length 12-24 and all trawlers regardless of size, as well as all vessels operating blood cockle dragnet

**Table 2.** Mean reported catch in sampled landings (kg), by landing site, and vessel class, with standard deviation, 90% confidence level and standard error.

#### Small-scale vessels

Siliali-Scale V	Siliali-Scale vessels								
Province	Landing site	Landings	Mean	SD		CL	ε		
Kampot	Kampong Kandal	18	40.33	13.71		5.81	14.4%		
Kampot	Trapang Ropov	13	48.01	29.81		15.45	32.2%		
Koh Kong	Oknha Lyon Phat	2	55.00	0.00					
Preah Sihanouk	Steung Hav								
Preah Sihanouk	Tonum Rolok	1	258.00						
	Overall		50.53	42.25		12.46	24.7%		

 $<sup>^{1}</sup>$  This covers landing sites on both sides of the Meteuk river in Mondol Seima district and Khemarak Phoumin Municipality, with main focus on Oknha Lyon Phat landing site

## Middle-scale vessels

Province	Landing site	Landings	Mean	SD	CL	ε
Kampot	Kampong Kandal	10	178.75	195.70	121.31	67.9%
Kampot	Trapang Ropov	15	30.51	35.54	16.82	55.1%
Koh Kong	Oknha Lyon Phat	26	2903.50	4396.11	1504.25	51.8%
Preah Sihanouk	Steung Hav	28	544.88	806.29	264.66	48.6%
Preah Sihanouk	Tonum Rolok	27	191.38	187.36	62.76	32.8%
	Overall		926.04	2,468.65	475.43	51.3%

SD is Standard Deviation; CL is Confidence Limits; ε is Standard Error

**Table 3.** Mean reported catch in sampled landings (kg) by gear and vessel class, with standard deviation, confidence limits with 90% confidence level and standard error.

### Small-scale vessels

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Gear name	Landings	Mean	SD		CL	ω
Boat seine net <sup>1</sup>	20	39.84	13.50		5.4	13.5%
Crab trap	2	18.18	6.33			
Fish gillnet	12	73.75	63.63		34.8	47.2%

# Middle-scale vessels<sup>2</sup>

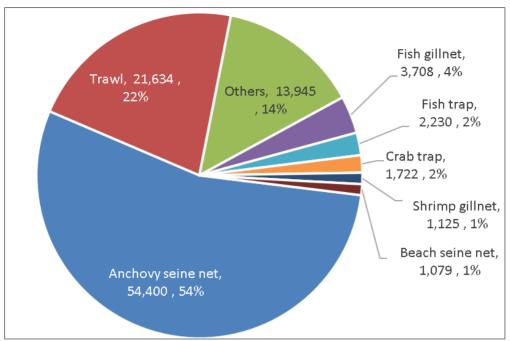
Gear name	Landings	Mean	SD	CL	Е
Anchovy seine net	5	10,880.00	2,280.52	2683.4	24.7%
Boat seine net <sup>1</sup>	6	47.08	26.78	25.5	54.2%
Crab gillnet	1	17.00			
Crab trap	14	120.40	216.71	107.1	89.0%
Fish gillnet	14	201.64	266.11	131.5	65.2%
Fish trap	2	1,115.00	21.21		
Octopus trap longline	1	500.00			
Others	10	1,322.80	2,693.16	1669.4	126.2%
Shrimp gillnet	4	281.25	225.33	379.9	135.1%
Squid tow longline	1	200.00			
Trawl	46	470.30	660.04	165.3	35.2%

 $<sup>\</sup>overline{\ }^1$  The CPUE for Boat seine nets is the mean catch, vessels operating this gear only go on single day fishing trips

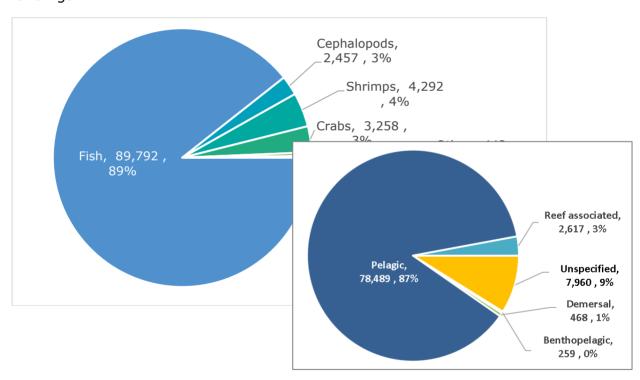
**Table 4.** Reported catch in sampled landings (kg) by gear and province.

Gear type	Kampot	Koh Kong	Sihanouk
Anchovy seine net		54,400	
Trawl		1,420	20,214
Others		13,080	148
Fish gillnet	2,294	1,156	258
Fish trap		2,230	
Crab trap	222	1,500	
Shrimp gillnet		1,115	10
Boat seine net	1,079		

<sup>&</sup>lt;sup>2</sup> The CPUE (catch per fishing gear day) cannot be accurately calculated for middle-scale trawlers as the number of fishing days is not recorded

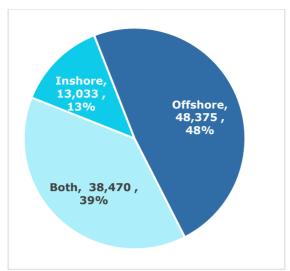


**Figure 1.** Contribution of main gear types to reported catch in sampled landings.



### Fish by ecozone

**Figure 2.** Contribution of main aquatic animal groups and for fish contribution of <u>fish ecotypes</u> to reported catch in sampled landings (not based on gear used to target species).



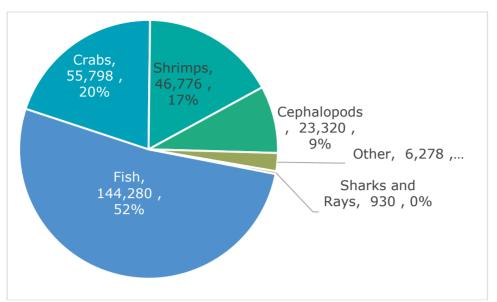
**Figure 3.** Contribution of main fishing zones to reported catch in sampled landings<sup>2</sup>.

**Table 5.** Top 20 reported species and species groups **by weight** in reported catch in sampled landings, with reported weight and proportion of catch by individual species and species groups.

	proportion of catch by individual species and species groups.								
	Scientific name	English Common	Catch	Catch contribution					
	Scientific flame	Linguish Common	(kg)	Proportion	Cumulative				
1	Encrasicholina heteroloba	Shorthead anchovy	64,050	60.9%	60.9%				
2		trash fish	5,671	5.4%	66.3%				
3	Portunus pelagicus	Swimming crab	3,238	3.1%	69.4%				
4	Sardinella gibbosa	goldstripe sardine	3,000	2.9%	72.2%				
5	Thryssa hamiltonii	Hamilton's thryssa	3,000	2.9%	75.1%				
6	Selaroides leptolepis	Yellow stripe trevally	2,400	2.3%	77.4%				
7		Other fish nei	2,204	2.1%	79.4%				
8	Penaeus merguiensis	Banana shrimp	2,001	1.9%	81.3%				
9	Atule mate	Yellowtail scad	1,550	1.5%	82.8%				
10	Stolephorus indicus	Indian anchovy	1,500	1.4%	84.2%				
11	Metapenaeus spp.		1,262	1.2%	85.4%				
12	Rastrelliger kanagurta	Indian mackerel	1,155	1.1%	86.5%				
13		Octopus	956	0.9%	87.5%				
14		Squids nei	796	0.8%	88.2%				
15	Suborder Sepiina	Cuttlefish	706	0.7%	88.9%				
16	Decapterus maruadsi	Round scad	702	0.7%	89.5%				
17	Siganus canaliculatus	Whitespotted Spinefoot	541	0.5%	90.1%				
18	Decapterus macrosoma	Shortfin scad	525	0.5%	90.6%				
19	Crenimugil seheli	Bluespot mullet	500	0.5%	91.0%				
20		Other species	4,713	4.5%					
		Individual species	93,696	89.1%	47 species				
		Species groups	11,486	10.9%	22 groups				
		Total reported catch	105,182						

 $<sup>^{2}</sup>$  Not all catch is attributed to a grid location or fishing zone, total included is less than total reported catch in landings sampled.

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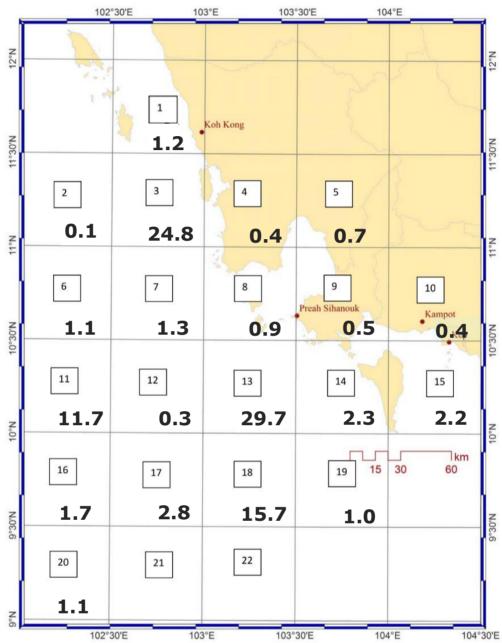


**Figure 4.** Total reported value (1000 Riel) in reported catch in sampled landings, by main aquatic animal group (Total value: 284,589,000 Riel).

**Table 6.** Top 20 reported species **by value** (1000 Riel) in reported catch in sampled landings, with reported value, proportion of catch by individual species and species groups and average price/kg.

	Scientific name	English Common	Value (1000 Riel)	Value proportion	Average Price (Riel)
1	Encrasicholina heteroloba	Shorthead anchovy	78,710	28.4%	967
2	Portunus pelagicus	Swimming crab	55,388	20.0%	20,233
3	Penaeus merguiensis	Banana shrimp	29,015	10.5%	14,200
4		Squids nei	13,975	5.0%	27,667
5	Metapenaeus spp.		10,600	3.8%	21,667
6		Octopus	7,815	2.8%	12,439
7		trash fish	7,396	2.7%	1,516
8		Other fish nei	7,348	2.6%	2,609
9	Atule mate	Yellowtail scad	6,175	2.2%	3,750
10		Other catch nei	5,604	2.0%	26,387
11	Decapterus macrosoma	Shortfin scad	5,240	1.9%	9,600
12	Hemiramphus far	Blackbarred halfbeak	4,000	1.4%	10,000
13	Thryssa hamiltonii	Hamilton's thryssa	3,900	1.4%	1,300
14	Sardinella gibbosa	goldstripe sardine	3,900	1.4%	1,300
15	Penaeus sp.	Prawns nei	3,498	1.3%	23,594
16	Lutjanus argentimaculatus	Mangrove red snapper	3,200	1.2%	17,500
17	Epinephelus coioides	Orange-spotted grouper	3,150	1.1%	22,500
18	Selaroides leptolepis	Yellow stripe trevally	2,950	1.1%	1,200
19	Rastrelliger kanagurta	Indian mackerel	2,865	1.0%	3,822
20		Other species	22,654	8.2%	
	Total reported value by sp	277,381			

Not all value is reported by species, some commercial (trade) groups are stated separately



**Figure 5.** Contribution of fishing grid (%) to reported catch in sampled landings.