



**Establishment and Operation of a Regional System of  
Fisheries *Refugia* in the South China Sea and Gulf of Thailand**

## **REPORT**

# **THE BASELINE SURVEY ON SOCIO-ECONOMIC STATUS, FISHING AND FISHERIES RESOURCES OF SHORT MACKEREL, AND LARVAL FISH SAMPLINGS IN KOH KONG PROVINCE**

**KOH KONG, CAMBODIA**

**9-14 JULY 2019**

Prepared by  
**FISHERIES ADMINISTRATION, CAMBODIA**

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SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER  
TRAINING DEPARTMENT



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### **1. Field Trip Objective**

- 1) To interview mackerel fishermen and collect sampling fish larvae in Koh Kong province from 09 to 14 July 2019, funded by SEAFDEC/UNEP/GEF.

### **2. Involved Person**

- 2) There are four leaders and officers from Department of Fisheries Conservation and two officers from Fisheries Administration Cantonment in Koh Kong, participating in doing a research of baseline survey short mackerel in Koh Kong province naming as following (see Annex 1, 2 & 5):
  - Mr. Leng Sy Vann, Deputy Director of the Department of Fisheries Conservation and NSTFP
  - Ms. Ly Sokta, Officer of Department of Fisheries Conservation/FiA
  - Mr. Rous Saret, Officer of Department of Fisheries Conservation
  - Mr. Lieng Saroeun, Vice chief of Crocodile Industrial development and conservation, Department of Fisheries Conservation
  - Miss Map Chanda, 3rd year-student from RUA in the Faculty of Fisheries Science
  - Mr. Nou Ngoy, Vice Chief of Fisheries Administration Division, Koh Kong FiAC
  - Mr. Seng Bunna, Vice Chief of Fisheries Administration Division, Koh Kong FiAC

### **3. Field Trip Activities**

#### **A. Collection of fish samples at landing sites and markets**

- 3) Teamwork from FiA and FiAC went down to collect the sampling short mackerel at Dorng Tung market, Village 4 market, and LYP landing site, but the teamwork cannot buy those fish because fishermen cannot catch fish around Koh Yor and Code area in Koh Kong based on fish sellers (see annex 4).

#### **B. Interview Fishermen at Village 4**

- 4) The purpose of social economic and fishing survey is to want to know about short mackerel fishing status in the past until now, that provide more information on scientific data. 20 fishermen at village 4, Sangkhat Dorng Tung, Khan Kem Reak Phummin, Koh Kong province were interviewed by using semi structure questionnaire. Data collected are entered in Excel program to analyze (see annex 3).

#### **C. Sample fish larvae collection**

- 5) Teamwork from FiA and FiAC went down to collect sampling fish larvae at Koh Yor, Chroy Pros, and Peam Krasob sites that are 8 stations. The bongo net with the size of 1 m diameter and 5 meter length was applied to collect sampling fish larvae at those sites and two times/station was applied to collect fish larvae. All sampling fish larvae were stored and kept in plastic tube with ethanol of 99.7% (see annex 4).

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**ANNEX 1****List of participants attending the baseline survey of short mackerel gonad development from 09 to 14 July 2019 in Koh Kong province**

<b>No.</b>	<b>Name</b>	<b>Sex</b>	<b>Title</b>	<b>Organization</b>	<b>Telephone</b>
1	Leng Sy Vann	M	Deputy Director	DFC/FiA	017446373
2	Ly Sokta	F	Officer	DFC/FiA	092653427
3	Lieng Saroeun	M	Vice chief of Crocodile industrial and conservation division	DFC/FiA	092660267
4	Rous Saret	M	Officer	DFC/FiA	011664696
5	Seng Bunna	M	Vice chief of Fisheries Administration Division	Koh Kong FiAC	016885709
6	Nou Ngoy	M	Vice chief of Fisheries Administration Division	Koh Kong FiAC	016933192
7	Map Chanda	F	Student	Faculty of Fisheries Science /RUA	077511674

## ANNEX 2

**Schedule for baseline survey of short mackerel gonad development from 09 to 14 July 2019 in Koh Kong province**

Date/Time	Description	Responsible person
<b>09 July 2019</b>		
9:00am-4:00pm	Leaving Phnom Penh for Koh Kong	<ul style="list-style-type: none"> <li>• Mr. Lieng Saroeun,</li> <li>• Mr. Leng Sy Vann,</li> <li>• Ms. Ly Sokta, and</li> <li>• Mr. Rous Sareth</li> <li>• Miss Map Chanda</li> </ul>
<b>10 July 2019</b>		
9:00am- 12:00pm	Interview fishermen of mackerel at Village 4, Koh Kong province	All
12:00pm-2:00pm	Lunch break	All
2:00pm-5:00pm	Interview fishermen of mackerel at Village 4, Koh Kong province	All
<b>11 July 2019</b>		
8:00am-1:00pm	Sample fish larvae collection at station 2, 4, 1 and 7	All
1:00pm -3:00pm	Lunch break	All
3:00pm -5:00pm	Interview fishermen of mackerel at Village 4, Koh Kong province	All
<b>12 July 2019</b>		
8:00-1:00pm	Sample fish larvae collection at station 6 and 8	All
1:00pm-3:00pm	Lunch break	All
3:00pm -5:00pm	Interview fishermen of mackerel at Village 4, Koh Kong province	All
<b>13 July 2019</b>		
8:00-12:00pm	Sample fish larvae collection at station 3 and 5	All
12:00pm-2:00pm	Lunch break	All
2:00pm-4:00pm	Interview fishermen of mackerel at Village 4, Koh Kong province	All
<b>14 July 2019</b>		
9:00am-4:00pm	Leaving Phnom Penh for Koh Kong	All

**ANNEX 3**

**Questionnaires on Socio-Economic Status, Fishing and Fisheries Resources**

I. ព័ត៌មានទូទៅ General Information

1. ឈ្មោះអ្នកសម្ភាសន៍ Interviewee ..... ថ្ងៃខែឆ្នាំសម្ភាសន៍ Date of Interview.....
2. ឈ្មោះអ្នកនេសាទ Fishermen Name..... ភេទ Sex..... អាយុ Age.....
3. ជនជាតិ Nationality : 3.1 ខ្មែរ Khmer  3.2 វៀតណាម Vietnam  3.3 ម៉ូស្លីម Muslim  3.4 ផ្សេងៗ Other
4. អាសយដ្ឋាន Address: ភូមិ Village..... ឃុំ Commune..... ស្រុក District..... ខេត្ត Province.....
5. ចំនួនសមាជិកក្នុងគ្រួសារ Family member

<b>7.1</b> សរុប Total	<b>7.2</b> ប្រុស Male	<b>7.3</b> ស្រី Female	<b>7.4</b> ចំនួនសមាជិក ចូលរួមក្នុងសកម្មភាពនេសាទ Member involved in fishing activity

6. មុខរបរស្នូលនិងមុខរបរបន្ទាប់បន្សំ Main and secondary occupation

	ប្រភេទមុខរបរ categories of occupation	<b>8.1</b> ស្នូល Main	<b>8.2</b> ចំណូលប្រចាំ ឆ្នាំ Annual income (Riel)	<b>8.3</b> បន្ទាប់បន្សំ Secondary income (Riel)	<b>8.4</b> ចំណូល ប្រចាំឆ្នាំ Annual income (Riel)
1	ធ្វើស្រែ Rice field	<input type="checkbox"/>		<input type="checkbox"/>	
2	នេសាទ Fishing	<input type="checkbox"/>		<input type="checkbox"/>	
3	ដាំសារាយ Sea weed culture	<input type="checkbox"/>		<input type="checkbox"/>	
4	ចិញ្ចឹមសត្វ Animal husbandry	<input type="checkbox"/>		<input type="checkbox"/>	
5	ដាំបន្លែ Growing Vegetable	<input type="checkbox"/>		<input type="checkbox"/>	
6	ការងាររដ្ឋ (គ្រូ អាជ្ញាធរ) Public service officers	<input type="checkbox"/>		<input type="checkbox"/>	
11	លក់ដូរតូចតាច Small business	<input type="checkbox"/>		<input type="checkbox"/>	
12	ធ្វើឧបករណ៍នេសាទ លក់ making fishing gears	<input type="checkbox"/>		<input type="checkbox"/>	
13	រត់ម៉ូតូឌុប តាក់ស៊ី Taxi and motor driver	<input type="checkbox"/>		<input type="checkbox"/>	
14	កម្មករ លក់កំលាំងពល កម្ម labor /worker	<input type="checkbox"/>		<input type="checkbox"/>	
15	ធ្វើទូក ជួសជុលទូក Boat/vessel repairing	<input type="checkbox"/>		<input type="checkbox"/>	
16	ផ្សេងៗ Other	<input type="checkbox"/>		<input type="checkbox"/>	

II. សកម្មភាពនេសាទ Fishing activity

7. រយៈពេលនេសាទ: Fishing period.....ឆ្នាំ
8. ចំនួនថ្ងៃក្នុងមួយខែ Day number of fishing per month .....ថ្ងៃ
9. ចំនួនខែក្នុងមួយឆ្នាំ Month number of fishing per year.....ខែ
10. តើមានប៉ុន្មានគ្រួសារដែលកំពុងធ្វើការនេសាទក្នុងភូមិ? How many families are doing fishing activity in the village?
11. ឧបករណ៍នេសាទដែលកំពុងប្រើប្រាស់ being used fishing gears

Code	ប្រភេទឧបករណ៍ Types of fishing gears	ចំនួន Number	ប្រវែង (ម៉ែត្រ) Length (m)	តម្លៃសរុប (រៀល) Total cost (Riel)	រយៈពេល អាចប្រើបាន Life span
1	លបក្តាម Crab trap				
2	លបមីក Squid trap				
3	លបត្រី Fish trap				
4	សន្ទួច long line Hook				
5	អូនហ៊ី Circle seine				
6	រារងាយដៃ Catching by hand				
7	នីបរុញដោយដៃ Push net				
8	នីបរុញដោយម៉ាស៊ីន Push net with machine				
9	សំណាញ់ cast net				
10	មងត្រី Gill net				
11	មងត្រីកាម៉ុង Mackerel gill net				
12	ទូកអូស trawler vessel				
13	ឧបករណ៍ផ្សេងៗទៀត Other				

12. ប្រភេទធនធានជលផលសំខាន់ៗចំនួន៥ប្រភេទដែលចាប់បាន Main 5 fish species caught

Rank	ប្រភេទ Species	មានប៉ុន្មានភាគ រយ (%)	តម្លៃក្នុង១គីឡូក្រាម Riel/Kg
1			
2			
3			
4			
5			

13. សក្តានុពលនៃការចាប់ត្រីកាម៉ុងតាមខែ (គីឡូក្រាម) Catching fish by month (Kg)

	មក រា	កុម្ភៈ Feb	មី នា	មេ សា	ឧស ភា	មិថុ នា	ក ក្តា	សីហា Aug	កញ្ញា Sep	តុលា Oct	វិច្ឆិ កា	ធ្នូ Dec
	Jan		Mar	April	May	June	July				Nov	

ទម្ងន់សរុប(ត្រីចម្រុះ) Total catch (%)												
សរុប% (ត្រីកាម៉ុង) % of mackerel												
តម្លៃត្រីកាម៉ុង/គីឡូក្រាម Mackerel price (Riel/Kg)												
ទម្ងន់ត្រីកាម៉ុងក្នុងមួយក្បាល mackerel weight /head (g)												
ប្រភេទឧបករណ៍ Types of fishing gear												
ប្រវែងមងត្រីកាម៉ុង Length of mackerel gill net (m)												
ទំហំក្រឡាមង mesh size (mm)												
ទីតាំងនេសាទ (ប្រើលេខកូដខាងក្រោម) fishing ground (Using fishing location)												



code below)												
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សម្គាល់ទីតាំងនេសាទ៖ Remark fishing ground

1. កោះយ៉ូ Yor Koh
2. កោះគុជ Koh Kuch
3. មុខពាមក្រសែប Opposite Peam Krasob
4. មុខកោះកាពិ Opposite Koh Kapi
5. កោះកុងក្រៅ Outside Koh Kong
6. កោះស្លាម Koh chlarm
7. ទីតាំងផ្សេងៗទៀត Other

14. និន្នាការនៃផលត្រីកាម៉ុងដែលចាប់បានចាប់ពីឆ្នាំ២០១០ ដល់២០១៨ Trend of fish production of mackerel from 2010 to 2018

ឆ្នាំ Year	2010	2011	2012	2013	2014	2015	2016	2017	2018
កំប្រុក Production (Kg)									
ចំនួនទូកត្រីកាម៉ុង Vessel Number									
ចំនួនអ្នកនេសាទ Fishermen number									

III. ការវិភាគសេដ្ឋកិច្ច Economic analysis

15. ការចំណាយក្នុងមួយជើងៗ

មុខចំណាយ Items	ឯកតា (Unit)	តម្លៃក្នុង១ឯកតា (រៀល) Unit Cost /Riel	ចំណាយសរុប (រៀល) Total Cost/Riel
អាហារ Food			
កម្មករ Labor	មនុស្ស Person		
អ្នកបើកទូក Boat Driver	មនុស្ស Person		
ប្រេង (សាំង ម៉ាសូត ប្រេងម៉ាស៊ីន) Gasoline	លីត្រ Liter		
ជួសជុលមង Repairing Gill net			
ជួសជុលទូក Repairing Boat			
ចំណាយផ្សេងៗ Other expenditures			
<b>Total</b>			

16. មួយជើងៗបានចំណូលប៉ុន្មាន? How much you can get income/time ..... (Riel)

17. ការចែកចាយផលត្រីកាម៉ុង Mackerel distribution

- 17.1 កន្លែងឡើងត្រី៖ how many of landing site..... %
- 17.2 លក់ដុំ how many of fish trader.....%
- 17.3 លក់រាយ how many of retailer .....%
- 17.4 អាហារប្រចាំថ្ងៃ how many of daily consumption .....%

18. បញ្ហាក្នុងសកម្មភាពនេសាទ៖ Meeting Constrains during fishing activity

19. សូមសរសេរឱ្យអស់នូវត្រីនិងធនធានផលដែលអ្នកនេសាទចាប់បានក្នុងទីតាំងដែលកាត់នេសាទ

Please write all fish species catching at above mentioned fishing grounds

**ANNEX 4**

**Participants' Photos attending the baseline survey of short mackerel gonad development from 09 to 14 July 2019 in Koh Kong province**



