



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

REPORT

**FIELD SURVEY OF FISHERIES REFUGIA PROFILE AND LANDING SITE IN
KOH KONG PROVINCE**

**KOH KONG, CAMBODIA
2-4 SEPTEMBER 2020**

Prepared by
**FISHERIES ADMINISTRATION
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**SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER
TRAINING DEPARTMENT**



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1. FIELD SURVEY OBJECTIVE

To collect data of fisheries *refugia* profile and landing site in Koh Kong province from 02 to 04 September 2020, funded from SEAFDEC/UNEP/GEF.

2. INVOLVED PERSON

There are four people, one leader and three officers from Department of Fisheries Conservation as well as one officer from Fisheries Administration Cantonment in Koh Kong, participating in doing the field survey 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
- Mr. Tan Tthearith, Vice chief of Marine Fisheries Conservation Center
- Mr. Rous Saret, Officer of Department of Fisheries Conservation
- Ms. Kin Samnang, Officer of Department of Fisheries Conservation
- Mr. Ou Sovanarith, Officer of Koh Kong Fisheries Administration Cantonment

3. METHODOLOGY

Semi-structure questionnaire is formulated and used to collect data from fishermen operating a different fishing gear types such as fish gillnet, trawls, crab trap, and small winged set bag (see annex 3). 55 fishermen are selected to interview in Village 4, Peam Krasob, and Bak Khlorng villages, Koh Kong Province.

4. FIELD SURVEY ACTIVITIES

4.1 MEETING WITH FIAC

Teamwork from FiA met and discussed with FiAC to inform the purpose of field survey in Koh Kong province, the number of villages, and sample size selected for data collection. The teamwork had a plan to select fishermen in Village 4, Peam Krasob, and Bak Khlorng village for interviewing. Thus the teamwork proposed one officer from FiAC to coordinate the field survey works

4.2 FISHERMEN SELECTION FOR INTERVIEWING

On 02 September, Teamwork from FiA and FiAC went down to Village 4 to select fishermen for interviewing, including 21 fishermen selected operating fish gillnet. Village4 is a village mostly operating short mackerel gillnet (see annex 4).

On 03 September, Teamwork from FiA and FiAC went down to Peam Krasob village to select fishermen for interviewing, including 16 fishermen selected using fish gillnet, crab trap, and small winged set bag(see annex 4).

On 04 September, Teamwork from FiA and FiAC went down to Bak Khlorng village to select fishermen for interviewing, including 18 fishermen selected practicing trawlers. Bak khlorng village is a village mostly operating trawler (see annex 4).

ANNEX 1: List of participants attending to conduct the field survey of fisheries refugia profile and landing site from 02 to 04 September 2020 in Kampot province.

No.	Name	Sex	Title	Organization	Telephone
1	Leng Sy Vann	M	Deputy Director	DFC/FiA	017446373
2	Tan Thearith	M	Vice Head of Center	Marine Fisheries Conservation Center/FiA	
3	Ou Vannarith	M	Officer	FiAC/PDoA in Koh Kong province	012221198
4	Rous Saret	M	Officer	DFC/FiA	011664696
5	Kin Samnang	M	Officer	DFC/FiA	077411136

ANNEX 2: Schedule for conducting the field survey of fisheries refugia profile and landing site from 02 to 04 September 2020 in Kampot province.

Date/Time	Description	Responsible person
01 September 2020		
9:00am-4:00pm	Leaving Phnom Penh for Koh Kong province	<ul style="list-style-type: none"> • Mr. Leng Sy Vann, • Mr. Tan Thearith, • Mr. Rous Sareth • Ms. Kin Samnang
02 September 2020		
8:30am- 9:30am	Meeting with FiAC	All
9:30am- 12:00pm	Interview fishermen in village 4, Sangkhat Dornng Tung, Kemrak Phumin City, Koh Kong province	All
12:00pm-2:00pm	Lunch break	All
2:00pm-5:00pm	Interview fishermen in village 4, Sangkhat Dornng Tung, Kemrak Phumin City, Koh Kong province	All
03 September 2020		
8:30am- 12:00pm	Interview fishermen in Peam Krasob village, Peam Krasob commune, Mondolsema district, Koh Kong province	All
12:00pm -2:00pm	Lunch break	All
2:00pm -5:00pm	Interview fishermen in Peam Krasob village, Peam Krasob commune, Mondolsema district, Koh Kong province	All
04 September 2020		
8:30am- 12:00pm	Interview fishermen in Bak Khlorng village, Bak Khlorng commune, Mondolsema district Koh Kong province	All
12:00pm-2:00pm	Lunch break	All
2:00pm-5:00pm	Interview fishermen in Bak Khlorng village, Bak Khlorng commune, Mondolsema district Koh Kong province	All
05 September 2020		
9:00am- 01:00pm	Leaving from Koh Kong to Phnom Penh	All

ANNEX 3: Questionnaire on Fisheries *Refugia* Profile and Landing Site in Kampot, Koh Kong, and Kep provinces

បញ្ជីសំណួរស្តីពីកម្រងអត្ថបទដែលជម្រកសត្វភាពជលផល
និងទីតាំងប្រមូលផលនេសាទ

ឈ្មោះអ្នកសំភាសន៍ (interviewer)..... ថ្ងៃ ខែ ឆ្នាំ សំភាសន៍ Date of
Interviewing.....

ផ្នែកទី១. ព័ត៌មានទូទៅរបស់អ្នកនេសាទ Section1: General situation of Fishermen

១.១. ឈ្មោះអ្នកនេសាទ Name of Fisher..... ភេទ Sex..... អាយុ Age..... ឆ្នាំ year ១.២.

សមាជិកគ្រួសារ Member of Family..... Person នាក់.ប្រុស male.....នាក់ person

១.៣. ទីកន្លែងរស់នៅ Where you live?

.....

១.៤. មុខរបរអ្វីខ្លះ What is your occupations..... ១.៥. រយៈពេលនៃការនេសាទ the
period of fishing..... ឆ្នាំ year

១.៦. មានទូកនេសាទ fishing vessel..... គ្រឿង piece

ប្រភេទទូក នេសាទ Type of fishing vessel	ប្រវែង(ម) Length (m)	កម្លាំងម៉ាស៊ីន Horse power	តម្លៃសរុប (រៀល) Cost (Riel)	រយៈពេលប្រើ ប្រាស់ Use period

១.៧ ឧបករណ៍នេសាទអ្វីខ្លះ What is your fishing gear types

ប្រភេទ ឧបករណ៍ នេសាទ កំពុងប្រើប្រាស់ Fishing gear types using	ប្រវែង/ចំនួន Length/Numer	ក្រឡា មង (សម) Mesh size (cm)	ទីកន្លែង នេសាទ Fishing ground	តម្លៃសរុប (រៀល) Cost (Riel)	រយៈពេលប្រើ ប្រាស់ Use period

ផ្នែកទី២. ព័ត៌មានទូទៅនៃទីតាំងដែលជម្រកសត្វភាពជលផល Section 2: General Information
of Fisheries Refugia

២.១ តើអ្នកបានដឹងថាមានការបង្កើតដែនជម្រកសត្វភាពជលផលក្នុងស្រុកដែរឬទេ? ដឹង ☐
ឬមិនដឹង ☐

2.1 Do you know that there is the creation of blue swimming fisheries refugia ? Yes ☐ ឬ No ☐

២.២ តើអ្នកបានដឹងថាមានការបង្កើតដែនជម្រកសត្វភាពជលផលត្រីកាម៉ុងដែរឬទេ? ដឹង ☐
ឬមិនដឹង ☐

2.2. Do you know that there is the creation of short mackerel fisheries refugia? Yes ☐ ឬ No ☐

២.៣ តើអ្នកមានដឹងថា វាមានសារៈប្រយោជន៍ទេ? មាន ☐ ឬមិនមាន ☐ ធម្មតា ☐

2.3. Do you know that it is advantage? Yes ☐ ឬ No ☐ common ☐

បើមាន/មិនមាន/ធម្មតា សូមរៀបរាប់ If yes, no or common, please describe below ?

.....
.....

២.៤ ចំនួនទូកនេសាទកំពុងប្រតិបត្តិការក្នុងដែនជម្រកសុវត្ថិភាពជលផលក្នុងមួយថ្ងៃ the Number of fishing vessels operating in fisheries refugia per day

ទូកនេសាទ Fishing vessel	ចំនួន number	កំណត់សំគាល់ (រដូវកាលនេសាទ) Remark (fishing season)

២.៥ ប្រភេទឧបករណ៍នេសាទកំពុងប្រើប្រាស់មានអ្វីខ្លះ? What is the types of fishing gear operating?

ប្រភេទឧបករណ៍នេសាទកំពុងប្រើប្រាស់ Operating the types of fishing gear	ប៉ុន្មានទូក How many fishing vessel	ចំនួនឧបករណ៍/ទូក Number of fishing gear/boat	ទីកន្លែងនេសាទ Fishing ground	រយៈពេលប្រើប្រាស់ Use period
លបត្រី Fish trap				
លបក្តាម Crab trap				
មងត្រីកាម៉ុង mackerel gillnet				
មងក្តាម crab gillnet				
ឈីបរុញ pushing net by hand				
លបប្រើសច្រើន elongated trap				
អ្ននអូស Trawl				
ផ្ទាំងជាន់ small winged set bag				
ផ្សេងៗទៀត Other				

២.៦ ចំនួនអ្នកនេសាទដែលបាននេសាទក្នុងតំបន់ដែនជម្រកសុវត្ថិភាពជលផល
.....នាក់/ថ្ងៃ

២.៧ ចំនួនសហគមន៍នេសាទក្នុងតំបន់.....

២.៨ តើដែនជម្រកសុវត្ថិភាពជលផលបានចូលរួមចំណែកក្នុងការការពារនិងស្តារឡើងវិញ

ប្រភេទសត្វងាយរងគ្រោះឬទេ? (បង្ហាញតារាងប្រភេទសត្វងាយរងគ្រោះរូបភាព)

បាន ☐ ឬមិន ☐ ប្រសិនបើមានប្រភេទសត្វអ្វីខ្លះ

ផ្នែកទី៣. ការនេសាទនិងការចែកចាយផលចាប់ត្រី/ក្តាម Section 3: Fishing and Distribution of fish/crab

៣.១ ពេលវេលានិងរយៈពេលនៃការនេសាទត្រី Time and Period of fishing

ប្រភេទឧបករណ៍នេសាទកំពុងប្រើប្រាស់ Types of fishing gear using	រយៈពេលនៃការនេសាទ (ម៉ោងប៉ុន្មានដល់ម៉ោងប៉ុន្មាន) Time of fishing (How many hours)	ប៉ុន្មានថ្ងៃ/ជើង ឬ ជើង/ថ្ងៃ How many days/fishing	ប៉ុន្មានជើង/ខែ How many fishing/month	គីឡូ/ជើង Kg/fishing	រដូវកាល Season

៣.២ ប្រភេទនិងទំហំត្រីដែលចាប់បានដោយឧបករណ៍នេសាទកំពុងប្រើប្រាស់ Species and Size catching by types of fishing gear using

ប្រភេទត្រីដែលចាប់បាន Fish/crab species caught	ទំហំត្រី/ក្តាម (ប៉ុន្មានត្រី/ក្តាម) Size of fish/crab (how many fish /kg)	គីឡូ/ជើង Kg/Fishing	បើប្រៀបធៀប១០ឆ្នាំមុន តើអត្រាចាប់ត្រី/ក្តាមយ៉ាងដូចម្តេចដែរ(ពី២០១០ ដល់ ២០១៩) ហេតុអ្វី? Comparison in 10 years ago how is fishing rate from 2010 until 2019? and why?
ត្រីកាប៉ុងខ្លី Short mackerel			
ក្តាមស៊េ: blue swimming crab			
ត្រីតុកកែកៅ grouper			
ផ្សេងទៀត other			

៣.៣ ការវិភាគសេដ្ឋកិច្ច Economic analysis

មុខចំណាយ/ជើង(រៀល) Item expenditures/fishing (Riel)					
អាហារ Food	កម្មករ Workers	អ្នកបើកទូក Vessel Driver	ប្រេង Gasoline	ចំណាយផ្សេងៗ Other expenditure	ចំណាយសរុប Total expenditure

- ✓ ចំណាយការជួសជុលឧបករណ៍នេសាទ..... រៀល/ឆ្នាំ
Expenditures for fishing gear repairing.....Riel/year
- ✓ ចំណាយការជួសជុលទូក..... រៀល/ឆ្នាំ
Expenditures for fishing vessel repairing.....Riel/year

៣.៤ ការចែកចាយនិងលក់ត្រី/ក្តាម Distribution and sale for fish/crab

ប្រភេទត្រី/ក្តាម Type of fish/crab	តម្លៃសរុប (រៀល) Total prices(Riel)	ការចែកចាយនិងលក់ត្រី/ក្តាម Distribution and sale for fish/crab			
		លក់ដុំ (រៀល/គីឡូ) Wholesaler (Riel/kg)	លក់រាយក្នុងភូមិ (រៀល/គីឡូ) Trader (Riel/kg)	លក់រាយនៅតាមផ្សារ (រៀល/គីឡូ) Retailer (Riel/kg)	ទុកសម្រាប់ហូប (គីឡូ) Consumption (how many kg of fish)
ត្រីកាប៉ុងខ្លី Short mackerel					
ត្រីតុកកែកៅ grouper					

ក្ដាមសេះ blue swimming crab					
ផ្សេងៗ other					

ផ្នែកទី៤. ប្រភេទត្រីនិងវដ្តជីវិតរបស់ត្រី Section4: fish species and life cycle

៤.១ ចូរបង្ហាញពីលក្ខណៈសម្គាល់រូបរាងខាងក្រៅរបស់ត្រី/ក្ដាម Morphology of fish/crab

ប្រភេទត្រី/ ក្ដាម Type of fish/crab	លក្ខណៈសម្គាល់រូបរាងខាងក្រៅរបស់វា Its morphology
ត្រីកាម៉ុងខ្លី Short mackerel	
ត្រីតុកកែកៅ grouper	
ក្ដាមសេះ blue swimming crab	

៤.២ ដំណាក់កាលនៃវដ្តជីវិតនិងពងកូនរបស់ត្រី (យកដែនទឹកជាមួយដើម្បីផ្ទៀងផ្ទាត់) fish life cycle and its spawning (verify with map)

ប្រភេទ ត្រី/ក្ដាម Type of fish/crab	កូនត្រី/ក្ដាមទើបញ្ចេញ Fry		ពេញវ័យ Adults		ត្រី/ក្ដាមមេពូជពងកូន Brood stock	
	ចាប់ពី ពេលណា When catching	នៅកន្លែង ណា where	ចាប់ពី ពេលណា When catching	នៅ កន្លែងណា Where	ចាប់ពី ពេលណា When catching	នៅកន្លែង ណា where
ត្រីកាម៉ុង ខ្លី Short mackerel						
ត្រីតុកកែ កៅ Grouper						
ក្ដាមសេះ blue swimming crab						

៤.៣ តើ ទីតាំងដែនជម្រកសុវត្ថិភាពមានសារៈសំខាន់ដល់វដ្តជីវិតរបស់ត្រី/ក្ដាមដូចម្តេចខ្លះ? (v)

4.3 How are the fisheries refugia important for crab/fish life cycle? (v)

- កន្លែងពងកូន Spawning area ☐ ហេតុអ្វី
.....
- កន្លែងថែបំប៉ន Nursing area ☐ ហេតុ
.....
- កន្លែងលូតលាស់ ជំនាត់ Growing area ☐ ហេតុអ្វី
.....
- កន្លែងរកចំណី Feeding area ☐ ហេតុអ្វី
.....

ផ្នែកទី៥. វិធានការគ្រប់គ្រងធនធានជលផល Section 5: Measurement for fisheries management

៥.១ តើសព្វថ្ងៃមានយន្តការគ្រប់គ្រងដែនសុវត្ថិភាពឬទេ? មាន ☐ ឬមិនមាន ☐ បើមាន សូមរៀបរាប់

Nowadays, is there the mechanism of fisheries refugia management? yes ☐ ឬ no ☐, please describe

.....
 ៥.២ តើយន្តការគ្រប់គ្រងនេះ មានប្រសិទ្ធភាពឬទេ? មាន ☐ ឬមិនមាន ☐ បើមាន សូមរៀបរាប់ខាងណាខ្លះចូលរួមក្នុងការបង្ក្រាបបទល្មើស

Is the mechanism of fisheries refugia management effective? Yes ☐ ឬ No ☐, please describe, Who any stakeholder participate in cracking down illegal fishing?

.....

.....
 ៥.៣ តើលោកមានគំនិតបែបណាដើម្បីធានាបាននូវការគ្រប់គ្រងដែនជម្រកសុវត្ថិភាពឱ្យមានប្រសិទ្ធភាព?

What is your opinion to ensure effective fisheries refugia management?

.....

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សូមអរគុណ! Thanks

ANNEX 4A: List of fishermen participating in interviewing the field survey of fisheries refugia profile and landing site on 02 September 2020 at Village 4, Sangkhat Dornng Tung, Kem Reak Phumin City, Koh Kong province

No.	Name	Sex	Title	Organization	Telephone
1	Rom Mas	F	Fisher	Village 4	
2	Phall Sophon	F	Fisher	Village 4	
3	Kong Ty	F	Fisher	Village 4	
4	Los Rom Nas	F	Fisher	Village 4	
5	Sob Ma Yam	F	Fisher	Village 4	
6	Los Ray Al	M	Fisher	Village 4	
7	Nos Mom	M	Fisher	Village 4	
8	El Ma Ry	F	Fisher	Village 4	
9	Nith Thaisan	M	Fisher	Village 4	
10	Thouk Channa	F	Fisher	Village 4	
11	Ngeth Pom	F	Fisher	Village 4	
12	Yorn Phearin	F	Fisher	Village 4	
13	Sou Korng	F	Fisher	Village 4	
14	Sin Chantha	F	Fisher	Village 4	
15	Tuy Veng	M	Fisher	Village 4	016309194
16	Chan Seng	M	Fisher	Village 4	016919786
17	Los Tiva	F	Fisher	Village 4	
18	Rem Chea	M	Fisher	Village 4	
19	Los Kao Yes	F	Fisher	Village 4	
20	Mo Seu	F	Fisher	Village 4	
21	Rym Yas	M	Fisher	Village 4	

ANNEX 4B: List of fishermen participating in interviewing the field survey of fisheries refugia profile and landing site on 03 September 2020 at Peam Krasob village, Peam Krasob commune, Mondolsema district Koh Kong province

No.	Name	Sex	Title	Organization	Telephone
1	Deun Chantha	M	Fisher	Village 1	
2	Seng Seun	M	Fisher	Village 1	
3	Bun Keut	M	Fisher	Village 2	
4	Heng Suy	M	Fisher	Village 1	0718109898
5	Morm Saveth	M	Fisher	Village 1	
6	Van Cheng	M	Fisher	Village 1	
7	Kath Soporn	M	Fisher	Village 1	
8	Van Keng	M	Fisher	Village 2	
9	Vun Sary	F	Fisher	Village 2	
10	Ek Nath	F	Fisher	Village 2	
11	Seng Chhoung	M	Fisher	Village 2	015535915
12	Chheang Sok Heang	M	Fisher	Village 2	0963550518
13	Chhan Chhun	M	Fisher	Village 1	016941634
14	Keo Korn	F	Fisher	Village 1	
15	Se Chhreb	F	Fisher	Village 1	
16	Nay Thea	F	Fisher	Village 2	

ANNEX 4C: List of fishermen participating in interviewing the field survey of fisheries refugia profile and landing site on 03 September 2020 at Bak Khlorng village, Bak Khlorng commune, Mondolsema district Koh Kong province

No.	Name	Sex	Title	Organization	Telephone
1	Heng Sokha	M	Fisher	Village 1	0977257745
2	Sok Bunthoeun	M	Fisher	Village 1	0978099399
3	Mey Thorn	M	Fisher	Village 3	016214789
4	Chey Yoeun	M	Fisher	Village 3	0977828709
5	Heng Sokha	M	Fisher	Village 1	0977257745
6	Kang Kheang	M	Fisher	Village 1	0717907799
7	Sang Leuy	F	Fisher	Village 1	
8	In Syvann	F	Fisher	Village 1	0715717733
9	Sao Sok Khum	F	Fisher	Bak Khlorng Village	0977445613
10	Ouk Tith	M	Fisher	Village 1	08892188984
11	Chhay Teary	F	Fisher	Village 1	0312356355
12	Sin Srey Leak	F	Fisher	Village 1	0883460459
13	Chhoun Houy	F	Fisher	Village 1	0888118111
14	Chhorn Nimol	F	Fisher	Village 1	0695324411
15	Phorn Chamnan	M	Fisher	Village 1	0973744954
16	Tao Sophorn	M	Fisher	Village 1	
17	Khon Sokhym	F	Village member	Bak Khlorng Village	0889260505
18	Sin Sopheak	F	Fisher	Bak Khlorng Village	0886777031

ANNEX 5: Photos for meeting with FiAC in Koh Kong and conducting the field survey of fisheries refugia profile and landing site from 01 to 05 September 2020 in Kampot province.

