

Marine Fishing Gear in Thailand



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Outline

1

Elements of Fishing Methods

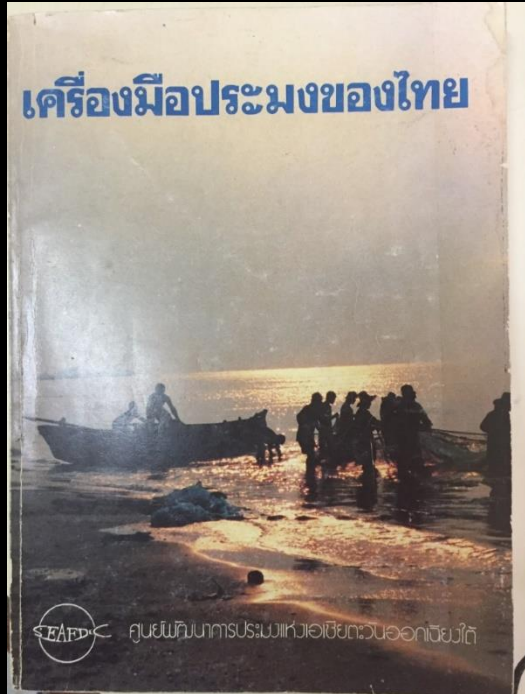
2

Fishing Gear Classifications

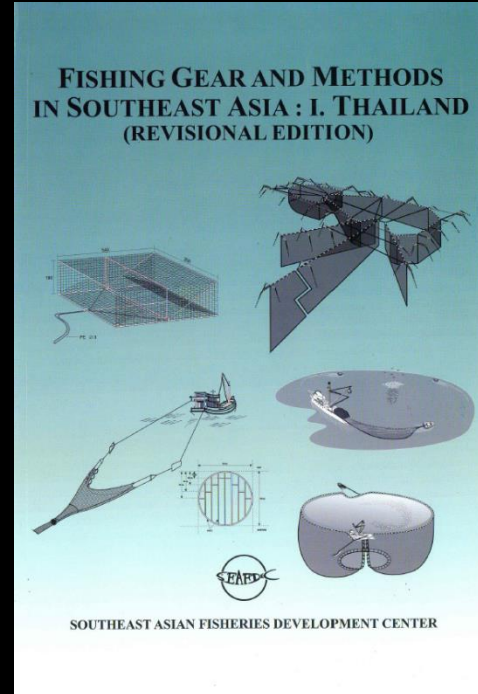
3

Fishing Gear and Methods in Thailand

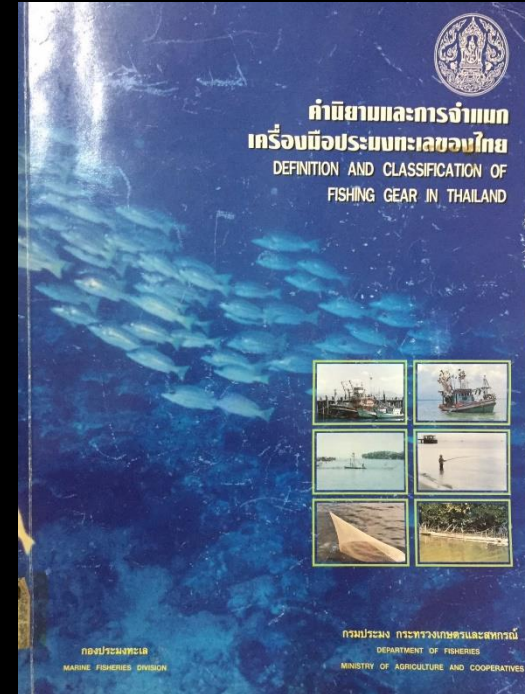
Reference Books



ซีฟเดค, 2529



SEAFDEC, 2004

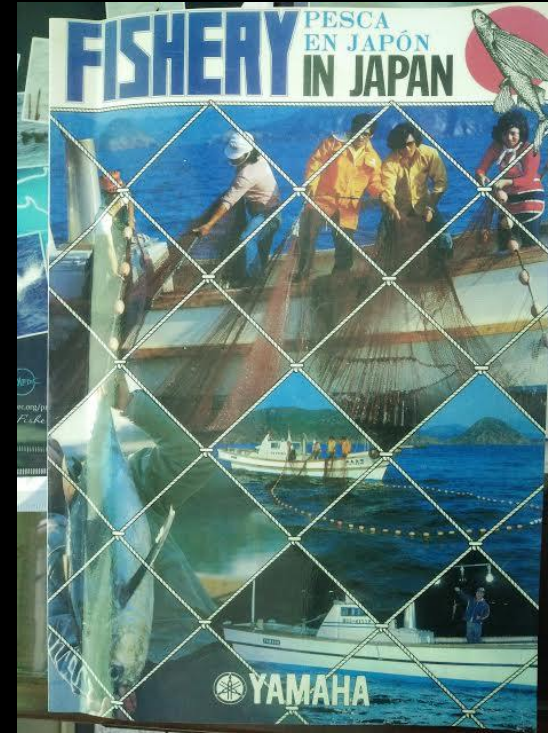


กรมประมง, 2540

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1 Elements of Fishing Methods

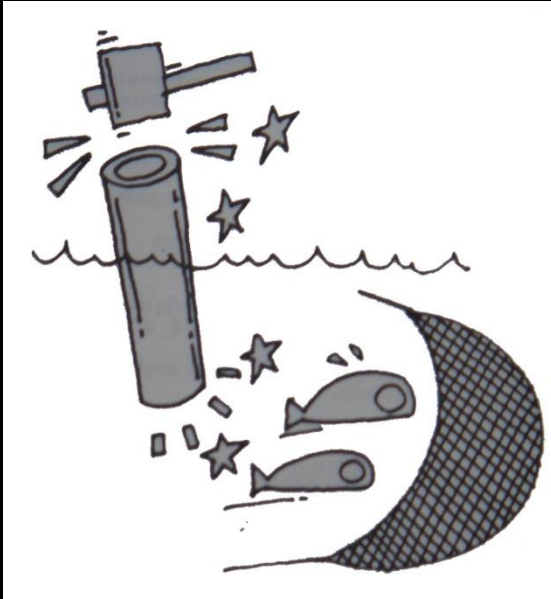
- 1.1 Frightening**
- 1.2 Attracting or Luring**
- 1.3 Filtering**
- 1.4 Pounding Water**
- 1.5 Direct methods**



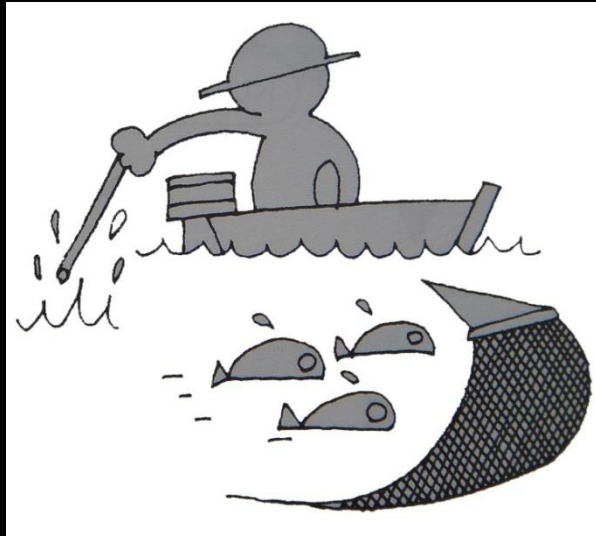
(JICA, 1980)

1 Elements of Fishing Methods (JICA, 1980)

1.1 Frightening



Struck a sound



Beating water surface

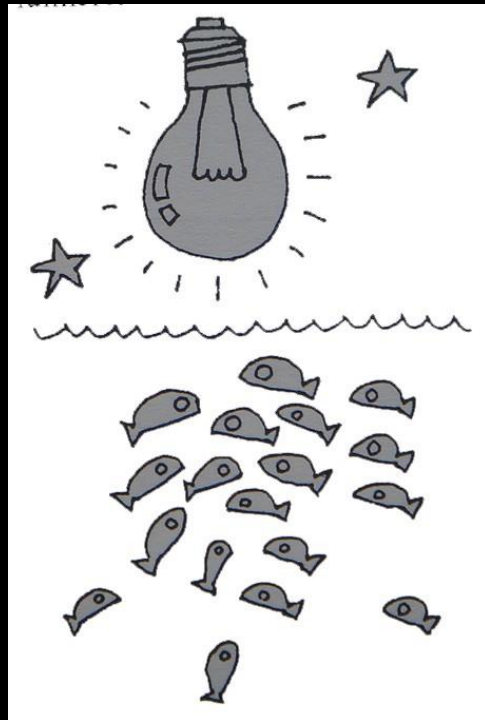


tie rope to their waists

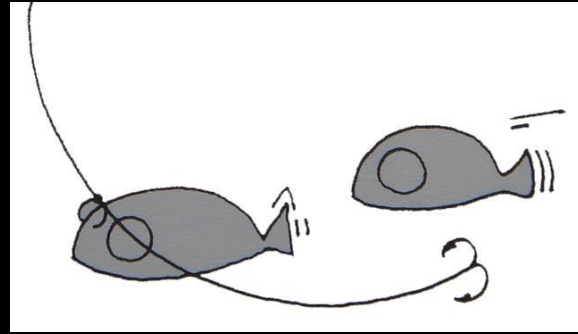
1 Elements of Fishing Methods (JICA, 1980)

1.2 Attracting or Luring

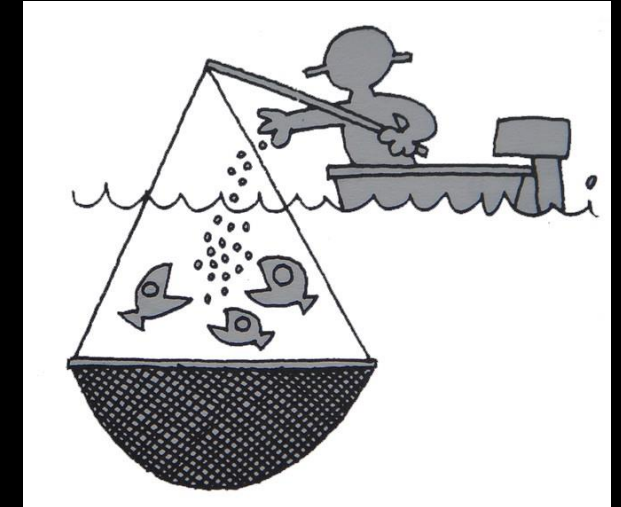
Light



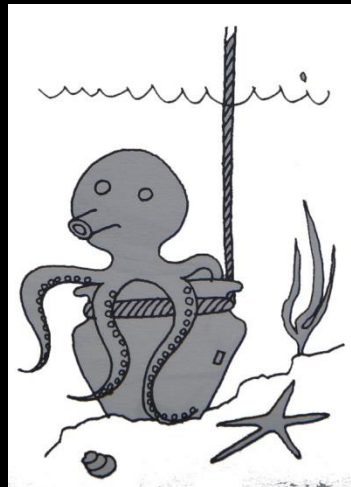
Artificial bait



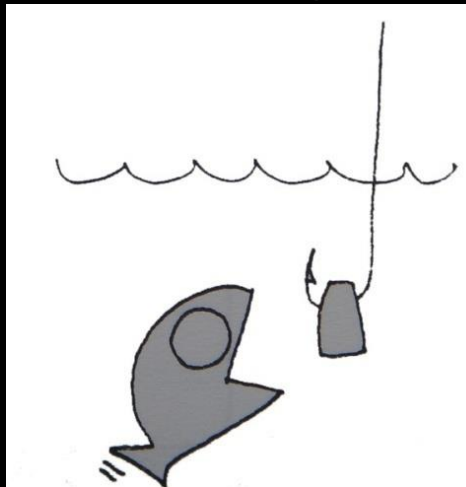
Bait scattered



Place and shelters



Baiting

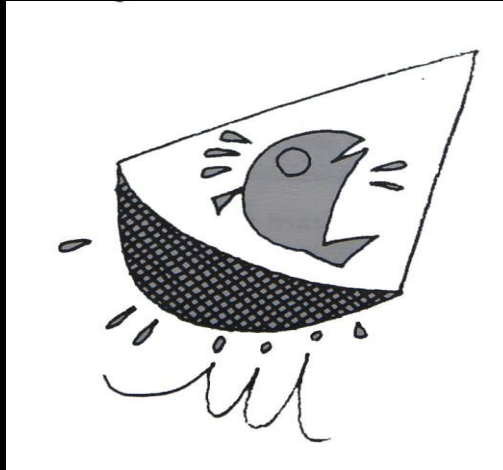


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Elements of Fishing Methods (JICA, 1980)

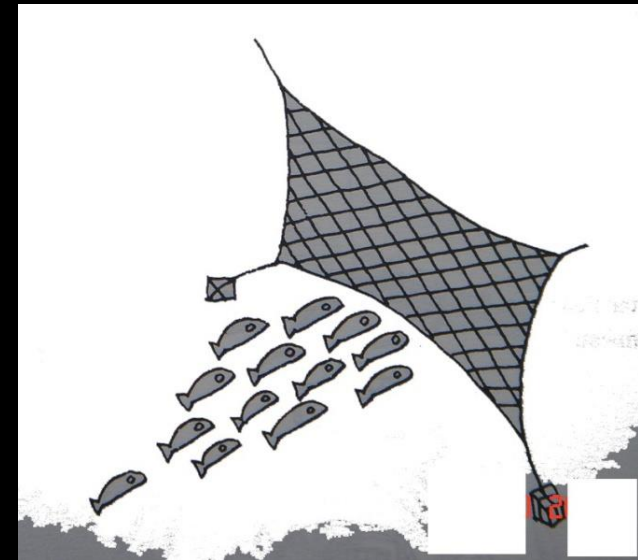
1.3 Filtering

Fish are removed from the water with nets



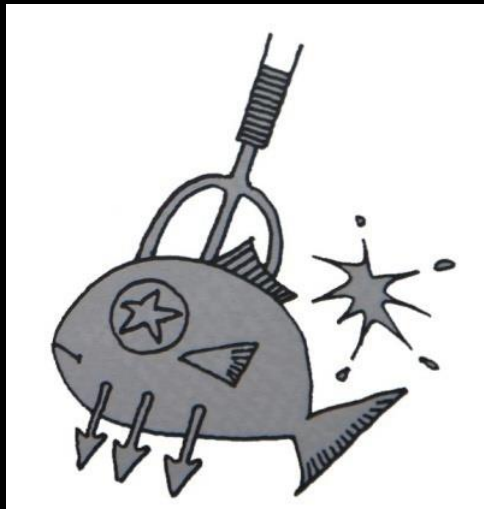
1.4 Pounding Water

A gill net is placed in the path of fish



1.5 Direct Methods

Violent methods such as stab, etc.

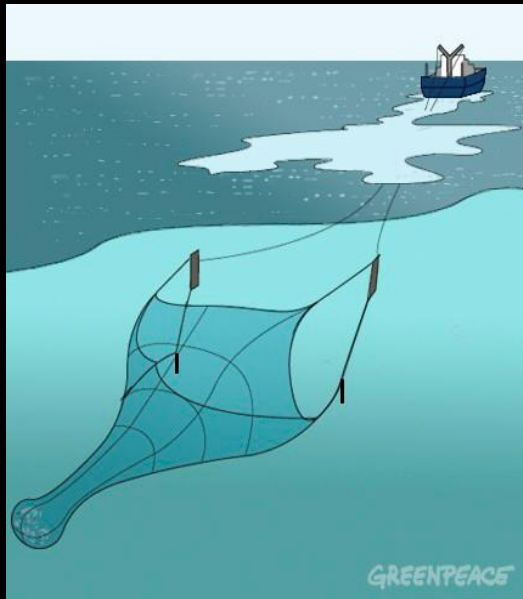


2 Fishing Gear Classifications

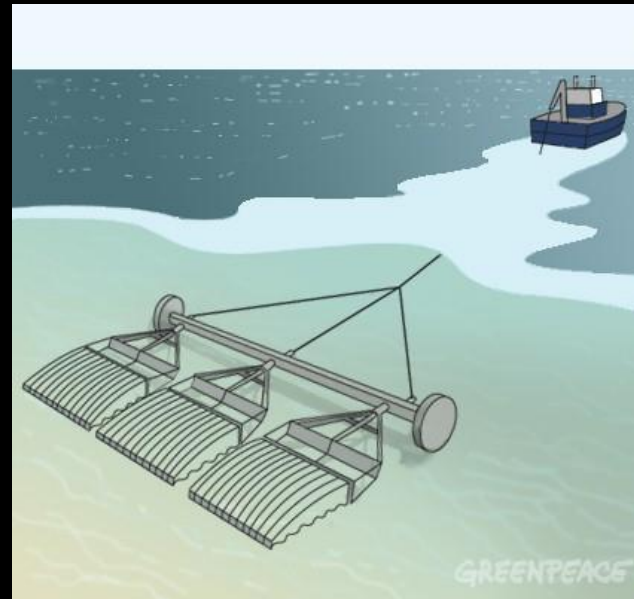
2.1 Fish Behavior and Fishing Mechanism

➤ Active Fishing Gear

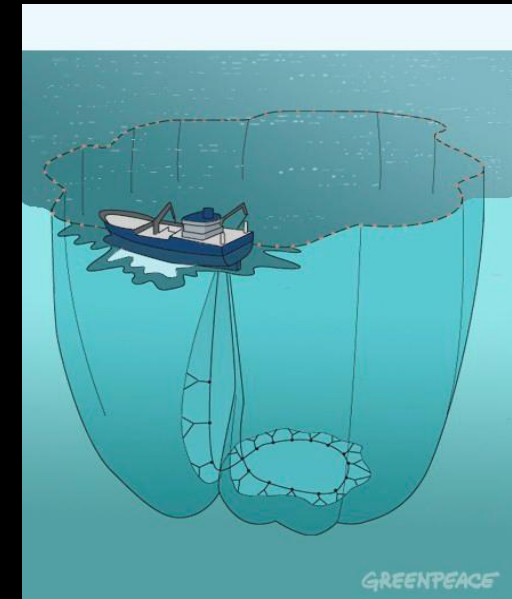
- A fishing device have to be moved, dragged, or towed in order to catch fish by trapping or encirclement
- Usually requires engine-propelled boats
- Designed to chase and capture target species



Trawls



Dredges



Purse Seine

2

Fishing Gear Classifications

2.1 Fish Behavior and Fishing Mechanism

➤ Passive Fishing Gear

- All fishing methods with static fishing gear in the water for a period before retrieval (stationary gears).
- No energy is expended on towing, pulling or dragging of gear.
- Attract fish using bait, or wait for a fish to swim into a net or trap.



Stake traps



Longlines



Fyke nets



Traps or pots



Fishing Gear Classifications

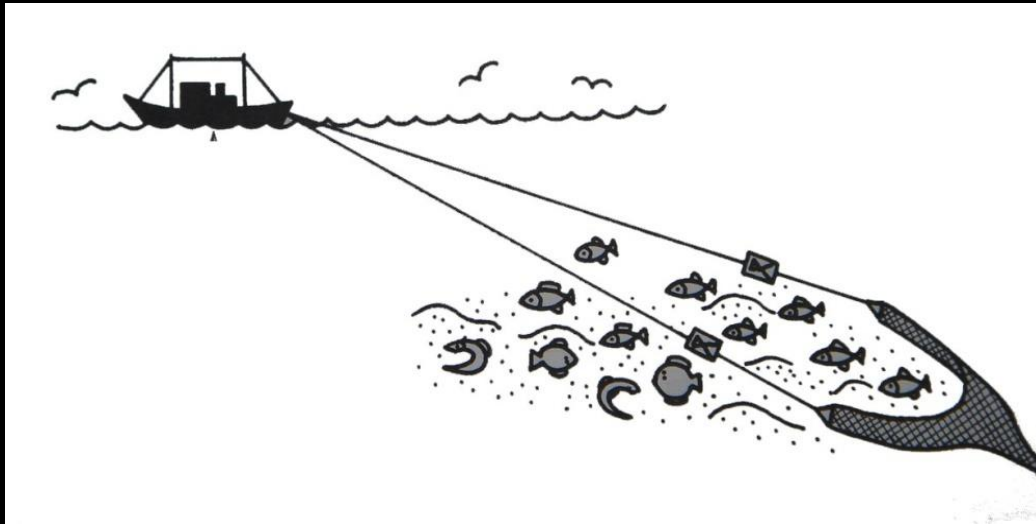
2.2 Fishing Operation

- Moveable Fishing Gears
- Stationary Fishing Gears
- Semi-Stationary Fishing Gear

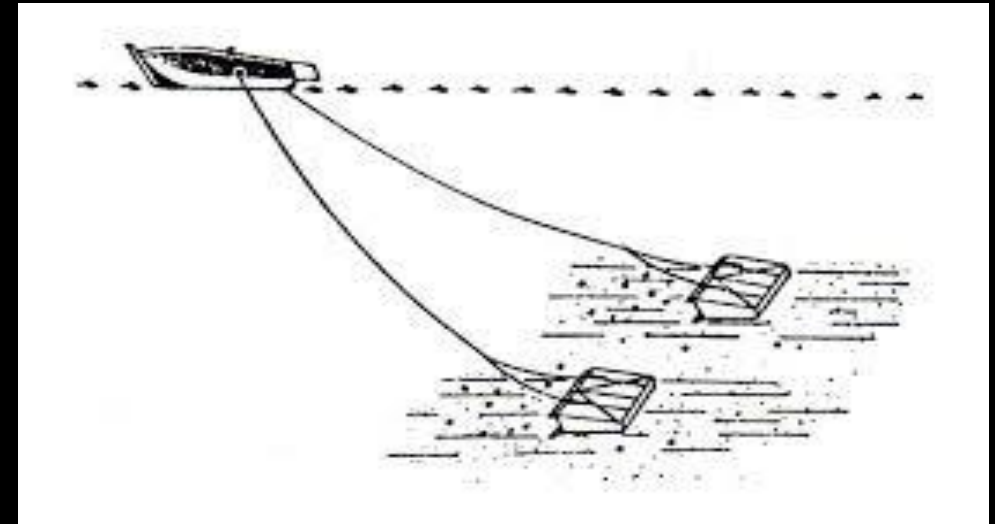
2 Fishing Gear Classifications

2.2 Fishing Operation

- Moveable Fishing Gears
 - Moving from starting position during operation
 - By wind, water current, engine



Trawlers



Dredges

2 Fishing Gear Classifications

2.2 Fishing Operation

- Stationary Fishing Gears
 - The gears those anchored or fixed to the seabed for the duration of a fishing operation
 - The frame remains in position all through its useful life



Stake traps

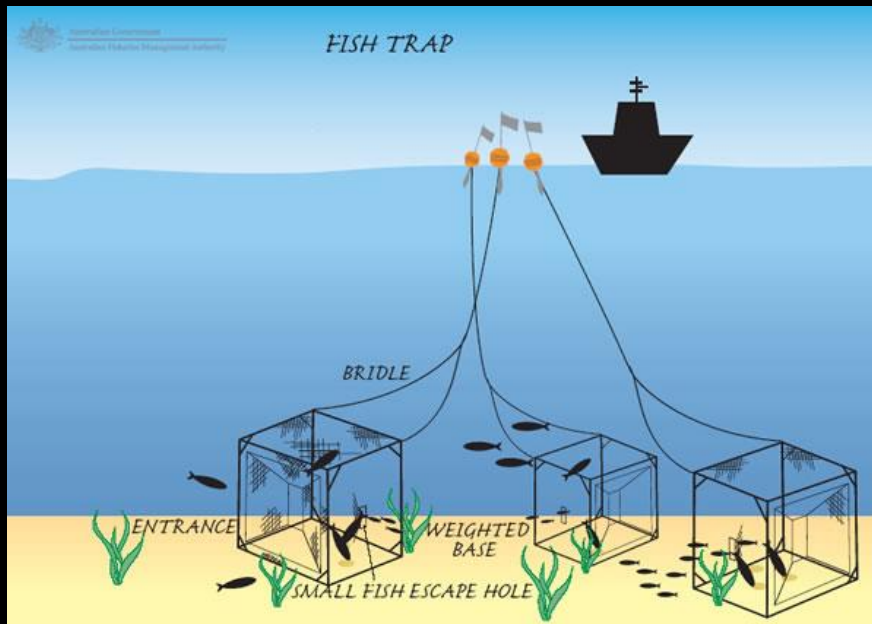


Fyke nets

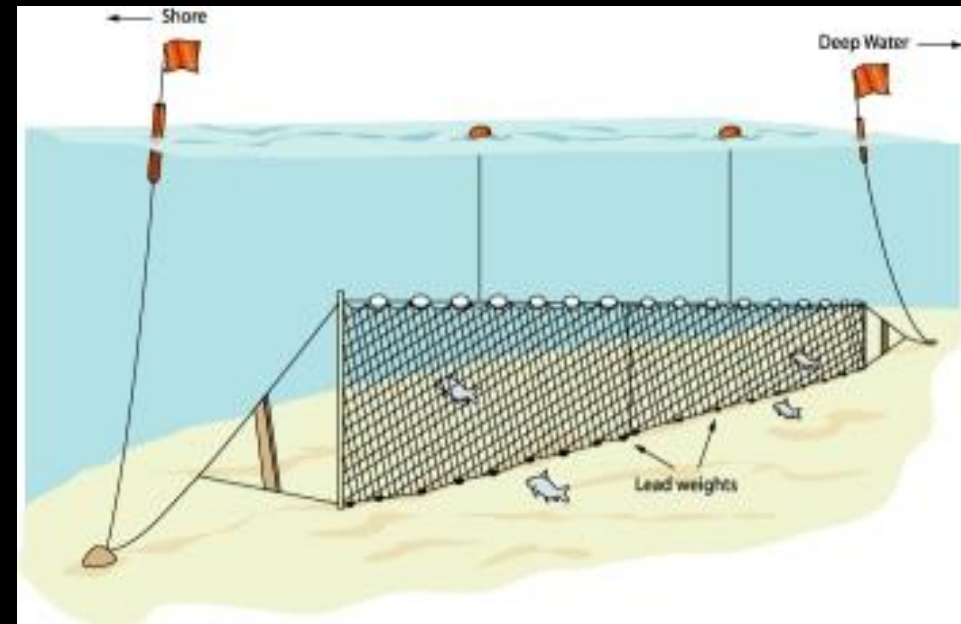
2 Fishing Gear Classifications

2.2 Fishing Operation

- Semi-Stationary Fishing Gear
 - The gear will fixed until the of each operation
 - The fisherman will change the position or fishing ground when capture is finished



Traps or Pots



Bottom gillnets

2 Fishing Gear Classifications

2.3 Fishing Gear Materials

➤ Textile Fishing Gear or Net-Line Gear



➤ Non-Textile Fishing Gear





Fishing Gears and Methods in Thailand

3.1 Commercial Fishing Vessels, Thailand

- Commercial fishing boats (≥ 10 GT)
- Code number required (Regulation)



1. Fishing ground

- Gulf of Thailand = **T**
- Andaman Sea = **A**
- High Sea = **H**

2. Vessel size (GT)

- < 30 = **S**
- $30 - < 60$ = **M**
- $60 - < 50$ = **L**
- ≥ 150 = **X**

3 Fishing Gears and Methods in Thailand

3.1 Thai Fishing Vessels



3. “**Code number**” refer to the sequence number of fishing license in each size vessel groups



Fishing Gears and Methods in Thailand

3.1 Thai Fishing Vessels

4. The types of “Fishing Gear”



Gear types	Code
Trawl Net	A
Surrounding Net	B
Dredges	C
Lift Net	D
Falling Net	E
Gill Net	F
Push Net (Mysid shrimp)	G

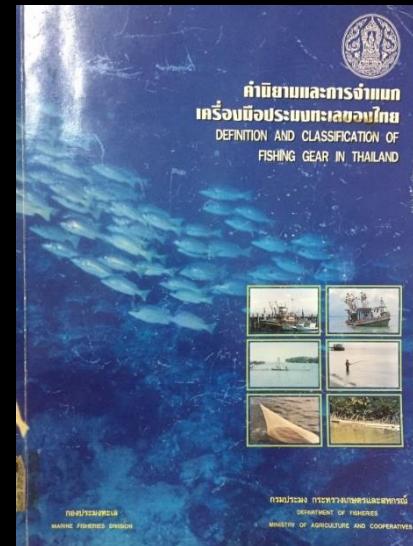
Gear types	Code
Trap	H
Hook and line	J
Others gear	K
Light boat	M



3 Fishing Gears and Methods in Thailand

3.2 Classification of Fishing Gear in Thailand

1. อวนล้อมจับ (Surrounding Nets)
2. อวนกางกั้นแล้วลาก (Seine Nets)
3. อวนลาก (Trawl Nets)
4. คราด (Dredges)
5. อวนช้อน หรือ อวนยก (Lift Nets)
6. อวนครอบ (Falling Nets)
7. อวนติดตา (Entangling Nets)
8. лов (Traps)
9. โพงพาง (Fyke Nets)
10. ไม้ (Bamboo Stake Traps)
11. อวนรูด (Push Nets)
12. เบ็ด (Hooks and Lines)
13. เบ็ดเตล็ด (Miscellaneous)



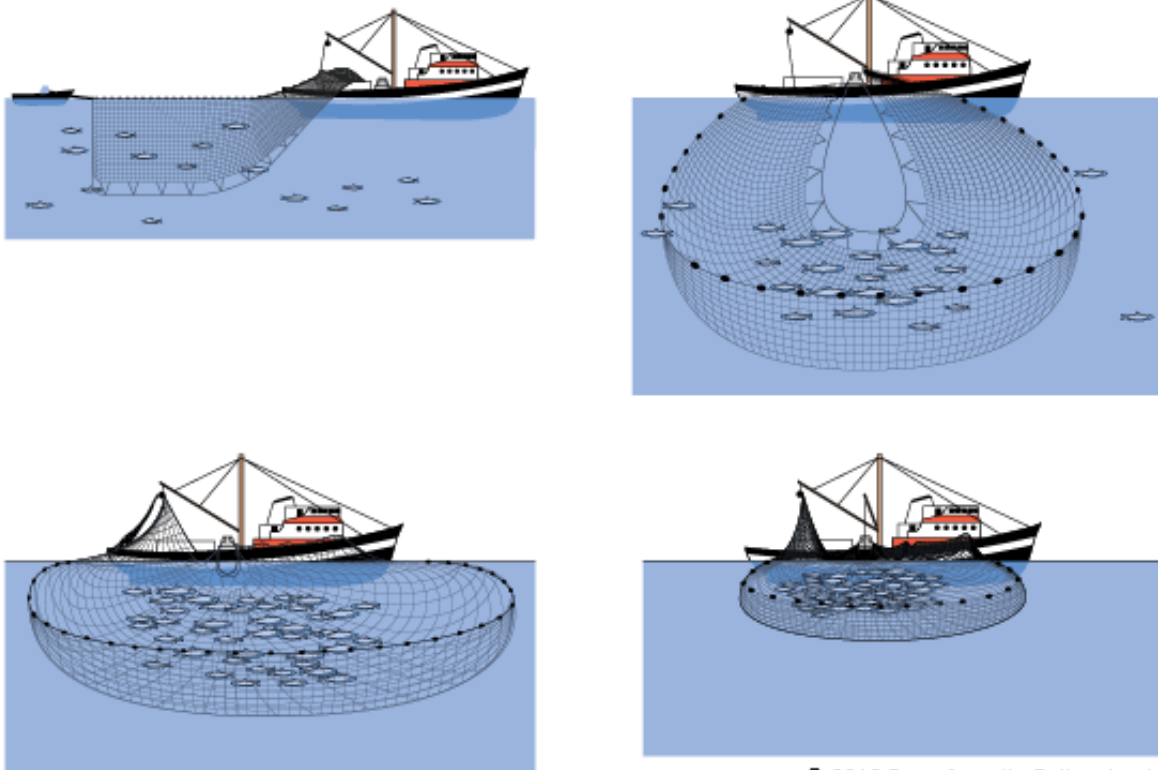


Fishing Gears and Methods in Thailand

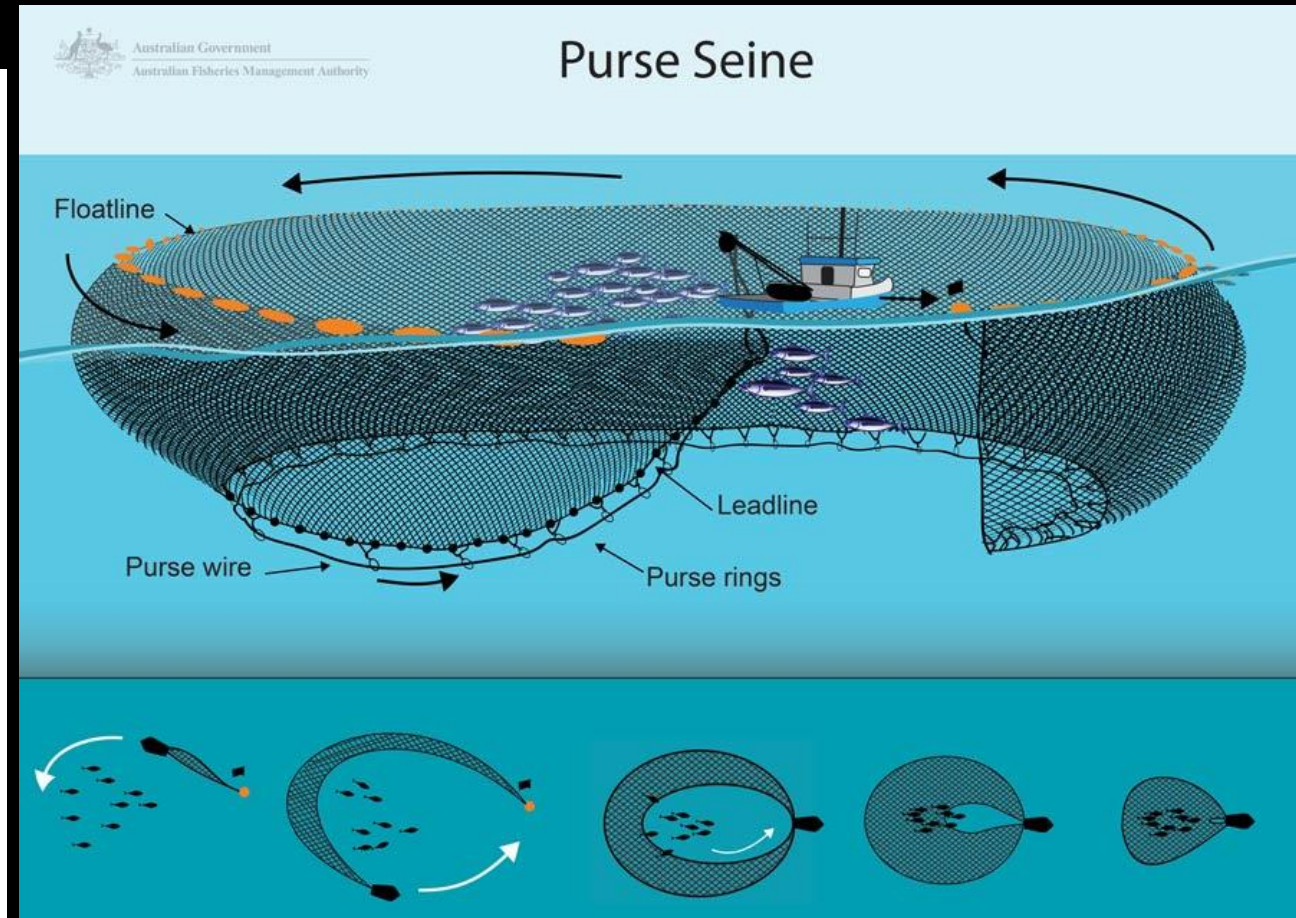
1 Surrounding Nets (Purse Seine)

A net roughly rectangular in shape without a distance bag is set vertically in water; to surround the school of fish, generally of pelagic nature.

Setting and hauling a purse seine



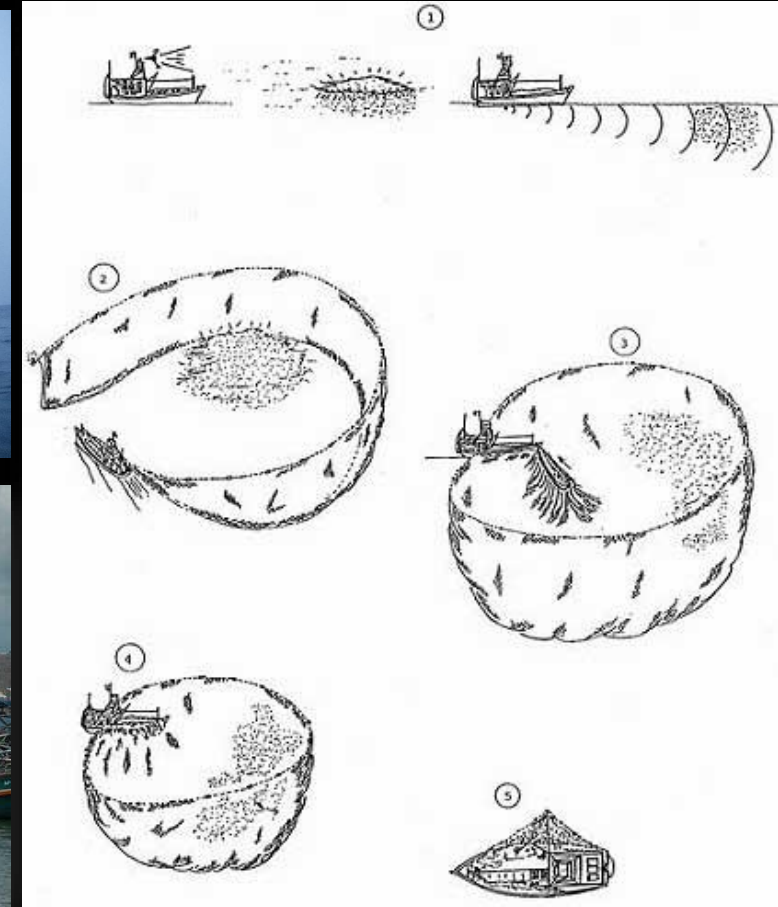
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3 Fishing Gears and Methods in Thailand

1 Surrounding Nets (Purse Seine)

- Purse seine with a purse line
 - ✓ Chinese purse seine (*Uan tang-ke*)
 - ✓ Anchovy purse seine (*Uan lom chub pla katak*)
 - ✓ Thai purse seine (*Uan daum*)
 - ✓ Luring purse seine (*Uan Sung* and *Uan tageang*)
 - ✓ Tuna purse seine (*Super seiner*)

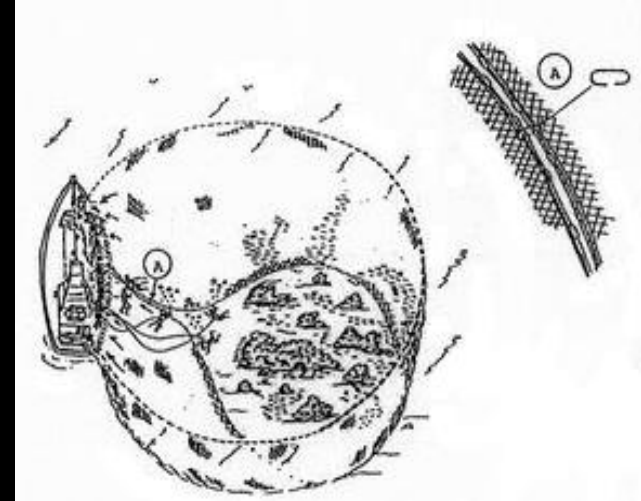
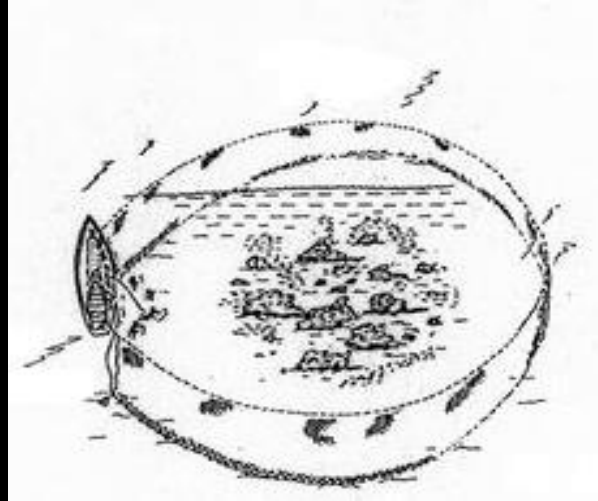
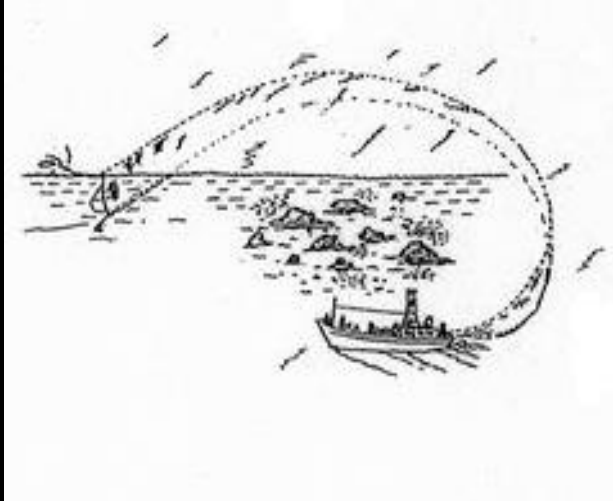




Fishing Gears and Methods in Thailand

1 Surrounding Nets (Purse Seine)

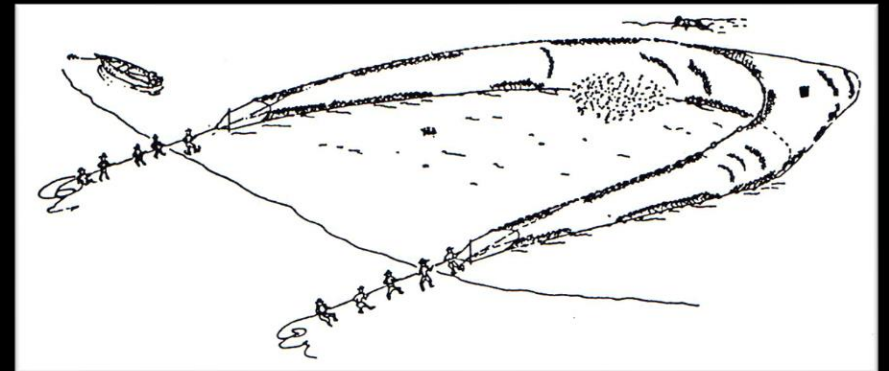
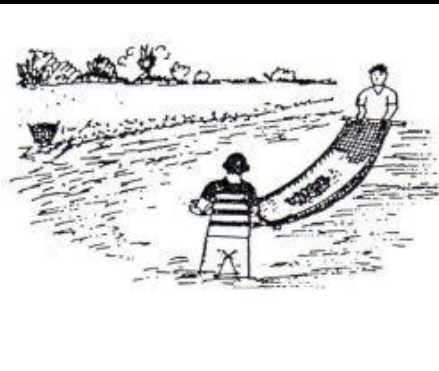
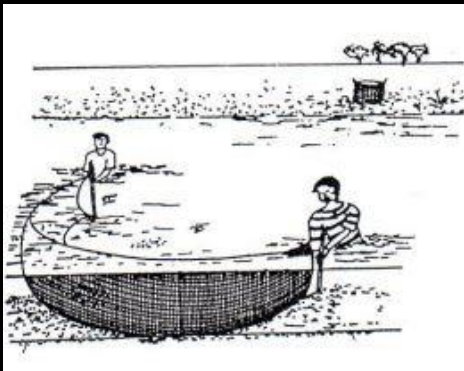
- Surrounding net without purse line
 - ✓ Anchovy surrounding net (*Uan glud takhao*)
 - ✓ Rock-fish surrounding net (*Uan lom lung hin*)



3 Fishing Gears and Methods in Thailand

2 Seine Nets

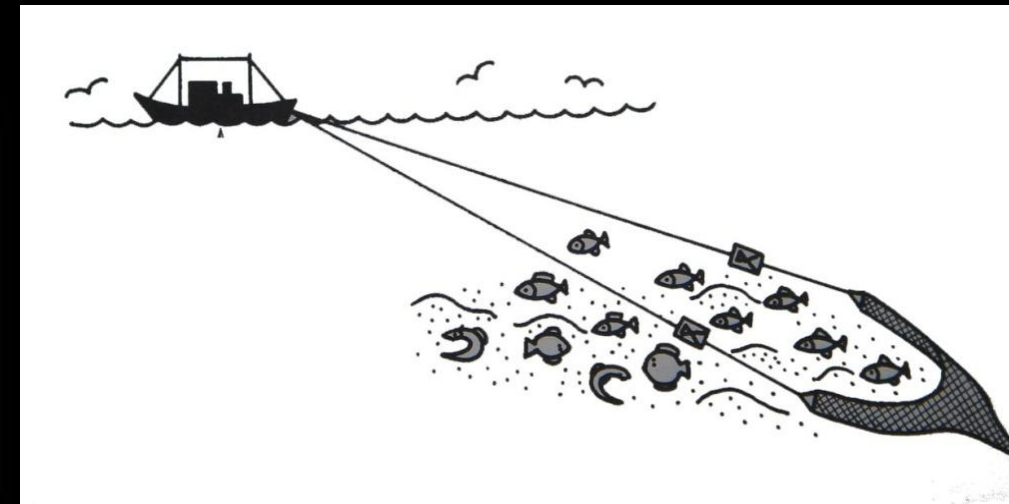
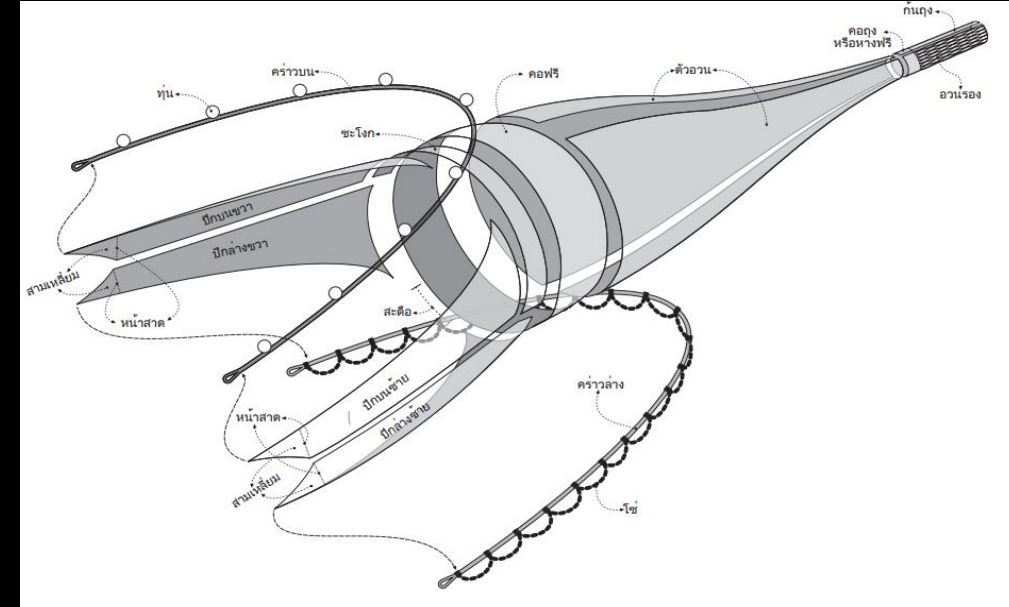
- A bag net shaped with two long wing or just a rectangular net without a bag
- The net is pulled towards a stationary boat or onto a beach
- Fishing in day-time by 4-20 men, depending on the size of net
 - Beach seine
 - Boat seine
 - One boat seine
 - Two boat seine



3 Fishing Gears and Methods in Thailand

3 Trawl Nets

- A conical bag shape-net with two or more wing
- Pulled by one or two boats for a period of time
- To catch mainly fish or other aquatic animals near the sea bed
- The most recently introduce, wide-spread and important gear in terms of production and number of fishing units

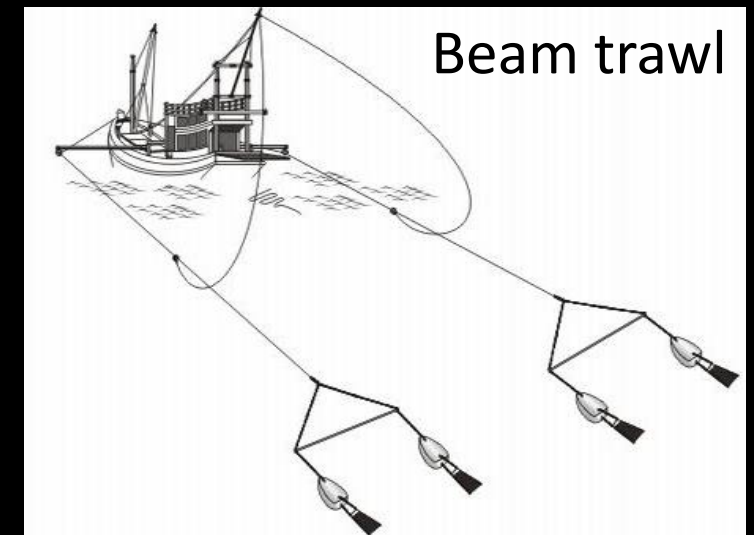
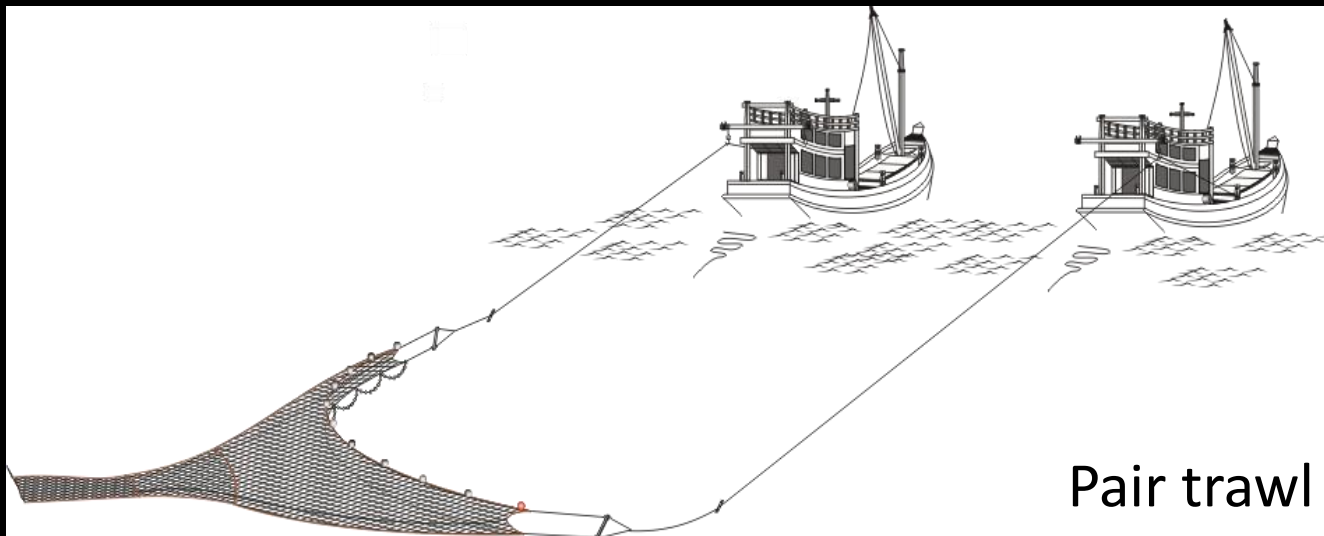
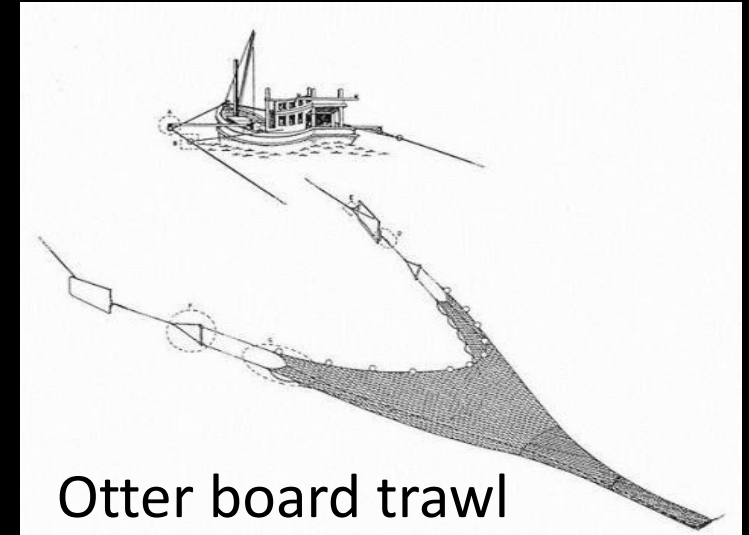




Fishing Gears and Methods in Thailand

3 Trawl Nets

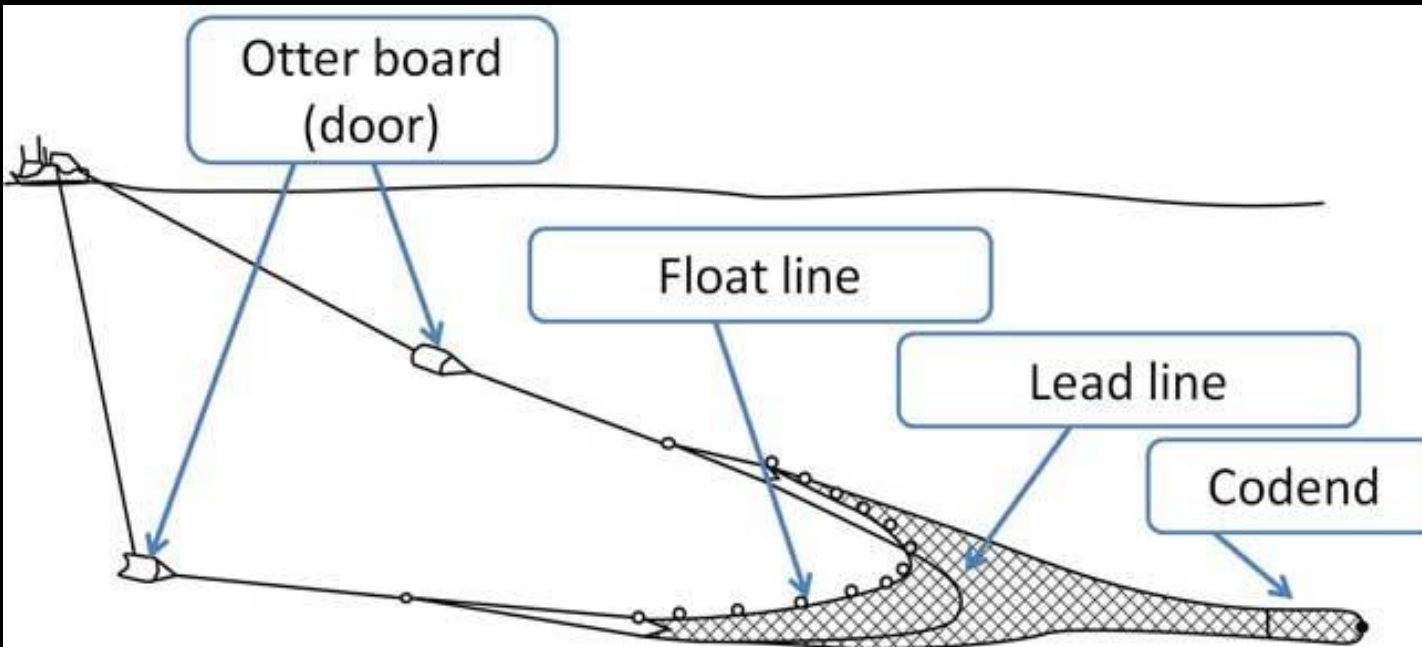
- Otter Board Trawl
- Pair Trawl
- Beam Trawl



3 Fishing Gears and Methods in Thailand

3 Trawl Nets

- Otter Board Trawl
 - The most widely operated gear in Thailand
 - Otter boards are used for horizontal spreading of the net mouth
 - There are 2 types: shrimps and fish trawl

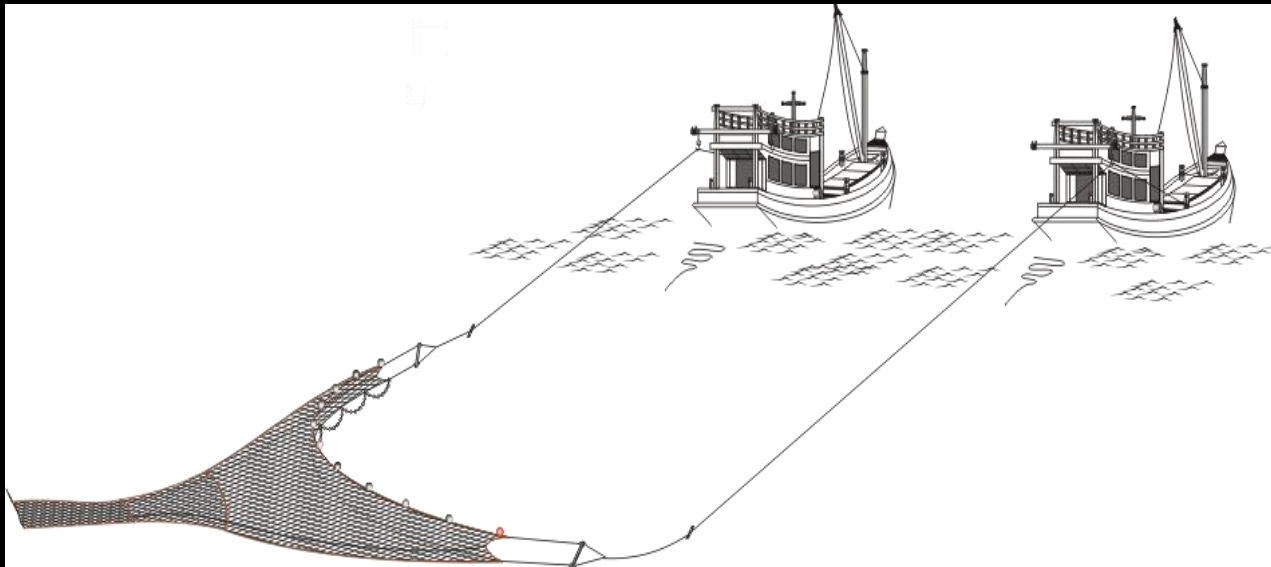




Fishing Gears and Methods in Thailand

3 Trawl Nets

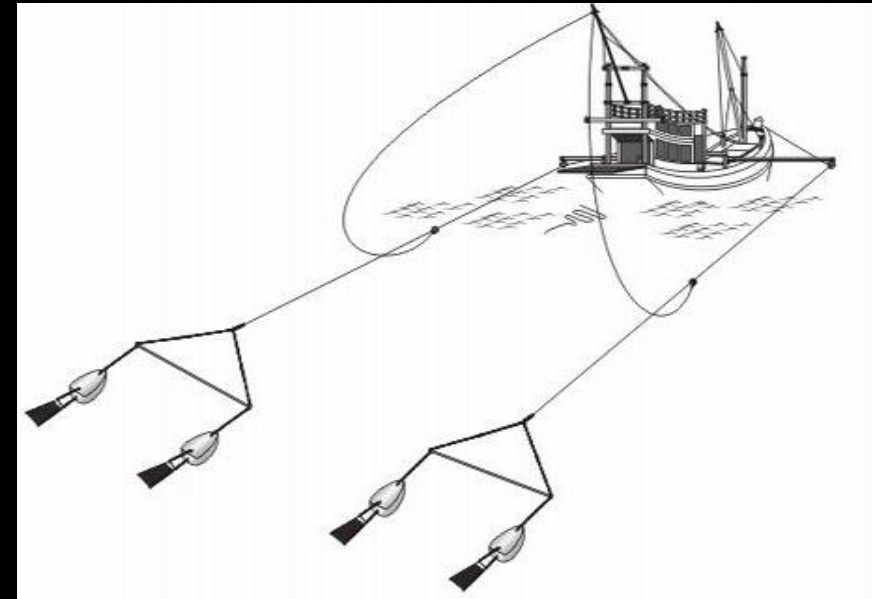
- Pair Trawl
 - The nets is towing and net mouth is kept open by outward towing of the two boats
 - Always try to keep distance between them during operation
 - Usually operated in the day-time



3 Fishing Gears and Methods in Thailand

3 Trawl Nets

- Beam Trawl
 - Using the beam to spread the net
 - Most beam are made of iron (2-4 m long)
 - Fishing ground are in shallow waters with muddy bottom
 - The principal catch are shrimps



3 Fishing Gears and Methods in Thailand

4 Dredges

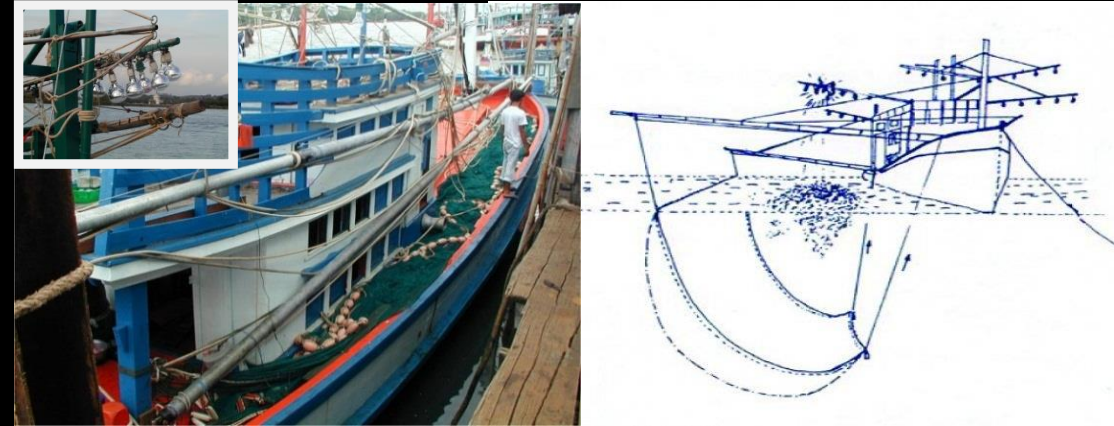
- These gear dragged along the bottom
 - To collect such as scallops, short naked clams and clams
 - The catch is held in a sort of bag or sieve which allows water, sand and mud to run out
- Short naked calm dredges
 - Ark shell dredges
 - Dredges with handle
 - Dredges without handle
 - Other dredges



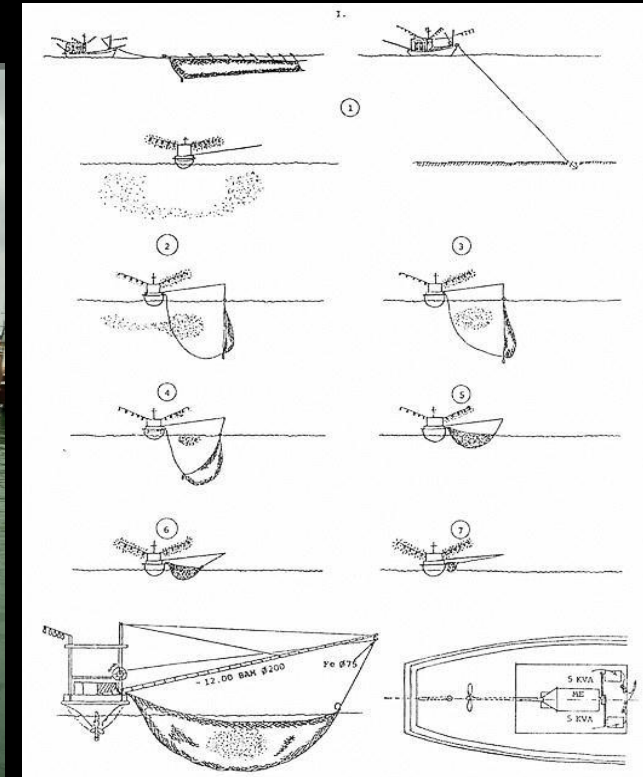
3 Fishing Gears and Methods in Thailand

5 Lift Nets

- These gear the net are square or conical
- Stretched either by rods, ropes, or a frame
- Set either at the bottom or in mid-water and then lifted to trap the fish lying above it



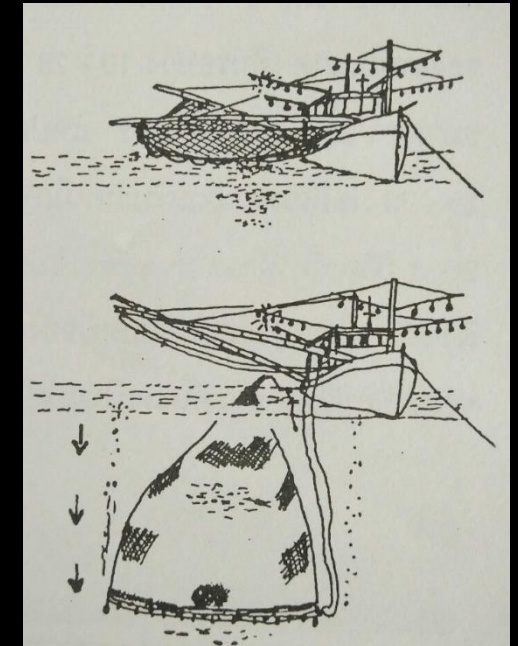
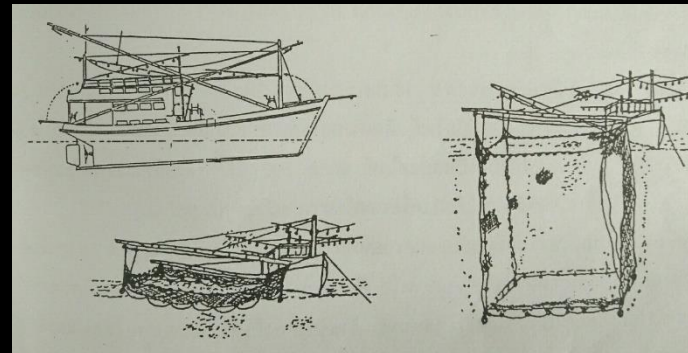
- Crab lift net
- Fish lift net
- Stationary lift net
- Stick-held dip-net



3 Fishing Gears and Methods in Thailand

6 Falling Nets

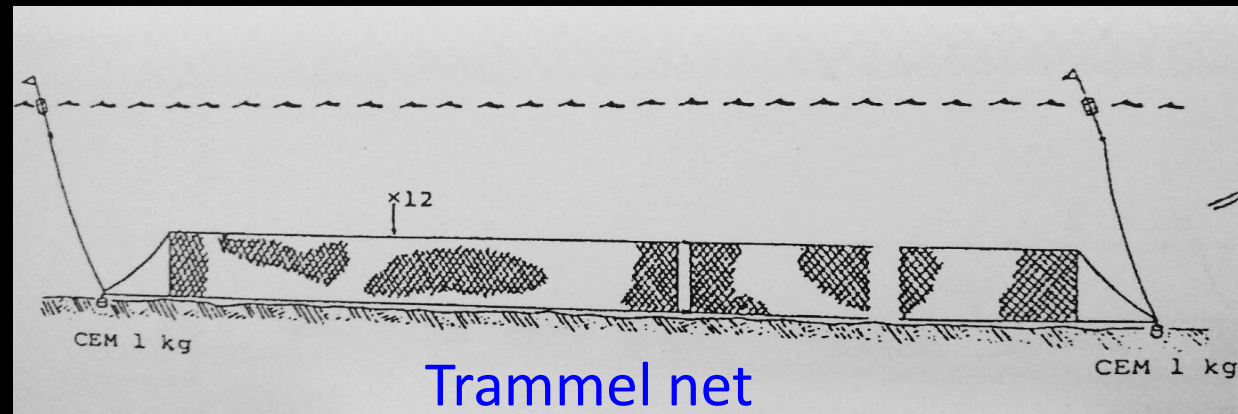
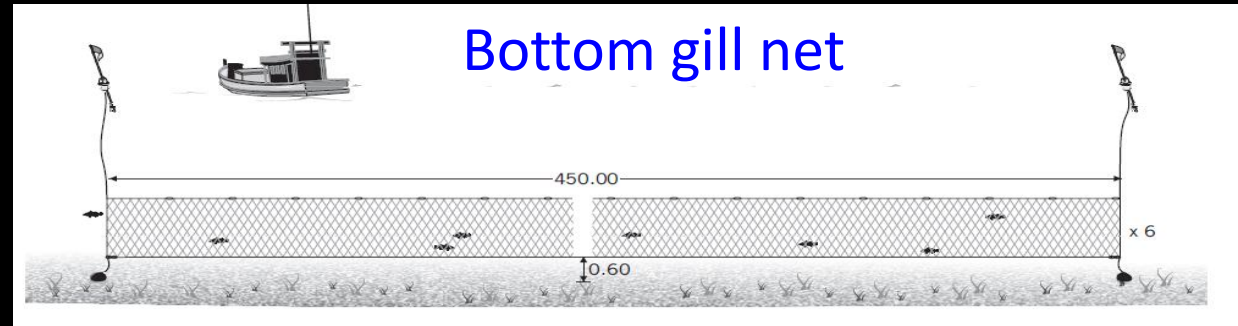
- This gear usually a cone shaped net or other material
 - Dropped to cover fishes and enclose them
- Small cast net
 - Squid cast net
 - Stick-held box net
 - Stick-held cast net



3 Fishing Gears and Methods in Thailand

7 Gill Nets

- Surface gill net
- Drift gill net
- Bottom gill net
- Trammel net
- Encircling gill net



3 Fishing Gears and Methods in Thailand

8 Traps or Pots

- Fish trap
- Squid trap
- Shrimp trap
- Crab trap
- Ivory shell traps



Fish trap



Squid trap/ Octopus pot



Shrimp trap



Crab trap



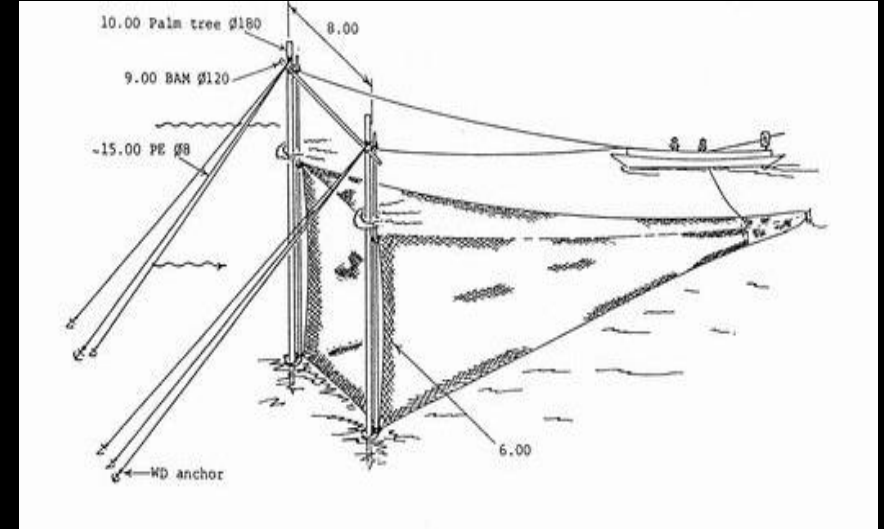
Ivory shell trap



Fishing Gears and Methods in Thailand

9 Fyke-Nets (Set bag nets)

- The net is cone-shaped, net opening varies between 3x5 and 6x10 m. and the length are 15 to 30 m.
- Operated in shallow waters 3-6 m depth to catch shrimp, planktonic shrimp and miscellaneous fish
- Operated either by day or night, from after high tide to lowest tide
- There are 2 types of fyke-nets
 - Fixed set bag nets
 - Removable set bag nets



3 Fishing Gears and Methods in Thailand

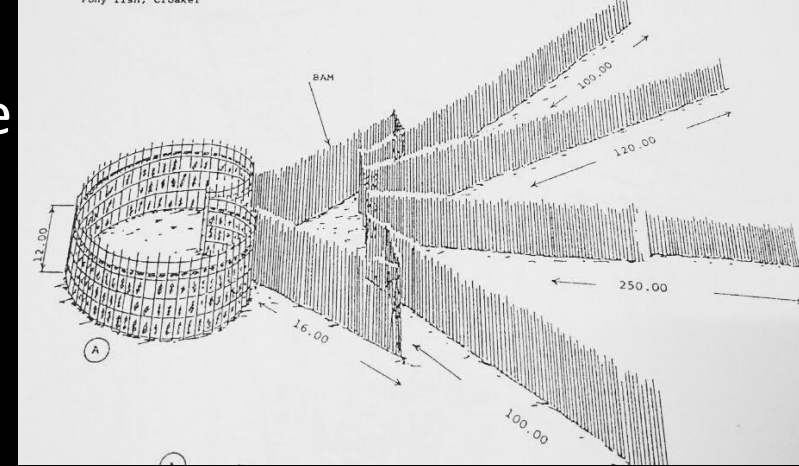
10 Stake Traps (Bamboo stake tap)

- The stationary gear used in coastal waters up to 20 m depth
- Consist of 3 parts:

Leaders (bamboo, stakes, netting); 2-5 in set to guide the fish into the trap

Playground; C-shape or triangular constructed of bamboo or wooden stakes driven into sea bed

Cod-end; Semicircular with bamboo stake frame and polyethylene net, funnel shaped to prevent the fish escaping.





Fishing Gears and Methods in Thailand

11 Push Nets

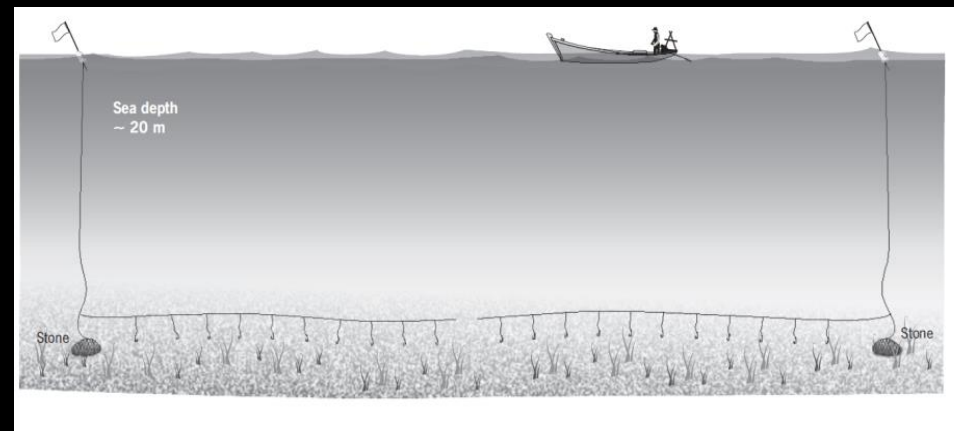
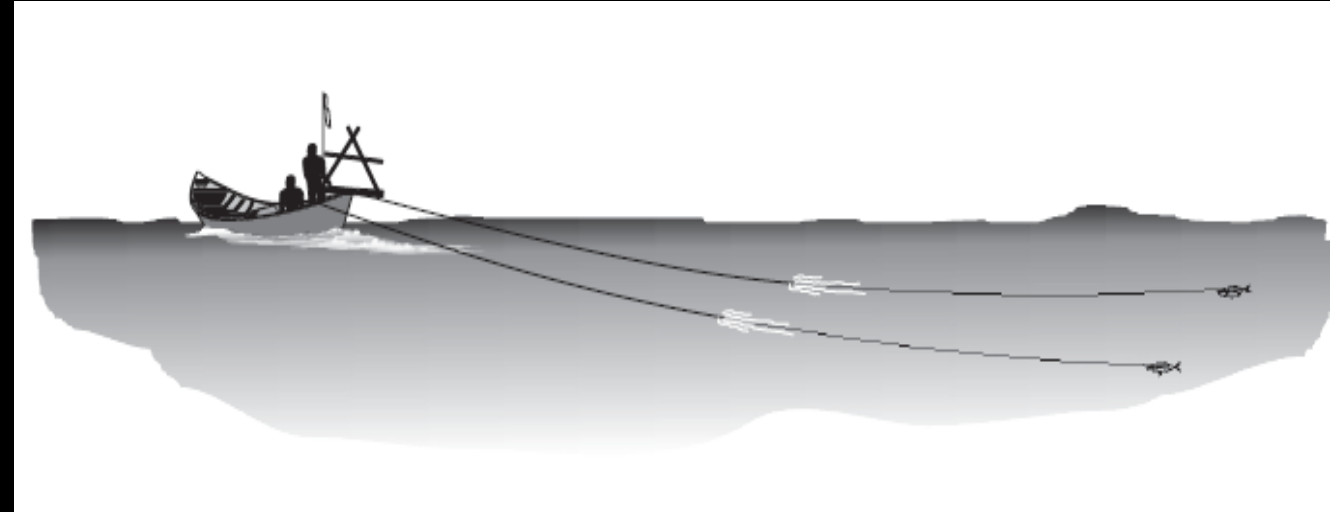
- Consisting with a bag net and two poles to keep the net open
- Hand held push net
 - A small net and can be operated by one fisherman
- Push net
 - The larger net and pushed by engine
 - The net has 3 distinct parts: upper and lower part, and the cod-end
 - The poles are either bamboo or iron pipe, 4-60 m long



3 Fishing Gears and Methods in Thailand

12 Hook and Line

- Handlines and pole & lines
- Trolling lines
- Long lines



Thank you