

Preliminary Survey on Freshwater Fish Farming Improvement and Extension Project (Phase2)
Field Visit and Interview Record

F-11 Mith Phan (Seed Producer)

01/06/2010 13:45 ~ 16:00 by Siv Cheang

Age: 49, Male, Primary school Kbal Thnal Village, Prey Khpos Commune, Bavel District, BB
Natural Condition: Plain, Paddy field Soil water retention: Good (Clayey)

----- Fish Farming Activity -----

Experience in fish farming: since 2003 (7 years) Fishpond: 7 ponds, 1,300 m² Duration: Year round
Reason: Consumption Training: Yes (IPM project + ECOSORN) Material support: Yes (IPM+ECOSORN)
Extension service: No Rice field connection: Yes
Record book: No Labor: No Plan: Increase Fill: Rain, Pump (Well) Drain: Pump
Species: Silver barb, Common carp, Tilapia, Mrigal Polyculture: Yes
Production: 500 kg/year Sale: 500,000 Riel/year at @7,000/kg
Seeds: Government station Prices: 100 Riel/head
Feed: Rice bran, Kitchen waste, Vegetable waste (Paid) Fertilizing: Commercial fertilizer, Cow dung, Green manure (paid)
Technical constraints: stunted growth, disease Financial constraints: For ponds and hatchery tanks
Interest in fish culture by neighbors: Yes because of insufficient fish due to pesticide use in rice field. But no budget for dogging ponds

----- Seed Production Activity -----

Experience: 2005 (5 year) Reason: Supply fingerlings to villagers who face scarcity of fish
Customers: >200 persons from various provinces

Species produced:	Silver barb	Com. carp	Tilapia	Mrigal	Silver carp	Clarias	Pangasius	
Numbers	>50%	✓	✓	✓	0	0	0	0

Total production of the above species in 2009 = 403,000 heads

Facilities and equipment of fish seed production:	Material	Size	Quantity	Cost
Spawning tank	Cement	2.5 m dia.x0.5m	1	(part of US\$800)
Hatching tank	Cement	3 m dia.x0.5m	1	(part of US\$800)
Nursery tank (moina tank)	Cement	3x5x0.5m ³	2	US\$150
Nursery pond	Earthen	8 x2x1m ³	4	
Brood stock pond	Earthen	1 0x11x2.5 m ³	1	(part of US\$800)
Water storage tank (overhead)	Cement	1 m dia. x 2.5m	4	
Water reservoir			0	
Water pump			1	
Hapa net			2	
Seine net			1	
Generator set			0	
Well			1	
Multipurpose tank	Cement	4x4x1m ³	1	US\$60

Total investment for facilities:): US\$910 own funds + IPM/ECOSORN

Brood stock in possession:	Female		Male	
	Number	Total weight	Number	Total weight
Silver barb	30	15 kg	30	10 kg
Common carp	10 (♂+♀)	7 kg		
Tilapia	20	10 kg	25	6~7 kg
Mrigal	15	10 kg	20	10

Water source: Well Year-round: Yes

Larvae Feed: Homemade Brood stock feed: Homemade Hormone: SuperFat (FiA)

Farmer's Association: No Plan: Increase to meet demands for fingerlings

Technical problems: Difficult in obtaining hormone, Lack of brood stock, High mortality

Financial constraints: For a new water pump of higher capacity, larger incubation tanks



Preliminary Survey on Freshwater Fish Farming Improvement and Extension Project (Phase2)
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F-12 Vam Sinat (Seed Producer)

02/06/2010 16:10 ~ 18:30 by Chin Da

Age: 26, Male, Secondary/Diploma Ream Kun Village, Kear Commune, Mornng Rosei District, BB

Natural Condition: Plain, Paddy field Soil water retention: Good (Clayey, little sandy)

Drinking water: Rain, Pond (wet season) Bought water (dry season) Cooking fuel: Charcoal Toilet: Yes

Land holding:	Total land area (ha)	Area of paddy	Area of homestead	Area of vegetable
	2 ha	1 ha	0.1 ha	0.7 ha

House owned: Yes Roof: Tile Wall: Wood Money savings in bank: No Debt: No

Rice cropping: Single Annual production: 3.5 ~ 5 tons/year by family Irrigation: Not available

Crop cycle	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1 st Crop							P			H		

Rice farming: Rain-fed Rice variety: Improved Herbicide: Never Pesticide: Regularly

Animal/fish consumption by family:	Wet season	Dry season
Meat:Fish	40:60	40:60
Fish consumption	1 kg/day	1 kg/day

Fish purchase: Occasionally Fish availability: Scarce seasonally Household pond: Possessed (Popular in village, 40%)

Wealth: Well to do Income sources: Rice, Fish, Vegetable, Fruits (mango)

Interest in fish farming: High because of decrease in wild fish catch, increased demands in market

Fish farmers in the village total households: 1 ~ 10% Fish seed: Available but not enough

----- **Fish Farming Activity** -----

Experience in fish farming: since 2006 (5 years) Fishpond: 16 ponds, 2,000 m² Duration: Seasonal (Aug ~ April)

Reason: Consumption Training: Yes (ECOSORN) Material support: Yes (ECOSORN)

Extension service: Yes (FIAC, ECOSORN) Rice field: No

Record book: Yes Labor: Family Plan: Increase Fill: Rain Drain: Pump

Species: Silver barb, Common carp, Silver carp, Tilapia, Mrigal, Clariid catfish, Rohu Polyculture: No

Production: 500 kg/year Sale: 4 million Riel/year (@6,000 ~ 10,000 Riel/kg)

Seeds: Own production Prices: 80 ~ 100 Riel/head Feed: Rice bran, Fish meal, Vitamin premix (Paid)

Fertilizing: Commercial fertilizer, Cow dung, Chicken manure (No pay)

Technical constraints: None Financial constraints: For feed materials

Interest in fish culture by neighbors: Yes because they observed his success

----- **Seed Production Activity** -----

Experience: 2007 (4 year) Reason: because of no seed fish availability in villages but farmers were imported fingerlings from Phnom Penh and Vietnam, also ECOSORN support for fingerlings in 2009. Customers: 30 persons

Species produced:	Silver barb	Com. Carp	Tilapia	Mrigal	Silver carp	Clarias	Pangasius	Others
Numbers	70,000	✓	0	✓	0	50,000	0	0

(Total carp species = 30,000 in 2009)

Facilities and equipment of fish seed production:	Material	Size	Quantity	Cost
Spawning tank	Cement	2.5 dia. x 1 m	1	ECOSORN
Hatching tank	Cement	3 dia.x1 m	1	ECOSORN
Nursery tank	Cement	2x5x0.8m	4	Own budget
		1.5x2x0.7m	3	
Nursery pond	Earthen	8x12x1.5m	4	ECOSORN
		8x2.5x1m	3	
Brood stock pond	Earthen	2x15x2 m	4	ECOSORN
Water storage tank (overhead)	Cement	4x5x2.5 m	1	ECOSORN
Water reservoir	Earthen	15 x30x3m	1	Own labor
Water pump	18cc		1	Own budget
Hapa net		4x5x1m	4	Own budget
Seine net		20x4	2	ECOSORN
Generator set			0	
Well			0	

Total investment for facilities and equipment: 17,400 Riel by himself (US\$4,250)+ ECOSORN support

Brood stock in possession:

	Female		Male	
	Number	Total weight	Number	Total weight
Silver barb	100	- kg	150	50 kg (♂+♀)
Common carp	5	- kg	5	10 kg (♂+♀)
Tilapia	7	- kg	13	4 kg (♂+♀)
Mrigal	15	- kg	15	15 kg (♂+♀)
Silver carp	3	- kg	2	3 kg (♂+♀)
African Clariid catfish	20	- kg	30	15 kg (♂+♀)
Rohu	10	- kg	10	5 kg (♂+♀)
Local Clariid catfish	600	- kg	0	40 kg (♂+♀)

Water source: Rain seasonal from July to October

Larvae feed: Homemade + Commercial feeds

Brood stock feed: Homemade + commercial feed

Hormone: SuperFat, OVAPRIM (DAD)

Farmer's Association: Yes (established by ECOSORN based in Siem Reap, currently 3 members)

Plan: Increase

Technical problems: Disease, high mortality

Financial problem: For 4 nursery tanks and shade for the nursery tanks



Preliminary Survey on Freshwater Fish Farming Improvement and Extension Project (Phase2)
Field Visit and Interview Record

F-13 Mao Pek (Seed Producer)

03/06/2010 16:05 ~ 17:20 by Chin Da

Age: 40, Male, Secondary/Diploma Tuol Ta Sokh Village, Bansay Treang Commune, Thma Koul District, BB

Natural Condition: Plain, Paddy field Soil water retention: Good (Clayey, little sandy)

Drinking water: Dug well, Rain (wet season) Dug well, Rain, pond (dry season) Cooking fuel: Firewood Toilet: Yes

Land holding:	Total land area (ha)	Area of paddy	Area of homestead	Area of vegetable
	6 ha	5 ha	0.3 ha	0.3 ha

House owned: Yes Roof: Iron sheet Wall: Wood +Thatch Money savings in bank: No Debt: No

Rice cropping: Double Annual production: - tons/year by family Irrigation: Available just enough

Crop cycle	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1 st Crop					P						H	
2 nd Crop				P				H				

Rice farming: Rain-fed + Irrigation Rice variety: Improved + Indigenous Herbicide: Regularly Pesticide: Regularly

Animal/fish consumption by family:	Wet season	Dry season
Meat:Fish	10:90	30:70
Fish consumption	0.5 kg/day	0.3 kg/day

Fish purchase: Never Fish availability: Scarce seasonally Household pond: Possessed (Popular in village, 70%)

Wealth: - Income sources: Rice, Fish

Interest in fish farming: High because of family consumption, reduce budget for buying fish, decline in wild fish catch,

Fish farmers in the village total households: <10% Fish seed: Available but not enough

----- Fish Farming Activity -----

Experience in fish farming: since 1998 (12 years) Fishpond: 8 ponds, 2,000 m² Duration: Year round

Reason: Consumption Training: Yes (Village development organization, FiAC)

Material support: Yes (fingerlings by Government) Extension service: Yes (FiAC, ECOSORN) Rice field: No

Record book: Yes Labor: Family Plan: Increase Fill: Rain, Irrigation channel Drain: Pump

Species: Silver barb, Common carp, Silver carp, Tilapia, Mrigal, Clariid catfish, Giant prawn Polyculture: Yes

Production: 100 kg/year Sale: 100,000 Riel/year (@8,000 Riel/kg)

Seeds: Own production Prices: 80 ~ 100 Riel/head Feed: Rice bran, Kitchen waste, Vegetable waste, Insect (Paid)

Fertilizing: Commercial fertilizer, Cow dung, Chicken manure, Green manure (Yes for Urea and DAP)

Technical constraints: Slow growth and mortality Financial constraints: None

Interest in fish culture by neighbors: Yes because there is program of aquaculture development by FiAC

----- Seed Production Activity -----

Experience: 2009 (1 year) Reason: Income generation, promote fish culture to villages Customers: 20 persons

Species produced:	Silver barb	Com. Carp	Tilapia	Mrigal	Silver carp	Clarias	Pangasius	Others
Numbers	44,500		5,000	5,000	0	0	0	0

Facilities and equipment of fish seed production:	Material	Size	Quantity	Cost
Spawning tank	Cement	1.4 dia. x 0.9 m	1	
Hatching tank	Cement	1.4 dia. x 0.9 m	1	
Nursery tank			0	
Nursery pond	Earthen	7x15x1m	4	
		10x15x1.5m	2	
Brood stock pond	Earthen	10x15x1.5m	3	
Water storage tank (overhead)	Cement	2.5 dia. x 1m	2	
Water reservoir	Earthen	20 x40x2m	1	
Water pump	7 cm		1	
Hapa net		4x5x1m	10	
Seine net		20x4	1	
Generator set			0	
Well			1	

Total investment for facilities and equipment: US\$4,000 by himself + FiAC support

Brood stock in possession:	Female	Male
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	Number	Total weight	Number	Total weight
Silver barb	150	- kg	300	135 kg (♂+♀)
Common carp		- kg	100	30 kg (♂+♀)
Tilapia		- kg	500	150 kg (♂+♀)
Mrigal		- kg	50	25 kg (♂+♀)
Silver carp		- kg	100	4 kg (♂+♀)
African Clariid catfish	10	5 kg		
Snakeskin gouramy	-	- kg	-	10 kg (♂+♀)

Water source: Irrigation channel, rain fall Larvae feed: Homemade Brood stock feed: Homemade + commercial feed
Hormone: SuperFat (FiA through DAD)

Farmer's Association: No Plan: Increase for increase income for children to go school

Technical problems: Lack of brood stock, high mortality, some brood stock do not spawn, low survival rate for Silver barb, mrigal, carps Financial problem: For cement breeding and hatching tanks, and digging ponds



**Preliminary Survey on Freshwater Fish Farming Improvement and Extension Project (Phase2)
Field Visit and Interview Record**

F-14 Chin Sochea (Seed Producer)

04/06/2010 10:40 ~ 13:10 by Chin Da

Age: 40, Male, Secondary/Diploma Kumru Village, Kumru Commune, Thmor Pouk District, BM

Natural Condition: Paddy field Soil water retention: Good (Clayey)

Drinking water: Rain (wet season) Rain, Dug well, Public pond (dry season) Cooking fuel: Firewood Toilet: No

Land holding:	Total land area (ha)	Area of paddy	Area of homestead	Area of vegetable
	2.5 ha	0.48 ha	0.1 ha	0.6 ha (Fishponds)

House owned: Yes Roof: Iron sheet Wall: Wood Money savings in bank: No Debt: Yes

Rice cropping: Single Annual production: Not growing rice Irrigation: Not available

Crop cycle	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1 st Crop					P						H	

Rice farming: Rain-fed Rice variety: Improved Herbicide: Never Pesticide: Never

Animal/fish consumption by family:	Wet season	Dry season
Meat:Fish	20:80	50:50
Fish consumption	3 kg/day	1 kg/day

Fish purchase: Occasionally Fish availability: Scarce seasonally Household pond: Possessed

Wealth: Ordinary Income sources: Fish and fingerlings only

Interest in fish farming: High because of high demand in market and easy to get cash

Fish farmers in the village total households: 1~10 % Fish seed: Available cheaply and sufficiently

----- Fish Farming Activity -----

Experience in fish farming: since 1995 (15 years) Fishpond: 8 pond for grow-out of catfish, 906 m²

Duration: Seasonal in two crops (November ~ February and January ~ April)

Reason: Mainly for selling Training: Yes (Learned in refugee camp in Thailand in 1989 ~ 1992) Material support: No

Extension service: Yes (FIAC) Rice field: Yes before but no now because all land converted to fishponds

Record book: Yes Labor: Family (4) Plan: Increase Fill: Rain Drain: Pump

Species: Clarias catfish Polyculture: No Production: 1,020 kg/year (750 + 270 kg in two crops)

Sale: 8 million Riel/year (@8,000 riel/kg x 1020 kg = 8,160,000 Riel)

Seeds: Own seeds Prices: 80 ~ 100 Riel/head Feed: Commercial Feed (Paid) Fertilizing: Never (No pay)

Technical constraints: Disease, water quality Financial constraints: For feeds

Interest in fish culture by neighbors: Yes for catfish farming

----- Seed Production Activity -----

Experience: 1995 (15 year) Reason: Like to do, income, high demands Customers: 600 persons in various provinces

Species produced:	Silver barb	Com. Carp	Tilapia	Mrigal	Silver carp	Clarias	Pangasius	Others
Numbers	700,000	✓	✓	✓	✓	>500,000	0	0

Total carp species (common carp, mrigal, and silver carp) = 200,000 in 2009, Total overall in 2009 = 1,430,000 heads

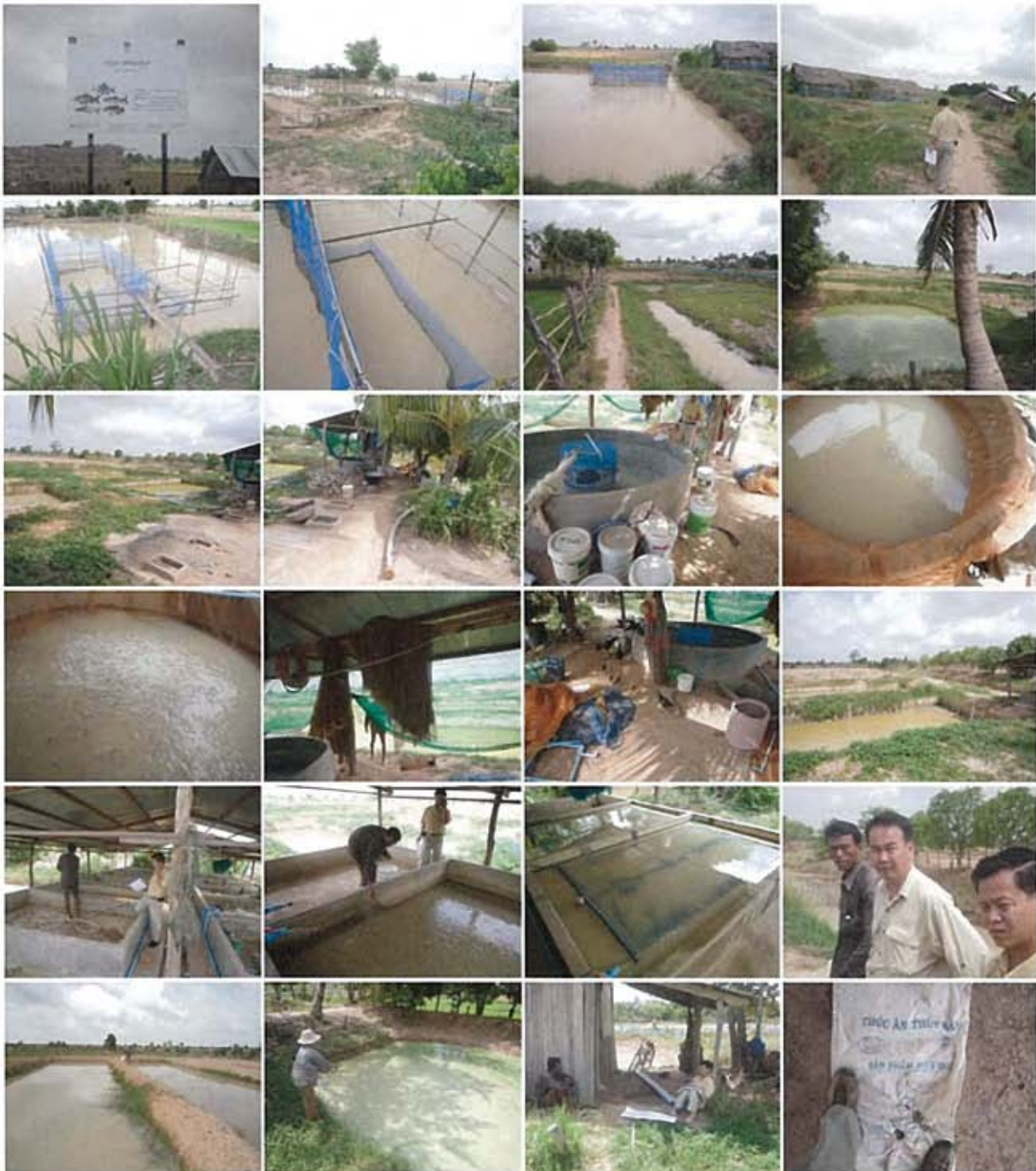
Facilities and equipment of fish seed production:	Material	Size	Quantity	Cost
Spawning tank	Cement	2 dia. x 0.7 m	1	
Hatching tank	Cement	3 dia. x 0.8m	1	US\$200
Nursery tank	Cement	2 x 3 x 0.6 m	12	
Nursery pond	Earthen	8 x 7 0.8 m	15	
Brood stock pond	Earthen	43 x 6 x 1.5 m 12 x 6 x 1.5 m	2 2	US\$500
Water storage tank (overhead)	Earthen	2.5 x 2.5 x 3 m	1	
Water reservoir	Earthen	45 x 50 x 4 m 40 x 25 x 4 m 35 x 18 x 4 m	1 1 1	
Water pump		8 cm diameter	3	
Hapa net		2 x 3 x 1.8 m	17	US\$150
Seine net		40 x 6 & 3 m	2	
Generator set		18 cc	1	US\$360
Well			0	

Total investment for facilities and equipment: US\$7,835

Brood stock in possession:

	Female		Male	
	Number	Total weight	Number	Total weight
Silver barb	500	- kg	600	330 kg (♂+♀)
Common carp	120	- kg	67	150 kg (♂+♀)
Tilapia (nilotica)	380	- kg	130	128 kg (♂+♀)
Mrigal		- kg		400 kg (♂+♀)
Silver carp		- kg		400 kg (♂+♀)
African clariid catfish	(400)	- kg		250 kg (♂+♀)
Local clariid catfish		- kg		220 kg (♂+♀)
Snakeskin gouramy				33 kg (♂+♀)
Pangasius catfish				33 kg kg (♂+♀)

Water source: Pond (turbid) Larvae feed: Homemade & commercial Brood stock feed: Homemade & commercial
 Hormone: SuperFat, OVAPRIM (DAD) Farmer's Association: Yes (organized by FiAC and ECOSORN) Plan: Increase
 Technical problems: Tilapia sex-reverse and pangasius breeding Financial problem: For well (US\$1500~2000, 60 m deep)



**Preliminary Survey on Freshwater Fish Farming Improvement and Extension Project (Phase2)
Field Visit and Interview Record**

F-15 Than Phirun (Seed Producer)

05/06/2010 08:25 ~ 10:40 by Chin Da

Age: 49, Male, Lower Secondary Sdei Leu Village, Koy Maeng Commune, Mongkol Burei District, Bantey Meanchey

Natural Condition: Plain, Paddy field, River side Soil water retention: Middle (Clayey/Rocky)

Drinking water: Rain, Pond (wet season) Pond (dry season) Cooking fuel: Firewood Toilet: No

Land holding:	Total land area (ha)	Area of paddy	Area of homestead	Area of vegetable
	1.58 ha	0.9 ha	0.1 ha	0.6 ha (Forest)

House owned: Yes Roof: Iron sheet Wall: Wood Money savings in bank: No Debt: Yes

Rice cropping: Double cropping Annual production: 4 tons/year by family Irrigation: Not available

Crop cycle	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1 st Crop					P			H				
2 nd Crop	H								P			H

Rice farming: Rain-fed Rice variety: Improved Herbicide: Regularly Pesticide: Never

Animal/fish consumption by family:	Wet season	Dry season
Meat:Fish	10:90	10:90
Fish consumption	1 kg/day	1 kg/day

Fish purchase: Occasionally Fish availability: Scarce always Household pond: Possessed

Wealth: Ordinary Income sources: Fish, Rice, Trading shop, Electrician

Interest in fish farming: High because of TV& FIAC promotion for aquaculture techniques

Fish farmers in the village total households: >10 % Fish seed: Available but not enough

----- Fish Farming Activity -----

Experience in fish farming: since 2009 (1 year) Fishpond: 1 pond, 900 m² Duration: Year round

Reason: Consumption & Selling Training: Yes Material support: No Extension service: No Rice field: No

Record book: Yes Labor: Family Plan: Increase Fill: Rain, Irrigation channel Drain: Pump

Species: Silver barb, Common carp, Tilapia, Mrigal, Clariid catfish Polyculture: Yes

Production: 230 kg/year Sale: 845,000 Riel/year

Seeds: Private + FIAC Prices: 70 ~ 80 Riel/head Feed: Commercial feed, Rice bran, Vegetable waste,

Fish meal (Yes) Fertilizing: Never (no pay)

Technical constraints: None Financial constraints: None

Interest in fish culture by neighbors: Yes, because they observed his success, but few of them have land for digging fishponds and some ponds dug are not appropriate for fish culture.

----- Seed Production Activity -----

Experience: 2009 (1 year) Reason: Watch TV program, FIAC and DAD have called him to participate an aquaculture training on seed production Customers: 31 persons

Species produced:	Silver barb	Com. Carp	Tilapia	Mrigal	Silver carp	Clarias	Pangasius	Others
Numbers	106,000	12,400	12,800	13,000	0	0	0	0

Facilities and equipment of fish seed production:	Material	Size	Quantity	Cost
Spawning tank	Cement	2.5 dia. x 0.8 m	1	
Hatching tank	Cement	2.5 dia. x 0.7 m	1	
Nursery tank	Cement	3.2 x 3.2 x 0.5 m	1	
Nursery pond	Earthen	10 x 15 x 1 m	9	
Brood stock pond	Earthen	8 x 20 x 1.2 m	1	
Water storage tank (overhead)	Cement	2 x 3 x 1.8 m	1	
Water reservoir	Earthen	30 x 10 m ²	1	
Water pump		5.5 cc, 12cc	3	
Hapa net		2 x 4 x 1 m	4	
Seine net		10 x 4 m	2	
Generator set			1	
Well			1	

Total investment for facilities and equipment: ? Riel (=US\$?)

Brood stock in possession:

	Female		Male	
	Number	Total weight	Number	Total weight
Silver barb	-	30 kg		30 kg
Common carp		4 kg		4 kg
Tilapia		3 kg		3 kg
Silver carp	1		2	

Water source: Pond, seasonally from August to November

Larvae feed: Homemade

Brood stock feed: Homemade

Hormone: SuperFat (FiAC + DAD)

Farmer's Association: No Plan: Increase

Technical problems: High mortality for silver barb

Financial problem: For land to dig a large reservoir



**Preliminary Survey on Freshwater Fish Farming Improvement and Extension Project (Phase2)
Field Visit and Interview Record**

F-16 Khcho Phano (Fish Farmer)

05/06/2010 12:00 ~ 12:50 by Chin Da

Age: 38, Male, Lower Secondary Samraong Village, Ruessei Kraok Commune, Monglour Bourei District, BM

Natural Condition: Plain, Paddy field Soil water retention: Good (Clayey)

Drinking water: Pond (wet season) Pond (dry season) Cooking fuel: Firewood Toilet: No

Land holding:	Total land area (ha)	Area of paddy	Area of homestead	Area of vegetable
	1 ha	0 ha	0.1 ha	0.8 ha (incl. fishpond)

House owned: Yes Roof: Iron sheet Wall: Brick Money savings in bank: No Debt: No

Rice cropping: Double Annual production: no rice production

Animal/fish consumption by family:	Wet season	Dry season
Meat:Fish	20:80	20:80
Fish consumption	0.8 kg/day	0.8 kg/day

Fish purchase: Occasionally Fish availability: Scarce seasonally Household pond: Possessed (Not popular in village)

Wealth: - Income sources: Fishing lot income (secondary contractor)

Interest in fish farming: High because he likes to do fish culture, income generation

Fish farmers in the village total households: 1~10 % Fish seed: Not available

----- Fish Farming Activity -----

Experience in fish farming: since 2009 (1 years) Fishpond: 3 pond, 2000 m² Duration: Year round

Reason: Only for selling Training: No Material support: No Extension service: Yes (FIAC) Rice field: No

Record book: Yes Labor: Pay Labor (1) + family Plan: Increase because fish demand is high, fishing lot business is not reliable Fill: Stream Drain: Never

Species: Clarias, Pangasius, Tilapia Polyculture: Yes Production: 7000 kg/year (3000 kg catfish and 4000 kg pangasius) Sale: 5.6 million Riel/year (@8000 riel/kg x 7000 kg, 3.6 tons so far, yet to harvest all)

Seeds: Private hatchery Prices: 100 Riel/head (catfish), 150 riel/head (pangasius)

Feed: Homemade feed (trash fish, rice bran, cassava, maize.) commercial feed in the first month (Paid)

Fertilizing: Never (no pay)

Technical constraints: disease, mortality Financial constraints: For feed ingredients (maize, cassava)

Interest in fish culture by neighbors: Yes because they want to follow his fish culture success





**Preliminary Survey on Freshwater Fish Farming Improvement and Extension Project (Phase2)
Field Visit and Interview Record**

F-21 Reas Neung (Fish Farmer)

07/06/2010 08:40 ~ 09:50 by Chin Da

Age: 49, Female, No education Prei Village, Kouk Khipos Commune, Bantey Ampil District, OM

Natural Condition: Mountain/hill, Paddy field Soil water retention: Good (Clayey/sandy)

Drinking water: Rain, Pond (wet season) Pond (dry season) Cooking fuel: Firewood Toilet: No

Land holding:	Total land area (ha)	Area of paddy	Area of homestead	Area of vegetable
	7 ha	5 ha	0.1 ha	2 ha (forest)

House owned: Yes Roof: Iron sheet Wall: Wood Money savings in bank: No Debt: No

Rice cropping: Single Annual production: 5 tons/year by family Irrigation: Not available

Crop cycle	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1 st Crop						P					H	

Rice farming: Rain-fed Rice variety: Indigenous Herbicide: Never Pesticide: Never

Animal/fish consumption by family:	Wet season	Dry season
Meat:Fish	10:90	50:50
Fish consumption	0.5 kg/day	0.3 kg/day

Fish purchase: Occasionally Fish availability: Scarce seasonally Household pond: Possessed (Popular in village)

Wealth: Ordinary Income sources: Rice, Livestock

Interest in fish farming: High for home consumption

Fish farmers in the village total households: 1~10 % Fish seed: Not available but supported by CIDO

----- Fish Farming Activity -----

Experience in fish farming: since 2005 (5 years) Fishpond: 1 pond, 100 m² Duration: Year round

Reason: Consumption Training: Yes (CIDO) Material support: Yes (CIDO) Extension service: No

Rice field connection: Yes

Record book: No Labor: Family Plan: Increase Fill: Rain Drain: Drying

Species: Silver barb, Tilapia Polyculture: Yes Production: ? kg/year Sale: 0 Riel/year

Seeds: KADO Prices: ? Riel/head Feed: Rice bran, Termite (Not paid) Fertilizing: Never (No pay)

Technical constraints: Mortality (some) Financial constraints: For extending pond

Interest in fish culture by neighbors: Yes for consumption, but not many ponds



**Preliminary Survey on Freshwater Fish Farming Improvement and Extension Project (Phase2)
Field Visit and Interview Record**

F-22 Porch Peuch (Seed Producer)(CIDO Project Farm)

07/06/2010 13:40 ~ 14:45 by Chin Da

Age: 38, Male, Lower Secondary Kanhchieb Village, Kouk Mon Commune, Bantey Ampil District, OM

Natural Condition: Mountain/hill, Paddy field Soil water retention: Good (Clayey/sandy)

Drinking water: Rain, Pond (wet season) Public pond (dry season)

Rice cropping: - (Project farm) Annual production: - tons/year Irrigation: Not available

Animal/fish consumption by family:	Wet season	Dry season
Meat:Fish	30:70	30:70

Fish purchase: Occasionally Fish availability: Scarce seasonally Household pond: Not popular in village

Interest in fish farming: Middle due to no land, no budget, no fingerlings

Fish seed: Available by CIDO but not enough

----- Seed Production Activity -----

Experience: 2008 (2 year) Reason: distributing fingerlings to farmers of CIDO project

Customers: 10 households and 1 public pond

Species produced:	Silver barb	Com. carp	Tilapia	Mrigal	Silver carp	Clarias	Pangasius	
Numbers	✓	0	0	✓	0	0	0	0

Facilities and equipment of fish seed production:

	Material	Size	Quantity	Cost
Spawning tank	Cement		1	
Hatching tank	Cement		1	
Nursery tank (moina tank)	Cement	3.5x5x1m	1	
Nursery pond	Earthen	4 big & 3 small	7	
Brood stock pond	Earthen		1	
Water storage tank (overhead)	Cement	Round	4	
Water reservoir		= nursery ponds	0	
Water pump		old	2	
Hapa net			4	
Seine net			1	
Generator set			1	
Well			0	

Brood stock in possession:

	Female		Male	
	Number	Total weight	Number	Total weight
Silver barb	✓	kg	✓	50 kg (♂+♀)
Common carp	1	kg	2	
Mrigal	✓	kg	✓	
Silver carp	2		1	

Water source: Stream Year-round: Yes

Larvae Feed: Homemade + commercial feed Brood stock feed: Commercial feed Hormone: SuperFat & Multilium

Farmer's Association: No Plan: Not know to him

Technical problems: Recently replaced with former technician, no confident yet technically

Financial constraints: For hormone, feeds, brood fish





Preliminary Survey on Freshwater Fish Farming Improvement and Extension Project (Phase2)
Field Visit and Interview Record

F-23 Suk Kim (Non Fish Farmer)

08/06/2010 07:50 ~ 08:16 by Chin Da

Age: 50, Female, No education Pul Village, Samraong Commune, Krong Samraong District, OM

Natural Condition: Plain, Paddy field Soil water retention: Good (Clayey/sandy)

Drinking water: Rain (wet season) Pond (dry season) Cooking fuel: Firewood Toilet: No

Land holding:	Total land area (ha)	Area of paddy	Area of homestead	Area of vegetable
	1.2 ha	1 ha	0.1 ha	0.1 ha

House owned: Yes Roof: Iron sheet Wall: Wood Money savings in bank: No Debt: No

Rice cropping: Single Annual production: 3.5 ~ 5 tons/year by family Irrigation: Not available

Crop cycle	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1 st Crop						P					H	

Rice farming: Rain-fed Rice variety: Indigenous Herbicide: Never Pesticide: Never

Animal/fish consumption by family:	Wet season	Dry season
Meat:Fish	20:80	20:80
Fish consumption	0.5 kg/day	0.4 kg/day

Fish purchase: Occasionally Fish availability: Scarce seasonally Household pond: Possessed (Not popular in village, 5%)

Wealth: - Income sources: Vegetable, other cash crops

Interest in fish farming: High for home consumption and selling

Fish farmers in the village total households: 1 ~ 10% Fish seed: Not available



**Preliminary Survey on Freshwater Fish Farming Improvement and Extension Project (Phase2)
Field Visit and Interview Record**

F-30 Mao Lank (Seed Producer)

10/06/2010 09:10 ~ 10:55 by Chin Da

Age: 54, Male, Primary school not completed Svay Chrum Village, Samraong Commune, Sotr Nikom District, SR
 Natural Condition: Mountain/hill, Paddy field Soil water retention: Good (Clayey/Rocky)
 Drinking water: Dug Well, Rain (wet season) Tube well, Dug well (dry season) Cooking fuel: Firewood Toilet: Yes

Land holding:	Total land area (ha)	Area of paddy	Area of homestead	Area of vegetable
	2.3 ha	2 ha	0.1 ha	0.2 ha

House owned: Yes Roof: Tile Wall: Wood Money savings in bank: No Debt: No

Rice cropping: Single (Double in high rainfall) Annual production:? Irrigation: Available seasonally from July to Sept.

Crop cycle	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Normal year						P						H
High rain fall year						P			H P			H

Rice farming: Rain-fed + Irrigation Rice variety: Improved Herbicide: Never Pesticide: Never

Animal/fish consumption by family:	Wet season	Dry season
Meat:Fish	10:90	10:90
Fish consumption	1.5 kg/day	1.5 kg/day

Fish purchase: Occasionally Fish availability: Scarce seasonally Household pond: Possessed (Popular in village, 100 households in total 160 households in village)

Wealth: Ordinary Income sources: Sugar cane, Fish, Rice, Vegetable

Interest in fish farming: High because of income generation and home consumption

Fish farmers in the village total households: 1~10% Fish seed: Available but not enough

----- **Fish Farming Activity** -----

Experience in fish farming: since 1997 (13 years) Fishpond: 11 ponds, 1,700 m² Duration: Year round
 Reason: Consumption & selling Training: Yes (FAO+CARE+ECOSORNE) Material support: Yes (CARE in 1997, FAO in 2001, ECOSORNE in 2008) Extension service: Yes (FiAC, Donors/NGO) Rice field: No
 Record book: Yes Labor: Family Plan: Increase Fill: Rain Drain: Pump
 Species: Silver barb, Common carp, Silver carp, Tilapia, Mrigal Polyculture: Yes
 Production: 100 kg/year Sale: 3,000 Riel/year
 Seeds: Own production Prices: 100 ~ 150 Riel/head Feed: Commercial feeds, Rice bran, Kitchen waste, Vegetalbe waste, Duck weed (Paid) Fertilizing: Commercial fertilizer, Cow dung, Chicken manure, Green manure (Yes)
 Technical constraints: Lack of water source Financial constraints: None
 Interest in fish culture by neighbors: Yes for home consumption but no fish ponds

----- **Seed Production Activity** -----

Experience: 2009 (1 year) Reason: Income generation Customers: 25 persons

Species produced:	Silver barb	Com. Carp	Tilapia	Mrigal	Silver carp	Clarias	Pangasius	Others
Numbers	✓	✓	✓	✓	✓	0	0	0

Total production: 70,000 in 2009

Facilities and equipment of fish seed production:	Material	Size	Quantity	Cost
Spawning tank	Cement	2.5 dia. x 0.8 m	1	ECOORN
Hatching tank	Cement	2.3 dia. x 0.7 m	1	ECOORN
Nursery tank	Cement	2.5 x 4.5 x 0.5 m	2	Own funds
Nursery pond	Earthen	8x10x2m 8x10x1m	4 4	ECOORN
Brood stock pond	Earthen	10x15x2m	1	ECOORN
Water storage tank (overhead)	Cement	2 x 2.5x2m	1	ECOORN
Water reservoir	Earthen	20 x40x2m	1	FAO
Water pump			1	ECOORN
Hapa net			4	Own funds
Seine net			2	ECOORN
Generator set			0	
Well			1	Own funds

Total investment for facilities and equipment: US\$5000 + Training by FAO, ECOSORN, and himself

Brood stock in possession:

	Female		Male	
	Number	Total weight	Number	Total weight
Silver barb	80	- kg	75	30 kg ($\sigma^{\text{♂}} + \text{♀}$)
Common carp	40	- kg	20	- kg
Tilapia	67 ($\sigma^{\text{♂}} + \text{♀}$)	- kg		- kg
Mrigal	7	- kg	14	20 kg ($\sigma^{\text{♂}} + \text{♀}$)
Silver carp	8	- kg	16	- kg

Water source: Pond, Well, seasonal from August to December

Larvae feed: Homemade Brood stock feed: Homemade + commercial feed Hormone: SuperFat (FiA through DAD)

Farmer's Association: No Plan: Increase

Technical problems: Difficult in obtaining hormone, mortality

Financial problem: For cement nursery tanks



Preliminary Survey on Freshwater Fish Farming Improvement and Extension Project (Phase2)
Field Visit and Interview Record

F-31 Horn Hean (Fish Farmer)

10/06/2010 15:50 ~ 17:50 by Chin Da

Age: 46, Male, Primary school Sdao Village, Anlong Samnar Commune, Chi Krenng District, SR
Natural Condition: Plan, Paddy field, Flood plain of Tonle Sap Lake Soil water retention: Good (Clayey/Rocky)
Drinking water: Rain, Pond, Stream (wet season) Pond (dry season) Cooking fuel: Firewood, Charcoal Toilet: Yes

Land holding:	Total land area (ha)	Area of paddy	Area of homestead	Area of vegetable
	- ha	3 ha	-ha	- ha

House owned: Yes Roof: Iron sheet Wall: Wood Money savings in bank: No Debt: No

Rice cropping: Single Annual production: 18 tons/year by family Irrigation: Available

Crop cycle	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Normal year	P		H									

Rice farming: Recession rice Rice variety: Improved Herbicide: Never Pesticide: Occasionally

Animal/fish consumption by family:	Wet season	Dry season
Meat:Fish	30:70	30:70
Fish consumption	2.5 kg/day	2.5 kg/day

Fish purchase: Occasionally Fish availability: Scarce seasonally Household pond: Possessed (Popular in village)

Wealth: - Income sources: Rice, Fish, Livestock Interest in fish farming: High for income generation

Fish farmers in the village total households: 1~10% Fish seed: Not available

----- Fish Farming Activity -----

Experience in fish farming: since 2004 (6 years) Fishpond: 7 ponds, 5,400 m² Duration: Year round
Reason: Consumption & selling Training: Yes (FAO) Material support: No Extension service: No Rice field: No
Record book: No Labor: Paid labor (3) + family Plan: Continue at the same scale because it is too busy to do at the present scale Fill: Pump (irrigation channel) Drain: Pump
Species: Pangasius catfish Polyculture: No Production: 50,000 kg/year Sale: 225 million Riel/year
Seeds: Private Prices: 80 Riel/head Feed: Trash fish, Rice bran, Duck weed, Crockets (Paid) Fertilizing: Never
Technical constraints: Disease, mortality Financial constraints: For feed materials
Interest in fish culture by neighbors: Yes for income generation



Preliminary Survey on Freshwater Fish Farming Improvement and Extension Project (Phase2)
Field Visit and Interview Record

F-32 Nuov Noeun (Seed Producer)

11/06/2010 10:00 ~ 12:10 by Chin Da

Age: 32, Male, Lower secondary Ou Village, Svay Sar Commune, Varin District, SR
 Natural Condition: Mountain/hill, Paddy field Soil water retention: Good (Clayey/Sandy)
 Drinking water: Tube well, Rain (wet season) Tube well, Dug well (dry season) Cooking fuel: Firewood, Charcoal
 Toilet: Yes

Land holding:	Total land area (ha)	Area of paddy	Area of homestead	Area of vegetable
	3.6 ha	2 ha	0.1 ha	1.5 ha

House owned: Yes Roof: Iron sheet Wall: Wood Money savings in bank: No Debt: Yes
 Rice cropping: Single Annual production: 2.5 tons/year by family Irrigation: Available seasonally from July to Sept.

Crop cycle	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1 st Crop						P						H

Rice farming: Rain-fed + Irrigation Rice variety: Improved Herbicide: Never Pesticide: Never

Animal/fish consumption by family:	Wet season	Dry season
Meat:Fish	10:90	30:70
Fish consumption	0.5 kg/day	0.5 kg/day

Fish purchase: Occasionally Fish availability: Scarce seasonally Household pond: Possessed (Not popular in village, 22 households in total 137 households in village)

Wealth: Ordinary Income sources: Rice, Trading shop, Carpentry, Livestock

Interest in fish farming: High because of income generation and home consumption

Fish farmers in the village total households: >10% Fish seed: Not available

----- Fish Farming Activity -----

Experience in fish farming: since 2002 (8 years) Fishpond: 4 ponds, 440 m² Duration: Year round
 Reason: Consumption & selling Training: Yes (Padek) Material support: Yes (Padec) Extension service: Yes (FIAC)
 Rice field: No

Record book: No Labor: Family Plan: Increase Fill: Rain, Pump (well and irrigation channel) Drain: Pump
 Species: Tilapia, Mrigal Polyculture: Yes Production: 150 kg/year Sale: 3,000 Riel/year
 Seeds: Own production Prices: - Riel/head Feed: Rice bran, duck weed, broken rice (Paid) Fertilizing: Cow dung, Green manure (No)

Technical constraints: Mortality after rain Financial constraints: For digging ponds

Interest in fish culture by neighbors: Yes for home consumption

----- Seed Production Activity -----

Experience: 2004 (6 year) Reason: Income generation Customers: 1 NGO

Species produced:	Silver barb	Com. Carp	Tilapia	Mrigal	Silver carp	Clarias	Pangasius	Others
Numbers	0	0	1500	500	0	0	0	0

Facilities and equipment of fish seed production:	Material	Size	Quantity	Cost
Spawning tank	Cement		1	
Hatching tank	Cement		1	
Nursery tank			0	
Nursery pond	Earthen	10x10x3m	2	
Brood stock pond	Earthen	15x8x3m	2	
Water storage tank (overhead)	Cement	1 dia. x 2 m	4	
Water reservoir	Earthen	= nursery pond	0	
Water pump		old	1	
Hapa net		2.x3 x 1m	3	
Seine net			0	
Generator set			1	
Well		Tube and dug wells	2	

Total investment for facilities and equipment: ?

Brood stock in possession:	Female	Male
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	Number	Total weight	Number	Total weight
Tilapia	✓	- kg	✓	- kg
Mrigal	1	- kg	1	- kg

Water source: Wells, irrigation channel, Year-round

Larvae feed: Homemade Brood stock feed: Homemade Hormone: OVAPRIM

Farmer's Association: No Plan: Increase

Technical problems: Selection of brooders, hormone use Financial problem: For digging ponds



**Preliminary Survey on Freshwater Fish Farming Improvement and Extension Project (Phase2)
Field Visit and Interview Record**

F-33 Blork Bam (Fish Farmer)

11/06/2010 14:00 ~ 15:00 by Chin Da

Age: 50, Male, Lower secondary Basat Village, Samroang Commune, Puok District, SR
 Natural Condition: Plain, Paddy field, Flood plain of Tonle Sap Lake Soil water retention: Good (Clayey)
 Drinking water: Dug well (wet season) Dug well (dry season) Cooking fuel: Firewood Toilet: Yes

Land holding:	Total land area (ha)	Area of paddy	Area of homestead	Area of vegetable
	1.3 ha	1 ha	0.3 ha	0ha

House owned: Yes Roof: Tile Wall: Wood Money savings in bank: No Debt: Yes

Rice cropping: Double Annual production: 4 tons/year by family Irrigation: Available

Crop cycle	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1 st Crop	H	P		H							P	
2 nd Crop				P		H						

Rice farming: Rain-fed + Irrigation Rice variety: Improved Herbicide: Never Pesticide: Never

Animal/fish consumption by family:	Wet season	Dry season
Meat:Fish	20:80	20:80
Fish consumption	0.7 kg/day	0.7 kg/day

Fish purchase: Occasionally Fish availability: Scarce seasonally Household pond: Possessed (Popular in village)

Wealth: - Income sources: Vegetable, Rice Interest in fish farming: Reduce expenses to buy fish

Fish farmers in the village total households: >10% (13%) Fish seed: Not available

----- **Fish Farming Activity** -----

Experience in fish farming: since 2008 (2 years) Fishpond: 2 ponds, 168 m² Duration: Year round
 Reason: Consumption Training: Yes (FIAC) Material support: Yes Extension service: Yes (FIAC) Rice field: No
 Record book: No Labor: Family Plan: Continue at present scale Fill: Pump (irrigation channel) Drain: Pump
 Species: Silver barb, Common carp, Tilapia, Mrigal Polyculture: Yes Production: ? kg/year Sale: 0 Riel/year
 Seeds: FIAC Prices: 80 Riel/head Feed: Rice bran, Vegetable waste, duck weed, broken rice (Not paid)
 Fertilizing: Cow dung, Green manure (No)

Technical constraints: Mortality after rain at night Financial constraints: For land to dig ponds

Interest in fish culture by neighbors: Yes for consumption



Preliminary Survey on Freshwater Fish Farming Improvement and Extension Project (Phase2)
Field Visit and Interview Record

C-1 Vat Village CFR

27/05/2010 14:55 ~ 15:30 by Chin Da

347 households, 1641 persons (landless 0.6%), Khnar Chhmar Commune, Semeaki Mean Chey District, KC

Natural Condition: Plain, Paddy field Soil water retention: Poor (Sandy)

Drinking water: Dug well (wet season) Dug well (dry season) Cooking fuel: Firewood Toilet: Yes

Village Land:	Total land area	Area of paddy	Area of garden	Area for house	Other Area
	559 ha	383 ha	0 ha	115 ha	56 ha

House roof: Tile Wall: Cement, Wood Money savings in bank: No

Rice cropping: Single cropping Productivity: 0.8 tons/ha Irrigation: Available Insufficient

Crop cycle	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1 st Crop						P					H	H

Rice farming: Rain-fed, Irrigated, Deep water, Floating Rice variety: Improved Herbicide: Never Pesticide: Never

Animal/fish consumption by family:	Wet season	Dry season
Meat:Fish	30:70	30:70
Fish consumption	0.8kg/day	0.5kg/day

Fish purchase: Occasionally Fish availability: Scarce seasonally Household pond: Not popular Wealth: Ordinary

Income sources: Rice, Livestock, Casual labor

Interest in fish farming: Low because of low water retention capacity of soil

Fish farmers in the village total households: <1 % Fish seed: Not available

----- Community Fish Refuge Management Activity -----

CFR established in: 2005 (5 years) Area: - m² Extent: 2 villages, 2 communes, 1 districts

Tonle Sap Lake Flood Plain: No Reason: Consumption, Cash, Illegal fishing control, Resource management.

Training: Yes (Local Gov. FIAC) Gate: Yes (Concrete, 4x2.5 m high) Paddy connection: Natural flooding

Material support: Yes (Signboard, Fingerling stocking by FIAC) Financial support: No

Committee: Yes Members: 14 persons Board: 3 persons selected by nomination by District Governor

Constitution: Yes Activities: Patrolling, Stocking fish Reward to Board members: No Record book: No

Labor: Order by District Plan: Continue at present scale Prohibited time: No

Prohibited gears: Yes (big net, electric fishing, small mesh net Control by: Legal fishermen

Stocking: Yes by FIA (Silver barb, gourami, clariid catfish, Local barb, Catla carpio, turtle) Exotic stock: Never

Feeding: No Fertilizing: No Technical constraints: No Financial constraints: No comment

Interest in CFR activities by neighbors: Yes for consumption



Preliminary Survey on Freshwater Fish Farming Improvement and Extension Project (Phase2)
Field Visit and Interview Record

C-2 Araen Village CFR

28/05/2010 14:55 ~ 15:30 by Chin Da

134 households, 550 persons (landless 25%), Snam Preah Commune, Bakan District, Pursat

Natural Condition: Plain, Paddy field Soil water retention: Good (Clay/Sandy/Rocky)

Drinking water: Dug well, Rain (wet season) Dug well (dry season) Cooking fuel: Firewood Toilet: No (20%)

Village Land:	Total land area	Area of paddy	Area of garden	Area for house	Other Area
	559 ha	383 ha	0 ha	115 ha	56 ha

House roof: Tile, Iron sheet, Thatch Wall: Wood Money savings in bank: No

Rice cropping: Single cropping Productivity: 0.8 tons/ha Irrigation: Not available

Crop cycle	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1 st Crop					P						H	H

Rice farming: Rain-fed Rice variety: Improved, Indigenous Herbicide: - Pesticide: Occasionally

Animal/fish consumption by family:	Wet season	Dry season
Meat:Fish	40:60	50:50
Fish consumption	0.5~0.7kg/day	0.3kg/day

Fish purchase: Regularly Fish availability: Scarce seasonally Household pond: Not popular (20%) Wealth: Poor

Income sources: Rice, Livestock, Vegetable, Casual labor (60%)

Interest in fish farming: High by both farmers with ponds and without ponds for home consumption

Fish farmers in the village total households: <1 % (0) Fish seed: Not available

----- Community Fish Refuge Management Activity -----

CFR established in: 2009 (1 year) Area: 1600 m² (wet season) 900 m² (dry season) Extent: 1 villages

Tonle Sap Lake Flood Plain: No Reason: Consumption, Resource management.

Training: Yes (FIAC) Gate: No Paddy connection: with channels

Material support: Yes (Signboard, Fingerling stocking by FIAC) Financial support: Yes (FIA, CONCERN by Food for Walk)

Committee: Yes Members: 8 persons Board: 1 persons selected by election

Constitution: No Activities: Patrolling, Stocking fish, Canal/gate maintenance Reward to Board members: No

Record book: No Labor: by 8 members Plan: Increase Prohibited time: Yes

Prohibited gears: No Stocking: Yes by FIA (Silver barb, snakehead, clariid catfish) Exotic stock: Never

Feeding: No Fertilizing: No Technical constraints: Poor water quality in the pond Financial constraints: Needs to organize for removing grass and aquatic plants in the pond

Interest in CFR activities by neighbors: Yes



**Preliminary Survey on Freshwater Fish Farming Improvement and Extension Project (Phase2)
Field Visit and Interview Record**

C-3 Preah Chanbak Village CFR

29/05/2010 10:15 ~ 12:50 by Chin Da

218 households, 1058 persons (landless 2.7%), Trapeang Chong Commune, Bakan District, Pursat
 Natural Condition: Plain, Paddy field, Swamp Soil water retention: Good (Clay/Sandy)
 Drinking water: Dug well, Rain, Pond (wet season) Dug well, Pond (dry season) Cooking fuel: Firewood
 Toilet: No (3%)

Village Land:	Total land area	Area of paddy	Area of garden	Area for house	Other Area
	698 ha	430 ha	0 ha	? ha	268 ha

House roof: Tile, Iron sheet, Thatch Wall: Wood, Thatch Money savings in bank: No
 Rice cropping: Single cropping, double cropping (74 families) Productivity: 3 tons/ha Irrigation: Available (40%)

Crop cycle	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Single crop							P				H	
Double crop			H		P					H		P

Rice farming: Rain-fed, irrigated rice Rice variety: Improved, Indigenous Herbicide: Never Pesticide: Occasionally

Animal/fish consumption by family:	Wet season	Dry season
Meat:Fish	10:90	10:90
Fish consumption	1~8kg/day	0.5~3kg/day

Fish purchase: Regularly Fish availability: Scarce seasonally Household pond: Not popular (30%) Wealth: -
 Income sources: Rice, Livestock, Casual labor (10%)
 Interest in fish farming: High for home consumption and income generation
 Fish farmers in the village total households: <1 % (0) Fish seed: Not available

----- Community Fish Refuge Management Activity -----

CFR established in: Not yet (0 year) Area: 100,000 m² (wet season) 50,000 m² (dry season)
 Extent: 6 villages, 1 commune Tonle Sap Lake Flood Plain: No
 Reason: Consumption, Income generation, illegal fishing control, resource management.
 Training: Yes (Ponleu Koma wit FiAC) Gate: Yes (Concrete weir) Paddy connection: with a large canal (1km long)
 Material support: Yes (CONCERN) Financial support: Not yet but proposed to Ponleu Koma
 Committee: No Members: - Board: - persons Constitution: No Activities: -
 Reward to Board members: No Record book: No Labor: - Plan: -
 Prohibited time: No Prohibited gears: No Stocking: No Exotic stock: Never
 Feeding: No Fertilizing: No Technical constraints: - Financial constraints: For signboard and post
 Interest in CFR activities by neighbors: -



**Preliminary Survey on Freshwater Fish Farming Improvement and Extension Project (Phase2)
Field Visit and Interview Record**

C-4 Hob Village CFR

02/06/2010 12:15 ~ 13:00 by Siv Cheang

178 households, 869 persons (landless 17%), Hob Commune, Balkan District, Battambang

Natural Condition: Plain, Paddy field Soil water retention: Good (Clay)

Drinking water: Dug well, Rain, Pond (wet season) Dug well, Pond (dry season) Cooking fuel: Firewood Toilet: No (11%)

Village Land:	Total land area	Area of paddy	Area of garden	Area for house	Other Area
	671 ha	656 ha	0 ha	15 ha	0 ha

House roof: Thatch Wall: Thatch Money savings in bank: No

Rice cropping: Single cropping Productivity: - tons/ha Irrigation: Not available

Crop cycle	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Single crop	H			Saw			P				H	H

Rice farming: Rain-fed Rice variety: Improved, Indigenous Herbicide: Never Pesticide: Never

Animal/fish consumption by family:	Wet season	Dry season
Meat:Fish	10:90	30:70
Fish consumption	1kg/day	0.5kg/day

Fish purchase: Regularly Fish availability: Scarce seasonally Household pond: Not popular (11%) Wealth: Poor

Income sources: Rice, Livestock, Casual labor, Remittance Interest in fish farming: High but cannot apply, for consumption

Fish farmers in the village total households: <1 % (0) Fish seed: Not available

----- **Community Fish Refuge Management Activity** -----

CFR established in: 2009 (1 year) Area: 4,000 m² (wet season)- m² (dry season) Extent: 1 villages

Tonle Sap Lake Flood Plain: No Reason: Resource management Training: Yes (FIAC) Gate: No

Paddy connection: No Material support: No Financial support: No

Committee: Yes Members: 7 Board: 7 persons selected by election Constitution: Yes Activities: Patrolling

Reward to board members: No Record book: No Labor: Pay for work Plan: Increase

Prohibited time: Yes Prohibited gears: Yes (Electric fishing, small mesh) controlled by awareness raising and patrolling

Stocking: No Exotic stock: Never Feeding: No Fertilizing: No

Technical constraints: - Financial constraints: For deepening pond, payment to the patrolling rangers

Interest in CFR activities by neighbors: Yes for conserving fish



**Preliminary Survey on Freshwater Fish Farming Improvement and Extension Project (Phase2)
Field Visit and Interview Record**

C-5 Thmei Village Community Fishing Activity

04/06/2010 15:40 ~ 17:15 by Chin Da

196 households, 1000 persons (landless 2%), Phnet Commune, Serei Saophoan Town, Bantey Meanchey

Natural Condition: Paddy field, River side Soil water retention: Good (Clay/Sandy)

Drinking water: Dug well, Pond, Stream (wet season) Dug well, Pond, Stream (dry season)

Cooking fuel: Firewood, Charcoal Toilet: No (3%)

Village Land:	Total land area	Area of paddy	Area of garden	Area for house	Other Area
	4867 ha	- ha	- ha	- ha	- ha

House roof: Tile, Iron sheet, Thatch Wall: Wood, Thatch, Plastic sheet Money savings in bank: Yes

Rice cropping: Single cropping Productivity: 1 ton/ha Irrigation: Not available

Crop cycle	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Single crop		H		S								

Rice farming: Rain-fed Rice variety: Improved, Indigenous Herbicide: Occasionally Pesticide: Occasionally

Animal/fish consumption by family:	Wet season	Dry season
Meat:Fish	10:90	50:50
Fish consumption	1 kg/day	1 kg/day

Fish purchase: Occasionally Fish availability: Scarce seasonally Household pond: Not popular Wealth: Ordinary

Income sources: Rice, Livestock, Vegetable, Casual labor, Remittance

Interest in fish farming: High but cannot due to lack of knowledge

Fish farmers in the village total households: 2% (4 houses doing catfish farming in tank) Fish seed: Available

----- Community Fish Refuge Management Activity -----

CFR established in: 2001 (9 year) Area: 18,000,000 m² (wet season) 13,000,000 m² (dry season) (river)

Extent: ? villages, ? commune, 6 districts Tonle Sap Lake Flood Plain: Yes during wet season

Reason: Consumption, Income generation, illegal fishing control, resource management.

Training: Yes (FiAC, IDRC) Gate: No Paddy connection: natural flooding

Material support: Yes (IDRC) Financial support: Yes (IDRC)

Committee: Yes Members: 60 persons Board: 7 persons Constitution: Yes

Activities: Patrolling, disseminate fishing law (awareness), Eco-tourism

Reward to board members: Yes (meal, gasoline for motor bike for participation meeting by IDRC)

Record book: Yes Auditing: Yes by FiAC Labor: Voluntary work Plan: Increase

Prohibited time: Yes Prohibited gears: Yes Stocking: Yes (Silver barb by FiAC) Exotic stock: Never

Feeding: Yes by tourist with commercial feeds (eco tourism system) Fertilizing: No

Technical constraints: Disease Financial constraints: For patrolling activity, weir gate construction

Interest in CFR activities by neighbors: Yes for consumption, to reduce illegal fishing activity



**Preliminary Survey on Freshwater Fish Farming Improvement and Extension Project (Phase2)
Field Visit and Interview Record**

C-7 Kou Village CFR

07/06/2010 11:50 ~ 13:00 by Chin Da

80 households, 372 persons (landless 0%), Kork Mon Commune, Bantey Ampil District, Odar Meanchey
 Natural Condition: Mountain/hill, Paddy field Soil water retention: Good (Clay/Sandy)
 Drinking water: Rain, Pond (wet season) Pond (dry season) Cooking fuel: Firewood, Charcoal Toilet: No (21%)
 House roof: Iron sheet, Thatch Wall: Wood Money savings in bank: No
 Rice cropping: Single cropping Productivity: - tons/ha Irrigation: Not available

Crop cycle	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Single crop							P				H	

Rice farming: Rain-fed Rice variety: Improved, Indigenous Herbicide: Never Pesticide: Occasionally
 Fish purchase: Regularly Fish availability: Scarce seasonally Household pond: Not popular (10%) Wealth: -
 Income sources: Rice, Livestock, Casual labor (5%)
 Interest in fish farming: High for home consumption and income generation
 Fish farmers in the village total households: 1~10 % Fish seed: Not available

----- **Community Fish Refuge Management Activity** -----

CFR established in: 2006 (5 year) Area: 190,000 m² (wet season) 80,000 m² (dry season)
 Extent: 7 villages, 1 commune Tonle Sap Lake Flood Plain: No
 Reason: Consumption, drinking water supply to villagers Training: No Gate: Yes (constructed by CIDO)
 Paddy connection: through one gate Material support: No Financial support: No
 Committee: Yes Members: 21 Board: 3 persons selected by election Constitution: Yes Activities: Patrolling
 Reward to Board members: No Record book: No Labor: by members Plan: Increase
 Prohibited time: Yes Prohibited gears: Yes Stocking: Yes (FiAC) Exotic stock: Never
 Feeding: No Fertilizing: No Technical constraints: None Financial constraints: For releasing fish
 Interest in CFR activities by neighbors: Yes for reliable drinking water supply and fish consumption



**Preliminary Survey on Freshwater Fish Farming Improvement and Extension Project (Phase2)
Field Visit and Interview Record**

C-8 Mkak Village CFR

10/06/2010 13:00 ~ 14:30 by Chin Da

168 households, 675 persons (landless 6.5%), Kouk Thlor Leu Commune, Chi Krenng District, Siem Reap

Natural Condition: Plain, Paddy field Soil water retention: Good (Clay/Rocky)

Drinking water: Dug well, Rain, CFR (wet season) Dug well, CFR (dry season) Cooking fuel: Firewood Toilet: No (1%)

Village Land:	Total land area	Area of paddy	Area of garden	Area for house	Other Area
	144 ha	130 ha	10 ha	4.2 ha	0 ha

House roof: Tile, Thatch, Iron sheet Wall: Iron sheet, Wood, Thatch Money savings in bank: No

Rice cropping: Single cropping Productivity: - tons/ha Irrigation: Available

Crop cycle	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Single crop							P				H	

Rice farming: Rain-fed, Irrigated rice Rice variety: Improved, Indigenous Herbicide: Never Pesticide: Never

Animal/fish consumption by family:	Wet season	Dry season
Meat:Fish	5:95	5:95
Fish consumption	0.5 kg/day	0.5kg/day

Fish purchase: Occasionally Fish availability: Scarce seasonally Household pond: Not popular (6%) Wealth: -

Income sources: Rice, Livestock, Logging, Fishing Interest in fish farming: High for consumption

Fish farmers in the village total households: <1 % Fish seed: Not available

----- **Community Fish Refuge Management Activity** -----

CFR established in: 2009 (1 year) Area: 40,000,000 m² (wet season) Extent: ? villages, 12 communes, 1 district

Tonle Sap Lake Flood Plain: Yes Reason: Consumption, income generation, illegal fishing control, resource management

Training: Yes (FIAC) Gate: Yes (3 large gates, concrete) Paddy connection: Yes to 12 communes

Material support: No Financial support: Yes by Commune funds

Committee: Yes Members: 13 villages Board: 15 persons selected by election Constitution: Yes

Activities: Patrolling Reward to board members: No (but proposed to District governor for 15 board members)

Record book: No Labor: Voluntary work Plan: Increase for increasing aquatic resources

Prohibited time: Yes Prohibited gears: Yes (Electric fishing, small mesh) controlled by patrolling

Stocking: No but have a plan Exotic stock: Never Feeding: No Fertilizing: No

Technical constraints: Lack of fish by lack of water which can be corrected by construction of 3 km dam

Financial constraints: For constructing 3-km long dam

Interest in CFR activities by neighbors: Yes for fish consumption and income generation



