Annex 1. Summary of each target fishing village surveyed in the Mawtin Coast region

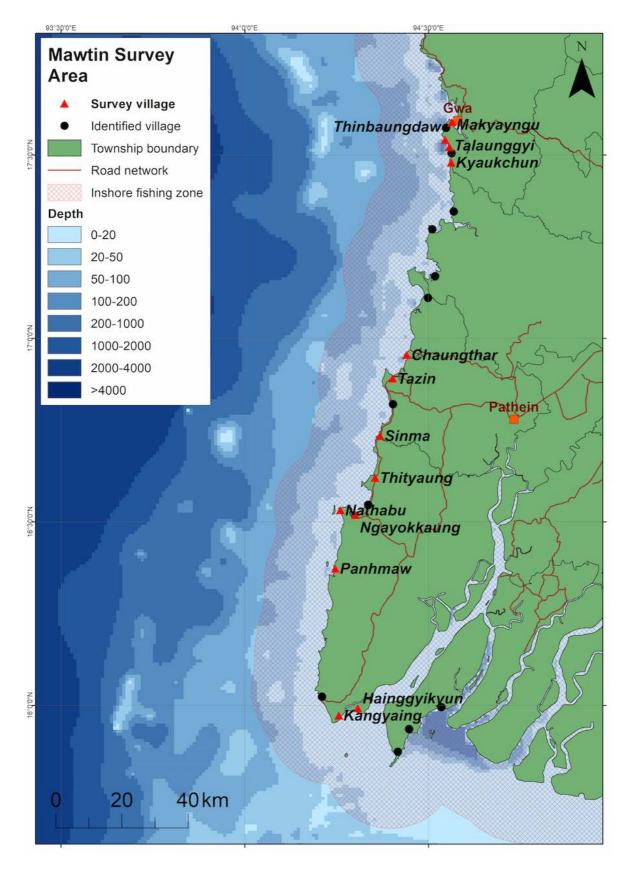


Figure A-1. Map of Mawtin Coast, surveyed fishing villages (red triangles), and inshore fishing zone.

Table A-1. Household summaries for the surveyed coastal fishing villages (by township) and sample sizes.

Village Name	Total # HH	Total # Fisher HH	% Fisher HH of total	# HH Sampled	% Fisher HH interviewed	
Gwa township						
Kyaukchun	320	423	132%*	36	9%	
Makyayngu	315	349	111%*	37	11%	
Talaunggyi	112	100	89%	10	10%	
Thinbaungdaw	45	36	80%	9	25%	
Shwethaungyan t	own					
Chaungthar	2,060	227	11%	35	15%	
Sinma	330	320	97%	36	11%	
Tazin	1,455	669	46%	44	7%	
Ngaputaw townsl	hip					
Ngayokkaung	741	404	55%	54	13%	
Nathabu	347	242	70%	31	13%	
Panhmaw	260	250	96%	45	18%	
Thityaung	568	430	76%	40	9%	
Hainggyikyun town						
Hainggyikyun	2,774	658	24%	48	7%	
Kangyaing	1,050	550	52%	56	10%	
Total	10,377	4,658	45%	481	10%	

^{*} The total number of fisher HHs is greater than the total number of HHs in the village due to the (unexpected) presence of migrant fisher HHs in these communities at the time of surveying.

Table A-2. Annual fisheries earnings (net) and total annual household income for the Mawtin Coast region (Myanmar kyat).

	Annual Fis	heries Earn	ings (MMK)	% income	Total Annual HH Income (MMK)			
Group	Median	Min.	Max.	from fisheries	Median	Min.	Max.	
All *	1,402,500	30,000	61,038,667	80%	1,800,000	75,000	135,112,000	
Crew	1,200,000	30,000	30,000,000	92%	1,300,000	75,000	30,000,000	
Owner	3,000,000	120,000	61,038,667	83%	3,600,000	160,000	135,112,000	

Note: n=464, which is less than the total number of HHs interviewed (n=481), as some fishers did not provide data that was reliable enough to calculate net income.

Table A-3. Median, minimum, and maximum annual fisheries earnings (net) and total annual household incomes for each village in the Mawtin Coast region.

Villago	Annual Fi	sheries Earnings (ММК)	% of income	Total A	nnual HH Income (M	1MK)
Village	Median	Minimum	Maximum	from fisheries	Median	Minimum	Maximum
Chaungthar	1,350,000	500,000	9,600,000	90	1,500,000	714,286	15,000,000
Hainggyikyun	1,000,000	96,000	12,000,000	72	1,389,286	96,000	18,000,000
Kangyaing	1,640,000	200,000	27,000,000	91	1,800,000	200,000	27,000,000
Kyaukchun	1,200,000	290,000	22,925,000	80	1,500,000	320,000	28,656,250
Makyayngu	2,400,000	400,000	30,000,000	80	3,000,000	400,000	30,000,000
Nathabu	1,400,000	500,000	22,644,667	82	1,714,286	500,000	28,305,833
Ngayokkaung	2,050,000	490,000	36,000,000	85	2,400,000	490,000	36,000,000
Panhmaw	1,050,000	100,000	18,000,000	88	1,200,000	100,000	30,000,000
Sinma	2,895,000	246,333	61,038,667	83	3,490,000	328,444	135,112,000
Talaunggyi	1,383,741	30,000	6,000,000	49	2,829,741	150,000	20,000,000
Tazin	2,006,250	175,000	50,000,000	80	2,506,250	520,000	50,000,000
Thinbaungdaw	384,667	120,000	3,850,000	20	1,941,667	533,333	7,700,000
Thityaung	1,200,000	75,000	24,000,000	100	1,200,000	75,000	34,285,714

1. Chaungthar

Village Tract: Chaungthar
Township: Shwethaungyan
Region: Ayeyarwady

Village Household Information

Total # HH	Total # Fisher HH	% Fisher HH of total	# Fisher HH Sampled	% Fisher HH interviewed	# inshore fishing boats
2,060	227	11%	35	15%	138

Fishing Gears

(some fishers may use multiple gear types)

Goar tuno	Fishers i	nterviewed
Gear type	#	%
Two Boat Seine	15	42.9%
Drift Gill Net	3	8.6%
Bottom Set Gill Net	1	2.9%
Diving	6	17.1%
Bottom Long Line	7	20.0%
Fence Net	3	8.6%

Annual fisheries earnings (net) and total annual household income (Myanmar kyat).

		Annual Fis	heries Earnir	ngs (MMK)	% income	Total Annual HH Income (MMK		
Group	n	Median	Min.	Max.	from fisheries	Median	Min.	Max.
All *	33	1,350,000	500,000	9,600,000	90%	1,500,000	714,286	15,000,000
Crew	20	1,200,000	500,000	2,700,000	92%	1,300,000	714,286	3,375,000
Owner	13	3,000,000	900,000	9,600,000	83%	3,600,000	1,125,000	15,000,000

Note: n in this table may be less than the total number of HHs interviewed in this village, as some fishers did not provide data that was reliable enough to calculate net income.

Infrastructure		Education and Health		Services	
Police Office	Yes	Primary School	Yes	Restaurant	Yes
Bank	Yes	Middle School	Yes	Tea shop	Yes
Public transport (bus sta.)	Yes	High School	Yes	Fish processing facility	No
Petrol station	Yes	Hospital	Yes	Fish storage facility	No
General market	Yes	Community medical clinic	Yes	Fish market	No
Library	Yes	General practitioner (doctor)	Yes	Guest house	Yes
		Midwife	Yes	Community building	Yes
		Nurse	Yes	Monastery	Yes
% of interviewed HH with	n electri	city ¹ : 28.6% (n = 35)			

¹Source: fisher HH surveys

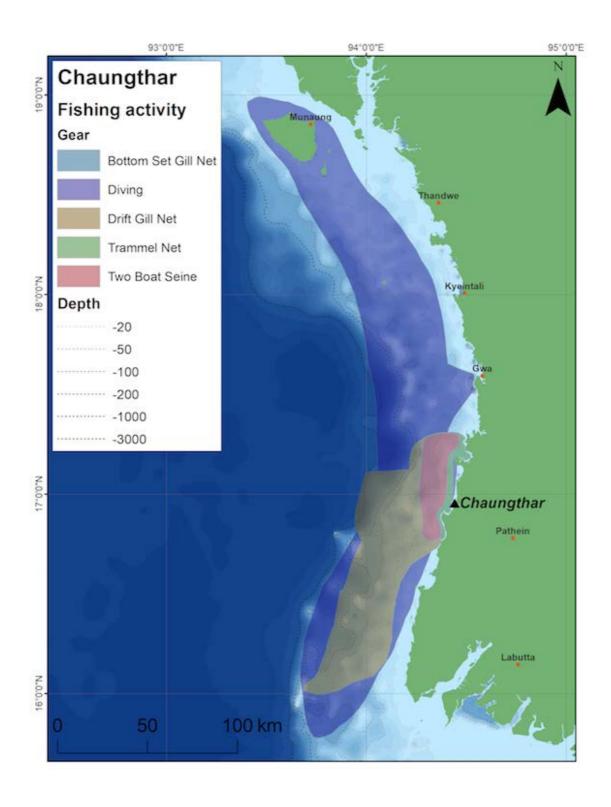


Figure A-2. Activity distribution map of fishing gears utilized in Chaungthar village.

2. Hainggyikyun

Village Tract:

Township: Hainggyikhun Region: Ayeyarwady

Village Household Information

Total # HH	Total # Fisher HH	% Fisher HH of total	# Fisher HH Sampled	% Fisher HH interviewed	# inshore fishing boats
2,774	685	25%	48	7%	140

Fishing Gears

(some fishers may use multiple gear types)

Coortuno	Fishers in	nterviewed
Gear type	#	%
Trammel Net	28	48%
Drift Gill Net	1	2%
Set Gill Net	1	2%
Beach Seine	13	22%
Bottom Set Gill Net	3	5%
Bottom Long Line	7	12%
Pelagic Long Line	3	5%
Push Net	2	3%

Annual fisheries earnings (net) and total annual household income (Myanmar kyat).

			<u> </u>			= 1.a				
		Annual Fig	heries Earnii	ngs (MMK)	% income	Total Ann	ual HH Incon	ne (MMK)		
Group	n	Median	Min.	Max.	from fisheries	Median	Min.	Max.		
All *	44	1,000,000	96,000	12,000,000	72%	1,389,286	96,000	18,000,000		
Crew	24	1,200,000	96,000	2,820,000	92%	1,300,000	96,000	4,500,000		
Owner	20	3000000	120,000	12,000,000	83%	3,600,000	160,000	18,000,000		

Note: n in this table may be less than the total number of HHs interviewed in this village, as some fishers did not provide data that was reliable enough to calculate net income.

Community Assets (from key informant interviews)

Infrastructure		Education and Health		Services	
Police Office	Yes	Primary School	Yes	Restaurant	Yes
Bank	Yes	Middle School	Yes	Tea shop	Yes
Public transport (bus sta.)	Yes	High School	Yes	Fish processing facility	No
Petrol station	No	Hospital	Yes	Fish storage facility	No
General market	Yes	Community medical clinic	Yes	Fish market	No
Library	Yes	General practitioner (doctor)	Yes	Guest house	Yes
		Midwife	Yes	Community building	Yes
		Nurse	Yes	Monastery	Yes
% of interviewed HH with	n electri	city ¹ : 18.8% (n = 48)	•		

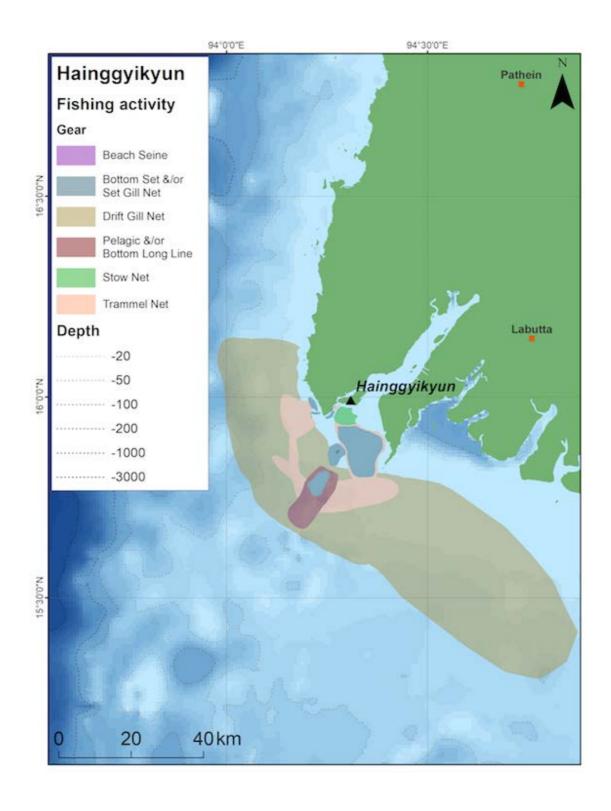


Figure A-3. Activity distribution map of fishing gears utilized in Hainggyikyun village.

3. Kangyaing

Village Tract: Kangyaing
Township: Hainggyikhun
Region: Ayeyarwady

Village Household Information

Total # HH	Total # Fisher HH	% Fisher HH of total	# Fisher HH Sampled	% Fisher HH interviewed	# inshore fishing boats
1,050	550	52%	56	10%	186

Fishing Gears

(some fishers may use multiple gear types)

Gear type	Fishers in	terviewed
Gear type	#	%
Trammel Net	31	47%
Drift Gill Net	10	15%
Beach Seine	1	2%
Other	11	17%
Bottom Long Line	1	2%
Stow Net	11	17%
Hand Line	1	2%

Annual fisheries earnings (net) and total annual household income (Myanmar kyat).

		Annual Fis	heries Earni	ngs (MMK)	% income	Total Ann	ual HH Incon	ual HH Income (MMK)	
Group	n	Median	Min.	Max.	from fisheries	Median	Min.	Max.	
All *	52	1,640,000	200,000	27,000,000	91%	1,800,000	200,000	27,000,000	
Crew	20	1,200,000	240,000	00 3,883,333 92% 1,30		1,300,000	300,000	8,000,000	
Owner	32	3,000,000	200,000	27,000,000	83%	3,600,000	200,000	27,000,000	

Note: n in this table may be less than the total number of HHs interviewed in this village, as some fishers did not provide data that was reliable enough to calculate net income.

Infrastructure		Education and Health		Services	
Police Office	No	Primary School	Yes	Restaurant	Yes
Bank	No	Middle School	Yes	Tea shop	Yes
Public transport (bus sta.)	No	High School	Yes	Fish processing facility	No
Petrol station	No	Hospital	No	Fish storage facility	No
General market	No	Community medical clinic	Yes	Fish market	Yes
Library	Yes	General practitioner (doctor)	No	Guest house	No
		Midwife	Yes	Community building	Yes
		Nurse		Monastery	Yes
% of interviewed HH with	n electri	city ¹ : 1.8% (n = 56)			

¹Source: fisher HH surveys

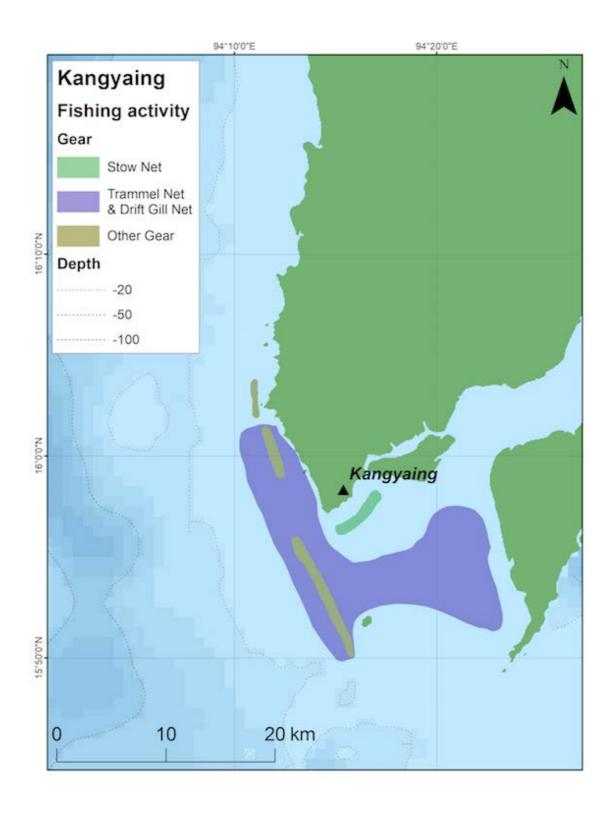


Figure A-4. Activity distribution map of fishing gears utilized in Kangyaing village.

4. Kyaukchun

Village Tract: Talaunggyi

Township: Gwa Region: Rakhine

Village Household Information

Total # HH	Total # Fisher HH	% Fisher HH of total	# Fisher HH Sampled	% Fisher HH interviewed	# inshore fishing boats
320	423	132%*	36	9%	57

^{*} The total number of fisher HHs is greater than the total number of HHs in the village due to the (unexpected) presence of migrant fisher HHs in these communities at the time of surveying.

Fishing Gears

(some fishers may use multiple gear types)

Coor tumo	Fishers interviewed				
Gear type	#	%			
Two Boat Seine	30	81%			
Bottom Set Gill Net	2	5%			
Diving	5	14%			

Annual fisheries earnings (net) and total annual household income (Myanmar kyat).

		Annual Fig	heries Earni	ngs (MMK)	% income	Total Ann	ual HH Incon	ne (MMK)
Group	n	Median	Min.	Max.	from fisheries	Median	Min.	Max.
All *	36	1,200,000	290,000	22,925,000	80%	1,500,000	320,000	28,656,250
Crew	27	1,200,000	320,000	4,800,000	92%	1,300,000	320,000	6,000,000
Owner	9	3,000,000	290,000	22,925,000	83%	3,600,000	362,500	28,656,250

Note: n in this table may be less than the total number of HHs interviewed in this village, as some fishers did not provide data that was reliable enough to calculate net income.

Infrastructure		Education and Health	Education and Health		Services	
Police Office	No	Primary School	Yes	Restaurant	Yes	
Bank	No	Middle School	No	Tea shop	Yes	
Public transport (bus sta.)	No	High School	No	Fish processing facility	No	
Petrol station	No	Hospital	No	Fish storage facility	No	
General market	No	Community medical clinic	No	Fish market	No	
Library	Yes	General practitioner (doctor)	No	Guest house	No	
		Midwife	No	Community building	No	
		Nurse	Yes	Monastery	Yes	
% of interviewed HH with	n electri	city ¹ : 16.6% (n = 36)				

¹Source: fisher HH surveys

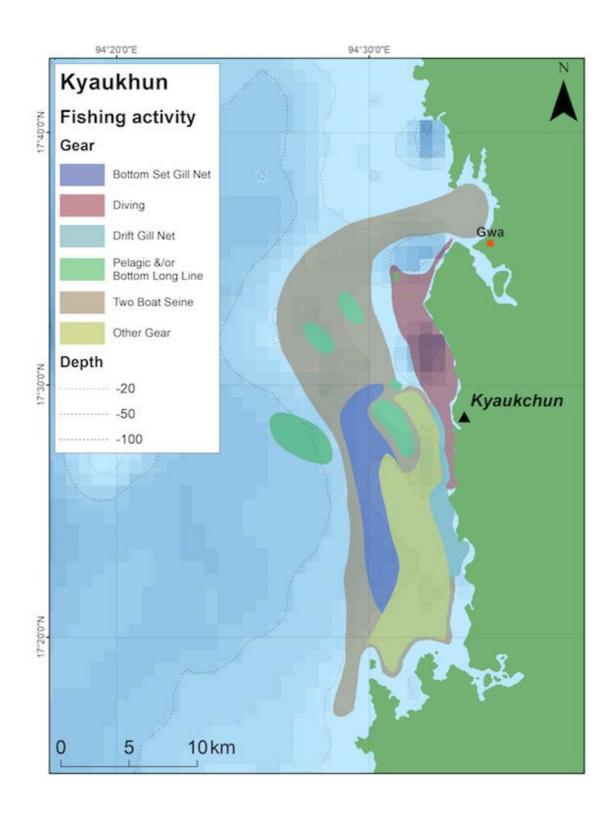


Figure A-5. Activity distribution map of fishing gears utilized in Kyaukchun village.

5. Makyayngu

Village Tract: Makyayngu

Township: Gwa Region: Rakhine

Village Household Information

Total # HH	Total # Fisher HH	% Fisher HH of total	# Fisher HH Sampled	% Fisher HH interviewed	# inshore fishing boats
315	349	111%*	37	11%	83

^{*} The total number of fisher HHs is greater than the total number of HHs in the village due to the (unexpected) presence of migrant fisher HHs in these communities at the time of surveying.

Fishing Gears

(some fishers may use multiple gear types)

Coortuno	Fishers in	nterviewed
Gear type	#	%
Two Boat Seine	12	30%
Drift Gill Net	2	5%
Long Line	11	28%
Bottom Set Gill Net	1	3%
Diving	12	30%
Snail Trap	2	5%

Annual fisheries earnings (net) and total annual household income (Myanmar kyat).

		Annual Fis	heries Earni	ngs (MMK)	% income	Total Annual HH Income (MMK)		
Group	n	Median	Min.	Max.	from fisheries	Median	Min.	Max.
All *	36	2,400,000	400,000	30,000,000	80%	3,000,000	400,000	30,000,000
Crew	26	1,200,000	480,000	30,000,000	92%	1,300,000	600,000	30,000,000
Owner	10	3,000,000	400,000	29,550,000	83%	3,600,000	400,000	29,550,000

Note: n in this table may be less than the total number of HHs interviewed in this village, as some fishers did not provide data that was reliable enough to calculate net income.

Community Assets (from key informant interviews)

Infrastructure		Education and Health		Services	
Police Office	No	Primary School	Yes	Restaurant	Yes
Bank	No	Middle School	Yes	Tea shop	No
Public transport (bus sta.)	No	High School	No	Fish processing facility	No
Petrol station	Yes	Hospital	No	Fish storage facility	No
General market	No	Community medical clinic	No	Fish market	No
Library	No	General practitioner (doctor)	No	Guest house	No
		Midwife	Yes	Community building	No
		Nurse	No	Monastery	Yes
% of interviewed HH with	electri	city ¹ : 44.4% (n = 36)			

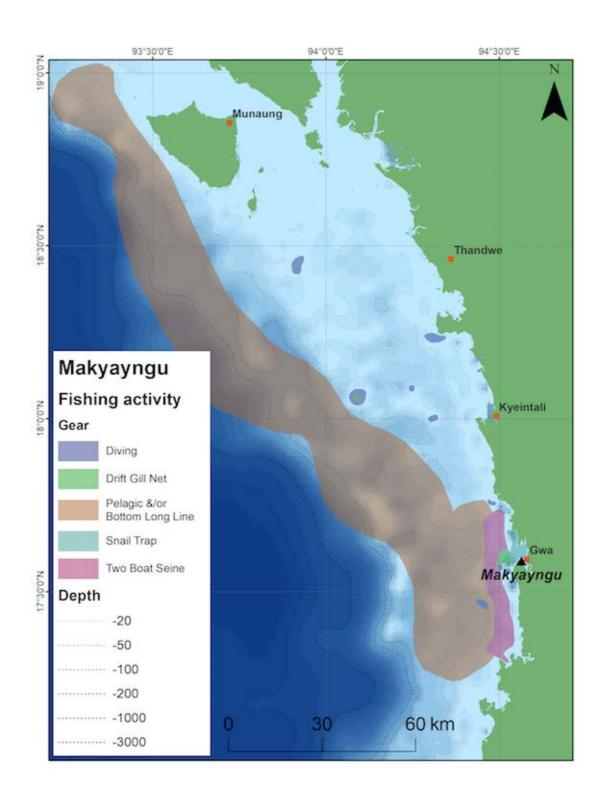


Figure A-6. Activity distribution map of fishing gears utilized in Makyayngu village.

6. Nathabu

Village Tract: Nathabu
Township: Ngayokkaung
Region: Ayeyarwady

Village Household Information

Total # HH	Total # Fisher HH	% Fisher HH of total	# Fisher HH Sampled	% Fisher HH interviewed	# inshore fishing boats
347	242	70%	31	13%	54

Fishing Gears

(some fishers may use multiple gear types)

Goar tuno	Fishers i	nterviewed
Gear type	#	%
Two Boat Seine	12	29%
Drift Gill Net	6	15%
Set Gill Net	12	29%
Long Line	7	17%
Diving	1	2%
Fish Pot	3	7%

Annual fisheries earnings (net) and total annual household income (Myanmar kyat).

		Annual Fisheries Earnings (MMK)			% income	Total Annual HH Income (MMI		
Group	n	Median	Min.	Max.	from fisheries	Median	Min.	Max.
All *	31	1,400,000	500,000	22,644,667	82 %	1,714,286	500,000	28,305,833
Crew	15	1,200,000	500,000	8,000,000	92%	1,300,000	500,000	8,000,000
Owner	16	3,000,000	914,533	22,644,667	83%	3,600,000	1,000,000	28,305,833

Note: n in this table may be less than the total number of HHs interviewed in this village, as some fishers did not provide data that was reliable enough to calculate net income.

Community Assets (from key informant interviews)

Infrastructure		Education and Health	Services		
Police Office	No	Primary School	Yes	Restaurant	Yes
Bank	No	Middle School	Yes	Tea shop	Yes
Public transport (bus sta.)	No	High School	No	Fish processing facility	No
Petrol station	No	Hospital	No	Fish storage facility	No
General market	No	Community medical clinic	Yes	Fish market	No
Library	Yes	General practitioner (doctor)	No	Guest house	Yes
		Midwife	Yes	Community building	Yes
		Nurse	Yes	Monastery	Yes
% of interviewed HH with	n electri	city ¹ : 9.7% (n = 31)			

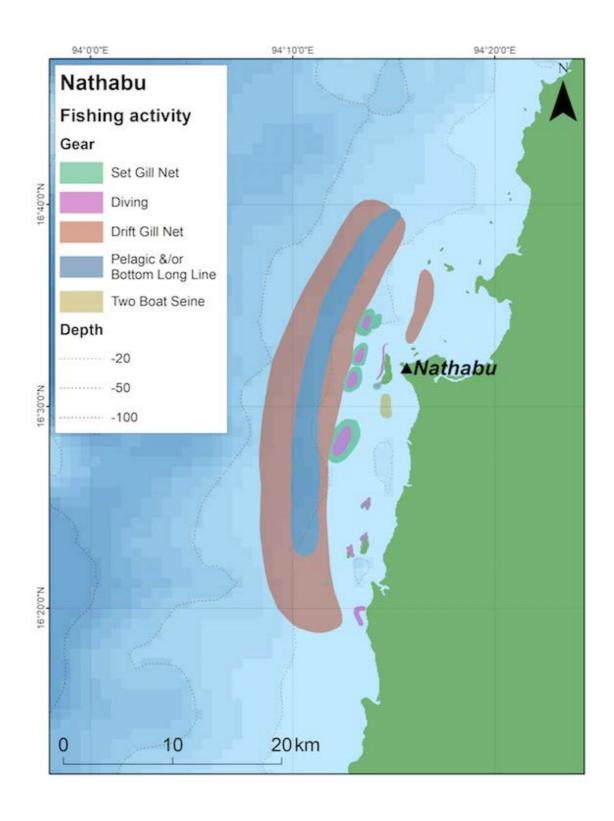


Figure A-7. Activity distribution map of fishing gears utilized in Nathabu village.

7. Ngayokkaung

Village Tract:

Township: Ngayokkaung Region: Ayeyarwady

Village Household Information

Total # HH	Total # Fisher HH	% Fisher HH of total	# Fisher HH Sampled	% Fisher HH interviewed	# inshore fishing boats
741	404	55%	54	13%	111

Fishing Gears

(some fishers may use multiple gear types)

Coortuno	Fishers	Fishers interviewed				
Gear type	#	%				
Trammel Net	12	8%				
Drift Gill Net	6	10%				
Set Gill Net	12	49%				
Beach Seine	7	7%				
Long Line	1	25%				

Annual fisheries earnings (net) and total annual household income (Myanmar kyat).

		Annual Fi	sheries Earni	ngs (MMK)	% income	Total Ann	nual HH Incor	ne (MMK)
Group	n	Median	Min.	Max.	from fisheries	Median	Min.	Max.
All *	54	2,050,000	490,000	36,000,000	85 %	2,400,000	490,000	36,000,000
Crew	36	1,200,000	490,000	7,200,000	92%	1,300,000	490,000	7,200,000
Owner	18	3,000,000	1,050,000	36,000,000	83%	3,600,000	1,050,000	36,000,000

Note: n in this table may be less than the total number of HHs interviewed in this village, as some fishers did not provide data that was reliable enough to calculate net income.

Infrastructure		Education and Health	Services		
Police Office	Yes	Primary School	No	Restaurant	Yes
Bank	No	Middle School	No	Tea shop	Yes
Public transport (bus sta.)	Yes	High School	Yes	Fish processing facility	No
Petrol station	No	Hospital	Yes	Fish storage facility	No
General market	Yes	Community medical clinic	Yes	Fish market	No
Library	Yes	General practitioner (doctor)	Yes	Guest house	Yes
		Midwife	Yes	Community building	Yes
		Nurse	Yes	Monastery	Yes
% of interviewed HH with	n electri	city ¹ : 20.4% (n = 54)			

¹Source: fisher HH surveys

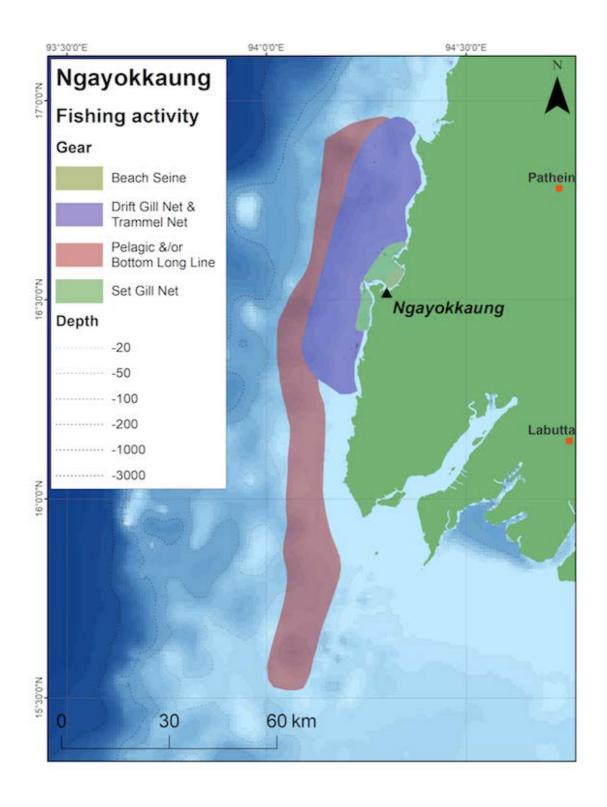


Figure A-8. Activity distribution map of fishing gears utilized in Ngayokkaung village.

8. Panhmaw

Village Tract: Panhmaw
Township: Ngayokkaung
Region: Ayeyarwady

Village Household Information

	Total # HH	Total # Fisher HH	% Fisher HH of total	# Fisher HH Sampled	% Fisher HH interviewed	# inshore fishing boats
260		250	96%	45	18%	35

Fishing Gears

(some fishers may use multiple gear types)

Coor tuno	Fishers in	nterviewed
Gear type	#	%
Drift Gill Net	9	20%
Set Gill Net	10	22%
One Boat Seine	25	54%
Beach Seine	1	2%
Fish Pot	1	2%

Annual fisheries earnings (net) and total annual household income (Myanmar kyat).

		Annual Fig	sheries Earni	ngs (MMK)	% income	Total Ann	ual HH Incoi	me (MMK)
Group	n	Median	Min.	Max.	from fisheries	Median	Min.	Max.
All *	45	1,050,000	100,000	18,000,000	88%	1,200,000	100,000	30,000,000
Crew	28	1,200,000	100,000	3,600,000	92%	1,300,000	100,000	6,000,000
Owner	17	3,000,000	420,000	18,000,000	83%	3,600,000	420,000	30,000,000

Note: n in this table may be less than the total number of HHs interviewed in this village, as some fishers did not provide data that was reliable enough to calculate net income.

Infrastructure		Education and Health	Services		
Police Office	No	Primary School	No	Restaurant	No
Bank	No	Middle School	No	Tea shop	Yes
Public transport (bus sta.)	No	High School	Yes	Fish processing facility	No
Petrol station	No	Hospital	No	Fish storage facility	No
General market	No	Community medical clinic	Yes	Fish market	No
Library	Yes	General practitioner (doctor)	No	Guest house	No
		Midwife	Yes	Community building	Yes
		Nurse	No	Monastery	Yes
% of interviewed HH with	n electri	city ¹ : 13.3% (n = 45)			

¹Source: fisher HH surveys

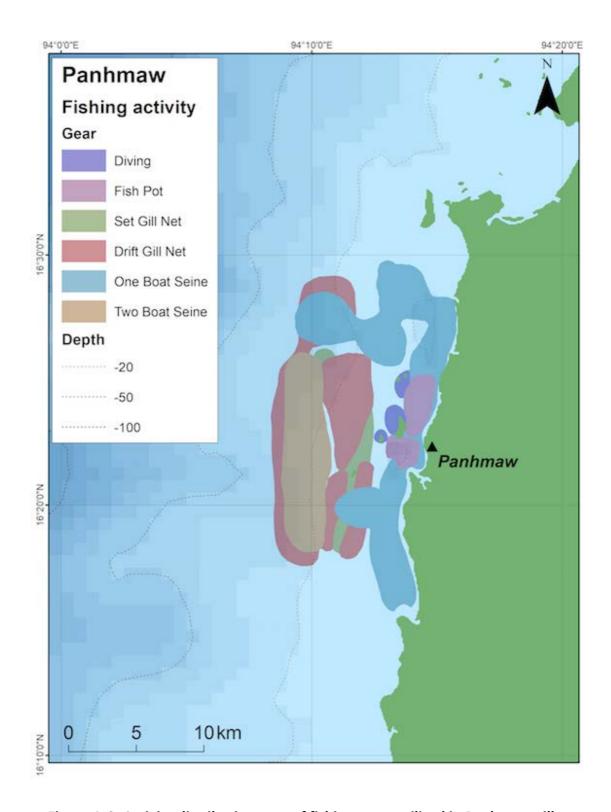


Figure A-9. Activity distribution map of fishing gears utilized in Panhmaw village.

9. Sinma

Village Tract: Sinma

Township: Shwethaungyan Region: Ayeyarwady

Village Household Information

Total # HH	Total # Fisher HH	% Fisher HH of total	# Fisher HH Sampled	% Fisher HH interviewed	# inshore fishing boats
330	320	97%	36	11%	53

Fishing Gears (some fishers may use multiple gear types)

Coortugo	Fishe	rs interviewed
Gear type	#	%
Trammel Net	24	40%
Drift Gill Net	5	8%
Set Gill Net	2	3%
Other	17	28%
Bottom Set Gill Net	5	8%
Diving	2	3%
Bottom Long Line	2	3%
Fish Pot	1	2%
Hand Line	2	3%

Annual fisheries earnings (net) and total annual household income (Myanmar kyat).

		Annual Fig	heries Earni	ngs (MMK)	%	Total Annual HH Income (MMK)		
Group	n	Median	Min.	Max.	income from fisheries	Median	Min.	Max.
All *	32 2,895,000 246,3		246,333	61,038,667	83%	3,490,000	328,444	135,112,000
Crew	11 1,200,000		800,000	3,600,000	92%	1,300,000	840,000	4,800,000
Owner	21	21 3,000,000 24		61,038,667	83%	3,600,000	328,444	135,112,000

Note: n in this table may be less than the total number of HHs interviewed in this village, as some fishers did not provide data that was reliable enough to calculate net income.

Infrastructure	Infrastructure		Education and Health		Services	
Police Office	Yes	Primary School	Yes	Restaurant	Yes	
Bank	No	Middle School	Yes	Tea shop	Yes	
Public transport (bus sta.)	Yes	High School	Yes	Fish processing facility	No	
Petrol station	No	Hospital	No	Fish storage facility	No	
General market	No	Community medical clinic	Yes	Fish market	No	
Library	Yes	General practitioner (doctor)	No	Guest house	No	
		Midwife	Yes	Community building	Yes	
		Nurse	Yes	Monastery	Yes	
% of interviewed HH with electricity ¹ : 5.6% (n = 36)						

¹Source: fisher HH surveys

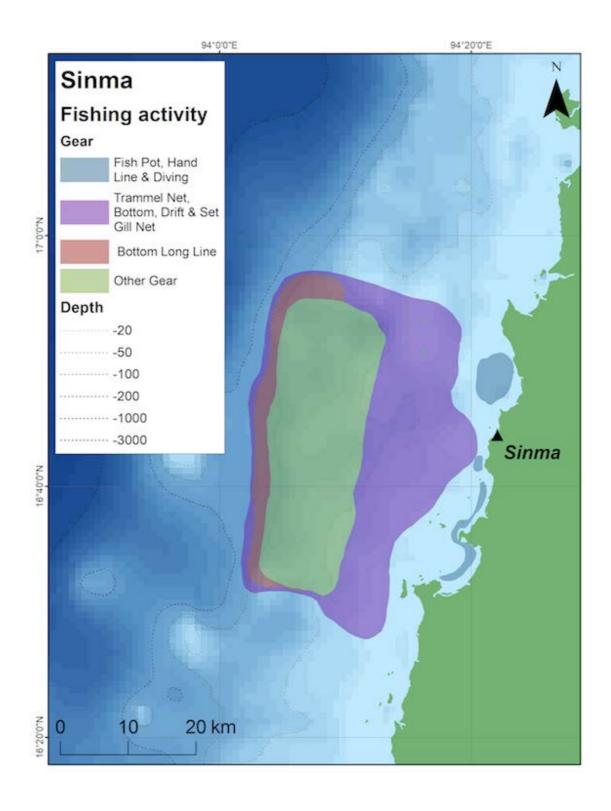


Figure A-10. Activity distribution map of fishing gears utilized in Sinma village.

10.Talaunggyi

Village Tract: Talaunggyi

Township: Gwa Region: Rakhine

Village Household Information

Total # HH	Total # Fisher HH	% Fisher HH of total	# Fisher HH Sampled	% Fisher HH interviewed	# inshore fishing boats
112	100	89%	10	10%	10

Fishing Gears

(some fishers may use multiple gear types)

Coor tuno	Fishers in	nterviewed
Gear type	#	%
One Boat Seine	24	80%
Beach Seine	5	20%

Annual fisheries earnings (net) and total annual household income (Myanmar kyat).

		Annual Fis	heries Earnir	ngs (MMK)	% income	Total Annual HH Income (MMK		
Group	n	Median	Min.	Max.	from fisheries	Median	Min.	Max.
All *	10	1,383,741	30,000	6,000,000	49 %	2,829,741	150,000	20,000,000
Crew	2	1,200,000	30,000	800,000	92%	1,300,000	150,000	1,333,333
Owner	8	3,000,000	320,000	6,000,000	83%	3,600,000	533,333	20,000,000

Note: n in this table may be less than the total number of HHs interviewed in this village, as some fishers did not provide data that was reliable enough to calculate net income.

Infrastructure		Education and Health		Services			
Police Office	No	Primary School	Yes	Restaurant	No		
Bank	No	Middle School	No	Tea shop	Yes		
Public transport (bus sta.)	No	High School	No	Fish processing facility	No		
Petrol station	No	Hospital	No	Fish storage facility	No		
General market	No	Community medical clinic	No	Fish market	No		
Library	No	General practitioner (doctor)	No	Guest house	No		
		Midwife	No	Community building	No		
Nurse No Monastery Ye							
% of interviewed HH with electricity ¹ : 0.0% (n = 10)							

¹Source: fisher HH surveys

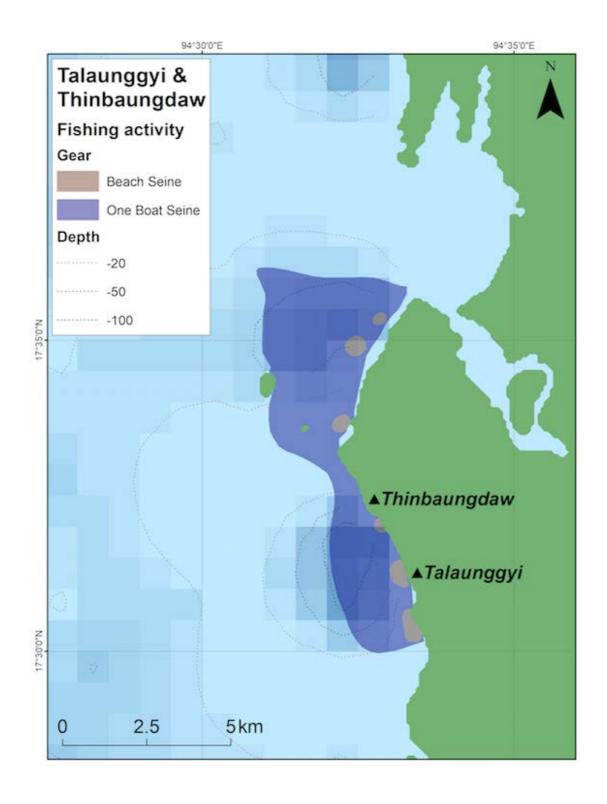


Figure A-11. Activity distribution map of fishing gears utilized in Talaunggyi and Thinbaungdaw villages.

11.Tazin

Village Tract: Tazin

Township: Shwethaungyan Region: Ayeyarwady

Village Household Information

Total # HH	Total # Fisher HH	% Fisher HH of total	# Fisher HH Sampled	% Fisher HH interviewed	# inshore fishing boats
1,455	669	46%	44	7%	105

Fishing Gears

(some fishers may use multiple gear types)

Goar type	Fishers	interviewed
Gear type	#	%
Two Boat Seine	21	40%
Drift Gill Net	9	17%
Beach Seine	3	6%
Bottom Set Gill Net	15	28%
Bottom Long Line	1	2%
Pelagic Long Line	4	8%

Annual fisheries earnings (net) and total annual household income (Myanmar kyat).

		Annual Fig	sheries Earni	ngs (MMK)	% income	Total Ann	me (MMK)	
Group	n	Median	Min.	Max.	from fisheries	Median	Min.	Max.
All *	44	2,006,250	175,000	50,000,000	80 %	2,506,250	520,000	50,000,000
Crew	20	1,200,000	175,000	10,000,000	92 %	1,300,000	520,000	10,500,000
Owner	24	3,000,000	550,000	50,000,000	83%	3,600,000	550,000	50,000,000

Note: n in this table may be less than the total number of HHs interviewed in this village, as some fishers did not provide data that was reliable enough to calculate net income.

Infrastructure		Education and Health	Services					
Police Office	No	Primary School	Yes	Restaurant	No			
Bank	No	Middle School	No	Tea shop	Yes			
Public transport (bus sta.)	No	High School	Yes	Fish processing facility	No			
Petrol station	No	Hospital	No	Fish storage facility	No			
General market	No	Community medical clinic	Yes	Fish market	No			
Library	No	General practitioner (doctor)	No	Guest house	No			
		Midwife	Yes	Community building	Yes			
Nurse No Monastery Yes								
% of interviewed HH with	% of interviewed HH with electricity ¹ : 43.2% (n = 44)							

¹Source: fisher HH surveys

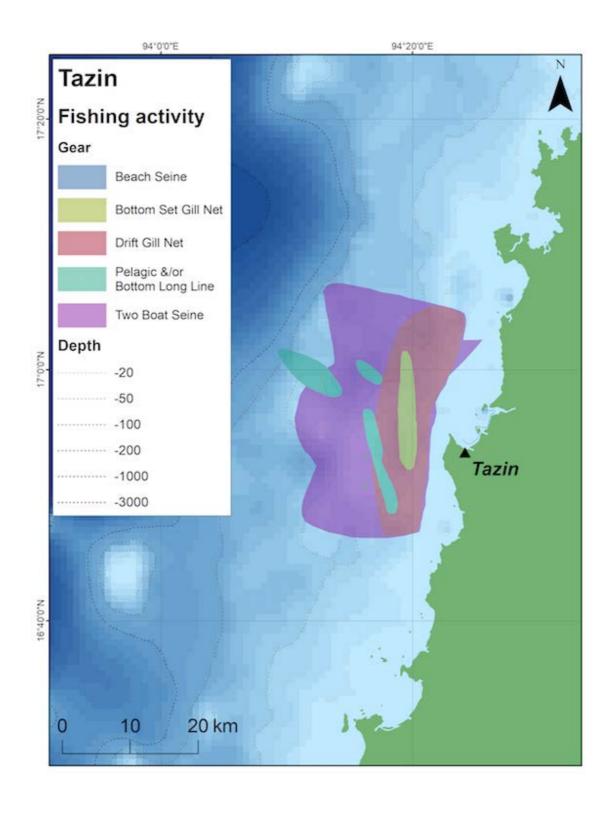


Figure A-12. Activity distribution map of fishing gears utilized in Tazin village.

12. Thinbaungdaw

Village Tract: Talaunggyi

Township: Gwa Region: Rakhine

Village Household Information

Total # HH	Total # Fisher HH	% Fisher HH of total	# Fisher HH Sampled	% Fisher HH interviewed	# inshore fishing boats
45	36	80%	9	25%	4

Fishing Gears

(some fishers may use multiple gear types)

Coor tuno	Fishers interviewed				
Gear type	#	%			
Drift Gill Net	3	33%			
Beach Seine	6	67%			

Annual fisheries earnings (net) and total annual household income (Myanmar kyat).

		Annual Fis	heries Earnir	ngs (MMK)	% income	Total Annual HH Income (MMK)			
Group	n	Median	Min.	Max.	from fisheries	Median	Min.	Max.	
All *	8	384,667	120,000	3,850,000	20 %	1,941,667	533,333	7,700,000	
Crew	4	1,200,000	120,000	320,000	92%	1,300,000	533,333	3,200,000	
Owner	4	3,000,000	449,333	3,850,000	83%	3,600,000	641,905	7,700,000	

Note: n in this table may be less than the total number of HHs interviewed in this village, as some fishers did not provide data that was reliable enough to calculate net income.

Community Assets (from key informant interviews)

Infrastructure		Education and Health	Services		
Police Office	No	Primary School	Yes	Restaurant	No
Bank	No	Middle School	No	Tea shop	Yes
Public transport (bus sta.)	No	High School	No	Fish processing facility	No
Petrol station	No	Hospital	No	Fish storage facility	No
General market	No	Community medical clinic	No	Fish market	No
Library	No	General practitioner (doctor)	No	Guest house	No
		Midwife	No	Community building	No
		Nurse	No	Monastery	Yes
% of interviewed HH with	n electri	city ¹ : 22.2% (n = 9)	•		•

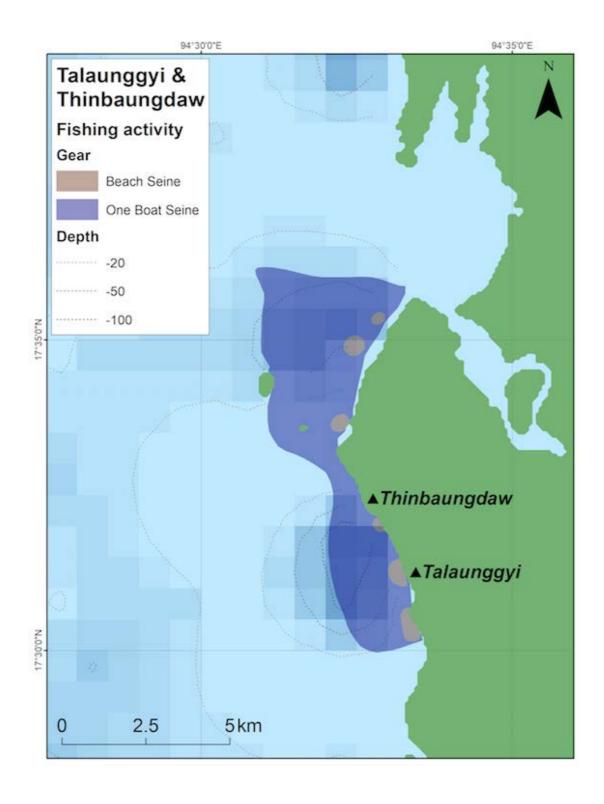


Figure A-13. Activity distribution map of fishing gears utilized in Talaunggyi and Thinbaungdaw villages.

13.Thityaung

Village Tract: Thityaung
Township: Ngayokkaung
Region: Ayeyarwady

Village Household Information

Total # HH	Total # Fisher HH	% Fisher HH of total	# Fisher HH Sampled	% Fisher HH interviewed	# inshore fishing boats
568	430	76%	40	9%	67

Fishing Gears

(some fishers may use multiple gear types)

Coor tuno	Fishers interviewed					
Gear type	#	%				
Two Boat Seine	25	60%				
Drift Gill Net	1	2%				
Set Gill Net	1	2%				
One Boat Seine	15	36%				

Annual fisheries earnings (net) and total annual household income (Myanmar kyat).

		Annual Fis	Annual Fisheries Earnings		% income	Total Annual HH Income (MMK)			
Group	n	Median	Min.	Max.	from fisheries	Median	Min.	Max.	
All *	39	1,200,000	75,000	24,000,000	100%	1,200,000	75,000	34,285,714	
Crew	30	1,200,000	75,000	3,500,000	92%	1,300,000	75,000	4,200,000	
Owner	9	3,000,000	900,000	24,000,000	83%	3,600,000	900,000	34,285,714	

Note: n in this table may be less than the total number of HHs interviewed in this village, as some fishers did not provide data that was reliable enough to calculate net income.

Community Assets (from key informant interviews)

Infrastructure		Education and Health	Services					
Police Office	No	Primary School	No	Restaurant	Yes			
Bank	No	Middle School	No	Tea shop	Yes			
Public transport (bus sta.) No		High School	Yes	Fish processing facility	No			
Petrol station	No	Hospital	No	Fish storage facility	No			
General market	No	Community medical clinic	Yes	Fish market	No			
Library Yes		General practitioner (doctor)		Guest house	No			
		Midwife	Yes	Community building	Yes			
		Nurse	No	Monastery	Yes			
% of interviewed HH with electricity ¹ : 2.5% (n = 40)								

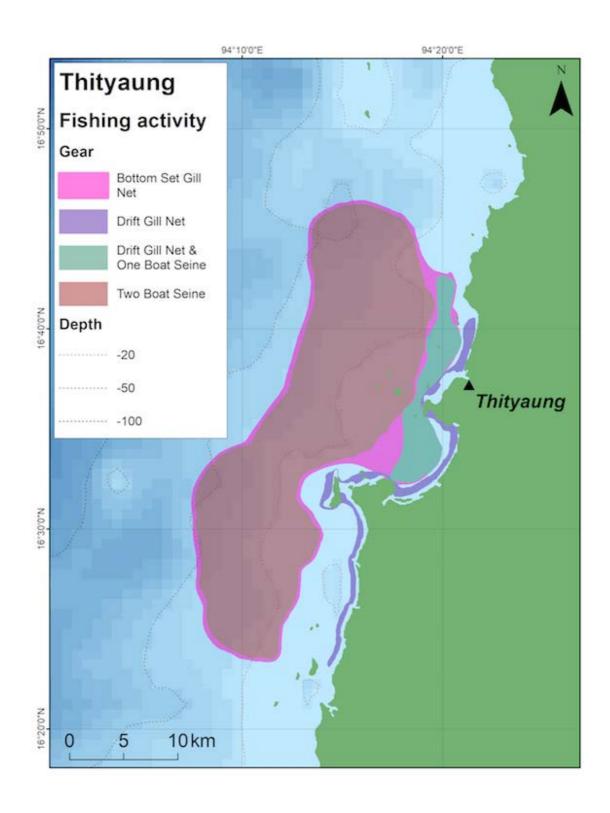


Figure A-14. Activity distribution map of fishing gears utilized in Thityaung village.

Annex 2. Data Collection Questionnaires and Templates

1.	Key Informant Site Survey: Village/community level information
2.	Fishers Participatory Mapping Workshop: Village/community level information
3.	Fishers Household Survey: Socio-economic information of fisher households
4.	Trader Household Survey: Socio-economic information of fishing related occupation households

5. Offshore fisheries survey: Fisheries and spatial use information

 Key informant site survey: Village/community level information
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The purpose of the survey is to provide socio-economic data on the inshore fisheries of the Mawtin Coast (from Gwa to Mawtin Point), to help understand fishing practices and how they contribute to households within the communities. These will contribute to baseline data that will assist in the design of future development plans in the area, while making local fisheries and marine resource use more sustainable.

Participant					UNIQUE	DENTIFIE	R:			
Date:			Intervi	ewer	:					
Interview	Tow	nship:								
Location:	Sub-	township:								
	Villa	ge Tract:								
	Village:									
Interviewee Details:										
Male / Female Occupation of respondent:							cal area cov			
Village / fishing community										
How many people live in the community? Estimation:						people	2. How ma	any are fishers	? Estimation:fishers	
or Estimation:					h	ouseholds		or Estimatio	on:fisher households	
3. How many boats are in the			Estimation:boats		4. How ma	-	Estimation:offshore			
community?						are offsho	ore and	Estimation:inshore		
5. Does eve	ery fis	her live here	all	6. If	No, how many	fish	ners come fro	om other		
year? (tick box) places? Yes □ No □				es?					fishers	

7. Where do the other fishers				
come from? (e.g. Thai, Myeik)				
8. How long do they stay?				
What time of year do they come?	From:	until		
9. What other occupations do				
people do in this community?				_
p				
				_
				_
				_
Which are most important?				
				_
				_
10. What are the main				
occupations/jobs women do?				
,				
11. Are there any women who go	Yes / No	12. If yes, how many	Boat fishing	
fishing?		do the following:	Shore fishing	
			Gleaning (nearshore)	
			Others:	
				
			Notes (e.g. gear type):	

13. What other jobs do women do				
related to fishing? (e.g. market,				
processing, trading)				
processing, traumgy				
14. Can you describe how fish are pr	ococcod and co	old when landed here?	o a whore do fishers tal	vo the fish, how and who
processes the catch, who buys it, who			e.g. where do hishers tar	te the lish, now and who
processes the eaten, who bays it, who	ere does the ca	iten go ete.,		

What are the main methods of transporting fish from landing sites? (to where?)								
	, ,							
							_	
Fishing gear and activity								
15. What type of fishing gears are used here? (tick)						ooise		
	Gear Type	✓	shark			Dolphin/porpoise		
16. Which gears are whale shark found in? (tick)			Whale shark	Turtle	Dugong	olphir	Shark	Ray
17. Which gears are turtles found in? (tick)18. Which gears are dugongs found in? (tick)19. Which gears are dolphins/porpoise found in?	Purse seine		3	ĭ	۵	Ŏ	S	~~
	Long line Trammel net							
(tick)	Beach seine							
20. Which gears are sharks/rays found in? (tick)								
	Drift gill net							

Set net

Other:

Bag/stawl net

Baby Trawler

21. Does any other type or method of fishing take place apart from the gears we have already talked about? (e.g. hooker, spear, dynamite, mosquito net, poison etc.)	
22. Do you ever see or catch sawfish? (tick box) Yes When was the last time you saw or caught one? (how n	
22b. Do you ever see saltwater crocodiles? (tick box)	Ves □ No □
Where and when was the last time you saw one? (how	
22c. Have you ever seen/heard of sea turtles nesting or	n local beaches? (tick box) Yes 🗆 No 🗆
If yes, on which beaches and when was the last time you or season?)	ou saw or heard of them nesting? (how many years ago? Which month

Management of fisheries resources

f so, what ar

Threats to fishing activities

hat do you th	ink the THREE main threats a	re to the community's	fishery? And how can t	hey be overcome/fixed?
·				
Fix:				
FIX:				
117			·	

26. What do you think the main threats are to the community's overall wellbeing and livelihoods?
Family structure
27. Are there traditional gender roles within the family or community?
28. Who typically controls the finances in a household ?

Village/community facilities ***TO BE COMPETED BY INTERVIEWER***

29. Which of these facilities are locally accessible? If they are available, how many are there? If they are not available, estimate the distance to the nearest facility Available If not available, distance to nearest (hrs **Facility** (tick box) by... foot/bicycle/car etc) **Primary School** Yes □ No □ Middle School Yes □ No □ Yes □ No □ **High School** College Yes □ No □ University Yes □ No □ Yes \square No \square Hospital Community medical clinic Yes \square No \square Yes \square No \square General practitioner (Doctor) Midwife Yes □ No □ Nurse Yes \square No \square Police Office Yes \square No \square Bank Yes □ No □ Restaurant Yes □ No □ Yes □ No □ Tea shop Petrol station Yes □ No □ Public transport (bus station) Yes □ No □ General market Yes □ No □ Yes \square No \square Fish processing facility Yes □ No □ Fish storage facility Fish market Yes □ No □ Guest house Yes □ No □ Library Yes □ No □ Community building Yes □ No □ Monastery Yes \square No \square

Other comments/notes:	









2. Fishers Parti	icipatory Mapp	ing Worksh	nop : Village/com	nmunity level information	
Participants:			UNIQUI	E IDENTIFIER:	
Date:			Conveners:		
Location:	Sub-township: Village Tract:				
No. of participant Male: Female: t				nts:	
Questions/state			tion of commu	nity polygons on acetates plac	ced over
MAP 1 (Large Scal	l <u>e)</u> line, and drift gillr	et fisheries			
different habitats	(rocky, sandy), dee	ep/shallow ar	eas, etc.)	ing in this area (e.g. local landmarks,	areas of
Landmark:	Poly	gon colour: _			
line and drift gilln	et gear?			ole from this community fish using p s of very high density/use with a dot	

Please write the m	onths of the year in which the g	gears are used in the areas
Purse Seine	Polygon Colour =	Months =
Long-line	Polygon Colour =	Months =
Drift gillnet	Polygon Colour =	Months =
3. Where do the pu	urse seine, long-line, and drift g	illnet fishers most often catch:
Use different colou	rs for each species and represer	nt areas of very high catch with a dotted line of the same colour
Turtles	Polygon Colour =	Months =
Dugongs	Polygon Colour =	Months =
Dolphins	Polygon Colour =	Months =
Porpoise	Polygon Colour =	Months =
Sharks	Polygon Colour =	Months =
Rays	Polygon Colour =	Months =
Whale shark	Polygon Colour =	Months =
commercial vessels	3	on or conflict? e.g. foreign vessels, migrant (Myanmar) fishers,
		Polygon colour =
Type of competition	n/conflict:	
		Polygon colour =
Type of competition	n/conflict:	
		Polygon colour =
Type of competition	n/conflict:	
		Polygon colour =
Type of competition	n/conflict:	
		Polygon colour =
Type of competition	n/conflict:	
		Polygon colour =

***REMEMBER TO TAKE A F	PHOTOGRAPH OF EVERY ACETATE/P	PLASTIC SHEET THAT IS CREATED FOR EACH
MAP***		
MAP 2 (Small Scale)		
All other fishing gear		
	y features that are important to fishing	in this area (e.g. local landmarks, areas of
different habitats (rocky, sandy		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Landmark:	Polygon colour:	
Landmark:	_ Polygon colour:	
Landmark:	_ Polygon colour:	
Landmark:	_ Polygon colour:	
2. Please draw a polygon on th	e map to indicate areas where people f	from this community fish using other gear types?
Use different colours for each f	ishing gears and represent areas of very	high density/use with a dotted line of the same
colour		
Please write the months of the	e year in which the gears are used in the	e areas
Gear type:	Polygon Colour =	Months =
Gear type:	Polygon Colour =	Months =
Gear type:	Polygon Colour =	Months =
Gear type:	Polygon Colour =	Months =
Gear type:	Polygon Colour =	Months =
Gear type:	Polygon Colour =	Months =
Gear type:	Polygon Colour =	Months =
(***IF MORE THAN 5 GEARS A	RE DRAWN ON THE ACETATE/PLASTIC S	SHEET, THEN REPLACE / OR OVERLAY WITH A
SECOND ACETATE/PLASTIC SH	EET TO DRAW THE POLYGONS FOR BYC	ATCH AND CONFLICT AREAS.
		UE ID, ACETATE NUMBER AND THE QUESTION
NUMBERS EACH ACETATE/PLA	STIC SHEET REPRESENTS***)	

3. Using these ge	ars where do the fishers most ofto	en catch:
Use different colo	ours for each species and represen	t areas of very high catch with a dotted line of the same
Turtles	Polygon Colour =	Months =
Dugongs	Polygon Colour =	Months =
Dolphins	Polygon Colour =	Months =
Porpoise	Polygon Colour =	Months =
Sharks	Polygon Colour =	Months =
Rays	Polygon Colour =	Months =
Whale shark	Polygon Colour =	Months =
		Polygon colour =
		Polygon colour =
		Polygon colour =
		Polygon colour =
		Polygon colour =
***REMEMBER		Polygon colour = EVERY ACETATE/PLASTIC SHEET THAT IS CREATED FOR EAC
MAP***		

Notes:	









3. Fishers Household Survey: Socio-economic information of fisher households

The purpose of the survey is to provide socio-economic data on the inshore fisheries of the Mawtin Coast (from Gwa to Mawtin Point), to help understand fishing practices and how they contribute to households within the communities. These will contribute to baseline data that will assist in the design of future development plans in the area, while making local fisheries and marine resource use more sustainable.

Demographic information	tion:		UNIQUE IDENTIFIER	: []				
Date:			Interviewers:					
Name:	(not obliga	atory)						
Interview Location:	Township:	Township:						
	Town:							
	Village Tra	ct:						
	Village:							
1. Which landing site(s) do you use? (If >1 which one do you use most often? (Circle)								
2. Nationality:			3. Place of birth:					
4. Ethnic group:								
5. Do you live here all year? (tick box))	Yes □ No □	Jan 7. Total mon 8. Where do 9. How far is	nths:o you live the rest of the years that from here? (miles)	swers) n / Jul / Aug / Sep / Oct / Nov / Dec ?				
11. If you were not born he	ere, why do	you live	Family / Work / Other	Other (explain):				
here? (circle answer)								

Fishing activity:

12. What gear types do you use? (circle)	12. What 13. What species/groups do you gear types do catch? (main target species) you use?		gear? (Tick or put a line/mark indicating the period) do you make p							16. How many trips do you <u>usually</u> make per month?	18. Do you find these species in this gear? (Tick for yes)										
Asked about others		distance, and travel time from landing site (here)?	J	F	М	A	М	J	J	A	S	0	N	D	17. How long (time) is each trip <u>usually</u> ?	Whaleshark	Turtle	Dugong	Dolphin/porpoise	Shark	Ray
Purse Seine		Depth:m Distance:nmiles Travel time:hours													# tripsper month hours						
Long-line		Depth:m Distance:nmiles Travel time:hours													# tripsper month hours						

Trammel net	Depth:m
Beach seine/net	Depth:m
Drift gill net	Depth:m
Set net	Depth:m
Baby trawler	Depth:m
Other: (e.g. compressed air, explosives, cyanide, traps)	Depth:m

Depth:m Distance:nmiles Travel	# tripsper monthhours
time:hours	
Depth:m	# tripsper
Distance:nmiles	month
Travel time:hours	hours
uncnous	

19. Do you ever see or catch sawfish? (tick box) Yes □ No □
When was the last time you saw or caught one? (how many years ago?)
19b. Do you ever see saltwater crocodiles? (tick box) Yes \square No \square
Where and when was the last time you saw one? (how many years ago? Which month or season?)
19c. Have you ever seen/heard of sea turtles nesting on local beaches? (tick box) Yes \square No \square
If yes, on which beaches and when was the last time you saw or heard of them nesting? (how many years ago? Which
month or season?)

Fishing assets and economics:

20. Do you own fishing equipment? (tick box)	Yes □ No □	If Yes, continue this section:

Boats	Unit cost (MMK)	Expected Lifetime	Annual repair or replacemen t cost (MMK)	Length (m)	Num ber of crew	Engine (tick box)	Engine type	If more than one owner, how many?
Boat (1)				Length:(m)		Yes □ No □	Make:	
Boat (2)				Length:(m)		Yes □ No □	Make:	
Boat (3)				Length:(m)		Yes □ No □	Make:	
Boat (4)				Length:(m)		Yes □ No □	Make:	

22. What type of fishin	ng gear	do you own/hav	re?							
Gear type = net, line,		Details: FOR NE	TS, LINE and TRAPS	S (per unit)						
	No.		Dimensions:	Minimum	Long-line go	ear (only)	Unit Cost	Annual repair	Expected Lifetime	If more than one
or other (e.g. spear, hookah)	NO.	Material	Length x height/width (m)	Mesh Size (mm) or specify unit	No. of hooks	Size of hooks	(ONLY for 1 item)	cost (MMK) per unit	(years)	owner, how many?
							MMK			
							MMK			
							MMK			
							MMK			
							MMK			
							MMK			
							MMK			
							ММК			

Other fishing equipment:										
23. Do you own any of the following equipment? (tick box)										
Paddle			Yes □ N	No 🗆	Bamboo d	drying rack				Yes □ No □
Knives			Yes □ N	No 🗆	Stove					Yes □ No □
Salt (for preserving)			Yes 🗆 N	No 🗆	Winch					Yes □ No □
GPS (or other navigatio										
communications aids (i.e. starband radio)			Yes □ N	No 🗆	7-10 kilo (dynamo				Yes □ No □
Signal lights			Yes 🗆 N	No 🗆	Raincoat					Yes □ No □
Fish finder (echo sound	ler)		Yes □ N	No 🗆	Hook					Yes □ No □
Ice boxes			Yes □ N	No 🗆						
24. How much do you	spend on th	nis	Estimat	e per r	nonth:		_			MMK
equipment?			<u>Or</u>							
Estimate pe					rear: MMK					MMK
Fishing expenses/in	come:									
25. Are you a: (circle ans	swers)	Boat o	wner						S	hore fisher
				/ (Captain	fisherman)				
26. How much do you <u>u</u>	icually snoi	nd on fuel r	or montl	h2			Fuel	type = Petrol /	Diesel	
(circle fuel type)	<u>лэцану</u> эрсі	ia on iaei p	er mond							_ MMK
									_ Amou	nt (gallons)
27. How much money	Estimate	per season:								
do you earn (gross)	Wet/mon	soon (May	– Septem	nber)					MMI	K
from the sale of fish?	Winter (C	october – Ja	nuary)	-					MMI	K
	Summer (February –	April)						MMł	<
Per season or per	<u>Or</u>	•	. ,							
month(<i>MMK</i>)	Estimate	per month:							MMI	K
27a.	For boat	owners: Ho	w much c	do you	pay your cr	ew per mon	ıth (av	erage)?		
									MM	K
28. How many viss to y	ou catch a	day?			_viss	29. How your fan	-	/ do you keep for		viss

30. How many do you sell?	viss	31. Who do you so (circle answers)	sell them to?	Friends Processor Collector	Community Market trader Trader
32. Do you ever sell/tra	ade fish between boats while at	sea? (tick box)	If yes, explain:	Yes □ No □	
33. Do you travel to		34. If Yes, where	and how much		
sell your catch?	Yes □ No □	does it cost?			ocation
(tick box)		(travel/accommo	odation)	cost:	MMK (per time)
35. If Yes, how many ti	mes do you travel per				
month?				times per month	
36. For the main			Buyers pric	e (MMK per viss)	
species/groups you	Species (indicate fresh or dry	***0	NLY INCLUDE PRI	CE FOR BUYERS THEY	USE***
catch, how does the	or processed)	Family/		Market	Collector/
price of fish change		friends	Processor	Warket	merchant
with buyer?		ммк	MMK	ммк	ммк
		ммк	MMK	MMK	MMK
		MMK	MMK	MMK	MMK
		MMK	MMK	MMK	MMK
		MMK	MMK	MMK	MMK
		MMK	MMK	MMK	MMK
		MMK	MMK	MMK	MMK
		MMK	MMK	MMK	MMK
		MMK	MMK	MMK	MMK
		ММК	MMK	MMK	MMK
		ммк	MMK	MMK	ММК
		ммк	MMK	MMK	ММК
		ммк	MMK	MMK	ММК
		ммк	MMK	MMK	MMK

	ММК	MMK	MMK	MMK
	ММК	ммк	MMK	MMK

Household information:

Household assets

37. Is the house you live in (circle answer): Owned by you / Owned by family / Rented / Temporary house							
38. What are the walls of the house constructed fro	m?	Brick-concrete / Wood / Bamboo / Thatch / Tarpaulin / No walls					
39. What is the roof of the house constructed from	?	Concrete-c	ement / Metal / Wood / Bamboo / T	hatch / Tarnaulin			
(circle answer)		Concrete c	ement / Wetai / Wood / Bamboo / I	naterry rarpadim			
40. What is the floor materials of the house		Concro	te-cement / Wood / Bamboo / Beete	l nalm / Earth			
constructed from? (circle answer)		Concre	te-cement / wood / Bamboo / Beete	i-paiiii / Laitii			
41. Does your household have (tick box):							
Electricity	Υe	es 🗆 No 🗆	Water tank	Yes □ No □			
Batteries	Yes □ No □		Electric stove	Yes □ No □			
Generator	Υe	es 🗆 No 🗆	Gas cooker	Yes □ No □			
Solar panel	Ye	es 🗆 No 🗆	Home Library	Yes □ No □			
Refrigerator	Ye	es 🗆 No 🗆	Car/van	Yes □ No □			
Satellite dish	Ye	es 🗆 No 🗆	Motorbike	Yes □ No □			
TV	Ye	es 🗆 No 🗆	Tricycle (engine)	Yes □ No □			
Radio	Ye	es 🗆 No 🗆	Bicycle	Yes □ No □			
Telephone (cordless)	Ye	es 🗆 No 🗆	Porcelain seat toilet	Yes □ No □			
Mobile phone	Υe	es 🗆 No 🗆	Porcelain squat toilet	Yes □ No □			
Electric fan	Ye	es 🗆 No 🗆	Plastic squat toilet	Yes □ No □			

									Total:
42. How many people live in	your	household?				Adu	ts (>16): Male	e:	Female:
						Childre	n (≤16): Male	:	_ Female:
						(i	ncluding respo	onden	t) Total:
43. How many people in your household contribute to the household income?							ts (>16): Male	e:	Female:
						Childre	n (≤16): Male	:	_ Female:
44. Are there other people v	/ho de	epend on you who don'	t live i	n your househo	old? If		Yes [□ No	
so, how many? (tick box)							Total:		
45. Number of children atter	nding	school:						Female:	
									Male:
46. Is your income from fishi	ng su	fficient to meet your ne	eds? (circle answer bel	ow)				
Not enough		Almost enough		End	ough	More than enough			in enough
47. How as the economic sta	tus of	your household chang	ed ove	er the last 12 m	onths? (circle an	swer)		
Much worse		Slightly worse		Same	S	Slightly b	etter		Much better
48. Do you have access to cr	edit?	(tick box) Yes □ No □			•				
If yes, from who? Fam	ly / co	ommunity / merchant /	boat o	wner / governn	nent				
And what type? Cash	/ Foo	d / Fishing gear / Labou	r / Fue	I					
Oth	er:								

49. What jobs or activities do yo household do for income or for f (tick box and circle answer)		ple in your	50. How many people do this job? (Number of male and female)	51. What % of income comes from each activity (e.g. >50%)	52. Please rank each jobs/activities importance (RANK ALL)
Fisher	Yes □ No □	Food / Income	Male: Female:	%	
Processor	Yes □ No □	Food / Income	Male: Female:	%	
Collector	Yes □ No □	Food / Income	Male: Female:	%	
Trader	Yes □ No □	Food / Income	Male: Female:	%	
Gleaning (e.g. collecting mangrove crab, clams, etc.)	Yes □ No □	Food / Income	Male: Female:	%	
Farming (rice)	Yes □ No □	Food / Income	Male: Female:	%	
Farming (other crops / livestock)	Yes □ No □	Food / Income	Male: Female:	%	
Salaried employment (e.g. teacher, government worker, RCA etc.)	Yes □ No □	Food / Income	Male: Female:	%	
Other informal (e.g. labouring, fixing nets. sewing, construction, rent, etc.)	Yes □ No □	Food / Income	Male: Female:	%	
				Total = 100%	

Change, threats and the future:

53. How much time do you	53. How much time do you spend fishing compared to 10 years ago? (circle answer)									
54. How much fish do you catch compared to 10 years ago? (circle answer) Less / the same / more										
55. Have you noticed any ch	55. Have you noticed any change in the size of species caught compared to 10 years ago? (circle answer)									
Smaller / the same / larger										
56. Have you noticed any ch	nange in the ty	ype of species being	caught compared to	10 years ago? (d	circle ans	wers)				
Ca	atch new ones	s / Catch the same sp	ecies / Don't catch so	ome species any	more					
57. What do you think are t	he THREE bigg	gest threats to your I	ivelihood? (<u>PLEASE (</u>	CIRCLE THREE OF	NLY)					
Ov	verfishing	Depletion of stocks	Climate change			Declining health of ironment				
	Market nequality	Lack of investment in modern gears	n Decrease of fish prices	Labour scarc	•	Lack of space and facilities for processing or adding value				
Insh	Inshore/offshore Illegal fishing Destructive fishing Lack of law Increasing travel conflict enforcement cost to fishing grounds									
58. Do you want to continue being a fisher? (tick box)										
59. Would you like your chi	ldren to do th	59. Would you like your children to do the same job as you? (tick box)								

Personal details:

60. Age (exact):	ge unknown (circle estimated age group): < 15 / $15-25$ / $26-35$ / $36-45$ / $46-55$ / > 56								
61. Level of education: (circle answer)	No schooling / Primary (Monastery) / Middle / High School / College / University	Other:							
62. Religion:									

Notes, other observations:	









4. Trader Household Survey: Socio-economic information of fishing related occupation households

The purpose of the survey is to provide socio-economic data on the inshore fisheries of the Mawtin Coast (from Gwa to Mawtin Point), to help understand fishing practices and how they contribute to households within the communities. These will contribute to baseline data that will assist in the design of future development plans in the area, while making local fisheries and marine resource use more sustainable.

Demographic informa	<u>tion</u>	UNIQUE I	IDENTIFIER:		
□ Collector/Merc□ Trader□ Processor□ Other					
Date:			Interviewers:		
Name:	(not obligatory)				Male / Female
Interview Location:	Town: Village tract:				
1. Which landing site(s)					
do you use? (If >1, which					
more often? Please					
circle)					
					
2. Nationality:			3. Place of		
			birth:		
4. Ethnic group					
	6.	If No, when do you live	•	-	
5. Do you live here all		Jan / Feb / Mar / Total months:		/ Jul / Aug / Sep / Oc	t / Nov / Dec
year?	165 🗆 140 🗀	Where do you live the			
,		How far is that from h			
		. Why do you come he			
11. If you were not born he here? (circle answer)	ere, why do you live	Family / Work / O			

Collector and processor activity and economics:

12. What species do you buy/trade/process?		13		bı			year ess t						14. Who do you buy/get the fish from?	15. What price do you buy at?	16. How are the species	17. What price do you sell at? (MMK	18. Who do you sell them to? (e.g.
(SPECIFY IF BLADDER OR GILLS OF SPECIES)	J	F	М	А	М	J	J	Α	S	0	N	D	(e.g. family, fishers, processors, boat owners)	(MMK per unit)	processed? (circle answers)	per unit)	restaurants, wholesalers)
														MMK per unit (viss,	No processing Dried	MMK	
														kg, #)	Smoked Salted	MMK	
														ММК	No processing Dried	MMK	
															Smoked Salted	MMKMMK MMK	
														NANAV.	Iced	MMK	
														ммк	No processing Dried Smoked	MMKMMK MMK	
															Salted	MMK	
														ммк	No processing Dried	MMK	
															Smoked Salted	MMK	
															Iced	ммк	

	MMK	No processing	MMK
		Dried	ММК
		Smoked	MMK
		Salted	ММК
		Iced	MMK
	MMK	No processing	MMK
		Dried	ММК
		Smoked	MMK
		Salted	MMK
		Iced	MMK
	MMK	No processing	MMK
		Dried	MMK
		Smoked	MMK
		Salted	MMK
		Iced	MMK
	MMK	No processing	MMK
		Dried	MMK
		Smoked	MMK
		Salted	MMK
		Iced	MMK
	MMK	No processing	MMK
		Dried	MMK
		Smoked	MMK
		Salted	MMK
		Iced	MMK

		MMK	No processing	MMK	
			Dried	MMK	
			Smoked	MMK	
			Salted	MMK	
			Iced	MMK	
		MMK	No processing	MMK	
			Dried	MMK	
			Smoked	MMK	
			Salted	MMK	
			Iced	MMK	
		MMK	No processing	MMK	
			Dried	MMK	
			Smoked	MMK	
			Salted	MMK	
			Iced	MMK	
		MMK	No processing	MMK	
			Dried	MMK	
			Smoked	MMK	
			Salted	MMK	
			Iced	MMK	
		MMK	No processing	MMK	
			Dried	MMK	
			Smoked	MMK	
			Salted	MMK	
			Iced	MMK	

19. Do you ever buy/sell/process:	20. What time of year do you usually buy/sell/process them?			21. Who do you buy/get them from? (e.g. fishers, processors)	22. What price do you buy at?	23. How are the species processed?	24. What price do you sell at? (MMK	25. Who do you sell them to?										
	J	F	Ν	Λ	٨	М	J	J	Α	S	0	Ν	D		(MMK per unit)	(e.g. dried, smoked)	per unit)	
Shark (meat)															MMK	No processing	MMK	
																Dried	ММК	
																Smoked	ММК	
																Salted	ММК	
																Iced	ММК	
Shark (fins)															MMK	No processing	MMK	
																Dried	ММК	
																Smoked	ММК	
																Salted	ММК	
																Iced	ММК	
Shark (gills)															MMK	No processing	MMK	
																Dried	MMK	
																Smoked	MMK	
																Salted	MMK	
																Iced	ММК	
Ray (meat)															MMK	No processing	MMK	
																Dried	MMK	
																Smoked	ММК	
																Salted	ММК	
																Iced	MMK	
																	IVIIVIK	

Ray (gills)			MMI	No processing Dried Smoked Salted Iced	MMKMMKMMKMMK	
Notes:						

26. Do you travel to sell your fish?	(tick box)			Yes □ 1	No 🗆	
27. If Yes: where, how far, and how much does it cost per trip? (travel/accommodation)		LocationDistance (mi)MMK		Location Distance (mi) MMK		Location Distance (ml) MMK
28. How much do you usually spen	nd on	Salt		MMK		
expenses for your work per montl	h?	Ice				MMK
(include non-official expenses if pa	rticipant is	Diesel/petrol				MMK
willing)		Vehicle hire				MMK
		Labour hire				MMK
		Land hire				MMK
		Drying equipment			ммк	
		Smoking equipme	nt			MMK
		Loans/credit				MMK
		Other:				MMK
		Other:		MMK		
		Other:				MMK
		Other:				MMK
29. How much money do you	Estimate p	er season:				
earn (gross) from processing or trading fish?	Wet/mons	oon (May – Septem	ber)			MMK
trading non.	Winter (Oc	tober – January)				MMK
Per season or per month or per	Summer (F	ebruary – April)	-			MMK
year (MMK) – only one of three ways	<u>Or</u>					
	Estimate p	er month:		MMK		
	<u>Or</u>					
	Estimate p	er year:				_ММК

Household information:

30. Is the house you live in (circle answer):

Household assets

31. What are the walls of the house constructed from	m?	Brick-cond	crete / Wood /	Bamboo / Thatch / Ta	rpaulin/ No walls
(circle answer)					,
32. What is the roof of the house constructed from	?	Concrete-	cement / Metal	/ Wood / Bamboo)/T	hatch / Tarpaulin
(circle answer)					
33. What is the floor materials of the house		Concre	ete-cement / W	ood / Bamboo / Beete	l-palm / Earth
constructed from? (circle answer)					
34. Does your household have (tick box):	•				
Electricity	Ye	es 🗆 No 🗆	Water tank		Yes □ No □
Batteries	Ye	es 🗆 No 🗆	Electric stove		Yes □ No □
Generator	Ye	es 🗆 No 🗆	Gas cooker		Yes □ No □
Solar panel	Ye	es 🗆 No 🗆	Home Library		Yes □ No □
Refrigerator	Ye	es 🗆 No 🗆	Car/van		Yes □ No □
Satellite dish	Ye	es 🗆 No 🗆	Motorbike		Yes □ No □
TV	Ye	es 🗆 No 🗆	Tricycle (engin	ne)	Yes □ No □
Radio	Ye	es 🗆 No 🗆	Bicycle		Yes □ No □
Telephone (cordless)	Ye	es 🗆 No 🗆	Porcelain seat	toilet	Yes □ No □
Mobile phone	Ye	es 🗆 No 🗆	Porcelain squa	nt toilet	Yes □ No □
Electric fan	Ye	es 🗆 No 🗆	Plastic squat to	oilet	Yes □ No □
Household income/occupations					
					Total:
35. How many people live in your household?			Adults (>16): Male:_	Female:	
				Children (≤16): Male:_	Female:
		(including respondent) Total:			
36. How many people in your household contribute	Adults (>16): Male:_	Female:			

Owned by you / Owned by family / Rented / Temporary house

Children (≤16): Male:_____ Female:_

37. Are there other poso, how many? (tick be		epend on you who don'	t live in your h	ousehold? If		Yes	□ No □
So, now many. (week so	<i>SN</i> ₁					Total:	
38. Number of childre	en attending	school:					Female:
39. Is your income from	om fishing-re	lated activities sufficier	it to meet you	needs? (circle	e answer be	elow)	
Not enoug	h	Almost enough		Enough		Мс	ore than enough
40. How as the econo	mic status o	f your household chang	ed over the las	t 12 months?	(circle an	swer)	
Much worse		Slightly worse	Same		Slightly b	etter	Much better
41. Do you have acce	ss to credit?	Yes / No		·			
If yes, from who?	Family / c	ommunity / merchant /	boat owner / g	overnment /	oank		
And what type?	Cash / Foo	od / Fishing gear / Labou	r / Fuel				
	Other:						

42. What jobs or activities do yo household do for income or for to (tick box and circle answer)		ple in your	43. How many people do this job? (Number of male and female)	44. What % of income comes from each activity (e.g. >50%)	45. Please rank each jobs/activities importance (RANK ALL)
Fisher	Yes □ No □	Food / Income	Male: Female:	%	
Processor	Yes □ No □	Food / Income	Male: Female:	%	
Collector	Yes □ No □	Food / Income	Male: Female:	%	
Trader	Yes □ No □	Food / Income	Male: Female:	%	
Gleaning (e.g. collecting mangrove crab, clams, etc.)	Yes □ No □	Food / Income	Male: Female:	%	
Farming (rice)	Yes □ No □	Food / Income	Male: Female:	%	
Farming (other crops, livestock)	Yes □ No □	Food / Income	Male: Female:	%	
Salaried employment (e.g. teacher, government worker, RCA etc.)	Yes □ No □	Food / Income	Male: Female:	%	
Other informal (e.g. labouring, fixing nets. sewing, construction, rent, etc.)	Yes □ No □	Food / Income	Male: Female:	%	
				Total = 100%	

Change, threats and the future:

46. How much time do you spend fish trading/collecting/processing compared to 10 years ago? (circle answer)										
Less / the same / more										
47. How much fish do you sell/pro	cess compared to 10 years	ago? (circle answer)		Less / the same / more						
48. Have you noticed any change i	n the size of species caught	compared to 10 ye	ears ago? (circle ai	nswer)						
	Smaller / the	same / larger								
49. Have you noticed any change i	n the type of species being	caught compared t	to 10 years ago? ((circle answers)						
Catch ne	w ones / Catch the same sp	ecies / Don't catch	some species any	ymore						
50. What do you think are the THF	EE biggest threats to your l	livelihood? (please	circle three ONLY	r)						
Overfishin	g Depletion of Cl stocks	tion/ Declining health of marine environment								
Market inequality	Lack of investment in modern gears	Decrease of fish prices	Labour scarci	ty Lack of space and facilities for processing or adding value						
Inshore/c confl	of law Increasing travel cement cost to fishing grounds									
51. Do you want to continue being	Yes □ No □									
52. Would you like your children t	Yes □ No □									

Personal details:

53. Age (exact):	Age unknown (circle estimated age group): < 15 / 15 – 25 / 26 – 35 / 36 – 45	/ 46-55 / > 56
54. Level of education: (circle answer)	No schooling / Primary (Monastery) / Middle / High School / College / University	Other:
55. Religion:		

Notes, other observations:		









5. Offshore fisheries survey: Fisheries and spatial use information

The purpose of the survey is to provide fishery, spatial use and community information for boats using the offshore waters adjacent to the west coastline of the Ayeyarwady region. The information will help understand the fishing fleets, fishing activity, and communities that could be impacted by any development planned in this area (offshore from Gwa in the north to Mawtin Point in the south), and provide focus for further investigation.

Fishery information:		UNIQUE IDENTII	FIER:				\Box
Date:	_	Interviewer:					
Name:	(not obligatory)						
Interview Location:	Township:						
	Village Tract:						
	Village:						
1. What is your job/role	? (circle answers)	Business/Boat Owner	Boat Captain	Boat	t Crew	Other:	
2. Nationality:		3. Place of residence:			4. Ethn	ic group:	
5. What type of fishing/boat licence do you have?							
Where does it allow you to fish? (offshore blocks or areas)	Type:		Where	e:			
6. Are there other permits or registration required for you to fish/work offshore? (please detail)							_ _ _
7. Where do you land your catch? Please list if more than one site	2						_ _
8. Where do the boat crew (mainly) live? (townships/villages)	2						_ _ _

Fishing activity:

9. What gear types do you use? (circle) ***Asked	10. What are your target fish species/groups?	11. What depth do you use this gear? (MAX depth)		gear? (Tick or put a line/mark indicating the period)						13. How many trips do you <u>usually</u> make per year?	15. Do you find these species in this gear? (Tick for yes) - indicate species if possible										
about others***			J	F	М	A	М	J	J	А	S	o	N	D	14. How long (time) is each trip <u>usually</u> ?	Whaleshark	Turtle	Dugong	Whale, Dolphin	Shark	Ray
Purse Seine		Depth:m													per year						
Long-line		Depth:m										пина отнива отнива отнива отнива отнива отнива отнива от			per year						
Trawler		Depth:m													per year						
Drift gill net		Depth:m													per year						
Trap (entrapping gear)		Depth:m													per year						

Cast net (squid)	Depth:m			per year	
(squiu)				days	
Others? Please list:	Donth			per year	
	Depth:m			days	
	Depth: m			per year	
	<i>Бери</i> іп			days	

Other notes / description of fishing activity:

Other boat companies / fleets fishing in the target area?

Fishing equipment and economics:

Boats	Unit cost (MMK)	Expected Lifetime (Years)	Annual repair cost (MMK)	Length(m)	No. of crew	Engine type	If more than one owner, how many?
Boat (1)		yrs		Length:(m)		Make:	
3oat (2)		yrs		Length:(m)		Make:	
Boat (3)		yrs		Length:(m)		Make:	
Boat (4)		yrs		Length:(m)		Make:	
Boat (5)		yrs		Length:(<i>m</i>)		Make:	
Boat (6)		yrs		Length:(m)		Make:	

17. What type of fishing gear do you own/use? **Details: FOR NETS, LINE and TRAPS** Gear type = net, line, Long-line gear (ONLY) **Annual repair** Expected **Dimensions:** Cost Minimum Lifetime cost (MMK) No. (ONLY for 1 or other (e.g. traps) Length x Material No. of Size of Mesh Size (years) height/width item) hooks hooks MMK _yrs MMK _yrs MMK _yrs MMK _yrs MMK _yrs MMK _yrs MMK _yrs

_MMK

_yrs

Fishing expenses/income:

18. How much do you <u>u</u>	sually spend on fuel per trip?		Fuel type = Petrol / Diesel					
(circle fuel type)						_MMK		
19. How many viss to ye	ou usually catch a trip? (estimate				viss			
20. For the target			Pri	ce (M	MK per viss)			
species/groups you	Species	***ON	ILY INPUT P	RICE F	OR THE TYPE THE	EY SELL***		
catch, how much do		Fresh	Fresh Dried		Salted	Other:		
you <u>usually</u> sell them								
for?		ММК		ИМК	MMK	MMK		
		ММК		ΜМК	MMK	MMK		
		ММК		ммк	MMK	MMK		
		ММК		ммк	MMK	MMK		
		ММК		имк	MMK	MMK		
		ММК	1	ΜМК	MMK	MMK		
		ММК	1	имк	MMK	MMK		
		ММК		имк	MMK	MMK		
		ММК		имк	MMK	MMK		
		ММК		имк	MMK	MMK		
		ММК		имк	MMK	MMK		
		ММК		имк	MMK	MMK		
		ММК		ΜМК	MMK	MMK		
		ММК		ИМК	MMK	MMK		
		ММК		ИМК	MMK	MMK		
		ММК		ммк	MMK	MMK		

Mapping fishing activity

A. On the supplied map(s) could you please draw a polygon/shape indicating where you fish?	
B. Within these drawn areas please could you also draw a dotted lined polygon/shape identifying the most fished	
areas (hotspots)?	
C. If you use more than one gear please use different colours to complete A & B above for each gear.	
Notes, other observations:	

Department of Fisheries Fishing Grounds of Myanmar and Landing Sites

