APPENDIX -5

COST AND BENEFIT CALCULATION

5-1 MODEL FISHING BOAT

5-2 FISHERY COMPLEX

5-3 FISH TRANSPORT TRUCK

5-4 MULTIPURPOSE BOAT

APPENDIX 5-1. COST & BENEFITS CALCULATION ON MODEL FISHING BOATS

Table 5-1-1 BIMA

3	days per trip
8	trips/month
10	persons including Captain & Chief engineer

							Per one trip		In one month	In one year
Direct expenses for fishing operation										
Fuel oil	450	litter	1,500	Rp/litter			675,000	Rp	5,400,000	
Lubricant oil	30	(liter/month)	12,000	Rp/litter			45,000		360,000	
Ice	1,500	kg	300	Rp/kg			450,000		3,600,000	
Kerosin oil for lamps	0	litter		Rp/litter			0		0	
Water	300	litter	15	Rp/litter			4,500		36,000	
Cigarette	3,000	Rp/p/day	3	days			90,000		720,000	
Foods	3,500	Rp/p/day	3	days			105,000		840,000	
sub-total							1,369,500	Rp	10,956,000	120,516,000
Salary for Capt.& C/Eng'er	1,000,000	Rp/month					125,000		1,000,000	12,000,000
Salary for Chief engineer	800,000	Rp/month					100,000		800,000	9,600,000
Total operation cost (A)							1,594,500	Rp	12,756,000	142,116,000
Quantity of Catch	1,200	kg/Trip							Catch/month(kg)	Catch/year(kg)
Sales of catch									9,600	105,600
Layang	200	kg	1,000	Rp/kg			200,000	Rp		
Tongkol	900	kg	2,000	Rp/kg			1,800,000	Rp		
Cakalang	100	kg	3,000	Rp/kg			300,000	Rp		
Sales amount (B)							2,300,000	Rp	18,400,000	202,400,000
Gross profit (B) - (A)							705,500	Rp	5,644,000	60,284,000
Share of Gross profit										
Share for Owner	50	%					352,750		2,822,000	30,142,000
Share for crew in total =	50	%					352,750		2,822,000	30,142,000
Average per person	10	person					35,275		282,200	3,014,200
(Fishermen group and Capt.& C/Eng'er)										
Expenses for Repair										
Boat	1	%					68,182			6,000,000
Diesel engine	3	%					119,318			10,500,000
Equipment	1	%					17,045			1,500,000
Fishing gears	10	%					90,909			8,000,000
Expenses for Repair in total							295,455	Rp	2,363,636	26,000,000
Balance							57,295	Rp	458,364	4,142,000
Depreciation	(Initial cost)									
Boat	600,000,000		20	years			340,909		2,727,273	30,000,000
Diesel engine	350,000,000		10	years			397,727		3,181,818	35,000,000
Equipment	150,000,000		5	years			340,909		2,727,273	30,000,000
Fishing gears	80,000,000		3	years			303,030		2,424,242	26,666,667
	1,180,000,000						1,382,576	Rp	11,060,606	121,666,667

Table 5-1-2 DOMPU

3	days per trip	
8	trips/month	
10	persons including Captain & Chief engineer	

					Per one trip	In one month	In one year
Direct expenses for fishing operation							
• Fuel oil	450	litter	1,500	Rp/litter	675,000 Rp	5,400,000	
Lubricant oil	30	(liter/month)	12,000	Rp/litter	45,000	360,000	
• Ice	1,500	kg	300	Rp/kg	450,000	3,600,000	
• Kerosin oil for lamps	20	litter	1,000	Rp/litter	20,000	160,000	
• Water	300	litter	15	Rp/litter	4,500	36,000	
• Cigarette	3,000	Rp/p/day	3	days	90,000	720,000	
• Foods	3,500	Rp/p/day	3	days	105,000	840,000	
• • sub-total					1,389,500 Rp	11,116,000	122,276,000
Salary for Capt.& C/Eng'er	1,000,000	Rp/month			125,000	1,000,000	12,000,000
Salary for Chief engineer	800,000	Rp/month			100,000	800,000	9,600,000
Total operation cost (A)					1,614,500 Rp	12,916,000	143,876,000

						Catch/month(kg)	Catch/year(kg)
Quantity of Catch	1,200	kg/Trip				9,600	105,600
Sales of catch							
Layang	300	kg	1,000	Rp/kg	300,000 Rp		
Tongkol	700	kg	2,000	Rp/kg	1,400,000 Rp		
Cakalang	200	kg	3,000	Rp/kg	600,000 Rp		
• Sales amount (B)					2,300,000 Rp	18,400,000	202,400,000

Gross profit (B) - (A)					685,500 Rp	5,484,000	58,524,000
Share of Gross profit							
Share for Owner	50	%			342,750	2,742,000	29,262,000
Share for crew in total• •	50	%			342,750	2,742,000	29,262,000
Average per person	10	person			34,275	274,200	2,926,200
		• •Capt & C/Eng'er and Crew• •					
Expenses for Repair							
• Boat	1	%			68,182		6,000,000
• Diesel engine	3	%			119,318		10,500,000
• • quipment	1	%			17,045		1,500,000
• Fishing gears	10	%			90,909		8,000,000
Expenses for Repair in total					295,455 Rp	2,363,636	26,000,000
Balance					47,295 Rp	378,364	3,262,000

Depreciation	(Initial cost)					
• Boat	600,000,000	20	years	340,909	2,727,273	30,000,000
• Diesel engine	350,000,000	10	years	397,727	3,181,818	35,000,000
• Equipment	150,000,000	5	years	340,909	2,727,273	30,000,000
• Fishing gears	80,000,000	3	years	303,030	2,424,242	26,666,667
	1,180,000,000			1,382,576 Rp	11,060,606	121,666,667

Table 5-1-3 FLORES TIMUR & LEMBATA

3	days per trip	
8	trips/month	
10	persons including Captain & Chief engineer	

					Per one trip	In one month	In one year
Direct expenses for fishing operation							
• Fuel oil	450	litter	1,500	Rp/litter	675,000 Rp	5,400,000	
Lubricant oil	30	(liter/month)	12,000	Rp/litter	45,000	360,000	
• Ice	1,500	kg	300	Rp/kg	450,000	3,600,000	
• Kerosin oil for lamps	20	litter	1,000	Rp/litter	20,000	160,000	
• Water	300	litter	15	Rp/litter	4,500	36,000	
• Cigarette	3,000	Rp/p/day	3	days	90,000	720,000	
• Foods	3,500	Rp/p/day	3	days	105,000	840,000	
• • sub-total					1,389,500 Rp	11,116,000	122,276,000
Salary for Capt.& C/Eng'er	1,000,000	Rp/month			125,000	1,000,000	12,000,000
Salary for Chief engineer	800,000	Rp/month			100,000	800,000	9,600,000
Total operation cost (A)					1,614,500 Rp	12,916,000	143,876,000

						Catch/month(kg)	Catch/year(kg)
Quantity of Catch	1,200	kg/Trip				9,600	105,600
Sales of catch							
Layang	500	kg	1,670	Rp/kg	835,000 Rp		
Tongkol	600	kg	2,000	Rp/kg	1,200,000 Rp		
Cakalang	100	kg	2,000	Rp/kg	200,000 Rp		
• Sales amount (B)					2,235,000 Rp	17,880,000	196,680,000
Gross profit (B) - (A)					620,500 Rp	4,964,000	52,804,000
Share of Gross profit							
Share for Owner	50	%			310,250	2,482,000	26,402,000
Share for crew in total• •	50	%			310,250	2,482,000	26,402,000
Average per person	10	person			31,025	248,200	2,640,200
		• •Capt.& C/Eng'er and Crew• •					
Expenses for Repair							
• Boat	1	%			68,182		6,000,000
• Diesel engine	3	%			119,318		10,500,000
• • quipment	1	%			17,045		1,500,000
• Fishing gears	10	%			90,909		8,000,000
Expenses for Repair in total					295,455 Rp	2,363,636	26,000,000
Balance					14,795 Rp	118,364	402,000

Depreciation	(Initial cost)					
• Boat	600,000,000	20	years	340,909	2,727,273	30,000,000
• Diesel engine	350,000,000	10	years	397,727	3,181,818	35,000,000
• Equipment	150,000,000	5	years	340,909	2,727,273	30,000,000
• Fishing gears	80,000,000	3	years	303,030	2,424,242	26,666,667
	1,180,000,000			1,382,576 Rp	11,060,606	121,666,667

Table 5-1-4 SIKKA AND ENDE

3	days per trip	
8	trips/month	
10	persons including Captain & Chief engineer	

					Per one trip	In one month	In one year
Direct expenses for fishing operation							
• Fuel oil	450	litter	1,500	Rp/litter	675,000 Rp	5,400,000	
Lubricant oil	30	(liter/month)	12,000	Rp/litter	45,000	360,000	
• Ice	1,500	kg	300	Rp/kg	450,000	3,600,000	
• Kerosin oil for lamps	20	litter	1,000	Rp/litter	20,000	160,000	
• Water	300	litter	15	Rp/litter	4,500	36,000	
• Cigarette	3,000	Rp/p/day	3	days	90,000	720,000	
• Foods	3,500	Rp/p/day	3	days	105,000	840,000	
• • sub-total					1,389,500 Rp	11,116,000	122,276,000
Salary for Capt.& C/Eng'er	1,000,000	Rp/month			125,000	1,000,000	12,000,000
Salary for Chief engineer	800,000	Rp/month			100,000	800,000	9,600,000
Total operation cost (A)					1,614,500 Rp	12,916,000	143,876,000

						Catch/month(kg)	Catch/year(kg)
Quantity of Catch	1,200	kg/Trip					
Sales of catch						9,600	105,600
Layang	400	kg	2,000	Rp/kg	800,000 Rp		
Tongkol	700	kg	2,000	Rp/kg	1,400,000 Rp		
Cakarang	100	kg	2,500	Rp/kg	250,000 Rp		
• Sales amount (B)					2,450,000 Rp	19,600,000	215,600,000

Gross profit (B) - (A)					835,500 Rp	6,684,000	71,724,000
Share of Gross profit							
Share for Owner	50	%			417,750	3,342,000	35,862,000
Share for crew in total• •	50	%			417,750	3,342,000	35,862,000
Average per person	10	person			41,775	334,200	3,586,200
• •Fishermen group and Capt.& C/Eng'er• •							
Expenses for Repair							
• Boat	1	%			68,182		6,000,000
• Diesel engine	3	%			119,318		10,500,000
• • quipment	1	%			17,045		1,500,000
• Fishing gears	10	%			90,909		8,000,000
Expenses for Repair in total					295,455 Rp	2,363,636	26,000,000
Balance					122,295 Rp	978,364	9,862,000

Depreciation	(Initial cost)					
• Boat	600,000,000	20	years	340,909	2,727,273	30,000,000
• Diesel engine	350,000,000	10	years	397,727	3,181,818	35,000,000
• Equipment	150,000,000	5	years	340,909	2,727,273	30,000,000
• Fishing gears	80,000,000	3	years	303,030	2,424,242	26,666,667
	1,180,000,000			1,382,576 Rp	11,060,606	121,666,667

ANNEX 5-2. COST & BENEFIT CALCUATION ON FISHERY COMPLEX

Table 5-2-1 WAWORADA FISHERY COMPLEX

Annual Fish Landing Volume	4847	ton/yr.	No. of boats entry	17663	boats/yr
For sales in fresh fish	2573	ton/yr.	Purse seine	8319	boats/yr.
For processed fish (local)	1981	ton/yr.	Gill-net/hand line	3044	boats/yr
For processed fish (outside)	293	ton/yr.	Collecting boats	6300	boats/yr.

REVENUE		Capacity	Sales ratio	Operating days	Sales volume	Unit Price	Annual Revenue (million Rp.)			
		(ton/day)		(days/yr)	(ton/yr)	(Rp./kg)	First 2 years	3 - 5 years	6 - 15 years	Yearly average
Sales of Ice	Sale by 5kg bag	6	0.9	270	467	340	158.63	158.63	158.63	158.63
	Sale by 25kg block				991	320	317.26	317.26	317.26	317.26
					No. of boats	(Rp./time)				
Service charge	Boat mooring	Kpl. motor			17663	1000	9.71	14.13	17.66	15.90
		exist box (kg)	cool box (kg)	Ratio of user	No. of boxes	(Rp./box/day)				
	Handling area	15	30	32%	27445	500	7.55	10.98	13.72	12.35
	(For fresh fish)	30	50	22%	11321	1000	6.23	9.06	11.32	10.19
		45	80	46%	14793	1500	12.21	17.75	22.19	19.97
			Vol.(kg/psn)		No. of psn	(Rp./psn/day)				
	(For processing)		50		45480	500	12.51	18.19	22.74	20.47
			Quantity		No. of days	(Rp./unit/day)				
Rental fee	*Cool box*	*300L*	19		300	*1000*	3.14	4.56	5.70	5.13
	Kiln for boiling/roasting		10		300	500	0.83	1.20	1.50	1.35
	Smoking kiln		2		300	500	0.17	0.24	0.30	0.27
Total Revenue							528.22	552.00	571.03	561.51

EXPENSES		Capacity	Power ratio	Operating hrs	Operating days	Unit Cost	Annual Cost (million Rp.)			
Item		(kw)		(hrs/day)	(days/yr)	(Rp/kw)	First 2 years	3 - 5 years	6 - 15 years	Yearly average
Electricity	Ice plant	54	0.8	24	270	500	139.97	139.97	139.97	139.97
	Ice storage	6	0.5	24	270	500	9.72	9.72	9.72	9.72
	Pump	3	0.8	6	300	500	2.16	2.16	2.16	2.16
	Lighting, etc.	3	0.3	8	300	500	1.08	1.08	1.08	1.08
		(m3/day)				(Rp/m3)				
Water	Ice plant	7.2			270	5000	9.72	9.72	9.72	9.72
	General	13.2			300	5000	19.80	19.80	19.80	19.80
		(No.of psn)			(month/yr)	(Rp/month)				
Manpower	Manager	1			12	1500000	18.00	18.00	18.00	18.00
	Asst. Manager	1			12	750000	9.00	9.00	9.00	9.00
	Mechanics	1			12	1200000	14.40	14.40	14.40	14.40
	Asst. mechanics	1			12	600000	7.20	7.20	7.20	7.20
	Market control	5			12	500000	30.00	30.00	30.00	30.00
	Accountant	2			12	500000	12.00	12.00	12.00	12.00
	Workers	7			12	400000	33.60	33.60	33.60	33.60
	Guardman	2			12	350000	8.40	8.40	8.40	8.40
					(month/yr)	(Rp/month)				
Consumables	Office materials				12	300000	3.60	3.60	3.60	3.60
		(kg/bag)			(No.of bag)	(Rp./pc)				
	Plastic bag for ice	5			94000	20	1.88	1.88	1.88	1.88
Maintenance	Equipment	Ice plant					7.98	15.95	31.90	25.52
		Ice storage					1.00	2.01	4.01	3.21
		Processing eq.					*0.18*	*0.18*	*0.18*	*0.18*
		Workshop eq					0.17	0.17	0.17	0.17
	Facilities	Civil					18.92	18.92	18.92	18.92
		Building					60.41	60.41	60.41	60.41
Depreciation	Ice plant						79.76	79.76	79.76	79.76
	Ice storage						10.03	10.03	10.03	10.03
	Cool Box						5.02	5.02	5.02	5.02
	Fish containers						1.58	1.58	1.58	1.58
	Scale						0.66	0.66	0.66	0.66
	Processing eq.						5.42	5.42	5.42	5.42
	Workshop eq.						3.30	3.30	3.30	3.30
Total Cost							514.94	523.92	541.88	534.70

Balance (Net Profit before Tax)							13.27	28.08	29.15	26.82

Table 5-2-2. KEMPO FISHERY COMPLEX

Annual Fish Landing Volume	3483	ton/yr.
For sales in fresh fish	1989	ton/yr.
For processed fish (local)	1286	ton/yr.
For processed fish (outside)	208	ton/yr.

No. of boats entry	24858	boats/yr.
Bagan	8017	boats/yr.
Purse seine	2613	boats/yr.
Gill-net/hand-line	3235	boats/yr.
Collecting boats	10993	boats/yr.

REVENUE		Capacity	Sales ratio	Operating days	Sales volume	Unit Price	Annual Revenue (million Rp.)			
		(ton/day)		(days/yr)	(ton/yr)	(Rp./kg)	First 2 years	3 - 5 years	6 - 15 years	Yearly average
Sales of ice	Sale by 5kg bag	3.5	0.9	225	489	380	185.83	185.83	185.83	185.83
	Sale by 25kg block				220	360	79.10	79.10	79.10	79.10
					No. of boats	(Rp./time)				
Service charge	Boat mooring	Gill-net/Hand-line & Collect boat			14228	1000	7.83	11.38	14.23	12.81
	(For kpl. motor)	Bagan & Purse seine			10630	500	2.92	4.25	5.32	4.78
		exist box (kg)	cool box (kg)	Ratio of user	No. of boxes	(Rp./box/day)				
	Handling area	15	30	69%	45747	500	12.58	18.30	22.87	20.59
	(For fresh fish)	30	50	19%	7558	1000	4.16	6.05	7.56	6.80
		45	80	12%	2983	1500	2.46	3.58	4.47	4.03
			Vol.(kg/psn)		No. of psn.	(Rp./psn/day)				
	(For processing)		50		29880	500	8.22	11.95	14.94	13.45
			Quantity		No. of days	(Rp./box/day)				
Rental fee	Cool box	300L	0		300	1000	0.00	0.00	0.00	0.00
	Kiln for boiling/roasting		3		300	500	0.25	0.36	0.45	0.41
	Smoking kiln		0		300	500	0.00	0.00	0.00	0.00
Total Revenue							303.34	320.80	334.77	327.79

EXPENSES		Capacity	Power ratio	Operating hrs	Operating days	Unit Cost	Annual Cost (million Rp.)			
Item		(kw)		(hrs/day)	(days/yr)	(Rp/kw)	First 2 years	3 - 5 years	6 - 15 years	Yearly average
Electricity	Ice plant	31.5	0.8	24	225	500	68.04	68.04	68.04	68.04
	Ice storage	2.5	0.5	24	225	500	3.38	3.38	3.38	3.38
	Pump	3	0.8	6	300	500	2.16	2.16	2.16	2.16
	Lighting, etc.	3	0.3	8	300	500	1.08	1.08	1.08	1.08
		(m3/day)				(Rp/m3)				
Water	Ice plant	4.2			225	5000	4.73	4.73	4.73	4.73
	General	11.9			300	5000	17.85	17.85	17.85	17.85
		(No.of psn)		(days/yr)	(month/yr)	(Rp/month)				
Manpower	Manager	1		30	0	50000	1.50	1.50	1.50	1.50
	Asst. Manager	1			12	500000	6.00	6.00	6.00	6.00
	Mechanics	1		30	0	50000	1.50	1.50	1.50	1.50
	Asst. mechanics	1			12	500000	6.00	6.00	6.00	6.00
	Market control	3			12	500000	18.00	18.00	18.00	18.00
	Accountant	1			12	400000	4.80	4.80	4.80	4.80
	Workers	4			12	300000	14.40	14.40	14.40	14.40
	Guardman	2			12	200000	4.80	4.80	4.80	4.80
					(month/yr)	(Rp/month)				
Consumables	Office materials				12	175000	2.10	2.10	2.10	2.10
		(kg/bag)			(No.of bag)	(Rp./pc)				
	Plastic bag for ice	5			98000	20	1.96	1.96	1.96	1.96
Maintenance	Equipment	Ice plant					5.82	11.63	23.26	18.61
		Ice storage					0.82	1.63	3.27	2.61
		Processing eq.					0.18	0.18	0.18	0.18
		Workshop eq.					0.17	0.17	0.17	0.17
	Facilities	Civil					12.49	12.49	12.49	12.49
		Building					48.65	48.65	48.65	48.65
Depreciation	Ice plant						58.15	58.15	58.15	58.15
	Ice storage						8.17	8.17	8.17	8.17
	Cool Box						0.00	0.00	0.00	0.00
	Fish containers						1.14	1.14	1.14	1.14
	Scale						0.66	0.66	0.66	0.66
	Processing eq.						5.78	5.78	5.78	5.78
	Workshop eq.						3.30	3.30	3.30	3.30
Total							303.60	310.23	323.49	318.19
Balance (Net Profit before Tax)							(0.26)	10.57	11.28	9.60

Table 5-2-3. HU'U FISHERY COMPLEX

Annual Fish Landing Volume	1310	ton/yr.	No. of boats entry	5756	boats/yr.
For sales in fresh fish	689	ton/yr.	Purse seine	2911	boats/yr.
For processed fish (local)	424	ton/yr.	Gill-net	765	boats/yr
For processed fish (outside)	197	ton/yr	Hand-line	2080	boats/yr.

REVENUE		Capacity	Sales ratio	Operating days	Sales volume	Unit Price	Annual Revenue (million Rp)			
		(ton/day)		(days/yr)	(ton/yr)	(Rp./kg)	First 2 years	3 - 5 years	6 - 15 years	Yearly average
Sales of ice	Sale by 1.5kg bag	1	0.9	245	220.5	420	92.61	92.61	92.61	92.61
					No. of boats	(Rp./time)				
Service charge	Boat mooring	Kpl. motor			5756	500	1.58	2.30	2.88	2.59
		exist box (kg)	cool box (kg)	Ratio of user	No. of boxes	(Rp./box/day)				
	Handling area	15	30	100%	22966	500	6.32	9.19	11.48	10.33
	(For fresh fish)	30	50	0%	0	1000	0.00	0.00	0.00	0.00
		45	80	0%	0	1500	0.00	0.00	0.00	0.00
			Vol (kg/psn)		No. of psn.	(Rp./psn/day)				
	(For processing)		50		12420	500	3.42	4.97	6.21	5.59
			Quantity		No. of days	(Rp./box/day)				
Rental fee	Cool box	300L	4		300	1000	0.66	0.95	1.20	1.08
	Kiln for boiling/roasting		6		300	500	0.50	0.72	0.90	0.81
	Smoking kiln		3		300	500	0.25	0.36	0.45	0.41
Total Revenue							105.33	111.11	115.73	113.42

EXPENSES		Capacity	Power ratio	Operating hrs	Operating days	Unit Cost	Annual Cost (million Rp)			
Item		(kw)		(hrs/day)	(days/yr)	(Rp./kw)	First 2 years	3 - 5 years	6 - 15 years	Yearly average
Electricity	Small freezer	4	0.8	24	245	500	9.41	9.41	9.41	9.41
	Cool box	0	0.5	24	245	500	0.00	0.00	0.00	0.00
	Pump	1	0.8	6	300	500	0.72	0.72	0.72	0.72
	Lighting, etc	1	0.3	8	300	500	0.36	0.36	0.36	0.36
		(m3/day)				(Rp./m3)				
Water	Ice making	1.2			245	5000	1.47	1.47	1.47	1.47
	General	2.7			300	5000	4.05	4.05	4.05	4.05
		(No.of psn)		(days/yr)	(month/yr)	(Rp/month)				
Manpower	Manager	1		30	0	50000	1.50	1.50	1.50	1.50
	Asst. Manager	1			12	750000	9.00	9.00	9.00	9.00
	Mechanics	1			0	50000	0.00	0.00	0.00	0.00
	Asst. mechanics	1			1	600000	0.60	0.60	0.60	0.60
	Accountant	1			12	500000	6.00	6.00	6.00	6.00
	Market control	1			12	500000	6.00	6.00	6.00	6.00
	Workers	3			12	400000	14.40	14.40	14.40	14.40
	Guardman	1			12	350000	4.20	4.20	4.20	4.20
						(Rp/month)				
Consumables	Office materials				12	50000	0.60	0.60	0.60	0.60
		(kg/bag)	(Ratio to use)		(No.of bag)	(Rp./pc)				
	Plastic bag for ice	1.5	100%		147000	5	0.74	0.74	0.74	0.74
Maintenance	Equipment	Small freezer					0.66	0.66	0.66	0.66
		Ice storage					0.00	0.00	0.00	0.00
		Processing eq.					0.18	0.18	0.18	0.18
		Workshop eq.					0.17	0.17	0.17	0.17
	Facilities	Civil					4.34	4.34	4.34	4.34
		Building					16.21	16.21	16.21	16.21
Depreciation	Ice plant						13.20	13.20	13.20	13.20
	Ice storage						5.07	5.07	5.07	5.07
	Cool Box						3.17	3.17	3.17	3.17
	Fish containers						0.00	0.00	0.00	0.00
	Scale						0.22	0.22	0.22	0.22
	Processing eq.						3.80	3.80	3.80	3.80
	Workshop eq.						3.30	3.30	3.30	3.30
Total							109.36	109.36	109.36	109.36

Balance (Net Profit before Tax)							[illegible]	1.75	6.37	4.06

Table 5-2-4. LARANTUKA FISHERY COMPLEX

Annual Fish Landing Volume	2592 ton/yr.	No. of boats entry	12732 boats/yr.
For fresh fish (local)	1649 ton/yr.	Bagan	4977 boats/yr.
For fresh fish (outside)	250 ton/yr	Purse seine	6930 boats/yr.
For processed fish	693 ton/yr.	Gill-net/Hand-line	825 boats/yr.

REVENUE		Capacity	Sales ratio	Operating days	Sales volume	Unit Price	Annual Revenue (million Rp.)			
		(ton/day)		(days/yr)	(ton/yr)	(Rp /kg)	First 2 years	3 - 5 years	6 - 15 years	Yearly average
Sales of ice	Sale by 5kg bag	6	0.9	310	854	300	256.12	256.12	256.12	256.12
	Sale by 25kg block				820	280	229.67	229.67	229.67	229.67
					No. of boats	(Rp/time)				
Service charge	Boat mooring	Kpl. motor			7755	1000	4.27	6.20	7.76	6.98
		exist box (kg)	cool box (kg)	Ratio of user	No. of boxes	(Rp./box/day)				
	Handling area	15	30	51%	32283	500	8.68	12.91	16.14	14.53
	(For fresh fish)	30	50	8%	3038	1000	1.67	2.43	3.04	2.73
		45	80	41%	9732	1500	8.03	11.68	14.60	13.14
			Vol (kg/psn)		No. of psn.	(Rp./psn/day)				
	(For processing)		50		13860	500	3.81	5.54	6.93	6.24
			Quantity		No. of days	(Rp./box/day)				
Rental fee	Cool box	300L	0		310	1000	0.00	0.00	0.00	0.00
	Kiln for boiling/roasting		1		310	500	0.09	0.12	0.16	0.14
	Smoking kiln		1		310	500	0.09	0.12	0.16	0.14
Total Revenue							512.62	524.81	534.57	529.69

EXPENSES		Capacity	Power ratio	Operating hrs	Operating days	Unit Cost	Annual Cost (million Rp.)			
Item		(kw)		(hrs/day)	(days/yr)	(Rp/kw)	First 2 years	3 - 5 years	6 - 15 years	Yearly average
Electricity	Ice plant	54	0.8	24	310	500	160.70	160.70	160.70	160.70
	Ice storage	6	0.5	24	310	500	11.16	11.16	11.16	11.16
	Pump	3	0.8	6	310	500	2.23	2.23	2.23	2.23
	Lighting, etc.	3	0.3	8	310	500	1.12	1.12	1.12	1.12
		(m3/day)				(Rp/m3)				
Water	Ice plant	7.2			310	5000	11.16	11.16	11.16	11.16
	General	5.8			310	5000	8.99	8.99	8.99	8.99
		(No.of psn)			(month/yr)	(Rp/month)				
Manpower	Manager	1			12	1500000	18.00	18.00	18.00	18.00
	Asst. Manager	1			12	750000	9.00	9.00	9.00	9.00
	Mechanics	1			12	1200000	14.40	14.40	14.40	14.40
	Asst. mechanics	1			12	600000	7.20	7.20	7.20	7.20
	Market control	4			12	500000	24.00	24.00	24.00	24.00
	Accountant	2			12	500000	12.00	12.00	12.00	12.00
	Workers	7			12	400000	33.60	33.60	33.60	33.60
	Guardman	2			12	350000	8.40	8.40	8.40	8.40
					(month/yr)	(Rp/month)				
Consumables	Office materials				12	150000	1.80	1.80	1.80	1.80
		(kg/bag)			(No of bag)	(Rp./pc)				
	Plastic bag for ice	5			171000	20	3.42	3.42	3.42	3.42
Maintenance	Equipment	Ice plant					7.98	15.95	31.90	25.52
		Ice storage					1.00	2.01	4.01	3.21
		Processing eq					0.18	0.18	0.18	0.18
		Workshop eq.					0.17	0.17	0.17	0.17
	Facilities	Civil					11.71	11.71	11.71	11.71
		Building					34.98	34.98	34.98	34.98
Depreciation	Ice plant						79.76	79.76	79.76	79.76
	Ice storage						10.03	10.03	10.03	10.03
	Cool Box						0.00	0.00	0.00	0.00
	Fish containers						1.14	1.14	1.14	1.14
	Scale						0.44	0.44	0.44	0.44
	Processing eq.						4.16	4.16	4.16	4.16
	Workshop eq.						3.30	3.30	3.30	3.30
Total							482.03	491.01	508.97	501.79
Balance (Net Profit before Tax)							30.59	33.80	25.60	27.90

Table 5-2-5. LEWOLEBA FISHERY COMPEX

Annual Fish Landing Volume	1768	ton/yr.
For fresh fish (local)	886	ton/yr.
For fresh fish (outside)	261	ton/yr.
For processed fish	621	ton/yr.

No. of boats entry	13910	boats/yr
Bagan	13545	boats/yr.
Purse seine	1326	boats/yr.
Gill-net	3488	boats/yr.
Hand-line	551	boats/yr.

REVENUE		Capacity	Sales ratio	Operating days	Sales volume	Unit Price	Annual Revenue (million Rp.)			
		(ton/day)		(days/yr)	(ton/yr)	(Rp./kg)	First 2 years	3 - 5 years	6 - 15 years	Yearly average
Sales of ice	Sale by 5kg bag	3	0.9	310	544	380	206.74	206.74	206.74	206.74
	Sale by 25kg block				293	360	105.46	105.46	105.46	105.46
					No. of boats	(Rp./time)				
Service charge	Boat mooring	Kpl. motor			5365	1000	2.95	4.29	5.37	4.83
		exist box (kg)	cool box (kg)	Ratio of user	No. of boxes	(Rp./box/day)				
	Handling area	15	30	65%	24851	500	6.83	9.93	12.43	11.18
	(For fresh fish)	30	50	35%	8029	1000	4.42	6.42	8.03	7.23
		45	80	0%	0	1500	0.00	0.00	0.00	0.00
			Vol (kg/psn)		No. of psn.	(Rp./psn/day)				
	(For processing)		50		12420	500	3.42	4.97	6.21	5.59
			Quantity		No. of days	(Rp./box/day)				
Rental fee	Cool box	300L	6		310	1000	1.02	1.49	1.86	1.67
	Kiln for boiling/roasting		1		310	500	0.09	0.12	0.16	0.14
	Smoking kiln		1		310	500	0.09	0.12	0.16	0.14
Total Revenue							331.01	339.56	346.40	342.98

EXPENSES		Capacity	Power ratio	Operating hrs	Operating days	Unit Cost	Annual Cost (million Rp.)			
Item		(kw)		(hrs/day)	(days/yr)	(Rp/kw)	First 2 years	3 - 5 years	6 - 15 years	Yearly average
Electricity	Ice plant	27	0.8	24	310	500	80.35	80.35	80.35	80.35
	Ice storage	2	0.5	24	310	500	3.72	3.72	3.72	3.72
	Pump	2	0.8	6	310	500	1.49	1.49	1.49	1.49
	Lighting, etc.	3	0.3	8	310	500	1.12	1.12	1.12	1.12
		(m3/day)				(Rp/m3)				
Water	Ice plant	3.6			310	5000	5.58	5.58	5.58	5.58
	General	6.4			310	5000	9.92	9.92	9.92	9.92
		(No.of psn)			(month/yr)	(Rp/month)				
Manpower	Manager	1			12	1500000	18.00	18.00	18.00	18.00
	Asst. Manager	1			12	750000	9.00	9.00	9.00	9.00
	Mechanics	1			12	1200000	14.40	14.40	14.40	14.40
	Asst. mechanics	1			12	600000	7.20	7.20	7.20	7.20
	Market control	2			12	500000	12.00	12.00	12.00	12.00
	Accountant	2			12	500000	12.00	12.00	12.00	12.00
	Workers	4			12	400000	19.20	19.20	19.20	19.20
	Guardman	2			12	350000	8.40	8.40	8.40	8.40
					(month/yr)	(Rp/month)				
Consumables	Office materials				12	200000	2.40	2.40	2.40	2.40
		(kg/bag)			(No of bag)	(Rp./pc)				
	Plastic bag for ice	5			109000	20	2.18	2.18	2.18	2.18
Maintenance	Equipment	Ice plant					5.33	10.67	21.34	18.14
		Ice storage					0.78	1.56	3.13	2.66
		Processing eq.					0.18	0.18	0.18	0.18
		Workshop eq.					0.17	0.17	0.17	0.17
	Facilities	Civil					10.51	10.51	10.51	10.51
		Building					30.50	30.50	30.50	30.50
Depreciation	Ice plant						53.34	53.34	53.34	53.34
	Ice storage						7.82	7.82	7.82	7.82
	Cool Box						1.58	1.58	1.58	1.58
	Fish containers						1.36	1.36	1.36	1.36
	Scale						0.44	0.44	0.44	0.44
	Processing eq.						3.98	3.98	3.98	3.98
	Workshop eq.						3.30	3.30	3.30	3.30
Total							326.26	332.37	344.61	340.94
Balance (Net Profit before Tax)							4.75	7.19	1.79	2.04

Table 5-2-6. MAUMERE FISHERY COMPLEX

Annual Fish Landing Volume	3251	ton/yr.
For fresh fish (local)	2085	ton/yr.
For fresh fish (outside)	324	ton/yr.
For processed fish	842	ton/yr.

No. of boats entry		14006	boats/yr.
Purse seine		10056	boats/yr.
Gill-net		290	boats/yr.
Hand-line		756	boats/yr.
Collecting boats		2904	boats/yr.

REVENUE		Capacity	Sales ratio	Operating days	Sales volume	Unit Price	Annual Revenue (million Rp.)			
		(ton/day)		(days/yr)	(ton/yr)	(Rp./kg)	First 2 years	3 - 5 years	6 - 15 years	Yearly average
Sales of ice	Sale by 5kg bag	3	0.9	300	316	340	107.41	107.41	107.41	107.41
	Sale by 25kg block				494	320	158.11	158.11	158.11	158.11
					No. of boats	(Rp./line)				
Service charge	Boat mooring	Kpl. motor			14006	1000	7.70	11.20	14.01	12.61
		exist box (kg)	cool box (kg)	Ratio of user	No. of boxes	(Rp./box/day)				
	Handling area	15	30	39%	31317	500	8.61	12.53	15.66	14.09
	(For fresh fish)	30	50	34%	16381	1000	9.01	13.10	16.38	14.74
		45	80	27%	8130	1500	6.71	9.76	12.20	10.98
			Vol (kg/psn)		No. of psn.	(Rp./psn/day)				
	(For processing)		50		0	500	0.00	0.00	0.00	0.00
	Market area				34500	1000	18.98	27.60	34.50	31.05
			Quantity		No. of days	(Rp./box/day)				
Rental fee	Cool box	300L	0		300	1000	0.00	0.00	0.00	0.00
	Kiln for boiling/roasting		0		300	500	0.00	0.00	0.00	0.00
	Smoking kiln		0		300	500	0.00	0.00	0.00	0.00
Total Revenue							316.53	339.71	358.26	348.98

EXPENSES		Capacity	Power ratio	Operating hrs	Operating days	Unit Cost	Annual Cost (million Rp.)			
Item		(kw)		(hrs/day)	(days/yr)	(Rp/kw)	First 2 years	3 - 5 years	6 - 15 years	Yearly average
Electricity	Ice plant	27	0.8	24	300	500	77.76	77.76	77.76	77.76
	Ice storage	2	0.5	24	300	500	3.60	3.60	3.60	3.60
	Pump	2	0.8	6	300	500	1.44	1.44	1.44	1.44
	Lighting, etc.	3	0.3	8	300	500	1.08	1.08	1.08	1.08
		(m3/day)				(Rp/m3)				
Water	Ice plant	3.6			300	5000	5.40	5.40	5.40	5.40
	General	4.7			300	5000	7.05	7.05	7.05	7.05
		(No.of psn)			(month/yr)	(Rp/month)				
Manpower	Manager	1			12	1500000	18.00	18.00	18.00	18.00
	Asst. Manager	1			12	750000	9.00	9.00	9.00	9.00
	Mechanics	1			12	1200000	14.40	14.40	14.40	14.40
	Asst. mechanics	1			12	600000	7.20	7.20	7.20	7.20
	Market control	5			12	500000	30.00	30.00	30.00	30.00
	Accountant	2			12	500000	12.00	12.00	12.00	12.00
	Workers	4			12	400000	19.20	19.20	19.20	19.20
	Guardman	2			12	350000	8.40	8.40	8.40	8.40
						(Rp/month)				
Consumables	Office materials				12	150000	1.80	1.80	1.80	1.80
		(kg/bag)			(No.of bag)	(Rp./pc)				
	Plastic bag for ice	5			64000	20	1.28	1.28	1.28	1.28
Maintenance	Equipment	Ice plant					5.33	10.67	21.34	18.14
		Ice storage					0.78	1.56	3.13	2.66
	Facilities	Civil					9.94	9.94	9.94	9.94
		Building					33.59	33.59	33.59	33.59
Depreciation	Ice plant						53.34	53.34	53.34	53.34
	Ice storage						7.82	7.82	7.82	7.82
	Cool Box						0.00	0.00	0.00	0.00
	Fish containers						1.36	1.36	1.36	1.36
	Scale						0.44	0.44	0.44	0.44
Total							330.22	336.33	348.57	344.90
Balance (Net Profit before Tax)							(13.69)	3.38	9.69	4.09

Table 5-2-7. PAGA FISHERY COMPLEX

Annual Fish Landing Volume	1164	ton/yr	No. of boats entry	6927	boats/yr.
For fresh fish (local)	654	ton/yr.	Purse seine	4047	boats/yr.
For fresh fish (outside)	58	ton/yr.	Gill-net	1800	boats/yr
For processed fish	452	ton/yr.	Trolling	1080	boats/yr.

REVENUE		Capacity	Sales ratio	Operating days	Sales volume	Unit Price	Annual Revenue (million Rp)			
		(ton/day)		(days/yr)	(ton/yr)	(Rp/kg)	First 2 years	3 - 5 years	6 - 15 years	Yearly average
Sales of ice	Sale by 5kg bag	2	0.9	240	423	430	156.28	186.28	186.28	186.28
	Sale by 25kg block				9	420	3.63	3.63	3.63	3.63
					No. of boats	(Rp/time)				
Service charge	Boat mooring	Kpl. motor			6927	500	1.90	2.77	3.46	3.12
		exist box (kg)	cool box (kg)	Ratio of user	No. of boxes	(Rp./box/day)				
	Handling area	15	30	98%	23258	500	6.40	9.30	11.63	10.47
	(For fresh fish)	30	50	2%	284	1000	0.16	0.23	0.28	0.26
		45	80	0%	0	1500	0.00	0.00	0.00	0.00
			Vol.(kg/psn)		No. of psn	(Rp./psn/day)				
	(For processing)		50		9040	500	2.49	3.62	4.52	4.07
			Quantity		No. of days	(Rp./box/day)				
Rental fee	Cool box	300L	6		300	1000	0.99	1.44	1.80	1.62
	Kiln for boiling/roasting		1		300	500	0.08	0.12	0.15	0.14
	Smoking kiln		1		300	500	0.08	0.12	0.15	0.14
Total Revenue							202.01	207.50	211.90	209.70

EXPENSES		Capacity	Power ratio	Operating hrs	Operating days	Unit Cost	Annual Cost (million Rp)			
Item		(kw)		(hrs/day)	(days/yr)	(Rp/kw)	First 2 years	3 - 5 years	6 - 15 years	Yearly average
Electricity	Ice plant	18	0.8	24	240	500	41.47	41.47	41.47	41.47
	Ice storage	1.5	0.5	24	240	500	2.16	2.16	2.16	2.16
	Pump	1.5	0.8	6	300	500	1.08	1.08	1.08	1.08
	Lighting, etc.	1	0.3	8	300	500	0.36	0.36	0.36	0.36
		(m3/day)				(Rp/m3)				
Water	Ice plant	2.4			240	5000	2.88	2.88	2.88	2.88
	General	3.2			300	5000	4.80	4.80	4.80	4.80
		(No of psn)		(days/yr)	(month/yr)	(Rp/month)				
Manpower	Manager	1		50	0	50000	2.50	2.50	2.50	2.50
	Asst. Manager	1			12	750000	9.00	9.00	9.00	9.00
	Mechanics	1		50	0	50000	2.50	2.50	2.50	2.50
	Asst. mechanics	1			12	600000	7.20	7.20	7.20	7.20
	Market control	1			12	500000	6.00	6.00	6.00	6.00
	Accountant	1			12	500000	6.00	6.00	6.00	6.00
	Workers	3			12	400000	14.40	14.40	14.40	14.40
	Guardman	1			12	350000	4.20	4.20	4.20	4.20
					(month/yr)	(Rp/month)				
Consumables	Office materials				12	100000	1.20	1.20	1.20	1.20
		(kg/bag)			(No of bag)	(Rp./pc)				
	Plastic bag for ice	5			85000	20	1.70	1.70	1.70	1.70
Maintenance	Equipment	Ice plant					4.85	9.71	19.41	16.50
		Ice storage					0.67	1.34	2.68	2.28
		Workshop eq					0.17	0.17	0.17	0.17
	Facilities	Civil					1.88	1.88	1.88	1.88
		Building					14.19	14.19	14.19	14.19
Depreciation	Ice plant						48.53	48.53	48.53	48.53
	Ice storage						6.71	6.71	6.71	6.71
	Cool Box						1.58	1.58	1.58	1.58
	Fish containers						1.06	1.06	1.06	1.06
	Scale						0.37	0.37	0.37	0.37
	Processing eq.						0.36	0.36	0.36	0.36
	Workshop eq.						3.30	3.30	3.30	3.30
Total							191.14	196.66	207.71	204.40

Balance (Net Profit before Tax)							10.87	10.84	4.19	5.31

Table 5-2-8. ENDE FISHERY COMPLEX

Annual Fish Landing Volume	3144	ton/yr.	No. of boats entry	17643	boats/yr.
For fresh fish (local)	1932	ton/yr.	Purse seine	5836	boats/yr.
For fresh fish (outside)	274	ton/yr.	Lampala	4084	boats/yr.
For processed fish	938	ton/yr.	Gill-net/Hand-line	7723	boats/yr.

REVENUE		Capacity	Sales ratio	Operating days	Sales volume	Unit Price	Annual Revenue (million Rp.)			
		(ton/day)		(days/yr)	(ton/yr)	(Rp./kg)	First 2 years	3 - 5 years	6 - 15 years	Yearly average
Sales of ice	Sale by 5kg bag	5	0.9	270	814	320	260.50	260.50	260.50	260.50
	Sale by 25kg block				401	300	120.29	120.29	120.29	120.29
					No. of boats	(Rp./time)				
Service charge	Boat mooring	Kpl. motor			17643	1000	9.70	14.11	17.64	15.88
		exist box (kg)	cool box (kg)	Ratio of user	No. of boxes	(Rp./box/day)				
	Handling area	15	30	67%	49267	500	13.55	19.71	24.63	22.17
	(For fresh fish)	30	50	21%	9265	1000	5.10	7.41	9.27	8.34
		45	80	12%	3309	1500	2.73	3.97	4.96	4.47
			Vol (kg/pen)		No. of pen	(Rp./pen/day)				
	(For processing)		50		18760	500	5.16	7.50	9.38	8.44
			Quantity		No. of days	(Rp./box/day)				
Rental fee	Cool box	300L	16		300	1000	2.64	3.84	4.80	4.32
	Kiln for boiling/roasting		1		300	500	0.08	0.12	0.15	0.14
	Smoking kiln		1		300	500	0.08	0.12	0.15	0.14
Total Revenue							419.82	437.57	451.77	444.67

EXPENSES		Capacity	Power ratio	Operating hrs	Operating days	Unit Cost	Annual Cost (million Rp.)			
Item		(kw)		(hrs/day)	(days/yr)	(Rp/kw)	First 2 years	3 - 5 years	6 - 15 years	Yearly average
Electricity	Ice plant	45	0.8	24	270	500	116.64	116.64	116.64	116.64
	Ice storage	4.5	0.5	24	270	500	7.29	7.29	7.29	7.29
	Pump	3	0.8	6	300	500	2.16	2.16	2.16	2.16
	Lighting, etc	3	0.3	8	300	500	1.08	1.08	1.08	1.08
		(m3/day)				(Rp/m3)				
Water	Ice plant	6			270	5000	8.10	8.10	8.10	8.10
	General	6.3			300	5000	9.45	9.45	9.45	9.45
		(No of psn)			(month/yr)	(Rp/month)				
Manpower	Manager	1			12	1500000	18.00	18.00	18.00	18.00
	Asst. Manager	1			12	750000	9.00	9.00	9.00	9.00
	Mechanics	1			12	1200000	14.40	14.40	14.40	14.40
	Asst. mechanics	1			12	600000	7.20	7.20	7.20	7.20
	Market control	3			12	500000	18.00	18.00	18.00	18.00
	Accountant	2			12	500000	12.00	12.00	12.00	12.00
	Workers	6			12	400000	28.80	28.80	28.80	28.80
	Guardman	2			12	350000	8.40	8.40	8.40	8.40
					(month/yr)	(Rp/month)				
Consumables	Office materials				12	300000	3.60	3.60	3.60	3.60
		(kg/bag)			(No of bag)	(Rp./pc)				
	Plastic bag for ice	5			163000	20	3.26	3.26	3.26	3.26
Maintenance	Equipment	Ice plant					7.26	14.51	29.03	24.67
		Ice storage					0.93	1.86	3.71	3.16
		Processing eq.					0.18	0.18	0.18	0.18
		Workshop eq.					0.17	0.17	0.17	0.17
	Facilities	Civil					5.16	5.16	5.16	5.16
		Building					31.17	31.17	31.17	31.17
Depreciation	Ice plant						72.57	72.57	72.57	72.57
	Ice storage						9.29	9.29	9.29	9.29
	Cool Box						10.56	10.56	10.56	10.56
	Fish containers						1.36	1.36	1.36	1.36
	Scale						0.44	0.44	0.44	0.44
	Processing eq						4.16	4.16	4.16	4.16
	Workshop eq.						3.30	3.30	3.30	3.30
Total							413.92	422.10	438.47	433.56

Balance (Net Profit before Tax)							5.91	15.47	13.29	11.11

Table 5-2-9 LAMAHALA JAYA STATION (MULTI-PURPOSE FACILITIES, 3 PLACES)

Annual Fish Landing Volume	2164	ton/yr.	No. of boats entry	14409	boats/yr.
For fresh fish (local)	1008	ton/yr.	Bagan	304	boats/yr
For fresh fish (outside)	252	ton/yr.	Purse seine	12135	boats/yr
For processed fish	904	ton/yr.	F.Gill-net	1969	boats/yr.

REVENUE			Volume	Sales ratio	No. of trips	Unit Price	Annual Revenue (million Rp.)			
			(kg or L/trip)		(trips/yr)	(Rp/kg or L)	First 2 years	3 - 5 years	6 - 15 years	Yearly average
Sales income	Ice		470	0.6	300	420	47.38	47.38	47.38	47.38
	Fish		840	1	300	2500	630.00	630.00	630.00	630.00
	Fuel (Diesel)		1530	1	300	1700	780.30	780.30	780.30	780.30
Transport charge	For materials		500		300	100	15.00	15.00	15.00	15.00
					No. of boats	(Rp/time)				
Service charge	Boat mooring	Kpl. motor			14409	500	3.96	5.76	7.20	6.48
		exist box (kg)	cool box (kg)	Ratio of user	No. of boxes	(Rp./box/day)				
	Handling area	15	30	100%	42000	500	11.55	16.80	21.00	18.90
	(For fresh fish)	30	50	0%	0	1000	0.00	0.00	0.00	0.00
		45	80	0%	0	1500	0.00	0.00	0.00	0.00
			Vol (kg/psn)		No. of psn	(Rp./psn/day)				
	(For processing)		50		18090	500	4.97	7.23	9.04	8.14
			Quantity		No. of days	(Rp./box/day)				
Rental fee	Cool box	300L	5		300	1000	0.83	1.20	1.50	1.35
	Kiln for boiling/roasting		3		300	500	0.25	0.36	0.45	0.41
	Smoking kiln		3		300	500	0.25	0.36	0.45	0.41
Total Revenue							1,491.48	1,504.39	1,512.32	1,508.36

EXPENSES			Volume		No. of trips	Unit Cost	Annual Cost (million Rp.)			
Item			(kg or L/trip)		(trips/yr)	(Rp/kg or L)	First 2 years	3 - 5 years	6 - 15 years	Yearly average
Purchase cost	Ice		*1760*		300	280	*92.40*	*92.40*	*92.40*	*92.40*
	Fish		840		300	2000	504.00	504.00	504.00	504.00
	Fuel		1530		300	1500	688.50	688.50	688.50	688.50
		(m3/day)			(days/yr)	(Rp/m3)				
Water	General	4.5			300	5000	6.75	6.75	6.75	6.75
		(No of psn)			(month/yr)	(Rp/month)				
Manpower	Manager	3			12	450000	16.20	16.20	16.20	16.20
	Kiosk seller	3			12	350000	12.60	12.60	12.60	12.60
	Market control	3			12	350000	12.60	12.60	12.60	12.60
	Accountant	3			12	350000	12.60	12.60	12.60	12.60
					(month/yr)	(Rp/month)				
Consumables	Office materials				12	60000	0.72	0.72	0.72	0.72
					(days/yr)	(Rp/trip)				
Rental fee	*Multi-purpose boat*				*300*	*220000*	*66.00*	*66.00*	*66.00*	*66.00*
Maintenance	Workshop eq.						0.50	0.50	0.50	0.50
	Building						15.41	15.41	15.41	15.41
Depreciation	Cool Box	12	pcs.				3.17	3.17	3.17	3.17
	Processing eq.						1.08	1.08	1.08	1.08
	Workshop eq.						9.90	9.90	9.90	9.90
Total							1,442.43	1,442.43	1,442.43	1,442.43
Balance (Net Profit before Tax)							52.05	61.96	69.89	65.93

Table 5-2-10 SAGU STATION (MULTI-PURPOSE FACILITIES)

Annual Fish Landing Volume	551	ton/yr.
For fresh fish (local)	272	ton/yr.
For fresh fish (outside)	83	ton/yr.
For processed fish	196	ton/yr.

No. of boats entry	6686	boats/yr.
Bagan	1004	boats/yr.
Purse seine	1134	boats/yr.
B Gill-net	2181	boats/yr.
Hand-line/Trolling	2367	boats/yr.

REVENUE			Volume	Sales ratio	No. of trips	Unit Price	Annual Revenue (million Rp.)			
			(kg or L/trip)		(trips/yr)	(Rp/kg or L)	First 2 years	3 - 5 years	6 - 15 years	Yearly average
Sales income	Ice		1178	0.8	100	530	49.93	49.93	49.93	49.93
	Fish		830	1	100	2500	207.50	207.50	207.50	207.50
	Fuel (Diesel)		590	1	100	1800	106.20	106.20	106.20	106.20
Transport charge	For materials		500		100	200	10.00	10.00	10.00	10.00
	For passengers		10	persons	100	10000	10.00	10.00	10.00	10.00
					No. of boats	(Rp./time)				
Service charge	Boat mooring	Kpl. motor			6686	500	1.84	2.67	3.31	3.01
		exist box (kg)	cool box (kg)	Ratio of user	No. of boxes	(Rp./box/day)				
	Handling area	15	30	100%	11833	500	3.25	4.73	5.92	5.32
	(For fresh fish)	30	50	0%	0	1000	0.00	0.00	0.00	0.00
		45	80	0%	0	1500	0.00	0.00	0.00	0.00
			Vol.(kg/psn)		No. of psn	(Rp./psn/day)				
	(For processing)		50		3920	500	1.08	1.57	1.96	1.76
			Quantity		No. of days	(Rp./box/day)				
Rental fee	Cool box	300L	1		300	1000	0.17	0.24	0.30	0.27
	Kiln for boiling/roasting		1		300	500	0.08	0.12	0.15	0.14
	Smoking kiln		1		300	500	0.08	0.12	0.15	0.14
Total Revenue							390.13	393.08	395.45	394.26

EXPENSES			Volume		No. of trips	Unit Cost	Annual Cost (million Rp.)			
Item			(kg or L/trip)		(trips/yr)	(Rp/kg or L)	First 2 years	3 - 5 years	6 - 15 years	Yearly average
Purchase cost	Ice		1800		100	280	50.40	50.40	50.40	50.40
	Fish		830		100	2000	166.00	166.00	166.00	166.00
	Fuel		590		100	1500	88.50	88.50	88.50	88.50
		(m3/day)			(days/yr)	(Rp/m3)				
Water	General	2.3			300	5000	3.45	3.45	3.45	3.45
		(No.of psn)			(month/yr)	(Rp/month)				
Manpower	Manager	1			12	450000	5.40	5.40	5.40	5.40
	Kiosk seller	1			12	350000	4.20	4.20	4.20	4.20
	Market control	1			12	350000	4.20	4.20	4.20	4.20
	Accountant	1			12	350000	4.20	4.20	4.20	4.20
					(month/yr)	(Rp/month)				
Consumables	Office materials				12	20000	0.24	0.24	0.24	0.24
					(days/yr)	(Rp/trip)				
Rental fee	Multi-purpose boat				100	520000	52.00	52.00	52.00	52.00
Maintenance	Workshop eq						0.17	0.17	0.17	0.17
	Building						5.30	5.30	5.30	5.30
			Quantity							
Depreciation	Cool Box	300L	5				1.32	1.32	1.32	1.32
	Processing eq.						0.36	0.36	0.36	0.36
	Workshop eq.						3.30	3.30	3.30	3.30
Total							389.04	389.04	389.04	389.04

Balance (Net Profit before Tax)							1.09	4.04	6.41	5.23

Table 5-2-11 BALAURING STATION (MULTI-PURPOSE FACILITIES)

Annual Fish Landing Volume	361	ton/yr.
For fresh fish (local)	208	ton/yr.
For fresh fish (outside)	41	ton/yr.
For processed fish	112	ton/yr.

No. of boats entry		5612	boats/yr.
Purse seine		845	boats/yr
Gill-net		1589	boats/yr.
Hand-line/Trolling		3178	boats/yr.

REVENUE			Volume	Sales ratio	No. of trips	Unit Price	Annual Revenue (million Rp.)			
			(kg or L/trip)		(trips/yr)	(Rp/kg or L)	First 2 years	3 - 5 years	6 - 15 years	Yearly average
Sales income	Ice		2043	0.8	100	630	102.94	102.94	102.94	102.94
	Fish		410	1	100	2500	102.50	102.50	102.50	102.50
	Fuel (Diesel)		350	1	100	1900	66.50	66.50	66.50	66.50
Transport charge	For materials		500		100	300	15.00	15.00	15.00	15.00
	For passengers		10	persons	100	20000	20.00	20.00	20.00	20.00
					No. of boats	(Rp/time)				
Service charge	Boat mooring	Kpl. motor			5612	500	1.54	2.24	2.81	2.53
		exist box (kg)	cool box (kg)	Ratio of user	No. of boxes	(Rp./box/day)				
	Handling area	15	30	100%	8200	500	2.25	3.32	4.15	3.74
	(For fresh fish)	30	50	0%	0	1000	0.00	0.00	0.00	0.00
		45	80	0%	0	1500	0.00	0.00	0.00	0.00
			Vol (kg/pan)		No. of pan	(Rp./pan/day)				
	(For processing)		50		2240	500	0.62	0.90	1.12	1.01
			Quantity		No. of days	(Rp./box/day)				
Rental fee	Cool box	300L	1		300	1000	0.17	0.24	0.30	0.27
	Kiln for boiling/roasting		1		300	500	0.08	0.12	0.15	0.14
	Smoking kiln		1		300	500	0.08	0.12	0.15	0.14
Total Revenue							311.71	313.88	315.62	314.75

EXPENSES			Volume		No. of trips	Unit Cost	Annual Cost (million Rp.)			
Item			(kg or L/trip)		(trips/yr)	(Rp/kg or L)	First 2 years	3 - 5 years	6 - 15 years	Yearly average
Purchase cost	Ice		2350		100	280	65.80	65.80	65.80	65.80
	Fish		410		100	1500	61.50	61.50	61.50	61.50
	Fuel		350		100	1500	52.50	52.50	52.50	52.50
		(m3/day)			(days/yr)	(Rp/m3)				
Water	General	1.7			300	5000	2.55	2.55	2.55	2.55
		(No.of pan)			(month/yr)	(Rp/month)				
Manpower	Manager	1			12	450000	5.40	5.40	5.40	5.40
	Kiosk seller	1			12	350000	4.20	4.20	4.20	4.20
	Market control	1			12	350000	4.20	4.20	4.20	4.20
	Accountant	1			12	350000	4.20	4.20	4.20	4.20
					(month/yr)	(Rp/month)				
Consumables	Office materials				12	20000	0.24	0.24	0.24	0.24
					(days/yr)	(Rp/trip)				
Rental fee	Multi-purpose boat				100	800000	80.00	80.00	80.00	80.00
Maintenance	Workshop eq						0.17	0.17	0.17	0.17
	Building						5.08	5.08	5.08	5.08
			Quantity							
Depreciation	Cool Box	300L	4				1.06	1.06	1.06	1.06
	Processing eq						0.36	0.36	0.36	0.36
	Workshop eq						3.30	3.30	3.30	3.30
Total							290.55	290.55	290.55	290.55

Balance (Net Profit before Tax)							21.16	23.33	25.06	24.20

Table 5-2-12 LAMALERA STATION (MULTI-PURPOSE FACILITIES)

Annual Fish Landing Volume	498	ton/yr.	No. of boats entry	5135	boats/yr.
For fresh fish (local)	93	ton/yr.	Whaler	80	boats/yr.
For fresh fish (outside)	36	ton/yr.	Gill-net	1155	boats/yr.
For processed fish	369	ton/yr.	Hand-line (non-motor)	4200	boats/yr.

REVENUE			Volume	Sales ratio	No. of trips	Unit Price	Annual Revenue (million Rp.)			
			(kg or L/trip)		(trips/yr)	(Rp/kg or L)	First 2 years	3 - 5 years	6 - 15 years	Yearly average
Sales income	Ice		1925	0.8	100	730	112.42	112.42	112.42	112.42
	Fish		180	1	100	2500	45.00	45.00	45.00	45.00
	Fuel (Diesel)		80	1	100	2000	16.00	16.00	16.00	16.00
Transport charge	For materials		500		100	400	20.00	20.00	20.00	20.00
	For passengers		10	persons	100	24000	24.00	24.00	24.00	24.00
					No. of boats	(Rp./time)				
Service charge	Boat mooring				5435	500	1.49	2.17	2.72	2.45
		exist box (kg)	cool box (kg)	Ratio of user	No. of boxes	(Rp./box/day)				
	Handling area	15	30	100%	4300	500	1.18	1.72	2.15	1.94
	(For fresh fish)	30	50	0%	0	1000	0.00	0.00	0.00	0.00
		45	80	0%	0	1500	0.00	0.00	0.00	0.00
			Vol (kg/psn)		No. of psn	(Rp./psn/day)				
	(For processing)		50		7380	500	2.03	2.95	3.69	3.32
			Quantity		No. of days	(Rp./box/day)				
Rental fee	Cool box	300L	1		300	1000	0.17	0.24	0.30	0.27
	Kiln for boiling/roasting		1		300	500	0.08	0.12	0.15	0.14
	Smoking kiln		1		300	500	0.08	0.12	0.15	0.14
Total Revenue							222.46	224.75	226.58	225.66

EXPENSES			Volume		No. of trips	Unit Cost	Annual Cost (million Rp.)			
Item			(kg or L/trip)		(trips/yr)	(Rp/kg or L)	First 2 years	3 - 5 years	6 - 15 years	Yearly average
Purchase cost	Ice		2060		100	280	57.68	57.68	57.68	57.68
	Fish		180		100	1500	27.00	27.00	27.00	27.00
	Fuel		80		100	1500	12.00	12.00	12.00	12.00
		(m3/day)			(days/yr)	(Rp/m3)				
Water	General	2.9			300	5000	4.35	4.35	4.35	4.35
		(No of psn)			(month/yr)	(Rp/month)				
Manpower	Manager	1			12	450000	5.40	5.40	5.40	5.40
	Kiosk seller	1			12	350000	4.20	4.20	4.20	4.20
	Market control	1			12	350000	4.20	4.20	4.20	4.20
	Accountant	1			12	350000	4.20	4.20	4.20	4.20
					(month/yr)	(Rp/month)				
Consumables	Office materials				12	20000	0.24	0.24	0.24	0.24
					(days/yr)	(Rp/trip)				
Rental fee	Multi-purpose boat				100	850000	85.00	85.00	85.00	85.00
Maintenance	Workshop eq.						0.17	0.17	0.17	0.17
	Building						5.08	5.08	5.08	5.08
			Quantity							
Depreciation	Cool Box	300L	4				1.06	1.06	1.06	1.06
	Processing eq.						0.36	0.36	0.36	0.36
	Workshop eq.						3.30	3.30	3.30	3.30
Total							214.23	214.23	214.23	214.23

Balance (Net Profit before Tax)							8.22	10.51	12.34	11.43

Table 5-2-13 WURING STATION (MINI-FISHERY COMPLEX)

Annual Fish Landing Volume	965	ton/yr.
For fresh fish (local)	123	ton/yr.
For processed fish	842	ton/yr.

No. of boats	141	boats
Purse seine	54	boats
Gill-net	24	boats
Hand-line	47	boats
Collecting boats	19	boats

REVENUE					No. of boats	Unit Price	Annual Revenue (million Rp.)			
						(Rp./year)	First 2 years	3 - 5 years	6 - 15 years	Yearly average
Facilities charge	Boat mooring	Purse seine			54	180000	9.72	9.72	9.72	9.72
		Others			90	90000	8.10	8.10	8.10	8.10
					No. of persons	(Rp./year)				
	Handling area	Village women for fresh fish selling			50	120000	6.00	6.00	6.00	6.00
	Processing area	Village women for processing & selling			50	120000	6.00	6.00	6.00	6.00
Membership fee	Fishing households				150	60000	9.00	9.00	9.00	9.00
Total Revenue							38.82	38.82	38.82	38.82

EXPENSES		Capacity	Power ratio	Operating hrs	Operating days	Unit Cost	Annual Cost (million Rp.)			
Item		(kw)		(hrs/day)	(days/yr)	(Rp/kw)	First 2 years	3 - 5 years	6 - 15 years	Yearly average
Electricity	Pump	1.5	0.8	6	300	500	1.08	1.08	1.08	1.08
	Lighting, etc	1	0.3	8	300	500	0.36	0.36	0.36	0.36
		(m3/day)			(days/yr)	(Rp/m3)				
Water	General	4.4			300	5000	6.60	6.60	6.60	6.60
Maintenance	Processing eq						0.18	0.18	0.18	0.18
	Workshop eq						0.17	0.17	0.17	0.17
	Civil						4.95	4.95	4.95	4.95
	Building						14.99	14.99	14.99	14.99
Depreciation	Processing eq						4.34	4.34	4.34	4.34
	Workshop eq.						3.30	3.30	3.30	3.30
Total							35.96	35.96	35.96	35.96
Balance (Net Profit before Tax)							2.86	2.86	2.86	2.86

ANNEX 5-3. COST & BENEFITS CALCULATION ON FISH TRANSPORT TRUCKS

Table 5-3-1. 3-ton Payload Truck (Waworada)

Item	First 2 years	3 - 5 years	6 - 10 years	Yearly average	
Drivers	6.00	6.00	6.00	6.00	Rp.500,000/month
Fuel cost	24.00	24.00	24.00	24.00	120km/trip, 3km/l, 300 trips/yr, Rp2,000/l
Maintenance	1.60	3.20	6.39	4.47	
Depreciation	31.96	31.96	31.96	31.96	
Total Cost	63.55	65.15	68.35	66.43	
No. of trips/yr	300	300	300	300	
Rental fee/trip	0.21	0.22	0.23	0.22	To be paid to the Organization
No. of passenger	15	15	15	15	
Fish/passenger	110	110	110	110	kg/person
Total weight	2,978	2,978	2,978	2,978	kg
Fare per person	14,123	14,478	15,188	14,762	Rp/round trip

Table 5-3-2 3-ton Payload Insulated Truck (Larantuka, Maumere and Ende)

Item	First 2 years	3 - 5 years	6 - 10 years	Yearly average	Remarks
Drivers	6.00	6.00	6.00	6.00	Rp.500,000/month
Maintenance	2.04	4.08	8.15	3.26	
Depreciation	81.54	81.54	81.54	81.54	
Total Cost	89.58	91.62	95.70	90.80	
No. of trips/yr	100	100	100	100	
Rental fee/trip	0.90	0.92	0.96	0.91	Pay to organization
Fuel cost/trip	0.5	0.5	0.5	0.5	Borne by borrower, 1,000km/trip, 3km/l
Cost/trip	1.40	1.42	1.46	1.41	
Fish transport/trip	1.5	1.5	1.5	1.5	ton
Cost per kg fish	931	944	971	939	

Table 5-3-3. 3-ton Payload Truck (Lamahala Jaya, Lamalera)

Item	First 2 years	3 - 5 years	6 - 10 years	Yearly average	
Drivers	6.00	6.00	6.00	6.00	Rp 500,000/month
Fuel cost	16.00	16.00	16.00	16.00	80km/trip, 3km/l, 300 trips/yr, Rp2,000/l
Maintenance	1.60	3.20	6.39	4.47	
Depreciation	31.96	31.96	31.96	31.96	
Total Cost	55.55	57.15	60.35	58.43	
No. of trips/yr	300	300	300	300	
Rental fee/trip	0.19	0.19	0.20	0.19	To be paid to the Organization
No. of passenger	25	25	25	25	
Fish/passenger	50	50	50	50	kg/person
Total weight	2,938	2,938	2,938	2,938	kg
Fare per person	7,407	7,620	8,046	7,790	Rp/round trip

Table 5-3-4. Pickup Truck (Balauring)

Item	First 2 years	3 - 5 years	6 - 10 years	Yearly average	
Drivers	4.80	4.80	4.80	4.80	Rp.400,000/month
Fuel cost	5.00	5.00	5.00	5.00	To inland villages, 50km/trip, 5km/l, 200 trips, Rp 2,500/l
	5.00	5.00	5.00	5.00	To Lewoleba, 200km/trip, 5km/l, 50 trips, Rp.2,500/l
Maintenance	0.80	1.60	3.20	2.56	
Depreciation	10.65	10.65	10.65	10.65	
Total Cost	26.25	27.05	28.65	28.01	
No. of trips/yr	200	200	200	200	To inland villages
	50	50	50	50	To Lewoleba
Rental fee/trip	0.08	0.08	0.09	0.08	To inland villages
(million Rp)	0.21	0.22	0.23	0.22	To Lewoleba
No. of passenger	8	8	8	8	
Fish/passenger	50	50	50	50	kg/person
Total weight	940	940	940	940	kg
Fare per person	9,844	10,144	10,743	10,503	Rp/round trip (to inland villages)
	26,251	27,049	28,647	28,008	Rp/round trip (to Lewoleba)

ANNEX 5-4. COST & BENEFITS CALCULATION ON MULTI-PURPOSE BOATS

Table 5-4-1. Lamahala Jaya

Item	First 2 years	3 - 5 years	6 - 20 years	Yearly average	
Operators	11.40	11.40	11.40	11.40	Captain Rp600,000/month, Assistant Rp.350,000/month
Fuel cost	16.20	16.20	16.20	16.20	40hp x 0.3l/hp/hr x 3 hrs/trip x 300 trips/yr x Rp.1,500/l
Maintenance	2.79	5.59	11.18	9.50	
Depreciation	27.94	27.94	27.94	27.94	
Total Cost	58.33	61.13	66.72	65.04	
No. of trips/yr	300	300	300	300	
Rental fee/trip	0.19	0.20	0.22	0.22	220,000 Rp/trip
No. of passenger	10	10	10	10	
Fare per person	19,445	20,376	22,239	21,680	22,000 Rp/person

Commodity	Volume (kg or L / trip)	Transport Cost (Rp/trip)	Buying Cost (Rp/trip)	Total Cost (Rp/trip)	Unit Cost (Rp/kg or L)	Selling Price	Sales Income	Profit (Rp/trip)
Ice for sales	470	26,045	131,600	157,645	335	420	157,920	275
Ice for fish	630	34,912	176,400	1,937,861	2,307	2,500	2,100,000	162,139
Fish	840	46,549	1,680,000					
Fuel	1,530	84,786	2,295,000	2,379,786	1,555	1,700	2,601,000	221,214
Materials	500	27,708	0	27,708	55	100	50,000	22,292
Total	3,970	220,000	4,283,000	4,503,000	1,134		4,908,920	405,920

Note: Buying Price: Ice @Rp.280/kg; Fish @Rp.2,000/kg, Fuel (diesel) Rp.1,500/L Ice for fish: 75% of fish in volume
Transport Cost (Lamahala Jaya - Larantuka): @Rp.55/kg or L Sales Ratio of Ice: 80%

Table 5-4-2. Sagu

Item	First 2 years	3 - 5 years	6 - 20 years	Yearly average	
Operators	11.40	11.40	11.40	11.40	Captain Rp600,000/month, Assistant Rp 350,000/month
Fuel cost	7.20	7.20	7.20	7.20	40hp x 0.3l/hp/hr x 4 hrs/trip x 100 trips/yr x Rp.1,500/l
Maintenance	1.40	2.79	5.59	4.75	
Depreciation	27.94	27.94	27.94	27.94	
Total Cost	47.94	49.33	52.13	51.29	
No. of trips/yr	100	100	100	100	
Rental fee/trip	0.48	0.49	0.52	0.51	520,000 Rp/trip
No. of passenger	10	10	10	10	
Fare per person	47,937	49,334	52,128	51,290	52,000 Rp/person

Commodity	Volume (kg or L / trip)	Transport Cost (Rp/trip)	Buying Cost (Rp/trip)	Total Cost (Rp/trip)	Unit Cost (Rp/kg or L)	Selling Price	Sales Income	Profit (Rp/trip)
Ice for sales	1,178	164,597	329,700	494,297	420	530	499,260	4,963
Ice for own use	623	87,016	174,300	2,037,338	2,455	2,500	2,075,000	37,662
Fish	830	116,022	1,660,000					
Fuel	590	82,473	885,000	967,473	1,640	1,800	1,062,000	94,527
Materials	500	69,892	0	69,892	140	200	100,000	30,108
Total	3,720	520,000	3,049,000	3,569,000	959		3,736,260	167,260

Note: Buying Price: Ice @Rp.280/kg; Fish @Rp.2,000/kg, Fuel (diesel) Rp.1,500/L Ice for fish: 75% of fish in volume
Transport Cost (Sagu - Larantuka): @Rp.140/kg or L Sales Ratio of Ice: 80%

Table 5-4-3. Lewoleba

Item	First 2 years	3 - 5 years	6 - 20 years	Yearly average	
Operators	11.40	11.40	11.40	11.40	Captain Rp600,000/month, Assistant Rp.350,000/month
Fuel cost	28.80	28.80	28.80	28.80	40hp x 0.3l/hp/hr x 8 hrs/trip x 200 trips/yr x Rp 1,500/l
Maintenance	2.79	5.59	11.18	9.50	
Depreciation	27.94	27.94	27.94	27.94	
Total Cost	70.93	73.73	79.32	77.64	
No. of trips/yr	200	200	200	200	
Rental fee/trip	0.35	0.37	0.40	0.39	400,000 Rp/trip
No. of passenger	10	10	10	10	
Fare per person	35,467	36,864	39,658	38,820	40,000 Rp/person

Commodity	Volume (kg or L / trip)	Transport Cost (Rp/trip)	Buying Cost (Rp/trip)	Total Cost (Rp/trip)	Unit Cost (Rp/kg or L)	Selling Price	Sales Income	Profit (Rp/trip)
Ice for sales	0	0	0	0	0	0	0	0
Ice for own use	580	78,378	162,400	2,546,724	2,358	2,500	2,700,000	153,276
Fish	1,080	145,946	2,160,000					
Fuel	800	108,108	1,200,000	1,308,108	1,635	1,800	1,440,000	131,892
Materials	500	67,568	0	67,568	135	200	100,000	32,432
Total	2,960	400,000	3,522,400	3,922,400	1,325		4,240,000	317,600

Note: Buying Price: Ice @Rp.280/kg; Fish @Rp.2,000/kg, Fuel (diesel) Rp.1,500/L Ice for fish: 75% of fish in volume
Transport Cost (Lewoleba - Larantuka): @Rp.135/kg or L Sales Ratio of Ice: 80%

Table 5-4-4. Balauring

Item	First 2 years	3 - 5 years	6 - 20 years	Yearly average	
Operators	11.40	11.40	11.40	11.40	Captain Rp600,000/month, Assistant Rp.350,000/month
Fuel cost	21.60	21.60	21.60	21.60	40hp x 0.3l/hp/hr x 12 hrs/trip x 100 trips/yr x Rp.1,500/l
Maintenance	5.59	11.18	22.35	19.00	
Depreciation	27.94	27.94	27.94	27.94	
Total Cost	66.53	72.12	83.29	79.94	
No. of trips/yr	100	100	100	100	
Rental fee/trip	0.67	0.72	0.83	0.80	800000 Rp/trip
No. of passenger	10	10	10	10	
Fare per person	66,528	72,116	83,292	79,939	80000 Rp/person

Commodity	Volume (kg or L / trip)	Transport Cost (Rp/trip)	Buying Cost (Rp/trip)	Total Cost (Rp/trip)	Unit Cost (Rp/kg or L)	Selling Price	Sales Income	Profit (Rp/trip)
Ice for sales	2,043	452,632	571,900	1,024,532	502	630	1,029,420	4,888
Ice for own use	308	68,144	86,100	860,103	2,098	2,500	1,025,000	164,897
Fish	410	90,859	615,000					
Fuel	350	77,562	525,000	602,562	1,722	1,900	665,000	62,438
Materials	500	110,803	0	110,803	222	300	150,000	39,197
Total	3,610	800,000	1,798,000	2,598,000	720		2,869,420	271,420

Note: Buying Price: Ice @Rp.280/kg; Fish @Rp.1,500/kg, Fuel (diesel) Rp.1,500/L Ice for fish: 75% of fish in volume
Transport Cost (Balauring - Larantuka): @Rp.222/kg or L Sales Ratio of Ice: 80%

Table 5-4-5. Lamalera

Item	First 2 years	3 - 5 years	6 - 20 years	Yearly average	
Operators	11.40	11.40	11.40	11.40	Captain Rp600,000/month, Assistant Rp.350,000/month
Fuel cost	25.20	25.20	25.20	25.20	40hp x 0.3l/hp/hr x 14 hrs/trip x 100 trips/yr x Rp.1,500/l
Maintenance	5.59	11.18	22.35	19.00	
Depreciation	27.94	27.94	27.94	27.94	
Total Cost	70.13	75.72	86.89	83.54	
No. of trips/yr	100	100	100	100	
Rental fee/trip	0.70	0.76	0.87	0.84	850000 Rp/trip
No. of passenger	10	10	10	10	
Fare per person	70,128	75,716	86,892	83,539	85000 Rp/person

Commodity	Volume (kg or L / trip)	Transport Cost (Rp/trip)	Buying Cost (Rp/trip)	Total Cost (Rp/trip)	Unit Cost (Rp/kg or L)	Selling Price	Sales Income	Profit (Rp/trip)
Ice for sales	1,925	580,230	539,000	1,119,230	581	730	1,124,200	4,970
Ice for own use	135	40,691	37,800	402,747	2,237	2,500	450,000	47,253
Fish	180	54,255	270,000					
Fuel	80	24,113	120,000	144,113	1,801	2,000	160,000	15,887
Materials	500	150,709	0	150,709	301	400	200,000	49,291
Total	2,820	850,000	966,800	1,816,800	644		1,934,200	117,400

Note: Buying Price: Ice @Rp.280/kg; Fish @Rp.1,500/kg, Fuel (diesel) Rp.1,500/L Ice for fish: 75% of fish in volume
Transport Cost (Lamalera - Larantuka): @Rp.301/kg or L Sales Ratio of Ice: 80%

Table 5-4-6. Pulau Ende

Item	First 2 years	3 - 5 years	6 - 20 years	Yearly average	
Operators	11.40	11.40	11.40	11.40	Captain Rp600,000/month, Assistant Rp.350,000/month
Fuel cost	16.20	16.20	16.20	16.20	40hp x 0.3l/hp/hr x 3 hrs/trip x 300 trips/yr x Rp.1,500/l
Maintenance	5.59	11.18	22.35	19.00	
Depreciation	55.88	55.88	55.88	55.88	
Total Cost	89.07	94.66	105.83	102.48	
No. of trips/yr	300	300	300	300	
Rental fee/trip	0.30	0.32	0.35	0.34	220,000 Rp/trip
No. of passenger	10	10	10	10	
Fare per person	29,689	31,552	35,277	34,160	22,000 Rp/person

Commodity	Volume (kg or L / trip)	Transport Cost (Rp/trip)	Buying Cost (Rp/trip)	Total Cost (Rp/trip)	Unit Cost (Rp/kg or L)	Selling Price	Sales Income	Profit (Rp/trip)
Water	3,000	125,714	15,000	140,714	47	50	150,000	9,286
Ice	1,200	50,286	360,000	3,687,524	5,673	6,000	3,900,000	212,476
Fish	650	27,238	3,250,000					
Light Oil	400	16,762	400,000	416,762	1,042	1,100	440,000	23,238
Total	5,250	220,000	4,025,000	4,245,000			4,490,000	245,000

Note. Buying Price: Ice @Rp.280/kg; Fish @Rp.5,000/kg, Fuel (light oil) Rp.1,000/L Ice for fish: 75% of fish in volume
Transport Cost (Pulau Ende - Paupanda): @Rp.42/kg or L Sales Ratio of Ice: 80%

APPENDIX -6

COST ESTIMATES

6-1 PROJECT FACILITIES

6-2 PROJECT EQUIPMENT

APPENDIX - 6: COST ESTIMATE OF PROJECT FACILITIES (1/12)

Table 6-1-1 Waworada

Classification		Facilities	Unit	Quantity	Unit Cost (1,000Rp)	Amount (million Rp)	Remarks
BASIC FACILITIES							
	Outlying facilities	Outside sea wall -1	m	60	57,504	3,450	East side of quay tip, fishing vessel berthing type in inside
		Outside sea wall -2	m	50	13,665	683	Tip part of site
		Inside sea wall -1	m	305	7,008	2,137	For site development, temporary use for mooring at MWL - HWL
		Inside sea wall -2	m	350	5,306	1,857	Public space for sea wall base, step type partly, mooring of small fishing vessel
	Mooring facilities	-2m Landing quay	m	100	29,383	2,938	With step against tide range
		-3m Quay	m	20	31,171	623	With step against tide range
		-2m Quay	m	40	30,921	1,237	Step type
		Slipway	m	75	8,014	601	B=24m, 1/8
	Anchorages and basins	-2m Dredging	m3	14,000	54	756	A=8,700m2
	Transport facilities	Area road	m	290	1,371	398	B=6m, both side ditch
		Existing road improvement	m	350	1,460	511	B=6m, side ditch in road side, setting border line and separation of lane, road side
		Parking lot	m2	1,000	152	152	Pavement
	Others	Reclamation	m3	41,000	78	3,198	Elevation +3.5m (HWL: +2.90)
		Site development	m2	10,400	2	21	Grading, excluding yard road
	Mobilization		unit	1	674,300	674	
	Temporary facilities		unit	1	528,000	528	
FUNCTIONAL FACILITIES							
	Fish catch treatment, storage facility	Fish handling shed	m2	960	1,194	1,146	-
		Ice making & storage facility	m2	350	1,412	494	Production 6ton/day, storage 12ton
	Administration facility	Administration office	m2	300	1,420	426	Broker lounge, meeting room, public lavatory, machine room, electric control room, etc.
	Processing facility	Model processing factory	m2	870	1,194	1,039	Kitchen, modified drying yard, indoor treatment room, etc.
	Fishing gear maintenance, repair facility	Simplified workshop	m2	150	1,194	179	Engine maintenance, manufacturing and repair of cool box, training of technicians, etc
		Open pile yard	m2	270	0	0	Multipurpose use, fishery
		Fishing gear drying yard	m2	2,790	0	0	Drying, repair of gear and net
	Supply facilities	Oil supply facility (oil stocking house)	m2	-	0	0	Storage house, supply by hand pump
		Oil supply facility (oil tank)	kl	5	12,000	60	Storage tank, supply by dispenser
		Water supply facility	m3/day	20	21,240	425	Water tank, joint work with community water supply system
		Electricity supply facility	lot	1	580,000	580	Connection to PLN net work
	Waste treatment facility	Simplified drainage facility	m3/day	21	4,061	85	Simplified treatment of sewage (screen + sedimentation tank)
		Waste collection point	m2	90	791	71	-
	Others	Sunday market yard	m2	1,000	0	0	Removal of existing Sunday market, just arrangement of site
Direct Construction Cost						24,271	
Indirect Construction Cost						9,708	
Total Construction Cost						33,979	**million Rp.**
FISHING COMMUNITY ENVIRONMENT IMPROVEMENT		Village road/drainage	m	600	456	274	B=3m with ditch, only supply of materials
		Water supply facility	m3/day	41	2,635	108	Joint work with fishery water supply system or facility
		Trash box	unit	31	350	11	1.0m*0.5m with cover
		Total				392	**million Rp.**

COST ESTIMATE OF PROJECT FACILITIES (2/12)

Table 6-1-2 Pasar Bima

Classification	Facilities	Unit	Quantity	Unit Cost (1,000Rp)	Amount (million Rp)	Remarks
BASIC MARKET FACILITIES	Access road	place	4	13,340	53	Bridge type (L=5m, B=6m), to fix on the irrigation canal
	Yard road	m	400	760	304	B=4m, with one side ditch
	Parking lot	m2	1,400	152	213	Pavement
	Outlying facility	m	650	460	299	Fence
	Site development	m2	5,100	78	398	Grading, excluding yard road
FUNCTIONAL MARKET FACILITIES	Fish retail market	m2	1,280	1,000	1,280	Retail market, Kiosk
	Fish wholesaling place	m2	900	711	640	Unloading place with sales space and loading place
ADMINISTRATION, INCIDENTAL FUNCTION FACILITIES	Administration office	m2	460	1,420	653	Lounge, warehouse, fresh fish storage yard, machine room, etc
	Water supply facility	m3/day	9	3,132	28	Connection to pipe line along existing road (PDAM)
	Electric supply facility	lot	1	400,000	400	Connection to PLN net work
	Simplified drainage facility	m3/day	9	4,061	37	Simplified treatment of sewage (screen + sedimentation tank)
	Waste collection point	m2	100	791	79	
Direct Construction Cost					**4,384**	
Indirect Construction Cost					**1,754**	
Total Construction Cost					**6,137**	**million Rp.**

COST ESTIMATE OF PROJECT FACILITIES (3/12)

Table 6-1-3 Kempo

Classification		Facilities	Unit	Quantity	Unit Cost (1,000Rp)	Amount (million Rp)	Remarks
BASIC FACILITIES							
	Outlying facilities	Sea wall -1	m	270	8,611	2,325	Step type partly, mooring of small fishing vessel
		Sea wall -2	m	210	5,436	1,142	Existing sea wall improvement
	Mooring facilities	-2m Landing quay	m	100	29,392	2,939	With step against tide range
		-3m Quay	m	20	30,510	610	With step against tide range
	Anchorages and basins	-3m Dredging	m3	1,600	31	50	A=1,300m2
		-2m Dredging	m3	9,300	31	288	A=7,700m2
	Transport facilities	Access road	m	40	1,277	51	B=6m, both side ditch
		Center road-1	m	65	437	28	B=6m, Improvement of existing jetty
		Center road-2	m	200	8,230	1,646	B=6m, bridge type
		Yard road	m	150	1,277	192	B=6m, both side ditch
		Parking lot	m2	830	152	126	Pavement
	その他	Demolishing old buildings	unit	1	136,690	137	Existing old buildings at PPI
		Reclamation	m3	24,000	78	1,872	Elevation +2.7, A=7,500m2
		Site development	m2	12,500	2	25	Grading, excluding yard road
	Mobilization		unit	1	914,300	914	
	Temporary facilities		unit	1	674,000	674	
FUNCTIONAL FACILITIES							
	Fish catch treatment, storage facility	Fish handling shed	m2	980	1,214	1,190	-
		Ice making & storage facility	m2	210	1,433	301	Production 3.5ton/day, storage 7ton
	Administration facility	Administration office	m2	200	1,441	288	Broker lounge, meeting room, public lavatory, machine room, electric control room, etc.
	Processing facility	Model processing factory	m2	1,120	1,214	1,360	Kitchen, modified drying yard, indoor treatment room, etc.
	Fishing gear maintenance, repair facility	Simplified workshop	m2	150	1,214	182	Engine maintenance, manufacturing and repair of cool box, training of technicians, etc
		Open pile yard	m2	230	0	0	Multipurpose use, fishery
		Fishing gear drying yard	m2	810	0	0	Drying, repair of gear and net
	Supply facilities	Oil supply facility (oil stocking house)	m2	5	1,214	6	Storage house, supply by hand pump
		Oil supply facility (oil tank)	kl	6	10,157	61	Storage tank, supply by dispenser
		Water supply facility	m3/day	16	1,845	30	Water supply system by deep well
		Electricity supply facility	lot	1	500,000	500	Connection to PLN net work
	Waste treatment facility	Simplified drainage facility	m3/day	20	4,061	81	Simplified treatment of sewage (screen + sedimentation tank)
		Waste collection point	m2	90	734	66	-
Direct Construction Cost						**17,083**	
Indirect Construction Cost						**6,333**	
Total Construction Cost						**23,917**	**million Rp.**
FISHING COMMUNITY ENVIRONMENT IMPROVEMENT		Water supply (deep well)	unit	3	65,000	195	d=150m, including equipment
		Model lavatory facility	unit	3	4,080	12	kamar mandy type
		Trash box	unit	110	350	39	1.0m*0.5m with cover
		Total				**246**	**million Rp.**

COST ESTIMATE OF PROJECT FACILITIES (4/12)

Table 6-1-4 Hu'u

Classification		Facilities	Unit	Quantity	Unit Cost (1,000Rp)	Amount (million Rp)	Remarks
BASIC FACILITIES							
	Transport facilities, etc.	Broad-type stairway	m	30	6,714	201	B=20m, between shoreline and handling shed
		Existing road improvement	m	740	842	623	B=5m, with one side ditch, small scale bridge (L=1~2m) * 2 places
		Road revetment	m	380	3,256	1,237	For existing access road, with parapet
		Changing route of existing road	m	100	842	84	B=5m, with one side ditch
		Yard road	m	100	1,213	121	B=5m, both side ditch
		Parking lot	m2	450	152	68	Pavement
		Revetment	m	280	207	58	-
		Site development	m2	3,400	78	265	Fence (L=280m), excluding yard road
FUNCTIONAL FACILITIES							
	Fish catch treatment, storage facility	Fish handling shed	m2	220	1,214	267	-
		Ice making & storage facility	m2	60	1,433	86	Production 1ton/day, storage 2ton
	Administration facility	Administration office	m2	170	1,441	245	Broker lounge, meeting room, public lavatory, machine room, electric control room, etc.
	Processing facility	Model processing factory	m2	300	1,214	364	Kitchen, modified drying yard, indoor treatment room, etc.
	Fishing gear maintenance, repair facility	Simplified workshop	m2	50	1,214	61	Engine maintenance, manufacturing and repair of cool box, training of technicians, etc
		Open pile yard	m2	40	0	0	Multipurpose use, fishery
		Fishing gear drying yard	m2	740	0	0	Drying, repair of gear and net
	Supply facilities	Oil supply facility (oil stocking house)	m2	9	1,214	11	Storage house, supply by hand pump
		Oil supply facility (oil tank)	kl	0	0	0	Storage tank, supply by dispenser
		Water supply facility	m3/day	4	4,346	17	Connection to pipe line along existing road (PDAM)
		Electricity supply facility	lot	1	450,000	450	Connection to PLN net work
	Waste treatment facility	Simplified drainage facility	m3/day	4	4,061	16	Simplified treatment of sewage (screen + sedimentation tank)
		Waste collection point	m2	50	734	37	-
Direct Construction Cost						**4,213**	
Indirect Construction Cost						**1,685**	
Total Construction Cost						**5,898**	**million Rp.**

Table 6-1-5 Dompu (reference)

Classification	Facilities	Unit	Quantity	Unit Cost (1,000Rp)	Amount (million Rp)	Remarks
BASIC MARKET FACILITIES	Site development	m2	2,500	78	195	Filling, grading
	Inner road	m	100	760	76	B=4m, with one side ditch
FUNCTIONAL MARKET FACILITIES	Fish retail market	m2	0	0	0	Existing facility
	Fish wholesaling place	m2	590	1,214	716	-
ADMINISTRATION, INCIDENTAL FUNCTION FACILITIES	Administration office	m2	270	1,441	389	Lounge, warehouse, fresh fish storage yard, machine room, etc
	Water supply facility	m3/day	0	0	0	Existing facility
	Electric supply facility	unit	0	0	0	Existing facility
	Simplified drainage facility	m3/day	5	4,061	20	Simplified treatment of sewage (screen + sedimentation tank)
	Waste collection point	m2	90	734	66	-
Direct Construction Cost					**1,268**	**million Rp.**

COST ESTIMATE OF PROJECT FACILITIES (5/12)

Table 6-1-6 Larantuka

Classification		Facilities	Unit	Quantity	Unit Cost (1,000Rp)	Amount (million Rp)	Remarks
BASIC FACILITIES							
	Outlying facilities	Sea wall	m	355	4,028	1,430	Front of handling shed is used for temporary mooring at MWL-HWL
	Mooring facilities	-2m landing pier	m	60	32,355	1,941	For mooring both side, step to cope with tide range
		-3m Pier	m	20	34,700	694	For model fishing vessel, mooring both side, step to cope with tide range
		-2m landing pier	m	30	33,918	1,018	For Multipurpose carrier ship, jetty type, -3m only for Lewoleba vessel
		Slipway	m	15	14,015	210	B=40m, slope 1/10
	Transport facilities	Access road	m	25	34,230	856	拔橋式
		Access road	m	120	1,010	121	B=6m+road side zone, two-sided sea wall, entrance road from trunk road
		Yard road	m	210	1,421	298	B=6m, both side ditch
		Parking rot	m2	760	152	116	Pavement
	Others	Reclamation	m3	10,400	78	811	
		Site development	m2	6,500	2	13	Excluding yard road, slipway
	Mobilization		unit	1	1,323,950	1,324	
	Temporary facilities		unit	1	520,000	520	
FUNCTIONAL FACILITIES							
	Fish catch treatment, storage facility	*Fish handling shed*	m2	480	1,220	586	
		Ice making & storage facility	m2	350	1,416	496	Production 6ton/day, storage 12ton
	Administration facility	Administration office	m2	250	1,448	362	Broker lounge, meeting room, public lavatory, machine room, electric control room, etc.
	Processing facility	*Model processing factory*	m2	420	1,220	512	Kitchen, modified drying yard, indoor treatment room, etc.
	Fishing gear maintenance, repair facility	Simplified workshop	m2	100	1,220	122	Engine maintenance, manufacturing and repair of cool box, training of technicians, etc
		Open pile yard	m2	120	0	0	Multipurpose use, fishery
		Fishing gear drying yard	m2	890	0	0	Drying, repair of gear and net
	Supply facilities	Oil supply facility (oil stocking house)	m2	5	1,220	6	Storage house, supply by hand pump
		Oil supply facility (oil tank)	kl	6	6,313	38	Storage tank, supply by dispenser
		Water supply facility	m3/day	13	2,585	34	Connection to pipe line along existing road (PDAM)
		Electricity supply facility	lot	1	520,000	520	Connection to PLN net work
	Waste treatment facility	Simplified drainage facility	m3/day	9	4,061	37	Simplified treatment of sewage (screen + sedimentation tank)
		Waste collection point	m2	80	830	66	-
Direct Construction Cost						**12,130**	
Indirect Construction Cost						**4,852**	
Total Construction Cost						**16,982**	**million Rp.**

COST ESTIMATE OF PROJECT FACILITIES (6/12)

Table 6-1-7 Lamahara Jaya

Classification	Facilities	Unit	Quantity	Unit Cost (1,000Rp)	Amount (million Rp)	Remarks
BASIC FACILITIES	Parking lot	m2	140	0	0	Grading
	Site development	m2	550	78	43	Filling, grading
INCIDENTAL FUNCTION FACILITIES	Small scale multipurpose facility	m2	190	1,448	275	Office, multipurpose working space, ice box stocking space, kiosk, storage, public lavatory
	Oil supply facility (oil stocking house)	m2	6	1,220	7	Storage house for 2 drums, supply by handpump
	Water supply facility	m3/day	2	6,313	13	Water supply system by well
	Electricity supply facility	lot	1	50,000	50	Connection to PLN net work
	Simplified drainage facility	m3/day	2	4,061	8	Simplified treatment of sewage (screen + sedimentation tank)
	Waste collection point	m2	20	830	17	-
Direct Construction Cost					**413**	**million Rp.**

Note: 3 places will be improved.

Above cost is estimated at one place.

Table 6-1-8 Sogu

Classification	Facilities	Unit	Quantity	Unit Cost (1,000Rp)	Amount (million Rp)	Remarks
BASIC FACILITIES	Parking lot	m2	210	0	0	Grading
	Site development	m2	640	78	50	Filling, grading
INCIDENTAL FUNCTION FACILITIES	Small scale multipurpose facility	m2	200	1,448	290	Office, multipurpose working space, ice box stocking space, kiosk, storage, public lavatory
	Oil supply facility (oil stocking house)	m2	5	1,220	6	Storage house for 2 drums, supply by handpump
	Water supply facility	m3/day	2	6,313	13	Connection to existing pipe line
	Electricity supply facility	lot	1	50,000	50	Mini-generator
	Simplified drainage facility	m3/day	2	4,061	8	Simplified treatment of sewage (screen + sedimentation tank)
	Waste collection point	m2	20	830	17	-
Direct Construction Cost		-			**433**	
FISHING COMMUNITY ENVIRONMENT IMPROVEMENT	Trash box	unit	34	350	12	1.0m*0.5m with cover
	Sub Total				**12**	
Total					**445**	**million Rp.**

COST ESTIMATE OF PROJECT FACILITIES (7/12)

Table 6-1-9 Lewoleba

Classification		Facilities	Unit	Quantity	Unit Cost (1,000Rp)	Amount (million Rp)	Remarks
BASIC FACILITIES							
	Outlying facilities	Sea wall	m	255	5,203	1,327	Temporary use for landing at MWL-HWL
	Mooring facilities	Simplified wooden jetty	m	65	2,320	151	Supplememtary landing function at MWL-HWL
	Transport facilities	Access road	m	50	1,421	71	B=6m, both side ditch
		Existing road improvement	m	150	1,346	202	B=5m, both side ditch
		Yard road	m	260	1,421	369	B=6m, both side ditch
		Parking lot	m2	790	152	120	Pavement
	その他	Reclamation	m3	15,200	78	1,186	
		Site development	m2	5,600	2	11	Excluding yard road and buffer zone
	Mobilization		unit	1	533,750	534	
	Temporary facilities		unit	1	122,000	122	
FUNCTIONAL FACILITIES							
	Fish catch treatment, storage facility	Fish handling shed	m2	560	1,220	683	
		Ice making & storage facility	m2	180	1,416	255	Production 3ton/day, storage 6ton
	Administration facility	Administration office	m2	240	1,448	348	Broker lounge, meeting room, public lavatory, machine room, electric control room, etc.
	Processing facility	Model processing factory	m2	420	1,220	512	Kitchen, modified drying yard, indoor treatment room, etc.
	Fishing gear maintenance, repair facility	Simplified workshop	m2	100	1,220	122	Engine maintenance, manufacturing and repair of cool box, training of technicians, etc
		Open pile yard	m2	120	0	0	Multipurpose use, fishery
		Fishing gear drying yard	m2	740	0	0	Drying, repair of gear and net
	Supply facilities	Oil supply facility (oil stocking house)	m2	12	1,220	15	Storage house, supply by hand pump
		Oil supply facility (oil tank)	kl	0	0	0	Storage tank, supply by dispenser
		Water supply facility	m3/day	10	3,054	31	Connection to pipe line along existing road (PDAM)
		Electricity supply facility	unit	1	565,000	565	Connection to PLN net work
	Waste treatment facility	Simplified drainage facility	m3/day	11	4,061	45	Simplified treatment of sewage (screen + sedimentation tank)
		Waste collection point	m2	80	830	66	-
Direct Construction Cost						6,734	
Indirect Construction Cost						2,694	
Total Construction Cost						9,427	million Rp.

COST ESTIMATE OF PROJECT FACILITIES (8/12)

Table 6-1-10 Balauring

Classification	Facilities	Unit	Quantity	Unit Cost (1,000Rp)	Amount (million Rp)	Remarks
BASIC FACILITIES	Parking lot	m2	290	0	0	Grading
	Site development	m2	710	78	55	Filling, grading
INCIDENTAL FUNCTION FACILITIES	Small scale multipurpose facility	m2	200	1,448	290	Office, multipurpose working space, ice box stocking space, kiosk, storage, public lavatory
	Oil supply facility (oil stocking house)	m2	5	1,220	6	Storage house for 2 drums, supply by handpump
	Water supply facility	m3/day	2	6,313	13	Connection to existing pipe line
	Electricity supply facility	lot	1	50,000	50	Connection to PLN net work
	Simplified drainage facility	m3/day	1	4,061	4	Simplified treatment of sewage (screen + sedimentation tank)
	Waste collection point	m2	20	830	17	-
Direct Construction Cost		-			**434**	
FISHING COMMUNITY ENVIRONMENT IMPROVEMENT	Model lavatory facility	unit	2	4,080	8	kamar mandy type
	Trash box	unit	11	350	4	1.0m*0.5m with cover
	Sub Total				**12**	
Total					**446**	**million Rp.**

Table 6-1-11 Lamalera

Classification	Facilities	Unit	Quantity	Unit Cost (1,000Rp)	Amount (million Rp)	Remarks
BASIC FACILITIES	Parking lot	m2	240	0	0	Grading
	Site development	m2	620	78	48	Filling, grading
INCIDENTAL FUNCTION FACILITIES	Small scale multipurpose facility	m2	190	1,448	275	Office, multipurpose working space, ice box stocking space, kiosk, storage, public lavatory
	Oil supply facility (oil stocking house)	m2	-	0	0	Storage house for 2 drums, supply by handpump
	Water supply facility	m3/day	3	5,317	16	Connection to existing pipe line
	Electricity supply facility	lot	1	50,000	50	Connection to PLN net work
	Simplified drainage facility	m3/day	3	4,061	12	Simplified treatment of sewage (screen + sedimentation tank)
	Waste collection point	m2	20	830	17	-
Direct Construction Cost		-			**418**	
FISHING COMMUNITY ENVIRONMENT IMPROVEMENT	Trash box	unit	29	350	10	1.0m*0.5m with cover
	Sub Total				**10**	
Total					**428**	**million Rp.**

COST ESTIMATE OF PROJECT FACILITIES (9/12)

Table 6-1-12 Maumere (Kalimati)

Classification		Facilities	Unit	Quantity	Unit Cost (1,000Rp)	Amount (million Rp)	Remarks
BASIC FACILITIES							
	Outlying facilities	Sea wall	m	120	7,693	923	For site development behind pier, at east side
		Step-type revetment	m	80	16,190	1,295	Supplememtary landing function at tide range, at east side
		Wave absorption	m	40	15,289	612	At concave section
	Mooring facilities	-2m Landing pier	m	70	28,477	1,993	For mooring both side, step to cope with tide range
		-3m Pier	m	20	32,298	646	For model fishing vessel, mooring both side, step to cope with tide range
	Transport facilities	Access road	m	40	1,372	55	B=6m, both side ditch
		Inner road	m	160	1,372	220	B=6m, both side ditch
		Parking lot	m2	610	139	85	Pavement
	Others	Removing broken facilities on sea bottom	unit	1	103,897	104	Broken facilities by earthquake in'92
		Reclamation	m3	11,500	65	748	-
		Site development	m2	2,300	2	5	Grading, excluding yard road
	Mobilization		unit	1	1,613,750	1,614	
	Temporary facilities		unit	1	832,000	832	
FUNCTIONAL FACILITIES							
	Fish catch treatment, storage facility	Fish handling shed	m2	550	1,220	671	-
		Ice making & storage facility	m2	180	1,421	256	Production 3ton/day, storage 6ton
	Administration facility	Administration office	m2	290	1,243	360	Second floor on handling shed
	Supply facilities	Oil supply facility (oil stocking house)	m2	7	1,220	9	Storage house, supply by hand pump
		Oil supply facility (oil tank)	kl	2	14,063	28	Storage tank, supply by dispenser
		Water supply facility	m3/day	8	3,327	27	*Connection to pipe line along existing road (PDAM)*
		Electricity supply facility	lot	1	490,000	490	Connection to PLN net work
	Waste treatment facility	Simplified drainage facility	m3/day	12	4,061	49	Simplified treatment of sewage (screen + sedimentation tank)
		Waste collection point	m2	90	751	68	-
MARKET FACILITIES							
	Basic facilities	Parking lot	m2	680	139	95	For visitor
	Functional facilities	Fish retail market	m2	0	0	0	Utilization of facility by district
		Fish wholesaling place	m2	560	1,018	570	Unloading place with sales space and loading place
		Administration office	m2	240	1,450	348	Lounge, warehouse, fresh fish storage yard, machine room, etc
Direct Construction Cost						**12,100**	
Indirect Construction Cost						***4,840***	
Total Construction Cost						**16,940**	**million Rp.**

COST ESTIMATE OF PROJECT FACILITIES (10/12)

Table 6-1-13 Wuring

Classification		Facilities	Unit	Quantity	Unit Cost (1,000Rp)	Amount (million Rp)	Remarks
BASIC FACILITIES							
	Outlying facilities	Sea wall -1	m	60	6,512	391	East side: : for site development and small fishing vessels mooring
		Sea wall -2	m	160	5,895	943	North & west side: for site development, with paraper
		Sea wall -3	m	94	5,113	481	South side: for site development
	Transport facilities	Access road	m	60	3,659	220	B=6m+road side zone, two-sided sea wall
		Yard road	m	130	1,298	169	B=5m, both side ditch
		Simplified wooden gallery	m	400	828	331	B=3m, supplementary mooring function
		Parking lot	m2	150	139	21	Pavement
	Others	Reclamation	m3	16,000	65	1,040	+3.4
		Site development	m2	4,800	2	10	Grading, excluding yard road
FUNCTIONAL FACILITIES							
	Fishing activity supporting fa	Small scale multipurpose facility	m2	200	1,450	290	Office, multipurpose working space, ice box stocking space, kiosk, storage, public lavatory
	Processing facilities	Model processing factory	m2	620	1,220	756	Kitchen, modified drying yard, indoor treatment room, etc.
	Fishing gear maintenance, repair facility	Open pile yard	m2	250	0	0	Multipurpose use, fishery
		Fishing gear drying yard	m2	1,880	0	0	Drying, repair of gear and net
	Supply facilities	Water supply facility	m3/day	4	4,856	19	Connection to pipe line along existing road (PDAM)
		Electricity supply facility	lot	1	470,000	470	Connection to PLN net work
	Waste treatment facility	Simplified drainage facility	m3/day	3	4,061	12	Simplified treatment of sewage (screen + sedimentation tank)
		Waste collection point	m2	20	751	15	-
Direct Construction Cost						**5,167**	
Indirect Construction Cost						**2,067**	
Total Construction Cost						**7,234**	**million Rp.**
FISHING COMMUNITY ENVIRONMENT IMPROVEMENT		Trash box	unit	40	350	14	1.0m*0.5m with cover
		Total				**14**	**million Rp.**

COST ESTIMATE OF PROJECT FACILITIES (11/12)

Table 6-1-14 Paga

Classification		Facilities	Unit	Quantity	Unit Cost (1,000Rp)	Amount (million Rp)	Remarks
BASIC FACILITIES							
	Transport facilities	Broad-type stairway	m	30	6,367	191	B=20m, between shoreline and handling shed
		Access road	m	5	445	2	B=6m
		Yard road	m	100	1,298	130	B=5m, both side ditch
		Parking lot	m2	370	139	51	Pavement
	Others	Site development	m2	2,400	2	5	Grading, excluding yard road
FUNCTIONAL FACILITIES							
	Fish catch treatment, storage facility	Fish handling shed	m2	280	1,220	342	-
		Ice making & storage facility	m2	120	1,421	171	Production 2ton/day, storage 4ton
	Administration facility	Administration office	m2	170	1,450	247	Broker lounge, meeting room, public lavatory, machine room, electric control room, etc.
	Fishing gear maintenance, repair facility	Simplified workshop	m2	50	1,220	61	Engine maintenance, manufacturing and repair of cool box, training of technicians, etc
		Open pile yard	m2	60	0	0	Multipurpose use, fishery
		Fishing gear drying yard	m2	740	0	0	Drying, repair of gear and net
	Supply facilities	*Oil supply facility (oil stocking house)*	*m2*	*14*	1,220	17	Storage house, supply by hand pump
		Oil supply facility (oil tank)	kl	-	0	0	Storage tank, supply by dispenser
		Water supply facility	m2	6	3,117	19	Connection to pipe line along existing road (PDAM)
		Electricity supply facility	lot	1	450,000	450	Connection to PLN net work
	Waste treatment facility	Simplified drainage facility	m3/day	5	4,061	20	Simplified treatment of sewage (screen + sedimentation tank)
		Waste collection point	m2	50	751	38	-
Direct Construction Cost						1,743	
Indirect Construction Cost						697	
Total Construction Cost						**2,440**	**million Rp.**
FISHING COMMUNITY ENVIRONMENT IMPROVEMENT		Model lavatory facility	unit	2	4,080	8	Kamar mandy type
		Total				**8**	**million Rp.**

COST ESTIMATE OF PROJECT FACILITIES (12/12)

Table 6-1-15 Paupanda (Ende)

Classification		Facilities	Unit	Quantity	Unit Cost (1,000Rp)	Amount (million Rp)	Remarks
BASIC FACILITIES							
	Mooring facilities	Existing pier improvement	m	50	5,918	296	-2m, with step against tide range
		Existing pier improvement	m	20	6,584	132	-3m, with step against tide range
		Broad-type-type stairway	m	50	6,367	318	B=20m
		Gentle slope-type way	m	50	3,706	185	B=20m
	Transport facilities	Yard road	m	250	1,298	325	B=6m, both side ditch
		Parking lot	m2	640	139	89	Pavement
	Others	Excavation	m3	7,300	800	5,840	Coral rock
		Site development	m2	8,100	2	16	Grading, excluding yard road
	Mobilization		unit	1	1,613,750	1,614	
	Temporary facilities		unit	1	85,600	86	
FUNCTIONAL FACILITIES							
	Fish catch treatment, storage facility	Fish handling shed	m2	120	1,220	146	-
		Ice making & storage facility	m2	290	1,421	412	Production 5ton/day, storage 10ton
	Administration facility	Administration office	m2	290	1,450	421	Broker lounge, meeting room, public lavatory, machine room, electric control room, etc.
	Processing facility	Model processing factory	m2	390	1,220	476	Kitchen, modified drying yard, indoor treatment room, etc.
	Fishing gear maintenance, repair facility	Simplified workshop	m2	150	1,220	183	Engine maintenance, manufacturing and repair of cool box, training of technicians, etc
		Open pile yard	m2	280	0	0	Multipurpose use, fishery
		Fishing gear drying yard	m2	2,730	0	0	Drying, repair of gear and net
	Supply facilities	Oil supply facility (oil stocking house)	m2	12	1,220	15	Storage house, supply by hand pump
		Oil supply facility (oil tank)	kl	3	9,883	30	Storage tank, supply by dispenser
		Water supply facility	m3/day	12	1,966	24	Water tank, existing facility (10.6m3) for Dinas Perikanan
		Electricity supply facility	lot	1	550,000	550	Connection to PLN net work
	Waste treatment facility	Simplified drainage facility	m3day	10	4,061	41	Simplified treatment of sewage (screen + sedimentation tank)
		Waste collection point	m2	80	751	60	-
Direct Construction Cost						**11,257**	
Indirect Construction Cost						**4,503**	
Total Construction Cost						**15,759**	**million Rp.**

ANNEX 6-2. COST ESTIMATE OF PROJECT EQUIPMENTS

Table 6-2-1. Equipment for Coastal Resources Management

(1) Waworada

Unit: million Rp.

Equipment / Materials	Capacity	Unit Price	Quantity	Total Price	Durable Yeras	Annual Depreciation	Annual Maintenance Cost			
							First 2 years	3-5 years	After 6 years	Yearly average
Log-book for fishermen	Loose-reef type	0.10	150	15.00	5	3.00	0.30	0.30	0.30	0.30
Calculator	Handy	0.05	150	7.50	5	1.50	0.00	0.00	0.00	0.00
Data analysis set	Desk-top	20.00	1	20.00	10	2.00	0.40	0.40	0.40	0.40
Marking materials for boats		0.07	150	10.50	5	2.10	0.21	0.21	0.21	0.21
FAD	500m type	15.00	3	45.00	1	45.00	0.00	0.00	0.00	0.00
VHF radio	25W	24.20	4	96.80	10	9.68	0.48	0.48	0.48	0.48
	5W	8.80	2	17.60	10	1.76	0.09	0.09	0.09	0.09
Model fishing boat	13m(L), 90hp	1,180.01	1	1,180.01	10	121.65	11.80	23.60	35.40	26.88
Speed boat	7-8m(L), 80hp	160.18	1	160.18	10	16.02	1.60	3.20	6.41	4.49
Total				1,552.59		202.71	14.88	28.29	43.29	32.85

(2) Kempo

Unit: million Rp.

Equipment / Materials	Capacity	Unit Price	Quantity	Total Price	Durable Yeras	Annual Depreciation	Annual Maintenance Cost			
							First 2 years	3-5 years	After 6 years	Yearly average
Log-book for fishermen	Loose-reef type	0.10	60	6.00	5	1.20	0.12	0.12	0.12	0.12
Calculator	Handy	0.05	60	3.00	5	0.60	0.00	0.00	0.00	0.00
Data analysis set	Desk-top	20.00	0.5	10.00	10	1.00	0.20	0.20	0.20	0.20
Marking materials for boats		0.07	60	4.20	5	0.84	0.08	0.08	0.08	0.08
Floating net cage	3m x 3m x 2m	3.00	8	24.00	10	2.40	0.48	0.48	0.48	0.48
Small aerator for Bagan	Battery type	0.10	30	3.00	5	0.60	0.03	0.03	0.03	0.03
Concrete pile for spat collection	15cm sq. x 4m	0.20	100	20.00	20	1.00	0.00	0.00	0.00	0.00
Water quality checker	for 6 parameters	20.00	1	20.00	10	2.00	0.20	0.20	0.20	0.20
Carbon fiber rope set for algae	20m	1.00	10	10.00	5	2.00	0.00	0.00	0.00	0.00
Concrete panel for algae	2m x 2m x 20mm	2.00	10	20.00	20	1.00	0.00	0.00	0.00	0.00
Underwater camera	NIKONOS	30.00	1	30.00	10	3.00	0.60	0.60	0.60	0.60
Scuba diving set		15.00	1	15.00	10	1.50	0.30	0.30	0.30	0.30
VHF radio	25W	24.20	1	24.20	10	2.42	0.12	0.12	0.12	0.12
	5W	8.80	3	26.40	10	2.64	0.13	0.13	0.13	0.13
Total				215.80		22.20	2.27	2.27	2.27	2.27

(3) Hu'u

Unit: million Rp.

Equipment / Materials	Capacity	Unit Price	Quantity	Total Price	Durable Yeras	Annual Depreciation	Annual Maintenance Cost			
							First 2 years	3-5 years	After 6 years	Yearly average
Log-book for fishermen	Loose-reef type	0.10	30	3.00	5	0.60	0.06	0.06	0.06	0.06
Calculator	Handy	0.05	30	1.50	5	0.30	0.00	0.00	0.00	0.00
Data analysis set	Desk-top	20.00	0.5	10.00	10	1.00	0.20	0.20	0.20	0.20
Marking materials for boats		0.07	30	2.10	5	0.42	0.04	0.04	0.04	0.04
VHF radio	25W	24.20	1	24.20	10	2.42	0.12	0.12	0.12	0.12
	5W	8.80	3	26.40	10	2.64	0.13	0.13	0.13	0.13
Model fishing boat	13m(L), 90hp	1,180.01	1	1,180.01	10	121.65	11.80	23.60	35.40	26.88
Speed boat	7-8m(L), 80hp	160.18	1	160.18	10	16.02	1.60	3.20	6.41	4.49
Total				1,407.39		145.05	13.96	27.36	42.36	31.92

(4) Larantuka

Unit: million Rp.

Equipment / Materials	Capacity	Unit Price	Quantity	Total Price	Durable Yeras	Annual Depreciation	Annual Maintenance Cost			
							First 2 years	3-5 years	After 6 years	Yearly average
Log-book for fishermen	Loose-reef type	0.10	70	7.00	5	1.40	0.14	0.14	0.14	0.14
Calculator	Handy	0.05	70	3.50	5	0.70	0.00	0.00	0.00	0.00
Data analysis set	Desk-top	20.00	1	20.00	10	2.00	0.40	0.40	0.40	0.40
Marking materials for boats		0.07	70	4.90	5	0.98	0.10	0.10	0.10	0.10
VHF radio	25W	24.20	1	24.20	10	2.42	0.12	0.12	0.12	0.12
	5W	8.80	2	17.60	10	1.76	0.09	0.09	0.09	0.09
Model fishing boat	13m(L), 90hp	1,180.01	1	1,180.01	10	121.65	11.80	23.60	35.40	26.88
Speed boat	7-8m(L), 80hp	160.18	1	160.18	10	16.02	1.60	3.20	6.41	4.49
Total				1,417.39		146.93	14.25	27.65	42.65	32.22

(5) Lamahala Jaya

Unit: million Rp.

Equipment / Materials	Capacity	Unit Price	Quantity	Total Price	Durable Yeras	Annual Depreciation	Annual Maintenance Cost			
							First 2 years	3-5 years	After 6 years	Yearly average
Log-book for fishermen	Loose-reef type	0.10	95	9.50	5	1.90	0.19	0.19	0.19	0.19
Calculator	Handy	0.05	95	4.75	5	0.95	0.00	0.00	0.00	0.00
Marking materials for boats		0.07	95	6.65	5	1.33	0.13	0.13	0.13	0.13
FAD	2,000m type	45.00	2	90.00	1	90.00	0.00	0.00	0.00	0.00
VHF radio	25W	24.20	3	72.60	10	7.26	0.36	0.36	0.36	0.36
	5W	8.80	2	17.60	10	1.76	0.09	0.09	0.09	0.09
Speed boat	7-8m(L), 80hp	160.18	1	160.18	10	16.02	1.60	3.20	6.41	4.49
Total				361.28		119.22	2.38	3.98	7.18	5.26

(6) Sagu

Unit: million Rp.

Equipment / Materials	Capacity	Unit Price	Quantity	Total Price	Durable Yeras	Annual Depreciation	Annual Maintenance Cost			
							First 2 years	3-5 years	After 6 years	Yearly average
Log-book for fishermen	Loose-reef type	0.10	30	3.00	5	0.60	0.06	0.06	0.06	0.06
Calculator	Handy	0.05	30	1.50	5	0.30	0.00	0.00	0.00	0.00
Marking materials for boats		0.07	30	2.10	5	0.42	0.04	0.04	0.04	0.04
FAD	1,000m type	25.00	2	50.00	1	50.00	0.00	0.00	0.00	0.00
VHF radio	25W	24.20	3	72.60	10	7.26	0.36	0.36	0.36	0.36
Small engines for fishing boats	8-16 hp, diesel	4.57	23	105.00	5	21.00	2.10	2.10	2.10	2.10
Speed boat	7-8m(L), 80hp	160.18	1	160.18	10	16.02	1.60	3.20	6.41	4.49
Total				394.38		95.60	4.17	5.77	8.97	7.05

(7) Lewoleba

Unit: million Rp.

Equipment / Materials	Capacity	Unit Price	Quantity	Total Price	Durable Yeras	Annual Depreciation	Annual Maintenance Cost			
							First 2 years	3-5 years	After 6 years	Yearly average
Log-book for fishermen	Loose-reef type	0.10	65	6.50	5	1.30	0.13	0.13	0.13	0.13
Calculator	Handy	0.05	65	3.25	5	0.65	0.00	0.00	0.00	0.00
Data analysis set	Desk-top	20.00	1	20.00	10	2.00	0.40	0.40	0.40	0.40
Marking materials for boats		0.07	65	4.55	5	0.91	0.09	0.09	0.09	0.09
VHF radio	25W	24.20	1	24.20	10	2.42	0.12	0.12	0.12	0.12
	5W	8.80	2	17.60	10	1.76	0.09	0.09	0.09	0.09
Model fishing boat	13m(L), 90hp	1,180.01	1	1,180.01	10	121.65	11.80	23.60	35.40	26.88
Speed boat	7-8m(L), 80hp	160.18	1	160.18	10	16.02	1.60	3.20	6.41	4.49
Total				1,416.29		146.71	14.23	27.63	42.64	32.20

(8) Balauring

Unit: million Rp.

Equipment / Materials	Capacity	Unit Price	Quantity	Total Price	Durable Yeras	Annual Depreciation	Annual Maintenance Cost			
							First 2 years	3-5 years	After 6 years	Yearly average
Log-book for fishermen	Loose-reef type	0.10	25	2.50	5	0.50	0.05	0.05	0.05	0.05
Calculator	Handy	0.05	25	1.25	5	0.25	0.00	0.00	0.00	0.00
Marking materials for boats		0.07	25	1.75	5	0.35	0.04	0.04	0.04	0.04
FAD	1,000m type	25.00	2	50.00	1	50.00	0.00	0.00	0.00	0.00
VHF radio	25W	24.20	3	72.60	10	7.26	0.36	0.36	0.36	0.36
Small engines for fishing boats	8-16 hp, diesel	4.57	28	127.82	5	25.56	2.56	2.56	2.56	2.56
Total				255.92		83.92	3.00	3.00	3.00	3.00

(9) Lamalera

Unit: million Rp.

Equipment / Materials	Capacity	Unit Price	Quantity	Total Price	Durable Yeras	Annual Depreciation	Annual Maintenance Cost			
							First 2 years	3-5 years	After 6 years	Yearly average
Log-book for fishermen	Loose-reef type	0.10	35	3.50	5	0.70	0.07	0.07	0.07	0.07
Calculator	Handy	0.05	35	1.75	5	0.35	0.00	0.00	0.00	0.00
Marking materials for boats		0.07	35	2.45	5	0.49	0.05	0.05	0.05	0.05
FAD	2,000m type	45.00	2	90.00	1	90.00	0.00	0.00	0.00	0.00
VHF radio	25W	24.20	3	72.60	10	7.26	0.36	0.36	0.36	0.36
Small engines for fishing boats	8-16 hp, diesel	4.57	14	63.91	5	12.78	1.28	1.28	1.28	1.28
Total				234.21		111.58	1.76	1.76	1.76	1.76

(10) Maumere/Wuring

Unit: million Rp.

Equipment / Materials	Capacity	Unit Price	Quantity	Total Price	Durable Yeras	Annual Depreciation	Annual Maintenance Cost			
							First 2 years	3-5 years	After 6 years	Yearly average
Log-book for fishermen	Loose-reef type	0.10	130	13.00	5	2.60	0.26	0.26	0.26	0.26
Calculator	Handy	0.05	130	6.50	5	1.30	0.00	0.00	0.00	0.00
Data analysis set	Desk-top	20.00	1	20.00	10	2.00	0.40	0.40	0.40	0.40
Marking materials for boats		0.07	130	9.10	5	1.82	0.18	0.18	0.18	0.18
FAD	1,000m type	25.00	3	75.00	1	75.00	0.00	0.00	0.00	0.00
VHF radio	25W	24.20	5	121.00	10	12.10	0.61	0.61	0.61	0.61
Model fishing boat	13m(L), 90hp	1,180.01	1	1,180.01	10	121.65	11.80	23.60	35.40	26.88
Speed boat	7-8m(L), 80hp	160.18	1	160.18	10	16.02	1.60	3.20	6.41	4.49
Total				1,584.79		232.49	14.85	28.25	43.25	32.82

(11) Paga

Unit: million Rp.

Equipment / Materials	Capacity	Unit Price	Quantity	Total Price	Durable Yeras	Annual Depreciation	Annual Maintenance Cost			
							First 2 years	3-5 years	After 6 years	Yearly average
Log-book for fishermen	Loose-reef type	0.10	35	3.50	5	0.70	0.07	0.07	0.07	0.07
Calculator	Handy	0.05	35	1.75	5	0.35	0.00	0.00	0.00	0.00
Data analysis set	Desk-top	20.00	1	20.00	10	2.00	0.40	0.40	0.40	0.40
Marking materials for boats		0.07	35	2.45	5	0.49	0.05	0.05	0.05	0.05
FAD	1,000m type	25.00	1	25.00	1	25.00	0.00	0.00	0.00	0.00
VHF radio	25W	24.20	2	48.40	10	4.84	0.24	0.24	0.24	0.24
	5W	8.80	2	17.60	10	1.76	0.09	0.09	0.09	0.09
Small engines for fishing boats	8-16 hp, diesel	4.57	33	150.65	5	30.13	3.01	3.01	3.01	3.01
Speed boat	7-8m(L), 80hp	160.18	1	160.18	10	16.02	1.60	3.20	6.41	4.49
Total				429.53		81.29	5.46	7.07	10.27	8.35

(12) Ende

Unit: million Rp.

						Yearly	Yearly maintenance cost			
Equipment / Materials	Capacity	Unit Price	Quantity	Total Price	Durable Yeras	Depreciation	First 2 years	3-5 years	After 6 years	Yearly average
Log-book for fishermen	Loose-reef type	0.10	60	6.00	5	1.20	0.12	0.12	0.12	0.12
Calculator	Handy	0.05	60	3.00	5	0.60	0.00	0.00	0.00	0.00
Data analysis set	Desk-top	20.00	1	20.00	10	2.00	0.40	0.40	0.40	0.40
Marking materials for boats		0.07	60	4.20	5	0.84	0.08	0.08	0.08	0.08
FAD	1,000m type	25.00	4	100.00	1	100.00	0.00	0.00	0.00	0.00
VHF radio	25W	24.20	4	96.80	10	9.68	0.48	0.48	0.48	0.48
Small engines for fishing boats	8-16 hp, diesel	4.57	136	620.84	5	124.17	12.42	12.42	12.42	12.42
Model fishing boat	13m(L), 90hp	1,180.01	1	1,180.01	10	121.65	11.80	23.60	35.40	26.88
Speed boat	7-8m(L), 80hp	160.18	1	160.18	10	16.02	1.60	3.20	6.41	4.49
Total				2,191.03		376.16	26.91	40.31	55.31	44.87

Table 6-2-2. Equipment for Fish Landing, Treatment, Marketing and Processing

(1) Waworada

Unit: million Rp.

Equipment / Materials	Capacity	Unit Price	Quantity	Total Price	Durable Yeras	Annual Depreciation	Annual Maintenance Cost			
							First 2 years	3-5 years	After 6 years	Yearly average
Plastic container	60L	0.11	43	4.73	3	1.58	0.00	0.00	0.00	0.00
Platform scale	0-100kg	1.10	3	3.30	5	0.66	0.00	0.00	0.00	0.00
Ice making plant	6 ton/day	1,595.24	1	1,595.24	20	79.76	7.98	15.95	31.90	27.12
Ice storage	12ton(36m3)	200.66	1	200.66	20	10.03	1.00	2.01	4.01	3.41
Cool box (styroform)	45L	0.05	78	3.86	2	1.93	0.00	0.00	0.00	0.00
	80L	0.08	27	2.08	2	1.04	0.00	0.00	0.00	0.00
Cool box (FRP)	150L	0.55	28	15.40	5	3.08	0.00	0.00	0.00	0.00
	300L	1.32	19	25.08	5	5.02	0.00	0.00	0.00	0.00
Fish transport truck	3 ton	319.55	2	639.10	10	63.91	3.20	6.39	12.78	8.95
SSB radio	150W	132.00	2	264.00	10	26.40	1.32	1.32	1.32	1.32
Materials for reinforcing cool box	for 45L & 80L	0.01	105	1.05	2	0.53	0.00	0.00	0.00	0.00
Processing equipment	for dried fish	0.36	10	3.60	2	1.80	0.00	0.00	0.00	0.00
	for new products	36.19	1	36.19	10	3.62	0.18	0.18	0.18	0.18
Workshop equipment	for wooden	11.00	1	11.00	10	1.10	0.06	0.06	0.06	0.06
	for mechanical	22.00	1	22.00	10	2.20	0.11	0.11	0.11	0.11
Total				2,827.29		202.65	13.84	26.02	50.37	41.14

(2) Kempo

Unit: million Rp.

Equipment / Materials	Capacity	Unit Price	Quantity	Total Price	Durable Yeras	Annual Depreciation	Annual Maintenance Cost			
							First 2 years	3-5 years	After 6 years	Yearly average
Platform scale	0-100kg	1.10	3	3.30	5	0.66	0.00	0.00	0.00	0.00
Ice making plant	3.5 ton/day	1,163.00	1	1,163.00	20	58.15	5.82	11.63	23.26	19.77
Ice storage	7ton(21m3)	163.33	1	163.33	20	8.17	0.82	1.63	3.27	2.78
Cool box (styroform)	45L	0.05	163	8.07	2	4.03	0.00	0.00	0.00	0.00
	80L	0.08	28	2.16	2	1.08	0.00	0.00	0.00	0.00
Cool box (FRP)	150L	0.55	7	3.85	5	0.77	0.00	0.00	0.00	0.00
SSB radio	150W	132.00	2	264.00	10	26.40	1.32	1.32	1.32	1.32
Materials for reinforcing cool box	for 45L & 80L	0.01	191	1.91	2	0.96	0.00	0.00	0.00	0.00
Processing equipment	for dried fish	0.36	12	4.32	2	2.16	0.00	0.00	0.00	0.00
	for new products	36.19	1	36.19	10	3.62	0.18	0.18	0.18	0.18
Workshop equipment	for wooden	11.00	1	11.00	10	1.10	0.06	0.06	0.06	0.06
	for mechanical	22.00	1	22.00	10	2.20	0.11	0.11	0.11	0.11
Total				1,683.13		109.29	8.30	14.93	28.19	24.21

(3) Hu'u

Unit: million Rp.

Equipment / Materials	Capacity	Unit Price	Quantity	Total Price	Durable Yeras	Annual Depreciation	Annual Maintenance Cost			
							First 2 years	3-5 years	After 6 years	Yearly average
Platform scale	0-100kg	1.10	1	1.10	5	0.22	0.00	0.00	0.00	0.00
Ice making plant	1 ton/day	713.48	0	0.00	20	0.00	0.00	0.00	0.00	0.00
Ice storage	2ton(14m3)	122.04	1	122.04	20	6.10	0.61	1.22	2.44	2.07
Small freezers for ice-making	100 kg/day	13.20	10	132.00	10	13.20	0.66	0.66	0.66	0.66
Cool box (styroform)	45L	0.05	33	1.63	2	0.82	0.00	0.00	0.00	0.00
Cool box (FRP)	300L	1.32	12	15.84	5	3.17	0.00	0.00	0.00	0.00
SSB radio	150W	132.00	1	132.00	10	13.20	0.66	0.66	0.66	0.66
Materials for reinforcing cool box	for 45L & 80L	0.01	33	0.33	2	0.17	0.00	0.00	0.00	0.00
Processing equipment	for dried fish	0.36	1	0.36	2	0.18	0.00	0.00	0.00	0.00
	for new products	36.19	1	36.19	10	3.62	0.18	0.18	0.18	0.18
Workshop equipment	for wooden	11.00	1	11.00	10	1.10	0.06	0.06	0.06	0.06
	for mechanical	22.00	1	22.00	10	2.20	0.11	0.11	0.11	0.11
Total				474.50		43.97	2.28	2.89	4.11	3.74

(4) Larantuka

Unit: million Rp.

Equipment / Materials	Capacity	Unit Price	Quantity	Total Price	Durable Yeras	Annual Depreciation	Annual Maintenance Cost			
							First 2 years	3-5 years	After 6 years	Yearly average
Plastic container	60L	0.11	31	3.41	3	1.14	0.00	0.00	0.00	0.00
Platform scale	0-100kg	1.10	2	2.20	5	0.44	0.00	0.00	0.00	0.00
Ice making plant	6 ton/day	1,595.24	1	1,595.24	20	79.76	7.98	15.95	31.90	27.12
Ice storage	12ton(36m3)	200.66	1	200.66	20	10.03	1.00	2.01	4.01	3.41
Cool box (styroform)	45L	0.05	85	4.21	2	2.10	0.00	0.00	0.00	0.00
	80L	0.00	7	0.00	2	0.00	0.00	0.00	0.00	0.00
Cool box (FRP)	150L	0.55	17	9.35	5	1.87	0.00	0.00	0.00	0.00
Insulated fish transport truck	3 ton	407.72	2	815.43	5	163.09	4.08	8.15	16.31	6.52
SSB radio	150W	132.00	1	132.00	10	13.20	0.66	0.66	0.66	0.66
Materials for reinforcing cool box	for 45L & 80L	0.01	92	0.92	2	0.46	0.00	0.00	0.00	0.00
Processing equipment	for dried fish	0.36	3	1.08	2	0.54	0.00	0.00	0.00	0.00
	for new products	36.19	1	36.19	10	3.62	0.18	0.18	0.18	0.18
Workshop equipment	for wooden	11.00	1	11.00	10	1.10	0.06	0.06	0.06	0.06
	for mechanical	22.00	1	22.00	10	2.20	0.11	0.11	0.11	0.11
Total				2,833.68		279.55	14.06	27.12	53.23	38.66

(5) Lamahala Jaya

Unit: million Rp.

Equipment / Materials	Capacity	Unit Price	Quantity	Total Price	Durable Yeras	Annual Depreciation	Annual Maintenance Cost			
							First 2 years	3-5 years	After 6 years	Yearly average
Cool box (styroform)	45L	0.05	108	5.35	2	2.67	0.00	0.00	0.00	0.00
Cool box (FRP)	300L	1.32	12	15.84	5	3.17	0.00	0.00	0.00	0.00
Multipurpose transport boat	10-12m(L), 40hp	558.80	1	558.80	20	27.94	2.79	5.59	11.18	9.50
Fish transport truck	3 ton	319.55	1	319.55	10	31.96	1.60	3.20	6.39	4.47
SSB radio	150W	132.00	1	132.00	10	13.20	0.66	0.66	0.66	0.66
Materials for reinforcing cool box	for 45L & 80L	0.01	108	1.08	2	0.54	0.00	0.00	0.00	0.00
Processing equipment	for dried fish	0.36	6	2.16	2	1.08	0.00	0.00	0.00	0.00
Workshop equipment	for wooden	11.00	3	33.00	10	3.30	0.17	0.17	0.17	0.17
	for mechanical	22.00	3	66.00	10	6.60	0.33	0.33	0.33	0.33
Total				1,133.78		90.46	5.55	9.94	18.72	15.13

(6) Sagu

Unit: million Rp.

Equipment / Materials	Capacity	Unit Price	Quantity	Total Price	Durable Yeras	Annual Depreciation	Annual Maintenance Cost			
							First 2 years	3-5 years	After 6 years	Yearly average
Cool box (styroform)	45L	0.05	39	1.93	2	0.97	0.00	0.00	0.00	0.00
	300L	1.32	5	6.60	5	1.32	0.00	0.00	0.00	0.00
Multipurpose transport boat	10-12m(L), 40hp	558.80	1	558.80	20	27.94	1.40	2.79	5.59	4.75
SSB radio	150W	132.00	1	132.00	10	13.20	0.66	0.66	0.66	0.66
Materials for reinforcing cool box	for 45L & 80L	0.01	39	0.39	2	0.20	0.00	0.00	0.00	0.00
Processing equipment	for dried fish	0.36	2	0.72	2	0.36	0.00	0.00	0.00	0.00
Workshop equipment	for wooden	11.00	1	11.00	10	1.10	0.06	0.06	0.06	0.06
	for mechanical	22.00	1	22.00	10	2.20	0.11	0.11	0.11	0.11
Total				733.44		47.28	2.23	3.62	6.42	5.58

(7) Lewoleba

Unit: million Rp.

Equipment / Materials	Capacity	Unit Price	Quantity	Total Price	Durable Yeras	Annual Depreciation	Annual Maintenance Cost			
							First 2 years	3-5 years	After 6 years	Yearly average
Plastic container	60L	0.11	37	4.07	3	1.36	0.00	0.00	0.00	0.00
Platform scale	0-100kg	1.10	2	2.20	5	0.44	0.00	0.00	0.00	0.00
Ice making plant	3 ton/day	1,066.85	1	1,066.85	20	53.34	5.33	10.67	21.34	18.14
Ice storage	6ton(18m3)	156.49	1	156.49	20	7.82	0.78	1.56	3.13	2.66
Cool box (styroform)	45L	0.05	142	7.03	2	3.51	0.00	0.00	0.00	0.00
	80L	0.00	37	0.00	2	0.00	0.00	0.00	0.00	0.00
Cool box (FRP)	300L	1.32	6	7.92	5	1.58	0.00	0.00	0.00	0.00
Multipurpose transport boat	10-12m(L), 40hp	559	1	558.80	20	27.94	2.79	5.59	11.18	9.50
SSB radio	150W	132.00	1	132.00	10	13.20	0.66	0.66	0.66	0.66
Materials for reinforcing cool box	for 45L & 80L	0.01	179	1.79	2	0.90	0.00	0.00	0.00	0.00
Processing equipment	for dried fish	0.36	2	0.72	2	0.36	0.00	0.00	0.00	0.00
	for new products	*36.19*	*1*	*36.19*	*10*	*3.62*	*0.18*	*0.18*	*0.18*	*0.18*
Workshop equipment	for wooden	11.00	1	11.00	10	1.10	0.06	0.06	0.06	0.06
	for mechanical	22.00	1	22.00	10	2.20	0.11	0.11	0.11	0.11
Total				2,007.06		117.38	9.92	18.83	36.65	31.31

(8) Balauring

Unit: million Rp.

Equipment / Materials	Capacity	Unit Price	Quantity	Total Price	Durable Yeras	Annual Depreciation	Annual Maintenance Cost			
							First 2 years	3-5 years	After 6 years	Yearly average
Cool box (styroform)	*45L*	*0.05*	*18*	*0.89*	*2*	*0.45*	*0.00*	*0.00*	*0.00*	*0.00*
Cool box (FRP)	300L	1.32	4	5.28	5	1.06	0.00	0.00	0.00	0.00
Multipurpose transport boat	10-12m(L), 40hp	558.80	1	558.80	20	27.94	5.59	11.18	22.35	19.00
Fish transport truck	1 ton pick-up	159.78	1	159.78	15	10.65	0.80	1.60	3.20	2.56
SSB radio	150W	132.00	1	132.00	10	13.20	0.66	0.66	0.66	0.66
Materials for reinforcing cool box	for 45L & 80L	0.01	18	0.18	2	0.09	0.00	0.00	0.00	0.00
Processing equipment	for dried fish	0.36	2	0.72	2	0.36	0.00	0.00	0.00	0.00
Workshop equipment	for wooden	11.00	1	11.00	10	1.10	0.06	0.06	0.06	0.06
	for mechanical	*22.00*	*1*	*22.00*	*10*	*2.20*	*0.11*	*0.11*	*0.11*	*0.11*
Total				890.65		57.04	7.22	13.60	26.38	22.38

(9) Lamalera

Unit: million Rp.

Equipment / Materials	Capacity	Unit Price	Quantity	Total Price	Durable Yeras	Annual Depreciation	Annual Maintenance Cost			
							First 2 years	3-5 years	After 6 years	Yearly average
Cool box (styroform)	45L	0.05	23	1.14	2	0.57	0.00	0.00	0.00	0.00
Cool box (FRP)	300L	1.32	4	5.28	5	1.06	0.00	0.00	0.00	0.00
Multipurpose transport boat	10-12m(L), 40hp	558.80	1	558.80	20	27.94	5.59	11.18	22.35	19.00
Fish transport truck	3 ton	319.55	1	319.55	10	31.96	1.60	3.20	6.39	4.47
SSB radio	150W	132.00	1	132.00	10	13.20	0.66	0.66	0.66	0.66
Materials for reinforcing cool box	for 45L & 80L	0.01	23	0.23	2	0.12	0.00	0.00	0.00	0.00
Processing equipment	for dried fish	0.36	2	0.72	2	0.36	0.00	0.00	0.00	0.00
Workshop equipment	for wooden	11.00	1	11.00	10	1.10	0.06	0.06	0.06	0.06
	for mechanical	22.00	1	22.00	10	2.20	0.11	0.11	0.11	0.11
Total				1,050.72		78.50	8.01	15.20	29.57	24.30

(10) Maumere/Wuring

Unit: million Rp.

Equipment / Materials	Capacity	Unit Price	Quantity	Total Price	Durable Yeras	Annual Depreciation	Annual Maintenance Cost			
							First 2 years	3-5 years	After 6 years	Yearly average
Plastic container	60L	0.11	37	4.07	3	1.36	0.00	0.00	0.00	0.00
Platform scale	0-100kg	1.10	2	2.20	5	0.44	0.00	0.00	0.00	0.00
Ice making plant	3 ton/day	1,066.85	1	1,066.85	20	53.34	5.33	10.67	21.34	18.14
Ice storage	6ton(18m3)	156.49	1	156.49	20	7.82	0.78	1.56	3.13	2.66
Cool box (styroform)	45L	0.05	78	3.86	2	1.93	0.00	0.00	0.00	0.00
	80L	0.00	34	0.00	2	0.00	0.00	0.00	0.00	0.00
Cool box (FRP)	150L	0.55	13	7.15	5	1.43	0.00	0.00	0.00	0.00
Insulated fish transport truck	3 ton	407.72	2	815.43	5	163.09	4.08	8.15	16.31	6.52
SSB radio	150W	132.00	1	132.00	10	13.20	0.66	0.66	0.66	0.66
Materials for reinforcing cool box	for 45L & 80L	0.01	112	1.12	2	0.56	0.00	0.00	0.00	0.00
Processing equipment	for dried fish	0.36	4	1.44	2	0.72	0.00	0.00	0.00	0.00
	for new products	36.19	1	36.19	10	3.62	0.18	0.18	0.18	0.18
Workshop equipment	for wooden	11.00	1	11.00	10	1.10	0.06	0.06	0.06	0.06
	for mechanical	22.00	1	22.00	10	2.20	0.11	0.11	0.11	0.11
Total				2,259.80		250.81	11.20	21.39	41.78	28.35

(11) Paga

Unit: million Rp.

Equipment / Materials	Capacity	Unit Price	Quantity	Total Price	Durable Yeras	Annual Depreciation	Annual Maintenance Cost			
							First 2 years	3-5 years	After 6 years	Yearly average
Plastic container	60L	0.11	29	3.19	3	1.06	0.00	0.00	0.00	0.00
Platform scale	0-100kg	1.10	1	1.10	3	0.37	0.00	0.00	0.00	0.00
Ice making plant	2 ton/day	970.70	1	970.70	20	48.53	4.85	9.71	19.41	16.50
Ice storage	4ton(14m3)	134.25	1	134.25	20	6.71	0.67	1.34	2.68	2.28
Cool box (styroform)	45L	0.05	61	3.02	2	1.51	0.00	0.00	0.00	0.00
Cool box (FRP)	300L	1.32	6	7.92	5	1.58	0.00	0.00	0.00	0.00
SSB radio	150W	132.00	1	132.00	10	13.20	0.66	0.66	0.66	0.66
Materials for reinforcing cool box	for 45L & 80L	0.01	61	0.61	2	0.31	0.00	0.00	0.00	0.00
Processing equipment	for dried fish	0.36	2	0.72	2	0.36	0.00	0.00	0.00	0.00
Workshop equipment	for wooden	11.00	1	11.00	10	1.10	0.06	0.06	0.06	0.06
	for mechanical	22.00	1	22.00	10	2.20	0.11	0.11	0.11	0.11
Total				1,286.50		76.94	6.35	11.88	22.93	19.61

(12) Ende

Unit: million Rp.

Equipment / Materials	Capacity	Unit Price	Quantity	Total Price	Durable Yeras	Annual Depreciation	Annual Maintenance Cost			
							First 2 years	3-5 years	After 6 years	Yearly average
Plastic container	60L	0.11	37	4.07	3	1.36	0.00	0.00	0.00	0.00
Platform scale	0-100kg	1.10	2	2.20	5	0.44	0.00	0.00	0.00	0.00
Ice making plant	5 ton/day	1,451.46	1	1,451.46	20	72.57	7.26	14.51	29.03	24.67
Ice storage	10ton(30m3)	185.73	1	185.73	20	9.29	0.93	1.86	3.71	3.16
Cool box (styroform)	45L	0.05	133	6.58	2	3.29	0.00	0.00	0.00	0.00
	80L	0.00	21	0.00	2	0.00	0.00	0.00	0.00	0.00
Cool box (FRP)	150L	0.55	6	3.30	5	0.66	0.00	0.00	0.00	0.00
	300L	1.32	40	52.80	5	10.56	0.00	0.00	0.00	0.00
Multipurpose transport boat	10-12m(L), 40hp	558.80	2	1,117.60	20	55.88	5.59	11.18	22.35	19.00
Insulated fish transport truck	3 ton	407.72	2	815.43	5	163.09	4.08	8.15	16.31	6.52
SSB radio	150W	132.00	1	132.00	10	13.20	0.66	0.66	0.66	0.66
Materials for reinforcing cool box	for 45L & 80L	0.01	154	1.54	2	0.77	0.00	0.00	0.00	0.00
Processing equipment	for dried fish	0.36	3	1.08	2	0.54	0.00	0.00	0.00	0.00
	for new products	36.19	1	36.19	10	3.62	0.18	0.18	0.18	0.18
Workshop equipment	for wooden	11.00	1	11.00	10	1.10	0.06	0.06	0.06	0.06
	for mechanical	22.00	1	22.00	10	2.20	0.11	0.11	0.11	0.11
Total				3,842.98		338.56	18.86	36.71	72.41	54.36

ANNEX 6-3. MAINTENANCE COST OF PROJECT FACILITIES

MAINTENANCE COST OF PROJECT FACILITIES (1/7)

Maintenance Cost of Project Facilities

Classification			Guide Line for Maintenance	Annual Cost for Maintenance
Basic Facilities				
	Contour facility	Seawall, jetty etc	Partly maintenance each 10 years	Direct construction cost * 1% / 10year
	Mooring facility	Quay, slipway etc	Appropriation 1% of direct construction cost for maintenance by each 10 years	
		Simplified wooden jetty (Foundatio	Appropriation 0.5% of direct construction cost (foundation) for yearly maintenance	Direct construction cost (foundation) * 0.5%/year
		Ditto (superstructure)	Reboading floor deck each 10 years	Direct construction cost (superstructure) / 10 years
	Transporting facility	Road	Repavement 30% of road surface each 10 years	Pavement cost * 30% / 10 years
		Parking lot	Appropriation 1% of pavement cost for yearly maintenance & repairing	Pavement cost * 1% / year
Functional Facilities				
	Buildings	Handling shed, office etc	Wall painting each 10 years, appropriation 0.5% of direct construction cost for yearly maintenance & repairing	Painting cost / 10 years + direct construction cost * 0.5% / year
	Water supply & waste treatment facilities	Main facility	Appropriation 0.5% of direct construction cost for yearly maintenance & repairing	Direct construction cost (main body) * 0.5% / year
		Machine / equipment	Replacement machine / equipment each 10 years	machine & equipment cost / 10 years
	Electric facility		Replacement electric appliance & lighting fixture each 10 years Appropriation 0.5% of direct construction cost (except electric appliance & lighting fixture) for yearly maintenance & repairing	Electric appliance & lighting fixture cost / 10 years + direct construction cost * 0.5% / year

MAINTENANCE COST OF PROJECT FACILITIES (2/7)

Waworada

unit : 1,000Rp

Classification		Facility	Unit	Scale	Construction cost	Annual maintenance cost (a)	(b)	Total	Remarks
BASIC FACILITIES									
	Contour facility	Sea wall	m	765	8,128	0	8,128	8,128	
	Mooring facility	Quay, slipway	m	235	5,400	0	5,400	5,400	
	Transporting facility	Road	m2	1,740	-	3,871	0	3,871	Main road will be maintained by district
		Parking lot	m2	1,000	152	0	1,520	1,520	
FUNCTIONAL FACILITIES									
	Fish catch treatment, storage facility	Handling shed	m2	960	1,146	4,800	5,731	10,531	Painting cost @ 50
		Ice making & storage facility	m2	350	494	3,500	2,471	5,971	Painting cost @ 100
	Administration facility	Administration office	m2	300	426	3,000	2,130	5,130	Painting cost @ 100
	Processing facility	Model processing factory	m2	870	1,039	4,350	5,194	9,544	Painting cost @ 50
	rising gear maintenance,	Simplified workshop	m2	150	179	1,050	896	1,946	Panting cost @ 70
	Supply facility	Oil supply facility (oil tank)	kl	5	60	6,000	0	6,000	
		Water supply facility	m3/day	20	425	7,000	1,700	8,700	
		Electricity supply facility	lot	1	580	4,725	2,876	7,601	
	Waste treatment facility	Simplified drainage facility	m3/day	21	85	4,200	426	4,626	
		Waste collection point	m2	90	71	0	356	356	0.5% of construction cost for yearly maintenance
Total								79,324	

Note (a): Exchange construction cost for facility into yearly cost by durable years

(b): Yearly maintenance & repairing cost (calculated by percentage of direct construction cost)

Pasar Bima

unit : 1,000Rp

Classification		Facility	Unit	Scale	Construction cost	Annual maintenance cost (a)	(b)	Total	Remarks
BASIC MARKET FACILITIES									
	Transporting facility	Road	m2	1,600	-	3,559	0	3,559	
		Parking lot	m2	1,400	213	0	2,130	2,130	
	Others	Outlying facilities	m	650	299	0	1,495	1,495	0.5% of construction cost for yearly maintenance
FUNCTIONAL MARKET FACILI		Fish retail market	m2	1,280	1,280	5,120	6,400	11,520	Painting cost @ 40
		Fish wholesaling place	m2	900	640	900	3,200	4,100	Painting cost @ 10
ADMINISTRATION, INCIDENTA		Administration office	m2	460	653	4,600	3,266	7,866	Painting cost @ 100
		Water supply facility	m3	9	28	1,145	54	1,199	
		Electric supply facility	lot	1	400	6,150	1,969	8,119	
		Simplified drainage facility	m3/day	9	37	1,800	183	1,983	
		Waste collection point	m2	100	79	0	396	396	0.5% of construction cost for yearly maintenance
Total								42,366	

MAINTENANCE COST OF PROJECT FACILITIES (3/7)

Kempo

unit : 1,000Rp

Classification		Facility	Unit	Scale	Construction cost	Annual maintenance cost (a)	(b)	Total	Remarks
BASIC FACILITIES									
	Contour facility	Sea wall	m	480	3,467	0	3,467	3,467	
	Mooring facility	Quay	m	120	3,549	0	3,549	3,549	
	Transporting facility	Access road (bridge type)	m	265	1,674	0	1,674	1,674	
		Road	m2	1,140	-	2,536	0	2,536	
		parking lot	m2	830	126	0	1,260	1,260	
FUNCTIONAL FACILITIES									
	Fish catch treatment,	Fish handling shed	m2	980	1,190	4,900	5,949	10,849	Painting cost @ 50
	storage facility	Ice making & storage facility	m2	210	301	2,100	1,505	3,605	Painting cost @ 100
	Administration facility	Administration office	m2	200	288	2,000	1,440	3,440	Painting cost @ 100
	Processing facility	Model processing factory	m2	1,120	1,360	5,600	6,800	12,400	Painting cost @ 50
	Fishing gear maintenance,	Simplified workshop	m2	150	182	1,050	911	1,961	Panting cost @ 70
	Supply facilities	Oil supply facility (oil stocking	m2	5	6	35	30	65	Panting cost @ 70
		Oil supply facility (oil tank)	kl	6	61	6,094	0	6,094	
		Water supply facility	m3	16	30	1,191	88	1,279	
		Electricity supply facility	lot	1	500	1,733	2,491	4,224	
	Waste treatment facility	Simplified drainage facility	m3/day	20	81	4,000	406	4,406	
		Waste collection point	m2	90	66	0	330	330	0.5% of construction cost for yearly maintenance
Total								**61,138**	

Hu'u

unit : 1,000Rp

Classification		Facility	Unit	Scale	Construction cost	Annual maintenance cost (a)	(b)	Total	Remarks
BASIC FACILITIES									
	Contour facility	Broad stairway, road revetment	m	410	1,438	0	1,438	1,438	
	Transporting facility	Existing road improvement	m2	3,700	-	8,231	0	8,231	Maintained by village as community road
		Yard Road	m2	1,000	-	2,225	0	2,225	
		parking lot	m2	450	68	0	680	680	
FUNCTIONAL FACILITIES									
	Fish catch treatment,	Fish handling shed	m2	220	267	1,100	1,335	2,435	Painting cost @ 50
	storage facility	Ice making & storage facility	m2	60	86	600	430	1,030	Painting cost @ 100
	Administration facility	Administration office	m2	170	245	1,700	1,225	2,925	Painting cost @ 100
	Processing facility	Model processing factory	m2	300	364	1,500	1,821	3,321	Painting cost @ 50
	Fishing gear maintenance,	Simplified workshop	m2	50	61	350	304	654	Panting cost @ 70
	Supply facilities	Oil supply facility (oil tank)	m2	9	11	63	0	63	Panting cost @ 70
		Water supply facility	m3	4	17	1,191	27	1,218	
		Electricity supply facility	lot	1	450	1,260	2,244	3,504	
	Waste treatment facility	Simplified drainage facility	m3/day	4	16	800	81	881	
		Waste collection point	m2	50	37	0	184	184	0.5% of construction cost for yearly maintenance
Total								**20,557**	

MAINTENANCE COST OF PROJECT FACILITIES (4/7)

Larantuka

unit : 1,000Rp

Classification		Facility	Unit	Scale	Construction cost	Annual maintenance cost (a)	(b)	Total	Remarks
BASIC FACILITIES									
	Contour facility	Sea wall	m	355	1,430	0	1,430	1,430	
	Mooring facility	Quay, slipway	m	125	3,863	0	3,863	3,863	
	Transporting facility	Road (pier type)	m	25	856	0	856	856	
		Yard road	m2	1,980	-	4,405	0	4,405	
		parking lot	m2	760	116	0	1,160	1,160	
FUNCTIONAL FACILITIES									
	Fish catch treatment, storage facility	Fish handling shed	m2	480	586	2,400	2,928	5,328	Painting cost @ 50
		Ice making & storage facility	m2	350	496	3,500	2,478	5,978	Painting cost @ 100
	Administration facility	Administration office	m2	250	362	2,500	1,810	4,310	Painting cost @ 100
	Processing facility	Model processing factory	m2	420	512	2,100	2,560	4,660	Painting cost @ 50
	Fishing gear maintenance,	Simplified workshop	m2	100	122	700	610	1,310	Panting cost @ 70
	Supply facilities	Oil supply facility (oil stocking	m2	5	6	35	0	35	Panting cost @ 70
		Oil supply facility (oil tank)	kl	6	38	3,788	0	3,788	
		Water supply facility	m3	13	34	1,145	66	1,210	
		Electricity supply facility	lot	1	520	3,465	2,583	6,048	
	Waste treatment facility	Simplified drainage facility	m3/day	9	37	1,800	183	1,983	
		Waste collection point	m2	80	66	0	332	332	0.5% of construction cost for yearly maintenance
Total								46,695	

Lamahala Jaya (each place of 3 places)

unit : 1,000Rp

Classification	Facility	Unit	Scale	Construction cost	Annual maintenance cost (a)	(b)	Total	Remarks
INCIDENTAL FUNCTION FACILITIES	Small scale multipurpose facili	m2	190	275	1,900	1,376	3,276	Painting cost @ 100
	Oil supply facility (oil stocking	m2	6	7	42	0	42	Panting cost @ 70
	Water supply facility	m3	2	13	706	28	733	
	Electricity supply facility	lot	1	50	315	248	563	
	Simplified drainage facility	m3	2	8	400	41	441	
	Waste collection point	m2	20	17	0	83	83	0.5% of construction cost for yearly maintenance
Total							5,138	

Sagu

unit : 1,000Rp

Classification	Facility	Unit	Scale	Construction cost	Annual maintenance cost (a)	(b)	Total	Remarks
INCIDENTAL FUNCTION FACILITIES	Small scale multipurpose facili	m2	200	290	2,000	1,448	3,448	Painting cost @ 100
	Oil supply facility (oil stocking	m2	5	6	35	0	35	Panting cost @ 70
	Water supply facility	m3	2	13	706	28	733	
	Electricity supply facility	lot	1	50	315	248	563	
	Simplified drainage facility	m3	2	8	400	41	441	
	Waste collection point	m2	20	17	0	83	83	0.5% of construction cost for yearly maintenance
Total							5,303	

MAINTENANCE COST OF PROJECT FACILITIES (5/7)

Lewoleba

unit : 1,000Rp

Classification		Facility	Unit	Scale	Construction cost	Annual maintenance cost (a)	(b)	Total	Remarks
BASIC FACILITIES									
	Contour facility	Sea wall	m	255	1,327	0	1,327	1,327	
	Mooring facility	Simplified wooden jetty	m	65	151	3,250	592	3,842	
	Transporting facility	Yard road	m2	1,860	-	4,138	0	4,138	Existing road improvement will be maintained by district
		Parking lot	m2	790	120	0	1,200	1,200	
FUNCTIONAL FACILITIES									
	Fish catch treatment, storage facility	Fish handling shed	m2	560	683	2,800	3,416	6,216	Painting cost @ 50
		Ice making & storage facility	m2	180	255	1,800	1,274	3,074	Painting cost @ 100
	Administration facility	Administration office	m2	240	348	2,400	1,738	4,138	Painting cost @ 100
	Processing facility	Model processing factory	m2	420	512	2,100	2,562	4,662	Painting cost @ 50
	Fishing gear maintenance,	Simplified workshop	m2	100	122	700	610	1,310	Panting cost @ 70
	Supply facilities	Oil supply facility (oil stocking	m2	12	15	84	0	84	Panting cost @ 70
		Water supply facility	m3	10	31	1,145	60	1,205	
		Electricity supply facility	lot	1	565	4,253	2,804	7,056	
	Waste treatment facility	Simplified drainage facility	m3/day	11	45	2,200	223	2,423	
		Waste collection point	m2	80	66	0	332	332	0.5% of construction cost for yearly maintenance
Total								**41,007**	

Balauring

unit : 1,000Rp

Classification	Facility	Unit	Scale	Construction cost	Annual maintenance cost (a)	(b)	Total	Remarks
INCIDENTAL FUNCTION FACILITIES	Small scale multipurpose facili	m2	200	290	2,000	1,448	3,448	Painting cost @ 100
	Oil supply facility (oil stocking	m2	5	6	35	0	35	Panting cost @ 70
	Water supply facility	m3	2	13	706	28	733	
	Electricity supply facility	lot	1	50	315	248	563	
	Simplified drainage facility	m3	1	4	200	20	220	
	Waste collection point	m2	20	17	0	83	83	0.5% of construction cost for yearly maintenance
Total							**5,083**	

Lamalera

unit : 1,000Rp

Classification	Facility	Unit	Scale	Construction cost	Annual maintenance cost (a)	(b)	Total	Remarks
INCIDENTAL FUNCTION FACILITIES	Small scale multipurpose facili	m2	190	275	1,900	1,376	3,276	Painting cost @ 100
	Water supply facility	m3	3	16	706	42	747	
	Electricity supply facility	lot	1	50	315	248	563	
	Simplified drainage facility	m3	3	12	600	61	661	
	Waste collection point	m2	20	17	0	83	83	0.5% of construction cost for yearly maintenance
Total							**5,330**	

MAINTENANCE COST OF PROJECT FACILITIES (6/7)

Maumere (Kalimati)

unit : 1,000Rp

Classification		Facility	Unit	Scale	Construction cost	Annual maintenance cost (a)	(b)	Total	Remarks
BASIC FACILITIES									
	Contour facility	Seawall, wave absorbing	m	240	2,830	0	2,830	2,830	
	Mooring facility	Quay	m	90	2,639	0	2,639	2,639	
	Transporting facility	Yard road	m2	1,200	-	2,669	0	2,669	
		Parking lot	m2	610	85	0	850	850	
FUNCTIONAL FACILITIES									
	Fish catch treatment, storage facility	Fish handling shed	m2	550	671	2,750	3,355	6,105	Painting cost @ 50
		Ice making & storage facility	m2	180	256	1,800	1,279	3,079	Painting cost @ 100
	Administration facility	Administration office	m2	290	360	2,900	1,802	4,702	Painting cost @ 100
	Supply facilities	Oil supply facility (oil stocking	m2	7	9	49	0	49	Painting cost @ 70
		Oil supply facility (oil tank)	kl	2	28	2,813	0	2,813	
		Water supply facility	m3	8	27	1,145	48	1,193	
		Electricity supply facility	lot	1	490	2,678	2,437	5,114	
	Waste treatment facility	Simplified drainage facility	m3/day	12	49	2,400	244	2,644	
		Waste collection point	m2	90	68	0	338	338	0.5% of construction cost for yearly maintenance
MARKET FACILITIES									
	Basic facilities	Parking lot	m2	680	95	0	950	950	
	Functional facilities	Fish retail market	m2	0	0	0	0	0	Painting cost @ 40
		Fish wholesaling place	m2	560	570	560	2,850	3,410	Painting cost @ 10
		Administration office	m2	240	348	2,400	1,740	4,140	Painting cost @ 100
Total								43,525	

Wuring

unit : 1,000Rp

Classification		Facility	Unit	Scale	Construction cost	Annual maintenance cost (a)	(b)	Total	Remarks
BASIC FACILITIES									
	Contour facility	Sea wall	m	314	1,815	0	1,815	1,815	
	Transporting facility	Access road	m	60	220	0	220	220	
		Simplified wooden gallery	m	400	331	0	1,260	1,260	Superstructure will be maintained by village
		Yard road	m2	650	-	1,446	0	1,446	
		Parking lot	m2	150	21	0	210	210	
FUNCTIONAL FACILITIES									
	Fishing activity support facil	Small scale multipurpose facilit	m2	200	290	2,000	1,450	3,450	Painting cost @ 100
	Processing facility	Model processing factory	m2	620	756	3,100	3,782	6,882	Painting cost @ 50
	Supply facility	Water supply facility	m3	4	19	600	27	627	
		Electricity supply facility	lot	1	470	945	2,345	3,290	
	Waste treatment facility	Simplified drainage facility	m3/day	3	12	600	61	661	
		Waste collection point	m2	20	15	0	75	75	0.5% of construction cost for yearly maintenance
Total								19,937	

MAINTENANCE COST OF PROJECT FACILITIES (7/7)

Paga

unit : 1,000Rp

Classification		Facility	Unit	Scale	Construction cost	Annual maintenance cost (a)	(b)	Total	Remarks
BASIC FACILITIES									
	Basic facility	Broad type stairway	m	30	191	0	191	191	
	Transporting facility	Yard road	m2	530	-	1,179	0	1,179	
		Parking lot	m2	370	51	0	510	510	
FUNCTIONAL FACILITIES									
	Fish catch treatment, storage facility	Fish handling shed	m2	280	342	1,400	1,708	3,108	Painting cost @ 50
		Ice making & storage facility	m2	120	171	1,200	853	2,053	Painting cost @ 100
	Administration facility	Administration office	m2	170	247	1,700	1,233	2,933	Painting cost @ 100
	Fishing gear maintenance, repair facility	Simplified workshop	m2	50	61	350	305	655	Painting cost @ 50
	Supply facilities	Oil supply facility (oil stocking	m2	14	17	98	0	98	Panting cost @ 70
		Water supply facility	m2	6	19	1,145	36	1,181	Panting cost @ 70
		Electricity supply facility	lot	1	450	630	2,247	2,877	
	Waste treatment facility	Simplified drainage facility	m3/day	5	20	1,000	102	1,102	
		Waste collection point	m2	50	38	0	188	188	0.5% of construction cost for yearly maintenance
Total								**16,073**	

Paupanda (Ende)

unit : 1,000Rp

Classification		Facility	Unit	Scale	Construction cost	Annual maintenance cost (a)	(b)	Total	Remarks
BASIC FACILITIES									
	Mooring facility	Existing pier improvement	m	170	931	0	931	931	
	Transporting facility	Yard road	m2	1,500	-	3,337	0	3,337	
		Parking lot	m2	640	89	0	890	890	
FUNCTIONAL FACILITIES									
	Fish catch treatment, storage facility	Fish handling shed	m2	120	146	600	732	1,332	Painting cost @ 50
		Ice making & storage facility	m2	290	412	2,900	2,060	4,960	Painting cost @ 100
	Administration facility	Administration office	m2	290	421	2,900	2,103	5,003	Painting cost @ 100
	Processing facility	Model processing factory	m2	390	476	1,950	2,379	4,329	Painting cost @ 50
	Fishing gear maintenance, repair facility	Simplified workshop	m2	150	183	1,050	915	1,965	Panting cost @ 70
	Supply facilities	Oil supply facility (oil stocking	m2	12	15	84	0	84	Panting cost @ 70
		Oil supply facility (oil tank)	kl	3	30	2,965	0	2,965	
		Water supply facility	m3	12	24	1,145	61	1,205	
		Electricity supply facility	lot	1	550	4,095	2,730	6,825	
	Waste treatment facility	Simplified drainage facility	m3/day	10	41	2,000	203	2,203	
		Waste collection point	m2	80	60	0	300	300	0.5% of construction cost for yearly maintenance
計								**36,329**	

ANNEX 6-4. BENEFIT ON PROJECT FACILITIES

BENEFIT ITEMS ON PROJECT FACILITIES (1/4)

Table 6-4-1 Waworada

unit: minute

Benefit item	Classification	Object	Contents		Working hour		Shortened hour
			Before project	After project	Before	After	
Efficiency of landing activities (landing→transportation→loading) *average on high tide / low tide	Shortening of working hours (landing)	Bagan	Anchoring→sampan→transportation by human→loading	Not changed	65	65	0
		Purse Seine	Ditto	Boat→handling shed	65	15	50
		Gill Net	Ditto	Ditto	20	10	10
		Handline	Boat→transportation by human→loading	Not changed	10	10	0
		Collecting Boats	Anchoring→sampan→transportation by human→loading	Boat→handling shed	25	15	10
*average on high tide / low tide	Shortening of working hours (transportation on low tide)	Bagan	Transportation by human on jetty (low tide, 1/3 a year)	Ridding	10	0	10
		Purse Seine	Ditto	Ditto	10	0	10
		Gill Net	Ditto	Ditto	10	0	10
		Handline	Ditto	Ditto	10	0	10
		Collecting Boats	Ditto	Ditto	10	0	10
Efficiency of oil supplying	Shortening of working hours	All fishing boats	Ditto	Shortening of transportation hours	-	-	15
Efficiency of water supplying	Shortening of working hours	All fishing boats	Ditto	Shortening of transportation hours	-	-	15
Getting on/off transportation vessels	Shortening of working hours	Transportation boats	Walking on jetty except high tide (2/3 a tear), average number of passenger: 12*60%/boat	Shortening of walking hour	20	0	20
Purchase drinking water	Curtailment of expense	Household	3-6tank/household/day, 350Rp/tank	Water supply			

BENEFIT ITEMS ON PROJECT FACILITIES (2/4)

Table 6-4-2 Kempo

Benefit item	Classification	Object	Contents		Working hour		Shortened hour
			Before project	After project	Before	After	
Efficiency of landing activities (landing→transportation→loading) *average on high tide / low tide	Shortening of working hours (landing)	Bagan	Anchoring→sampan→transportation by human→loading	not changed	65	65	0
		Purse Seine	Ditto	Boat→handling shed	65	30	35
		Gill Net	Ditto	Boat→handling shed	20	10	10
		Handline	Boat→transportation by human→loading	not changed	10	10	0
		Collecting Boats	Anchoring→sampan→transportation by human→loading	Boat→handling shed	25	15	10
	Shortening of working hours (transportation on low tide)	Bagan	Transportation by human on tidal flat (except high tide, 2/3 a year)	Ridding	4	0	4
		Purse Seine	Ditto	Ditto	2	0	2
		Gill Net/Handline	Ditto	Ditto	24	0	24
		Collecting Boats	Ditto	Ditto	115	0	115
	Shortening of working hours (whole tide)	Bagan	Supporting by family member, waiting at whole working hours	Ditto	65	0	65
		Purse Seine	Ditto	Ditto	65	0	65
		Gill Net/Handline	Ditto	Ditto	20	0	20
		Collecting Boats	Ditto	Ditto	25	0	25
Efficiency of oil supplying	Shortening of working hours	All fishing boats	Transportation by human→Sampan	Shortening of transportation hours	-	-	15
Efficiency of water supplying	Shortening of working hours	All fishing boats	Transportation by human→Sampan	Shortening of transportation hours	-	-	15

Note: Transportation hours = (transportation times / number of persons)*transportation hour
Transportation times = landing volume per boat / embel (25kg)
Landing volume per boat = landing volume per day / number of entry boats
Transportation hour = 10 minutes

Table 6-4-3 Hu'u

Benefit item	Classification	Object	Contents		Working hour		Shortened hour
			Before project	After project	Before	After	
Efficiency of landing activities (landing→transportation→loading) *average on high tide / low tide	Shortening of working hours (landing)	Purse Seine	Anchoring→sampan→transportation by human→loading	Reduction of working hours	-	-	5
		Gill Net	Ditto	Ditto	-	-	5
		Handline	Boat→transportation by human→loading	Ditto	-	-	5
	(transportation)	All fishing boats	Landing on behind of cape at high wave→transportation by benhur (10days/month on Apr-Aug), loading→transportation→loading	Direct to vehicles	30	0	30
Efficiency of oil supplying	Shortening of working hours	All fishing boats	Transportation by human→Sampan	Shortening of transportation hours	-	-	10
Efficiency of water supplying	Shortening of working hours	All fishing boats	Transportation by human→Sampan	Shortening of transportation hours	-	-	10

BENEFIT ITEMS ON PROJECT FACILITIES (3/4)

Table 6-4-4 Oka (Larantuka)

Benefit item	Classification	Object	Contents		Working hour		Shortened hour
			Before project	After project	Before	After	
Efficiency of landing activities (landing→transportation→loading) *average on high tide / low tide	Shortening of working hours (landing)	Bagan	Anchoring→sampan→transportation by human→loading	Boat→handling shed	65	65	0
		Purse Seine	Ditto	Ditto	65	15	50
		Gill Net	Ditto	Ditto	20	10	10
		Handline	Boat→transportation by human→loading	Ditto	10	10	0
Efficiency of oil supplying	Shortening of working hours	All fishing boats	Transportation by human→Sampan	Shortening of transportation hours	-	-	20
Efficiency of water supplying	Shortening of working hours	All fishing boats	Transportation by human→Sampan	Shortening of transportation hours	-	-	20

Table 6-4-5 Lewoleba

Benefit item	Classification	Object	Contents		Working hour		Shortened hour
			Before project	After project	Before	After	
Efficiency of landing activities (landing→transportation→loading) *average on high tide / low tide	Shortening of working hours (landing)	Bagan	Anchoring→sampan→transportation by human→loading	landing→handling shed	65	55	10
		Purse Seine	Ditto	Ditto	65	15	50
		Gill Net	Ditto	Ditto	20	10	10
		Handline	Boat→transportation by human→loading	Ditto	15	10	5
Efficiency of oil supplying	Shortening	All fishing boats	Lewoleba port (by becya), transportation by human→sampan	Reduction of hours	-	-	30
	Curtailment	All fishing boats	Purchase at Lewoleba port (by becya, 2,000Rp/tank)	Unnecessary	-	-	-
Efficiency of water supplying	Shortening of working hours	All fishing boats	Transportation by human→Sampan	Shortening of transportation hours	-	-	10

Table 6-4-6 Maumere (Kalimati)

Benefit item	Classification	Object	Contents		Working hour		Shortened hour
			Before project	After project	Before	After	
Efficiency of landing activities (landing→transportation→loading) *average on high tide / low tide	Shortening of working hours (landing)	Purse Seine	Anchoring→sampan→transportation by human→loading	Boat→handling shed	65	15	50
		Gill Net	Ditto	Ditto	20	10	10
		Handline	Boat→transportation by human→loading	Ditto	10	10	0
		Collecting Boats	Anchoring→sampan→transportation by human→loading	Ditto	25	15	10
	Shortening of working hours (waiting)	Purse Seine	Waiting until finish wholesaling on beach	Ridding	20	0	20
		Gill Net	Ditto	Ditto	20	0	20
		Handline	Ditto	Ditto	20	0	20
		Collecting Boats	Ditto	Ditto	20	0	20
Efficiency of oil supplying	Shortening of working hours	All fishing boats	Transportation by human→Sampan	Shortening of transportation hours	-	-	20
Efficiency of water supplying	Shortening of working hours	All fishing boats	Transportation by human→Sampan	Shortening of transportation hours	-	-	20

BENEFIT ITEMS ON PROJECT FACILITIES (4/4)

Table 6-4-7 Wuring

Benefit item	Classification	Object	Contents		Working hour		Shortened hour
			Before project	After project	Before	After	
Efficiency of landing activities (landing→transportation→loading) *average on high tide / low tide	Shortening of working hours (landing)	Handline	Boat→transportation by human→loading	Boat→multipurpose facility	30	15	15
Efficiency of oil supplying	Shortening of working hours	Handline	Transportation by human→Sampan	Shortening of transportation hours	-	-	10
Efficiency of water supplying	Shortening of working hours	Handline	Transportation by human→Sampan	Shortening of transportation hours	-	-	10
Efficiency of fishing gear repairing	Shortening of working hours	Purse sein	Working on boat, 5days/month	Shortening of working hours	60days/year	30days/year	30days/year
		Gillnet	Ditto		60days/year	30days/year	30days/year
	Shortening of transportation	Purse sein	Working at open space in community (boat→sampan→transportation by human), once/3months	Shortening of working hours	240	60	180
		Gillnet			120	20	100
Improvement of other activities	Shortening of working hours	Purse sein	Getting on/off boat (by sampan)	Direct to boats	-	-	15
		Gillnet	Ditto	Ditto	-	-	5

Table 6-4-8 Paga

Benefit item	Classification	Object	Contents		Working hour		Shortened hour
			Before project	After project	Before	After	
Efficiency of landing activities (landing→transportation→loading) *average on high tide / low tide	Shortening of working hours (landing)	Purse Seine	Anchoring→sampan→transportation by human→loading	Reduction of working hours	-	-	5
		Gill Net	Ditto	Ditto	-	-	5
		Gill Net(FAD)	Ditto	Ditto	-	-	5
		Trolling	Ditto	Ditto	-	-	5
Efficiency of oil supplying	Shortening of working hours	All fishing boats	Kiosk→transportation by human→Sampan	Shortening of transportation hours	-	-	20
Efficiency of water supplying	Shortening of working hours	All fishing boats	Fishermen's house→transportation by human→Sampan	Shortening of transportation hours	-	-	20

Table 6-4-9 Ende (Paupanda)

Benefit item	Classification	Object	Contents		Working hour		Shortened hour
			Before project	After project	Before	After	
Efficiency of landing activities (landing→transportation→loading) *average on high tide / low tide	Shortening of working hours (landing)	Purse Seine	Anchoring→sampan→transportation by human→loading	Boat→handling shed	65	15	50
		Lampala	Ditto	Ditto	65	15	50
		Gill Net	Ditto	Ditto	20	10	10
		Handline	Boat→transportation by human→loading	Ditto	10	10	0
	Shortening of working hours (landing at high wave/swell	Purse Seine	Transportation by human on sand beach	Using stairway	-	-	5
		Lampala	Ditto	Ditto	-	-	5
		Gill Net	Ditto	Ditto	-	-	5
		Handline	Ditto	Ditto	-	-	5
Efficiency of oil supplying	Shortening of working hours	All fishing boats	Beach→transportation by human→loading	Shortening of transportation hours	-	-	10
Efficiency of water supplying	Shortening of working hours	All fishing boats	Beach→transportation by human→loading	Shortening of transportation hours	-	-	10

ANNEX 6-4. BENEFIT ON PROJECT FACILITIES

BENEFIT ON PROJECT FACILITIES (1/6)

Table 6-4-10 Waworada

Benefit item	Contents	Object	Calculation										Benefit (million Rp) Sub total	Total
Efficiency of landing activities	Shortening of working hours (landing)	Object	Shortened hour (hr)	×	Boats *1	×	Peoples *2	×	Days *3	×	Unit cost(Rp)			
		Bagan	0	×	1.8	×	10	×	300	×	2,000	=	0.0	
(landing→transportation→loading)		Purse Seine	0.83	×	38.7	×	8.5	×	282	×	2,000	=	154.6	
*average on high tide / low tide		Gill Net/Handline	0.17	×	10.1	×	2.5	×	300	×	2,000	=	2.5	
		Collecting Boats	0.17	×	21.3	×	1.5	×	300	×	2,000	=	3.2	160.3
	Shortening of working hours (transportation)	Object	Shortened hour (hr)	×	Times *4	×	Days		Unit cost(Rp)					
		Bagan	0.17	×	4.8	×	100	×	2,000	=			0.2	
		Purse Seine	0.17	×	516.4	×	94	×	2,000	=			16.2	
		Gill Net/Handline	0.17	×	12	×	100	×	2,000	=			0.4	
		Collecting Boats	0.17	×	342.8	×	100	×	2,000	=			11.4	28.2
	Curtailment of expense (transportation)	Object	Landing (t/day)		Times *4	×	Days *3	×	Transportation(Rp)*5					
		Bagan	0.12		4.8	×	300	×	1,500	=			2.2	
		Purse Seine	12.91		516.4	×	282	×	1,500	=			218.4	
		Gill Net/Handline	0.30		12	×	300	×	1,500	=			5.4	
		Collecting Boats	8.57		342.8	×	300	×	1,500	=			154.3	380.3
Efficiency of oil supplying	Shortening of working hours	Object	Shortened hour (hr)	×	Boats *1	×	Peoples	×	Days *6	×	Unit cost(Rp)			
		All fishing boats	0.25		71.9		1.5		290	×	2,000	=	15.7	15.7
Efficiency of water supplying	Shortening of working hours	Object	Shortened hour (hr)	×	Boats *1	×	Peoples	×	Days *6	×	Unit cost(Rp)			
		All fishing boats	0.25		71.9		1.5		290	×	2,000	=	15.7	15.7
Getting on/off transportation vessels	Shortening of working hours	Object	Shortened hour (hr)	×	Boats	×	Peoples	×	Days	×	Unit cost(Rp)			
		Transportation boats	0.33	×	32	×	7.2	×	365	×	2,000	=	56.1	56.1
Purchase drinking water	Curtailment of expense		Tank	×	Household	×	Unit cost(Rp)	×	Days					
			4.5	×	311	×	350	×	365			=	178.8	178.8

Boats *1: Number of fishing boats: Based on Base Line Data
Peoples *2: Number of peoples: Based on CONDITIONS OF PRINCIPAL FISHING ACTIVITIES
Days *3: Operation days a year: based on table Estimated number of fishing boats and fish landing volume at each model site
Times *4: Landing times: Landing volume / baskon(25kg)
Transportation *5: Transportation cost every time = operation day a year * 1,000Rp + low tide (1/3 of operation days a year) * 1,500Rp
Days *6: Average operation days a year of all fishing boats

BENEFIT ON PROJECT FACILITIES (2/6)

Table 6-4-11 Kempo

Benefit item	Contents	Ovject	Calculation											Benefit (million Rp)	
														Sub total	Total
Efficiency of landing activities (landing→transportation→loading) *average on high tide / low tide	Shortening of working hours (landing)	Object	Shortened hour (hr)	×	Boats *1	×	Peoples *2	×	Days *3	×	Unit cost(Rp)				
		Bagan	0	×	31.1	×	8	×	273	×	2,000	=		0.0	
		Purse Seine	0.58	×	10	×	13.5	×	276	×	2,000	=		43.5	
		Gill Net/Handline	0.17	×	10.1	×	2.5	×	324	×	2,000	=		2.7	
		Collecting Boats	0.17	×	40	×	1.5	×	276	×	2,000	=		5.5	51.7
	Shortening of working hours (transportation)	Object	Shortened hour (hr)	×	Boats *1	×	peoples *4	×	Days *5	×	Unit cost(Rp)				
		Bagan	0.07	×	31.1	×	8	×	182	×	2,000	=		6.3	
		Purse Seine	0.04	×	10	×	13.5	×	184	×	2,000	=		2.0	
		Gill Net/Handline	0.40	×	10.1	×	2.5	×	216	×	2,000	=		4.3	
		Collecting Boats	1.91	×	40	×	1.5	×	184	×	2,000	=		42.2	54.9
	Curtailment of expense (family member)	Object	Shortened hour (hr)	×	Boats *1	×	Peoples *6	×	Days *3	×	Unit cost(Rp)				
		Bagan	1.08	×	31.1	×	2	×	273	×	2,000	=		36.8	
		Purse Seine	1.08	×	10	×	2	×	276	×	2,000	=		12.0	
		Gill Net/Handline	0.33	×	10.1	×	2	×	324	×	2,000	=		4.4	
		Collecting Boats	0.42	×	40	×	2	×	276	×	2,000	=		18.4	71.5
Efficiency of oil supplying	Shortening of working hours	Object	Shortened hour (hr)	×	Boats *1	×	Peoples	×	Days *7	×	Unit cost(Rp)				
		All fishing boats	0.25		91.4		1.5		280	×	2,000	=		19.2	19.2
Efficiency of water supplying	Shortening of working hours	Object	Shortened hour (hr)	×	Boats *1	×	Peoples	×	Days *7	×	Unit cost(Rp)				
		All fishing boats	0.25		91.4		1.5		280	×	2,000	=		19.2	19.2
															216.5

Boats *1: Number of fishing boats: Based on Base Line Data
Peoples *2: Number of peoples: Based on CONDITIONS OF PRINCIPAL FISHING ACTIVITIES
Days *3: Operation days a year: based on table Estimated number of fishing boats and fish landing volume at each model site
Peoples *4: Number of crew (Based on CONDITIONS OF PRINCIPAL FISHING ACTIVITIES)
Days *5: 2/3 of operation days a year (except high tide)
Peoples *6: Number of family member
Days *7: Average operation days a year of all fishing boats

BENEFIT ON PROJECT FACILITIES (3/6)

Table 6-4-12 Hu'u

Benefit item	Contents	Object	Calculation											Benefit (million Rp)	
														Sub total	Total
Efficiency of landing activities (landing→transportation→loading) *average on high tide / low tide	Shortening of working hours (landing)	Object	Shortened hour (hr)	×	Boats *1	×	Peoples *2	×	Days *3	×	Unit cost(Rp)				
		Purse Seine	0.08	×	12	×	9	×	288	×	2,000	=		5.2	
		Gill Net	0.08	×	3	×	3.5	×	255	×	2,000	=		0.4	
		Handline	0.08	×	6	×	1.5	×	348	×	2,000	=		0.5	6.2
	Shortening of working hours (transportation)	Object	Shortened hour (hr)	×	Times *4	×	Days *5		Unit cost(Rp)						
		Purse Seine	0.50	×	17.5	×	37.5	×	2,000	=				0.7	
		Gill Net	0.50	×	2.0	×	37.5	×	2,000	=				0.1	
		Handline	0.50	×	1.4	×	43.5	×	2,000	=				0.1	0.8
	Curtailment of expense (transportation)	Object	Landing (t/day)		Times *4	×	Days *5	×	Transportation(Rp)*6						
		Purse Seine	2.63		17.5	×	37.5	×	20,000	=				34.6	
		Gill Net	0.30		2.0	×	37.5	×	20,000	=				0.5	
		Handline	0.21		1.4	×	43.5	×	20,000	=				0.3	35.3
Efficiency of oil supplying	Shortening of working hours	Object	Shortened hour (hr)	×	Boats *1	×	Peoples *2	×	Days *7	×	Unit cost(Rp)				
		All fishing boats	0.17		21		1.5		300	×	2,000	=		3.2	3.2
Efficiency of water supplying	Shortening of working hours	Object	Shortened hour (hr)	×	Boats *1	×	Peoples *2	×	Days *7	×	Unit cost(Rp)				
		All fishing boats	0.17		21		1.5		300	×	2,000	=		3.2	3.2
															48.5

Boats *1: Number of fishing boats: Based on Base Line Data
Peoples *2: Number of peoples: Based on CONDITIONS OF PRINCIPAL FISHING ACTIVITIES
Days *3: Operation days a year: based on table Estimated number of fishing boats and fish landing volume at each model site
Times *4: Landing times: Landing volume / (6*baskon(25kg))
*Days *5: Operation day on Apr-Aug (10days/month)*
Transportation *6: Transportation cost every time
Days *7: Average operation days a year of all fishing boats

BENEFIT ON PROJECT FACILITIES (4/6)

Table 6-4-13 Oka (Larantuka)

Benefit item	Contents	Object	Calculation											Benefit (million Rp) Sub total	Benefit (million Rp) Total
Efficiency of landing activities (landing→transportation→loading) *average on high tide / low tide	Shortening of working hours (landing)	Object	Shortened hour (hr)	×	Boats *1	×	Peoples *2	×	Days *3	×	Unit cost(Rp)				
		Bagan	0.00	×	21	×	4.5	×	255	×	2,000	=		0.0	
		Purse Seine	0.83	×	28.3	×	9	×	312	×	2,000	=		132.4	
		Gill Net/Handline	0.17	×	2.8	×	2.5	×	300	×	2,000	=		0.7	133.1
Efficiency of oil supplying	Shortening of working hours	Object	Shortened hour (hr)	×	Boats *1	×	Peoples	×	Days *4	×	Unit cost(Rp)				
		All fishing boats	0.33		52.1		1.5		288	×	2,000	=		15.0	15.0
Efficiency of water supplying	Shortening of working hours	Object	Shortened hour (hr)	×	Boats *1	×	Peoples	×	Days *4	×	Unit cost(Rp)				
		All fishing boats	0.33		52.1		1.5		288	×	2,000	=		15.0	15.0
															163.2

Boats *1: Number of fishing boats: Based on Base Line Data
Peoples *2: Number of peoples: Based on CONDITIONS OF PRINCIPAL FISHING ACTIVITIES
Days *3: Operation days a year: based on table Estimated number of fishing boats and fish landing volume at each model site
Days *4: Average operation days a year of all fishing boats

Table 6-4-14 Lewoleba

Benefit item	Contents	Object	Calculation											Benefit (million Rp) Sub total	Benefit (million Rp) Total
Efficiency of landing activities (landing→transportation→loading) *average on high tide / low tide	Shortening of working hours (landing)	Object	Shortened hour (hr)	×	Boats *1	×	Peoples *2	×	Days *3	×	Unit cost(Rp)				
		Bagan	0.17	×	46.3	×	4.5	×	96	×	2,000	=		6.7	
		Purse Seine	0.83	×	2	×	8.5	×	120	×	2,000	=		3.4	
		Gill Net	0.17	×	10	×	1.5	×	116	×	2,000	=		0.6	
		Handline	0.08	×	2	×	1.5	×	92	×	2,000	=		0.0	10.7
Efficiency of oil supplying	Shortening	Object	Shortened hour (hr)	×	Boats *1	×	Peoples	×	Days *5	×	Unit cost(Rp)				
		All fishing boats	0.50		60.3		1.5		300	×	2,000	=		27.1	27.1
	Curtailment (transportation)	Object	Transportation(Rp)	×	Boats *1	×	Days *5								
		All fishing boats	2,000	×	60.3	×	300	=						36.2	36.2
Efficiency of water supplying	Shortening of working hours	Object	Shortened hour (hr)	×	Boats *1	×	Peoples	×	Days *5	×	Unit cost(Rp)				
		All fishing boats	0.17		60.3		1.5		300	×	2,000	=		9.0	9.0
															83.0

Boats *1: Number of fishing boats: Based on Base Line Data
Peoples *2: Number of peoples: Based on CONDITIONS OF PRINCIPAL FISHING ACTIVITIES
Days *3: Middle tide (1/3 of Days *4)
Days *4: Operation days a year: based on table Estimated number of fishing boats and fish landing volume at each model site
Days *5: Average operation days a year of all fishing boats

Bagan: 288 days
Purse Seine: 360 days
Gill Net: 348 days
Handline: 276 days

BENEFIT ON PROJECT FACILITIES (5/6)

Table 6-4-15 Maumere (Kalimati)

Benefit item	Contents	Object	Calculation											Benefit (million Rp) Sub total	Benefit (million Rp) Total
Efficiency of landing activities (landing→transportation→loading) *average on high tide / low tide	Shortening of working hours (landing)	Object	Shortened hour (hr)	×	Boats *1	×	Peoples *2	×	Days *3	×	Unit cost(Rp)				
		Purse Seine	0.83	×	28.9	×	9	×	348	×	2,000	=		150.9	
		Gill Net	0.17	×	3.1	×	2	×	228	×	2,000	=		0.5	
		Handline	0.00	×	2.7	×	2	×	276	×	2,000	=		0.0	
		Collecting Boats	0.17	×	8.3	×	2	×	348	×	2,000	=		1.9	153.3
	Shortening of working hours (waiting)	Object	Shortened hour (hr)	×	Boats *1	×	Peoples *2	×	Days *3	×	Unit cost(Rp)				
		Purse Seine	0.33	×	28.9	×	9	×	348	×	2,000	=		60.3	
		Gill Net	0.33	×	3.1	×	2	×	228	×	2,000	=		0.9	
		Handline	0.33	×	2.7	×	2	×	276	×	2,000	=		1.0	
		Collecting Boats	0.33	×	8.3	×	2	×	348	×	2,000	=		3.9	66.1
Efficiency of oil supplying	Shortening of working hours	Object	Shortened hour (hr)	×	Boats *1	×	Peoples	×	Days *4	×	Unit cost(Rp)				
		All fishing boats	0.33		43		1.5		335	×	2,000	=		14.4	14.4
Efficiency of water supplying	Shortening of working hours	Object	Shortened hour (hr)	×	Boats *1	×	Peoples	×	Days *4	×	Unit cost(Rp)				
		All fishing boats	0.33		43		1.5		335	×	2,000	=		14.4	14.4
															248.2

Boats *1: Number of fishing boats: Based on Base Line Data
Peoples *2: Number of peoples: Based on CONDITIONS OF PRINCIPAL FISHING ACTIVITIES
Days *3: Operation days a year: based on table Estimated number of fishing boats and fish landing volume at each model site
Days *4: Average operation days a year of all fishing boats

Table 6-4-16 Wuring

Benefit item	Contents	Object	Calculation											Benefit (million Rp) Sub total	Benefit (million Rp) Total
Efficiency of landing activities (landing→transportation→loading) *average on high tide / low tide	Shortening of working hours (landing)	Object	Shortened hour (hr)	×	Boats *1	×	Peoples *2	×	Days *3	×	Unit cost(Rp)				
		Handline	0.25	×	23.5	×	2	×	276	×	2,000	=		6.5	
															6.5
Efficiency of oil supplying	Shortening of working hours	Object	Shortened hour (hr)	×	Boats *1	×	Peoples	×	Days *3	×	Unit cost(Rp)				
		Handline	0.17		23.5		1.5		276	×	2,000	=		3.2	3.2
Efficiency of water supplying	Shortening of working hours	Object	Shortened hour (hr)	×	Boats *1	×	Peoples	×	Days *3	×	Unit cost(Rp)				
		Handline	0.17		23.5		1.5		276	×	2,000	=		3.2	3.2
Efficiency of fishing gear repairing	Shortening of working hours (working)	Object	Shortened hour(day)	×	Boats *1	×	Peoples *2	×	Hour/day	×	Unit cost(Rp)				
		Purse sein	30	×	28.9	×	9	×	8	×	2,000	=		124.8	
		Gillnet	30	×	3.1	×	2	×	8	×	2,000	=		3.0	127.8
	Shortening of working hours (transportation)	Object	Shortened hour (hr)	×	Boats *1	×	Peoples *2	×	Times/year		Unit cost(Rp)				
		Purse sein	3.00	×	28.9	×	9	×	4	×	2,000	=		6.2	
		Gillnet	1.67	×	3.1	×	2	×	4	×	2,000	=		0.1	6.3
Improvement of other activities	Shortening of working hours	Object	Shortened hour (hr)	×	Boats *1	×	Peoples *2	×	Days *3	×	Unit cost(Rp)				
		Purse sein	0.25	×	28.9	×	9	×	348	×	2,000	=		45.3	
		Gillnet	0.08	×	3.1	×	2	×	228	×	2,000	=		0.2	45.5
															192.6

Boats *1: Number of fishing boats: Based on Base Line Data
Peoples *2: Number of peoples: Based on CONDITIONS OF PRINCIPAL FISHING ACTIVITIES
Days *3: Operation days a year: based on table Estimated number of fishing boats and fish landing volume at each model site

BENEFIT ON PROJECT FACILITIES (6/6)

Table 6-4-17 Paga

Benefit item	Contents	Object	Calculation											Benefit (million Rp)	
														Sub total	Total
Efficiency of landing activities (landing→transportation→loading) *average on high tide / low tide	Shortening of working hours (landing)	Object	Shortened hour (hr)	×	Boats *1	×	Peoples *2	×	Days *3	×	Unit cost(Rp)				
		Purse Seine	0.08	×	14.4	×	9	×	313	×	2,000	=		6.8	
		Gill Net	0.08	×	3	×	1.5	×	360	×	2,000	=		0.3	
		Gill Net(FAD)	0.08	×	6	×	1.5	×	360	×	2,000	=		0.5	
		Trolling	0.08	×	2	×	2.5	×	360	×	2,000	=		0.3	7.9
Efficiency of oil supplying	Shortening of working hours	Object	Shortened hour (hr)	×	Boats *1	×	Peoples	×	Days *4	×	Unit cost(Rp)				
		All fishing boats	0.33		25.4		1.5		333	×	2,000	=		8.5	8.5
Efficiency of water supplying	Shortening of working hours	Object	Shortened hour (hr)	×	Boats *1	×	Peoples	×	Days *4	×	Unit cost(Rp)				
		All fishing boats	0.33		25.4		1.5		333	×	2,000	=		8.5	8.5
															24.8

Boats *1: Number of fishing boats: Based on Base Line Data
Peoples *2: Number of peoples: Based on CONDITIONS OF PRINCIPAL FISHING ACTIVITIES
Days *3: Operation days a year: based on table Estimated number of fishing boats and fish landing volume at each model site
Days *4: Average operation days a year of all fishing boats

Table 6-4-18 Ende (Paupanda)

Benefit item	Contents	Object	Calculation											Benefit (million Rp)	
														Sub total	Total
Efficiency of landing activities (landing→transportation→loading) *average on high tide / low tide	Shortening of working hours (landing)	Object	Shortened hour (hr)	×	Boats *1	×	Peoples *2	×	Days *3	×	Unit cost(Rp)				
		Purse Seine	0.83	×	22.6	×	7.5	×	256	×	2,000	=		72.2	
		Lampala	0.83	×	8.2	×	10	×	258	×	2,000	=		35.2	
		Gill Net/Handline	0.17	×	32.3	×	2	×	248	×	2,000	=		5.3	112.8
	Shortening of working hours (landing at high wave/swell	Object	Shortened hour (hr)	×	Boats *1	×	Peoples *2	×	Days *4	×	Unit cost(Rp)				
		Purse Seine	0.08	×	22.6	×	7.5	×	45	×	2,000	=		1.3	
		Lampala	0.08	×	8.2	×	10	×	46	×	2,000	=		0.6	
		Gill Net/Handline	0.08	×	32.3	×	2	×	53	×	2,000	=		0.6	2.5
Efficiency of oil supplying	Shortening of working hours	Object	Shortened hour (hr)	×	Boats *1	×	Peoples	×	Days *5	×	Unit cost(Rp)				
		All fishing boats	0.17		63.1		1.5		301	×	2,000	=		9.5	9.5
Efficiency of water supplying	Shortening of working hours	Object	Shortened hour (hr)	×	Boats *1	×	Peoples	×	Days *5	×	Unit cost(Rp)				
		All fishing boats	0.17		63.1		1.5		301	×	2,000	=		9.5	9.5
															134.3

Boats *1: Number of fishing boats: Based on Base Line Data
Peoples *2: Number of peoples: Based on CONDITIONS OF PRINCIPAL FISHING ACTIVITIES
Days *3: Operation days a year: based on table Estimated number of fishing boats and fish landing volume at each model site
Operation days a year: based on table Estimated number of fishing boats and fish landing volume at each model site
Purse sein: 301 days
Lampala: 304 days
Gilnet/Handline: 300 days
Days *4: Operation days during swell / big wave (30% of May-Jul, Dec-Mar)
Landing on beach during swell / big wave
Days *5: Average operation days a year of all fishing boats