

APPENDIX -6

ESTIMASI BIAYA

6-1 FASILITAS PROYEK

6-2 EQUIPMENT PROYEK

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
Anchorage 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 read	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					6,833	
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.

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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 Lantantuka

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	棧橋式
	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	m ²	760	152	116	Pavement
Others	Reclamation	m ³	10,400	78	811	
	Site development	m ²	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	m ²	480	1,220	586	
	Ice making & storage facility	m ²	350	1,416	496	Production 6ton/day, storage 12ton
Administration facility	Administration office	m ²	250	1,448	362	Broker lounge, meeting room, public lavatory, machine room, electric control room, etc.
Processing facility	Model processing factory	m ²	420	1,220	512	Kitchen, modified drying yard, indoor treatment room, etc.
Fishing gear maintenance, repair facility	Simplified workshop	m ²	100	1,220	122	Engine maintenance, manufacturing and repair of cool box, training of technicians, etc
	Open pile yard	m ²	120	0	0	Multipurpose use, fishery
	Fishing gear drying yard	m ²	890	0	0	Drying, repair of gear and net
Supply facilities	Oil supply facility (oil stocking house)	m ²	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	m ³ /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	m ³ /day	9	4,061	37	Simplified treatment of sewage (screen + sedimentation tank)
	Waste collection point	m ²	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 Sagu

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	Supplementary 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	m ²	790	152	120	Pavement
その他	Reclamation	m ³	15,200	78	1,186	
	Site development	m ²	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	m ²	560	1,220	683	
	Ice making & storage facility	m ²	180	1,416	255	Production 3ton/day, storage 6ton
Administration facility	Administration office	m ²	240	1,448	348	Broker lounge, meeting room, public lavatory, machine room, electric control room, etc.
Processing facility	Model processing factory	m ²	420	1,220	512	Kitchen, modified drying yard, indoor treatment room, etc.
Fishing gear maintenance, repair facility	Simplified workshop	m ²	100	1,220	122	Engine maintenance, manufacturing and repair of cool box, training of technicians, etc
	Open pile yard	m ²	120	0	0	Multipurpose use, fishery
	Fishing gear drying yard	m ²	740	0	0	Drying, repair of gear and net
Supply facilities	Oil supply facility (oil stocking house)	m ²	12	1,220	15	Storage house, supply by hand pump
	Oil supply facility (oil tank)	kt	0	0	0	Storage tank, supply by dispenser
	Water supply facility	m ³ /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	m ³ /day	11	4,061	45	Simplified treatment of sewage (screen + sedimentation tank)
	Waste collection point	m ²	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	Supplementary 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	m ²	610	139	85	Pavement
Others	Removing broken facilities on sea bottom	unit	1	103,897	104	Broken facilities by earthquake in '92
	Reclamation	m ³	11,500	65	748	-
	Site development	m ²	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	m ²	550	1,220	671	
	Ice making & storage facility	m ²	180	1,421	256	Production 3ton/day, storage 6ton
Administration facility	Administration office	m ²	290	1,243	360	Second floor on handling shed
Supply facilities	Oil supply facility (oil stocking house)	m ²	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	m ³ /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	m ³ /day	12	4,061	49	Simplified treatment of sewage (screen + sedimentation tank)
	Waste collection point	m ²	90	751	68	-
MARKET FACILITIES						
Basic facilities	Parking lot	m ²	680	139	95	For visitor
Functional facilities	Fish retail market	m ²	0	0	0	Utilization of facility by district
	Fish wholesaling place	m ²	560	1,018	570	Unloading place with sales space and loading place
	Administration office	m ²	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 parapet
	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	m ²	150	139	21	Pavement
Others	Reclamation	m ³	16,000	65	1,040	+3.4
	Site development	m ²	4,800	2	10	Grading, excluding yard road
FUNCTIONAL FACILITIES						
Fishing activity supporting facilities	Small scale multipurpose facility	m ²	200	1,450	290	Office, multipurpose working space, ice box stocking space, kiosk, storage, public lavatory
Processing facilities	Model processing factory	m ²	620	1,220	756	Kitchen, modified drying yard, indoor treatment room, etc.
Fishing gear maintenance, repair facility	Open pile yard	m ²	250	0	0	Multipurpose use, fishery
	Fishing gear drying yard	m ²	1,880	0	0	Drying, repair of gear and net
Supply facilities	Water supply facility	m ³ /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	m ³ /day	3	4,061	12	Simplified treatment of sewage (screen + sedimentation tank)
	Waste collection point	m ²	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.

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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	m ²	640	139	89	Pavement
Others	Excavation	m ³	7,300	800	5,840	Coral rock
	Site development	m ²	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	m ²	120	1,220	146	-
	Ice making & storage facility	m ²	290	1,421	412	Production 5ton/day, storage 10ton
Administration facility	Administration office	m ²	290	1,450	421	Broker lounge, meeting room, public lavatory, machine room, electric control room, etc.
Processing facility	Model processing factory	m ²	390	1,220	476	Kitchen, modified drying yard, indoor treatment room, etc.
Fishing gear maintenance, repair facility	Simplified workshop	m ²	150	1,220	183	Engine maintenance, manufacturing and repair of cool box, training of technicians, etc
	Open pile yard	m ²	280	0	0	Multipurpose use, fishery
	Fishing gear drying yard	m ²	2,730	0	0	Drying, repair of gear and net
Supply facilities	Oil supply facility (oil stocking house)	m ²	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	m ³ /day	12	1,966	24	Water tank, existing facility (10.6m ³) for Dinas Perikanan
	Electricity supply facility	lot	1	550,000	550	Connection to PLN net work
Waste treatment facility	Simplified drainage facility	m ³ day	10	4,061	41	Simplified treatment of sewage (screen + sedimentation tank)
	Waste collection point	m ²	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	14.25	27.63	42.64	32.20

(8) Balaurig

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	26.98
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.

Equipment / Materials	Capacity	Unit Price	Quantity	Total Price	Durable Yeras	Yearly	Yearly maintenance cost			
						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	38.06

(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(18m ³)	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
Workshop equipment	for new products	36.19	1	36.19	10	3.62	0.18	0.18	0.18	0.18
	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	28.33

(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	
Transporting facility	Simplified wooden jetty (Foundation)	Appropriation 0.5% of direct construction cost (foundation) for yearly maintenance		Direct construction cost (foundation) * 0.5%/year
		Ditto (superstructure)		Direct construction cost (superstructure) / 10 years
	Road	Repavement 30% of road surface each 10 years		Pavement cost * 30% / 10 years
Transporting facility	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
Machine / equipment	Replacement machine / equipment each 10 years		machine & equipment cost / 10 years	
Electric facility		Replacement electric appliance & lighting fixture each 10 years		Electric appliance & lighting fixture cost / 10 years
		Appropriation 0.5% of direct construction cost (except electric appliance & lighting fixture) for yearly maintenance & repairing		+ 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			Remarks
					(a)	(b)	Total	
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 trimming gear maintenance, repair facility	Model processing factory	m2	870	1,039	4,350	5,194	9,544	Painting cost @ 50
	Simplified workshop	m2	150	179	1,050	896	1,946	Painting 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			Remarks
					(a)	(b)	Total	
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 FACILITIES								
Fish retail market	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, INCIDENTAL								
Administration office	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 treatment facility	Waste collection point	m2	100	79	0	396	396	0.5% of construction cost for yearly maintenance
Total							42,366	

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MAINTENANCE COST OF PROJECT FACILITIES (3/7)

Kempe

unit : 1,000Rp

Classification	Facility	Unit	Scale	Construction cost	Annual maintenance cost			Remarks
					(a)	(b)	Total	
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, storage facility	Fish handling shed	m2	980	1,190	4,900	5,949	10,849	Painting cost @ 50
	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	Painting cost @ 70
Supply facilities	Oil supply facility (oil stocking)	m2	5	6	35	30	65	Painting cost @ 70
	Oil supply facility (oil tank)	kl	6	61	6,094	0	6,094	
	Water supply facility	m3	16	30	1,191	89	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			Remarks
					(a)	(b)	Total	
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, storage facility	Fish handling shed	m2	220	267	1,100	1,335	2,435	Painting cost @ 50
	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	Painting cost @ 70
Supply facilities	Oil supply facility (oil tank)	m2	9	11	63	0	63	Painting 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	

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MAINTENANCE COST OF PROJECT FACILITIES (4/7)

Larantuka

unit : 1,000Rp

Classification	Facility	Unit	Scale	Construction cost	Annual maintenance cost			Remarks	
					(a)	(b)	Total		
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
	Administration facility	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	1,910	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, Supply facilities	Simplified workshop	m2	100	122	700	610	1,310	Painting cost @ 70
	Supply facilities	Oil supply facility (oil stocking)	m2	5	6	35	0	35	Painting 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 Java (each place of 3 places)

unit : 1,000Rp

Classification	Facility	Unit	Scale	Construction cost	Annual maintenance cost			Remarks	
					(a)	(b)	Total		
INCIDENTAL FUNCTION FACILITIES									
	Small scale multipurpose facility	Oil supply facility (oil stocking)	m2	190	275	1,900	1,376	3,276	Painting cost @ 100
	Oil supply facility (oil stocking)	Water supply facility	m2	6	7	42	0	42	Painting cost @ 70
	Water supply facility	Electricity supply facility	m3	2	13	706	28	733	
	Electricity supply facility	Simplified drainage facility	lot	1	50	315	248	563	
	Simplified drainage facility	Waste collection point	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			Remarks	
					(a)	(b)	Total		
INCIDENTAL FUNCTION FACILITIES									
	Small scale multipurpose facility	Oil supply facility (oil stocking)	m2	200	290	2,000	1,448	3,448	Painting cost @ 100
	Oil supply facility (oil stocking)	Water supply facility	m2	5	6	35	0	35	Painting cost @ 70
	Water supply facility	Electricity supply facility	m3	2	13	706	28	733	
	Electricity supply facility	Simplified drainage facility	lot	1	50	315	248	563	
	Simplified drainage facility	Waste collection point	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	

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MAINTENANCE COST OF PROJECT FACILITIES (5/7)

Lewoleba

unit : 1,000Rp

Classification	Facility	Unit	Scale	Construction cost	Annual maintenance cost			Remarks
					(a)	(b)	Total	
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	Painting cost @ 70
Supply facilities	Oil supply facility (oil stocking)	m2	12	15	84	0	84	Painting 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			Remarks
					(a)	(b)	Total	
INCIDENTAL FUNCTION FACILITIES								
INCIDENTAL FUNCTION FACILITIES	Small scale multipurpose facility	m2	200	290	2,000	1,448	3,448	Painting cost @ 100
	Oil supply facility (oil stocking)	m2	5	6	35	0	35	Painting 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	17	0	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			Remarks
					(a)	(b)	Total	
INCIDENTAL FUNCTION FACILITIES								
INCIDENTAL FUNCTION FACILITIES	Small scale multipurpose facility	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	17	0	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			Remarks
					(a)	(b)	Total	
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			Remarks
					(a)	(b)	Total	
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 facility	Small scale multipurpose facility	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			Remarks
					(a)	(b)	Total	
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
	Simplified workshop	m2	50	61	350	305	655	Painting cost @ 50
Supply facilities	Oil supply facility (oil stocking)	m2	14	17	98	0	98	Painting cost @ 70
	Water supply facility	m2	6	19	1,145	36	1,181	Painting 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			Remarks
					(a)	(b)	Total	
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
	Simplified workshop	m2	150	183	1,050	915	1,965	Painting cost @ 70
Supply facilities	Oil supply facility (oil stocking)	m2	12	15	84	0	84	Painting cost @ 70
	Oil supply facility (oil tank)	k1	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
Σ							36,329	

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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 year), 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 behur (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)		
			Shortened hour (hr)	Boats *1	Peoples *2	Days *3	Unit cost(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	1.8	10	300	2,000		0.0			
		Purse Seine	0.83	38.7	8.5	282	2,000		154.6			
		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				
	Curtailement 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	Curtailement 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	Object	Calculation							Benefit (million Rp)			
			Shortened hour (hr)	Boats *1	Peoples *2	Days *3	Unit cost(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

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

216.5

BENEFIT ON PROJECT FACILITIES (3/6)

Table 6-4-12 Hu'u

Benefit item	Contents	Object	Calculation							Benefit (million Rp)	
			Shortened hour (hr) ×	Boats *1 ×	Peoples *2 ×	Days *3 ×	Unit cost(Rp)	Sub total	Total		
Efficiency of landing activities (landing→transportation→loading) *average on high tide / low tide	Shortening of working hours (landing)	Object									
		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			

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

48.5

BENEFIT ON PROJECT FACILITIES (4/6)

Table 6-4-13 Oka (Larantuka)

Benefit item	Contents	Object	Calculation							Benefit (million Rp)	
			Shortened hour (hr)	Boats *1	Peoples *2	Days *3	Unit cost(Rp)	Sub total	Total		
Efficiency of landing activities (landing→transportation→loading) *average on high tide / low tide	Shortening of working hours (landing)	Object									
		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	
Boats *1: Number of fishing boats: Based on Base Line Data										163.2	
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)	
			Shortened hour (hr)	Boats *1	Peoples *2	Days *3	Unit cost(Rp)	Sub total	Total		
Efficiency of landing activities (landing→transportation→loading) *average on high tide / low tide	Shortening of working hours (landing)	Object									
		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	
Boats *1: Number of fishing boats: Based on Base Line Data										83.0	
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)				
			Shortened hour (hr)	×	Boats *1	×	Peoples *2	×	Days *3	×	Unit cost(Rp)	Sub total	Total	
Efficiency of landing activities (landing→transportation→loading) *average on high tide / low tide	Shortening of working hours (landing)	Object												
		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												
		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												
All fishing boats	0.33	×	43	×	1.5	×	335	×	2,000	=	14.4	14.4		
Efficiency of water supplying	Shortening of working hours	Object												
All fishing boats	0.33	×	43	×	1.5	×	335	×	2,000	=	14.4	14.4		
Boats *1: Number of fishing boats: Based on Base Line Data												248.2		
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)			
			Shortened hour (hr)	×	Boats *1	×	Peoples *2	×	Days *3	×	Unit cost(Rp)	Sub total	Total
Efficiency of landing activities (landing→transportation→loading) *average on high tide / low tide	Shortening of working hours (landing)	Object											
		Handline	0.25	×	23.5	×	2	×	276	×	2,000	=	6.5
Efficiency of oil supplying	Shortening of working hours	Object											
Handline	0.17	×	23.5	×	1.5	×	276	×	2,000	=	3.2	3.2	
Efficiency of water supplying	Shortening of working hours	Object											
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											
		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											
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											
		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	
Boats *1: Number of fishing boats: Based on Base Line Data												192.6	
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													

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BENEFIT ON PROJECT FACILITIES (6/6)

Table 6-4-17 Paga

Benefit item	Contents	Object	Calculation							Benefit (million Rp)	
			Shortened hour (hr)	Boats *1	Peoples *2	Days *3	Unit cost(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		
		Boats *1:	Number of fishing boats: Based on Base Line Data							24.8	
		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)	
			Shortened hour (hr)	Boats *1	Peoples *2	Days *3	Unit cost(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		
		Boats *1:	Number of fishing boats: Based on Base Line Data							134.3	
		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:	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								
			Gillnet/Handline: 300 days								
		Days *5:	Average operation days a year of all fishing boats								