

Project No. MW-2

1.	PROJECT TITLE	<b>Formulation of Water Pollution Control Plan for Rural Coastal Villages</b>
2.	LOCATION	The coastal villages in the rural zone
3.	IMPLEMENTATION AGENCIES	<b>Leading Agency : PICMO, KICMO</b> <b>Related Agencies : KIMPRASWIL, other agencies concerned, Coastal villagers</b>
4.	OBJECTIVES	<ul style="list-style-type: none"> <li>• to minimize pollution load to coastal water from the villages</li> <li>• to improve the sanitary condition of the villages in the rural area by improvement of toilet facilities.</li> </ul>
5.	EXPECTED EFFECT/S	<ul style="list-style-type: none"> <li>• conservation of coastal environment and ecosystem</li> <li>• preservation of fishery resources and tourism resources</li> </ul>
6.	PROJECT COST	Rp. 100.0 million
	6-1. INITIAL INVESTMENT COST	Rp. 100.0 million (2006)
	6-2. OPERATION / MAINTENANCE	None
7.	IMPLEMENTATION SCHEDULE	Mid term(2006)
8.	PROJECT DESCRIPTION	- Formulation of the development programs of sanitation systems for the rural coastal villages and making their implementation a priority
9.	RELATION WITH OTHER PROJECT/S	-

Initial Cost

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Study &amp; Design</b>				
Study and design			Rp.100 mil.	
Total			Rp.100 mil.	

*Project No. ME-1*

1.	PROJECT TITLE	<b>Program on Coastal Environmental Monitoring</b>
2.	LOCATION	Coastal area in North Sulawesi
3.	IMPLEMENTATION AGENCIES	<b>Leading agencies:</b> PICMO, BAPEDALDA <b>Related agencies:</b> Provincial office of Ministry of Industry, Provincial office of Ministry of Health
4.	OBJECTIVES	<ul style="list-style-type: none"> <li>• to assess coastal environment for management</li> </ul>
5.	EXPECTED EFFECT/S	<ul style="list-style-type: none"> <li>• more effective management of the coastal area</li> <li>• provision of information to decision makers for policymaking</li> </ul>
6.	PROJECT COST	Rp. 11,020.0 million
6-1.	INITIAL INVESTMENT COST	Rp. 1,270.0 million (2002)
6-2.	OPERATION / MAINTENANCE	Rp. 9,750.0 million (2003-2015)
	Short (2003-2005)	Rp. 2,250.0 million
	Mid (2006-2010)	Rp. 3,750.0 million
	Long (2011-2015)	Rp. 3,750.0 million
7.	IMPLEMENTATION SCHEDULE	Short to long term 2003 – 2015
8.	PROJECT DESCRIPTION	<p><b>Initial stage</b></p> <ul style="list-style-type: none"> <li>- to formulate monitoring plan</li> <li>- to prepare monitoring work</li> </ul> <p><b>Operation &amp; Maintenance</b></p> <ul style="list-style-type: none"> <li>- to take samples and survey coastal environment such as water quality, sediment, plankton, coral, seagrass, mangrove, fishes and marine wildlife</li> <li>- to compile and analyze data</li> <li>- to prepare monthly and annual reports</li> </ul>
9.	RELATION WITH OTHER PROJECT/S	<ul style="list-style-type: none"> <li>- Fishery monitoring resource should be connected.</li> <li>- This program should be effectively used for other coastal management programs.</li> </ul>

Initial Cost

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Study &amp; Design</b>				
Planning	Rp.70 mil.		Rp. 70 mil.	
<b>Equipment</b>				
Diving gear	Rp.33 mil.	6 sets	Rp. 200 mil.	
Underwater video camera	Rp.50 mil.	1	Rp. 50 mil.	
Underwater camera	Rp.40 mil.	1	Rp. 40 mil.	
Sampling equipment and others	Rp.410mil		Rp. 410 mil	
<b>Seminar &amp; Meeting</b>				
Training for monitoring	Rp.500 mil.		Rp. 500 mil.	
Total			Rp. 1,270 mil.	

Operation & Maintenance

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Equipment</b>				
Maintenance	Rp.50 mil./year	13 years	Rp. 650 mil.	
Consumable items	Rp. 50 mil/year	13 years	Rp. 650 mil.	
Reagent for chemical analysis	Rp.100 mil./year	13 years	Rp. 1,300 mil.	
<b>Printing</b>				
Survey Report	Rp.5 mil.	x 13 years	Rp. 65 mil.	
<b>Transportation</b>				
Car rental and fuel	Rp.17 mil.	x 13 years	Rp. 221 mil.	
Boat rental and fuel	Rp.50 mil.	x 13 years	Rp. 650 mil.	
<b>Personnel cost</b>				
Chief	Rp.1.5mil.	4 months x 13 years	Rp. 78 mil.	
Researcher	Rp.1.3mil.	20 persons x10months x 13 years	Rp. 3,380 mil.	
Staff	Rp.0.8mil.	20 persons x10months x 13 years	Rp. 2,080 mil.	
Volunteers	Rp.2 mil.	13 years	Rp. 26 mil.	
<b>Others</b>				
Consumables	Rp.50 mil.	x 13 years	Rp. 650 mil.	
Total			Rp. 9,750 mil.	

Project No. ME-2

1.	PROJECT TITLE	<b>Patrol of Illegal Activities for Coastal Environmental Conservation</b>
2.	LOCATION	Priority Area for Patrol 4,000 ha (Preservation Zone and Conservation Zone)
3.	IMPLEMENTATION AGENCIES	<b>Leading agency:</b> Water Police <b>Related agencies:</b> Task Force for Coastal Environmental Conservation, KICMO, PICMO, Provincial/Municipal /Regency Fishery Office
4.	OBJECTIVES	<ul style="list-style-type: none"> <li>to protect the coastal environment against illegal activities such as destructive fishing, coral mining, mangrove cutting, among other things</li> </ul>
5.	EXPECTED EFFECT/S	Coastal resources can be conserved and rehabilitated, and local people can gain benefit from preserved coastal environment.
6.	PROJECT COST	Rp.10,390.0 million
6-1.	INITIAL INVESTMENT COST	Rp. 1,940.0 million (2002)
6-2.	OPERATION / MAINTENANCE	Rp. 8,450.0 million (2003-2015)
	Short (2003-2005)	Rp. 1,950.0 million
	Mid (2006-2010)	Rp. 3,250.0 million
	Long (2011-2015)	Rp. 3,250.0 million
7.	IMPLEMENTATION SCHEDULE	Short term (Preparation) 2002 Short to Long term (Operation) 2003-2015
8.	PROJECT DESCRIPTION	<b>Preparation Work</b> - to prepare plan - to set up equipment at six priority areas <b>Operation</b> - to conduct patrol in six priority areas every month
9.	RELATION WITH OTHER PROJECT/S	Enlightenment aspect is covered with MR-6 and SE-5.

*Initial Cost*

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Equipment</b>				
Radio communication	Rp. 100 mil.		Rp.100 mil.	4 stations and 20 transceiver
GPS	Rp. 2 mil.	20	Rp. 40 mil.	
<b>Transportation</b>				
Speed boat	Rp. 300 mil.	6 boats	Rp.1,800 mil.	
Total			Rp.1,940 mil.	

*Operation & Maintenance*

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Transportation</b>				
Fuel for boat	Rp. 350 mil.	13 years	Rp.4,550 mil.	
<b>Personnel cost</b>				
Volunteers	Rp. 130 mil.	13 years	Rp.1,690 mil.	
Allowance	Rp. 70 mil.	13 years	Rp. 910 mil.	
<b>Others</b>				
Consumables	Rp. 100 mil.	13 years	Rp.1,300 mil.	
Total			Rp.8,450 mil.	

Project No. ME-3

1.	PROJECT TITLE	<b>Establishment of Provincial Lembeh Protected Area</b>
2.	LOCATION	Lembeh island and surrounding area, Bitung Municipality
3.	IMPLEMENTATION AGENCIES	<b>Leading agencies:</b> PICMO, Bitung Municipality <b>Related agencies:</b> Department of Forestry, Provincial Tourism Office, Bitung Municipal Tourism Office
4.	OBJECTIVES	<ul style="list-style-type: none"> <li>to establish Lembeh Provincial Protected Area in order to protect conserved coral reef and ecosystem</li> </ul>
5.	EXPECTED EFFECT/S	<ul style="list-style-type: none"> <li>protection on a legal basis of Lembeh Island and its surrounding area which have rich coastal environment</li> <li>increase of economic benefit because of increasing tourism values in Bitung municipality and province through establishment of Provincial Protected area</li> </ul>
6.	PROJECT COST	Rp.8,420.0 million
	6-1. INITIAL INVESTMENT COST	Rp. 3,720.0 million (2004-2005)
	6-2. OPERATION / MAINTENANCE	Rp. 4,700.0 million (2006-2015)
	Short (2002-2005)	None
	Mid (2006-2010)	Rp. 2,350.0 million
	Long (2011-2015)	Rp. 2,350.0 million
7.	IMPLEMENTATION SCHEDULE	Short to long term 2004 – 2015
8.	PROJECT DESCRIPTION	<p><b>Short term (2004-2005)</b></p> <ul style="list-style-type: none"> <li>- to hold public hearing and workshops</li> <li>- to conduct field survey</li> <li>- to formulate management plan</li> <li>- to construct management facilities</li> <li>- to establish Provincial Lembeh Protected Area</li> </ul> <p><b>Mid to Long term (2006-2015)</b></p> <ul style="list-style-type: none"> <li>- to manage a protected area</li> <li>- to maintain management facilities</li> </ul>
9.	RELATION WITH OTHER PROJECT/S	<ul style="list-style-type: none"> <li>- This project should be based on Provincial Coastal Spatial Use Plan and Bitung Municipal Coastal Spatial Use Plan (MS-1).</li> <li>- “Program on Water Pollution Control in Bitung (MU-3)” is supporting program from viewpoint of environmental conservation.</li> </ul>

## Initial Cost

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Study &amp; Design</b>				
Field survey, Planning	Rp.2 mil.	4 experts x30months	Rp. 240 mil.	
<b>Construction of Facilities &amp; Structures</b>				
Main office	Rp. 5 mil./m <sup>2</sup>	80 m <sup>2</sup>	Rp. 400 mil.	
Warehouse	Rp. 5 mil./m <sup>2</sup>	100 m <sup>2</sup>	Rp. 500 mil.	
Park stations	Rp. 2.5 mil./m <sup>2</sup>	20 m <sup>2</sup> x 6 stations	Rp. 300 mil.	
Pier	Rp.1,000 mil.	1	Rp. 1,000 mil.	
Sign boards	Rp. 5 mil	10 sign boards	Rp. 50 mil.	
<b>Equipment</b>				
Boats	Rp.300mil	3 boats	Rp. 900 mil.	
Field survey equipment	Rp. 50 mil.		Rp. 50 mil.	
Diving gears	Rp. 7 mil.	5 sets	Rp. 35 mil.	
Radio communication	Rp. 60 mil		Rp. 60 mil.	
GPS	Rp. 2 mil.	5 sets	Rp. 15 mil.	
Computer sets	Rp. 30 mil.	2 sets	Rp. 30 mil.	
<b>Printing</b>				
Posters, Handbills	Rp.80 mil.		Rp. 80 mil.	
<b>Seminar &amp; Meeting</b>				
Workshops, community meetings	Rp. 6 mil.	10 times	Rp. 60mil.	
Total			Rp. 3,720 mil.	

## Operation &amp; Maintenance

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Study &amp; Design</b>				
Monitoring & Patrol	Rp.160 mil.	10 years	Rp.1,600 mil.	
<b>Construction of facilities &amp; structures</b>				
Maintenance	Rp.170 mil.	10 years	Rp.1,700 mil.	7.5% of construction cost
<b>Printing</b>				
Posters	Rp.40 mil.	10 years	Rp.400 mil.	
<b>Seminar &amp; Meeting</b>				
Workshops, community meetings	Rp.30 mil.	10 years	Rp.300 mil.	
<b>Personnel cost</b>				
NGOs and Volunteers	Rp.70 mil.	10 years	Rp.700 mil.	
Total			Rp.4,700 mil.	

Project No. ME-4

1.	PROJECT TITLE	Establishment of Provincial Belang-Kotabunan Protected Area
2.	LOCATION	Belang-Kotabunan, Minahasa Regency
3.	IMPLEMENTATION AGENCIES	<b>Leading agencies:</b> PICMO, Minahasa Regency <b>Related agencies:</b> Department of Forestry, Provincial Tourism Office, Minahasa Tourism Office, Bolaang Mongondow
4.	OBJECTIVES	<ul style="list-style-type: none"> <li>to establish Lembeh Provincial Protected Area in order to protect conserved-coral reef and ecosystem</li> </ul>
5.	EXPECTED EFFECT/S	<ul style="list-style-type: none"> <li>protection on a legal basis of Belang-Kotabunan area, which has rich coastal environment</li> <li>Increase of economic benefit because of increasing tourism values in Bitung municipality and province through establishment of Provincial Protected area</li> </ul>
6.	PROJECT COST	Rp. 8,260.0 million
	6-1. INITIAL INVESTMENT COST	Rp. 3,660.0 million (2004-2005)
	6-2. OPERATION / MAINTENANCE	Rp. 4,600.0 million (2006-2015)
	Short (2002-2005)	None
	Mid (2006-2010)	Rp. 2,300.0 million
	Long (2011-2015)	Rp. 2,300.0 million
7.	IMPLEMENTATION SCHEDULE	Short to long term 2004 – 2015
8.	PROJECT DESCRIPTION	<p><b>Short term (2004-2005)</b></p> <ul style="list-style-type: none"> <li>to hold public hearing and workshops</li> <li>to conduct field survey</li> <li>to formulate management plan</li> <li>to construct management facilities</li> <li>to establish Provincial Lembeh Protected Area</li> </ul> <p><b>Mid to Long term (2006-2015)</b></p> <ul style="list-style-type: none"> <li>to manage a protected area</li> <li>to maintain management facilities</li> </ul>
9.	RELATION WITH OTHER PROJECT/S	<ul style="list-style-type: none"> <li>This project should be based on Provincial Coastal Spatial Use Plan and Bitung Municipal Coastal Spatial Use Plan (MS-1).</li> <li>“Program on Water Pollution Control in Bitung (MU-3)” is supporting program from viewpoint of environmental conservation.</li> </ul>



## Initial Cost

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Study &amp; Design</b>				
Field survey, Planning	Rp.2 mil.	4 experts x30months	Rp. 240 mil.	
<b>Construction of Facilities &amp; Structures</b>				
Main office	Rp. 5 mil./m <sup>2</sup>	80 m <sup>2</sup>	Rp. 400 mil.	
Warehouse	Rp. 5 mil./m <sup>2</sup>	100 m <sup>2</sup>	Rp. 500 mil.	
Park stations	Rp. 2.5 mil./m <sup>2</sup>	20 m <sup>2</sup> x 4 stations	Rp. 200 mil.	
Pier	Rp.1,000 mil.	1	Rp. 1,000 mil.	
Sign boards	Rp. 5 mil	12 sign boards	Rp. 60 mil.	
<b>Equipment</b>				
Boats	Rp.300mil	3 boats	Rp. 900 mil.	
Field survey equipment	Rp. 50 mil.		Rp. 50 mil.	
Diving gears	Rp. 7 mil.	5 sets	Rp. 35 mil.	
Radio communication	Rp. 60 mil		Rp. 60 mil.	
GPS	Rp. 2 mil.	5 sets	Rp. 15 mil.	
Computer sets	Rp. 30 mil.	2 sets	Rp. 30 mil.	
<b>Printing</b>				
Posters, Handbills	Rp.80 mil.		Rp. 80 mil.	
<b>Seminar &amp; Meeting</b>				
Workshops, community meetings	Rp. 6 mil.	15 times	Rp. 90mil.	
Total			Rp. 3,660 mil.	

## Operation &amp; Maintenance

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Study &amp; Design</b>				
Monitoring & Patrol	Rp.160 mil.	10 years	Rp.1,600 mil.	
<b>Construction of facilities &amp; structures</b>				
Maintenance	Rp.160 mil.	10 years	Rp.1,600 mil.	7.5% of construction cost
<b>Printing</b>				
Posters	Rp. 40 mil.	10 years	Rp.400 mil.	
<b>Seminar &amp; Meeting</b>				
Workshops, community meetings	Rp.30 mil.	10 years	Rp.300 mil.	
<b>Personnel cost</b>				
NGOs and Volunteer	Rp.70 mil.	10 years	Rp.700 mil.	
Total			Rp.4,600 mil.	

Project No. SL-1

1.	PROJECT TITLE	<b>Establishment of Provincial Coastal Management Basic Regulation</b>
2.	LOCATION	North Sulawesi
3.	IMPLEMENTATION AGENCIES	<b>Leading agency:</b> PICMO <b>Related agencies:</b> all government agencies
4.	OBJECTIVES	<ul style="list-style-type: none"> <li>• to promote establishment of Provincial Coastal Management Basic Regulation</li> <li>• to make clear administrative responsibility and functions for coastal management</li> <li>• to implement integrated and coordinated coastal management in North Sulawesi</li> </ul>
5.	EXPECTED EFFECT/S	<ul style="list-style-type: none"> <li>• minimization of institutional conflicts</li> <li>• effective implementation of coastal management in North Sulawesi</li> <li>• expansion of decentralized coastal management to other areas as a model</li> </ul>
6.	PROJECT COST	Rp. 465.0 million
	6-1. INITIAL INVESTMENT COST	Rp. 240.0 million (2002-2003)
	6-2. OPERATION / MAINTENANCE	Rp. 225.0 million
	Short (2002-2005)	Rp. 50.0 million (2004, 2005)
	Mid (2006-2010)	Rp. 125.0 million (2006, 2010)
	Long (2011-2015)	Rp. 50.0 million (2014)
7.	IMPLEMENTATION SCHEDULE	Short to long term 2002 – 2014
8.	PROJECT DESCRIPTION	<p>Preparation work</p> <ul style="list-style-type: none"> <li>- to hold meetings among the parliament members, government officers, and the local people</li> <li>- to establish Provincial Coastal Management Regulation</li> <li>- to publish booklet of Provincial Regulation</li> <li>- to disseminate the people concerned with sustainable coastal use</li> </ul> <p>Dissemination</p> <ul style="list-style-type: none"> <li>- to publish booklet of regulation</li> <li>- to hold seminars for dissemination of regulation</li> </ul>
9.	RELATION WITH OTHER PROJECT/S	Provincial Coastal Management Regulation prescribes Provincial Integrated Coastal Management Office (PICMO) (SL-2), Municipal/Regency Integrated Coastal Management Office (KICMO) (SL-3) and others.

*Initial Cost*

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Printing</b>				
Regulation, handbills	Rp.100 mil.	1	Rp. 100 mil.	10,000 copies
<b>Seminar &amp; Meeting</b>				
Workshops	Rp. 4 mil.	5 muni/reg x 5 times	Rp. 100 mil.	
Provincial Seminars	Rp. 8 mil.	5 times	Rp. 40 mil.	
Total			Rp. 240 mil.	

**Operation & Maintenance**

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Printing</b>				
Regulation (additional printing)	Rp.50 mil	3 times	Rp.150 mil.	5,000 copies every 4 years (2006, 2010, 2014)
<b>Seminar &amp; Meeting</b>				
Seminar	Rp.5 mil.	5 times x 3 years	Rp.75 mil.	2004, 2005, 2006
Total			Rp. 225 mil.	

Project No. SL-2

1.	PROJECT TITLE	Establishment of Provincial Integrated Coastal Management Office (PICMO)
2.	LOCATION	All coastal areas in the North Sulawesi
3.	IMPLEMENTATION AGENCIES	Leading agency: North Sulawesi Provincial Government
4.	OBJECTIVES	<ul style="list-style-type: none"> <li>to establish a unified organization for coastal management at provincial level</li> <li>to effect coastal management in North Sulawesi</li> <li>to implement integrated and coordinated coastal management in North Sulawesi</li> </ul>
5.	EXPECTED EFFECT/S	<ul style="list-style-type: none"> <li>effective implementation of coastal management in North Sulawesi</li> </ul>
6.	PROJECT COST	Rp. 130.0 million
	6-1. INITIAL INVESTMENT COST	Rp. 130.0 million (2002-2003)
	6-2. OPERATION / MAINTENANCE	None
7.	IMPLEMENTATION SCHEDULE	Short term 2002 – 2003
8.	PROJECT DESCRIPTION	<ul style="list-style-type: none"> <li>to hold meeting among parliament members, government officers, and the people</li> <li>to establish Provincial Integrated Coastal Management Office</li> </ul>
9.	RELATION WITH OTHER PROJECT/S	<ul style="list-style-type: none"> <li>Provincial Integrated Coastal Management Office (PICMO) is prescribed by Provincial Coastal Management Regulation (SL-1).</li> <li>Municipal/Regency Integrated Coastal Management Offices (KICMOs) are proposed by SL-3.</li> </ul>

Initial Cost

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Printing</b>				
Posters, Handbills			Rp.40 mil.	
<b>Seminar &amp; Meeting</b>				
Meetings			Rp.90 mil.	
<b>Total</b>			<b>Rp.130 mil.</b>	

## Project No. SL-3

1.	PROJECT TITLE	<b>Establishment of Municipal/Regency Integrated Coastal Management Offices (KICMO)</b>
2.	LOCATION	Manado City and Bitung Municipality, Minahasa, Bolaang Mongondow Regencies
3.	IMPLEMENTATION AGENCIES	<b>Leading agency:</b> Manado City, Bitung Municipality , Minahasa Regency and Bolaang Mongondow Regency
4.	OBJECTIVES	<ul style="list-style-type: none"> <li>• to establish a unified organization for coastal management at municipal and regency levels</li> <li>• to effect coastal management in Manado, Bitung, Minahasa and Bolaang Mongondow</li> <li>• to implement integrated and coordinated coastal management in Manado, Bitung, Minahasa and Bolaang Mongondow</li> </ul>
5.	EXPECTED EFFECT/S	<ul style="list-style-type: none"> <li>• effective implementation of coastal management in North Sulawesi</li> </ul>
6.	PROJECT COST	Rp. 520.0 million
	6-1. INITIAL INVESTMENT COST	Rp. 520.0 million (2004)
	6-2. OPERATION / MAINTENANCE	None
7.	IMPLEMENTATION SCHEDULE	Short term (2004)
8.	PROJECT DESCRIPTION	<ul style="list-style-type: none"> <li>- to establish Manado Integrated Coastal Management office</li> <li>- to establish Bitung Integrated Coastal Management office</li> <li>- to establish Minahasa Integrated Coastal Management office</li> <li>- to establish Bolaang Mongondow Integrated Coastal Management office</li> </ul>
9.	RELATION WITH OTHER PROJECT/S	<ul style="list-style-type: none"> <li>- Municipal/Regency Integrated Coastal Management Offices (KICMOs) are prescribed by Provincial Coastal Management Regulation (SL-1).</li> <li>- Provincial Integrated Coastal Management Offices (PICMO) is proposed by SL-2.</li> <li>- Sangihe Talaud Regency (out side of the Study Area) should be included.</li> </ul>

## Initial Cost

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Printing</b>				
Posters, Handbills	Rp.40 mil.	4 areas	Rp. 160 mil.	4 areas = 2 Regencies and 2 Municipalities
<b>Seminar &amp; Meeting</b>				
	Rp.90 mil	4 areas	Rp. 360 mil.	
Total			Rp. 520 mil.	

*Project No. SI-1*

1.	PROJECT TITLE	Establishment of Provincial Coastal Information Center
2.	LOCATION	Manado Municipality
3.	IMPLEMENTATION AGENCIES	Leading agency: PICMO
4.	OBJECTIVES	<ul style="list-style-type: none"> <li>to establish Provincial Information Center in order to collect and provide necessary information for coastal management</li> </ul>
5.	EXPECTED EFFECT/S	<ul style="list-style-type: none"> <li>effective management of the coastal area based on scientific data</li> <li>cost saving on and ease of information gathering and retrieval by the related agencies</li> </ul>
6.	PROJECT COSTS	Rp.10,330 million
	6-1. INITIAL INVESTMENT COST	Rp. 1,750.0 million (2003)
	6-2. OPERATION / MAINTENANCE	Rp. 8,580.0 million (2004-1015)
	Short (2002-2005)	Rp. 1,430.0 million
	Mid (2006-2010)	Rp. 3,575.0 million
	Long (2011-2015)	Rp. 3,575.0 million
7.	IMPLEMENTATION SCHEDULE	Short to long term (2003 – 2015)
8.	PROJECT DESCRIPTION	<p>Short term (Preparation work)</p> <ul style="list-style-type: none"> <li>- study feasibility and detailed plan for establishment of the Center</li> <li>- construct the Center building</li> <li>- set up equipment</li> <li>- develop Coastal GIS</li> </ul> <p>Short, Mid and Long term (Operation and Maintenance)</p> <ul style="list-style-type: none"> <li>- to collect, analyze data and information</li> <li>- to maintain Coastal GIS</li> <li>- to provide coastal information for related agencies</li> </ul>
9.	RELATION WITH OTHER PROJECT/S	Maintenance of Coastal GIS is covered by No.SI-2.

Initial Cost

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Study &amp; Design</b>				
Feasibility study, operation plan	Rp.80 mil.		Rp. 80 mil.	
<b>Construction of Facilities &amp; Structures</b>				
Renovation of BAPELITBANG	Rp. 1 mil./m <sup>2</sup>	170 m <sup>2</sup>	Rp. 170 mil.	
Air conditioners	Rp. 25 mil./set	8 sets	Rp. 200 mil.	
<b>Equipment</b>				
Hardware	Rp.800 mil.		Rp. 800 mil.	PC server, printer, scanner, digitizer, LAN, UPI etc
Software	Rp. 200 mil.		Rp. 200 mil.	GIS, spatial analysis etc.
Office equipment	Rp. 300 mil.		Rp. 300 mil.	
Total			Rp. 1,750 mil.	

Operation & Maintenance

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Monitoring</b>				
Monitoring & Data collection	Rp.500 mil.	12 years	Rp. 6,000 mil.	
<b>Equipment</b>				
Maintenance	Rp.65 mil	12 years	Rp. 780 mil.	5% of equipment cost
Consumable	Rp. 100 mil.	12 years	Rp. 1,200 mil.	
<b>Printing</b>				
Report	Rp.50 mil	12 years	Rp. 600 mil.	
Total			Rp. 8,580 mil.	

Note: The cost does not include purchase of new equipment due to undetermined life span.

*Project No. SI-2*

1.	PROJECT TITLE	<b>Development and Maintenance of Provincial Coastal GIS</b>
2.	LOCATION	North Sulawesi Province
3.	IMPLEMENTATION AGENCIES	<b>Leading agency:</b> Coastal Information Center <b>Related agency:</b> PICMO
4.	OBJECTIVES	<ul style="list-style-type: none"> <li>to maintain and update the Coastal GIS developed by the Study Team</li> </ul>
5.	EXPECTED EFFECT/S	<ul style="list-style-type: none"> <li>more appropriate coastal management based on scientific data</li> <li>utilization and sharing of the coastal GIS by government agencies and academic organizations not only for coastal management but also for other purposes</li> </ul>
6.	PROJECT COST	Rp. 13,436.4 million (excluding Initial Cost)
6-1.	INITIAL INVESTMENT COST	None (Initial Cost from SI-1)
6-2.	OPERATION / MAINTENANCE	Rp. 13,436.4 million (2004-2015)
	Short (2002-2005)	Rp. 2,239.4 million
	Mid (2006-2010)	Rp. 5,598.5 million
	Long (2011-2015)	Rp. 5,598.5 million
7.	IMPLEMENTATION SCHEDULE	Short to long term 2004 - 2015
8.	PROJECT DESCRIPTION	<ul style="list-style-type: none"> <li>to update data and information in Coastal GIS</li> <li>to operate and maintain Coastal GIS</li> </ul>
9.	RELATION WITH OTHER PROJECT/S	The Coastal GIS (SI-2) will be used with No.SI-1.



*Operation & Maintenance*

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Study &amp; Design</b>				
Data updating	Rp.8 mil.	100 sheets x 12 years	Rp.9,600 mil.	
<b>Equipment</b>				
Software and Hardware	Rp.145.7 mil.	1 set x 12 years	Rp.1,748.4 mil.	15% of software and 10% of hardware cost
<b>Personnel cost</b>				
Chief	Rp.1.3 mil.	1 person x12months x 12 years	Rp.187.2 mil.	
Staff	Rp.0.8 mil.	4 person x12months x 12 years	Rp.460.8 mil.	
<b>Others</b>				
Consumables (paper, ink cartridge, etc.)	Rp.120 mil.	12 years	Rp.1,440.0 mil.	
<b>Total</b>			<b>Rp.13,436.4 mil.</b>	

*Project No. SH-1*

1.	PROJECT TITLE	<b>Establishment of Local Government Training Center</b>
2.	LOCATION	Manado
3.	IMPLEMENTATION AGENCIES	<b>Leading agency:</b> North Sulawesi Provincial Government <b>Related agencies:</b> all Central, Provincial, Municipal/Regency, Village government agencies
4.	OBJECTIVES	<ul style="list-style-type: none"> <li>to develop human resources in order to strengthen local government capability</li> </ul>
5.	EXPECTED EFFECT/S	<ul style="list-style-type: none"> <li>strengthening of local government capability in terms of coastal management under decentralization policy.</li> </ul>
6.	PROJECT COST	Rp. 12,440.0 million
6-1.	INITIAL INVESTMENT COST	Rp. 5,490.0 million (2005)
6-2.	OPERATION / MAINTENANCE	Rp. 6,950.0 million (2006-2015)
	Short (2002-2005)	None
	Mid (2006-2010)	Rp. 3,475.0 million
	Long (2011-2015)	Rp. 3,475.0 million
7.	IMPLEMENTATION SCHEDULE	Short to long term 2005 – 2015
8.	PROJECT DESCRIPTION	<p>Preparation work</p> <ul style="list-style-type: none"> <li>to conduct Detailed Design of the Training Center</li> <li>to construct seminar house (RC 2 floor)</li> <li>to construct lodging house (RC 2 floor)</li> <li>to develop training programs and materials</li> </ul> <p>Operation</p> <ul style="list-style-type: none"> <li>to train local government staffs</li> <li>to maintain building and facilities</li> </ul>
9.	RELATION WITH OTHER PROJECT/S	Project SH-2

## Initial Cost

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Study &amp; Design</b>				
Detailed design	Rp. 280 mil.		Rp. 280 mil.	7% of construction cost
<b>Construction of facilities &amp; structures</b>				
Seminar House with lodging space	Rp. 7 mil.	580 m <sup>2</sup>	Rp. 4,060 mil.	RC 2 floors each
Air conditioner	Rp. 25 mil.	6 sets	Rp. 150 mil.	
<b>Equipment</b>				
Facilities of Seminar House			Rp. 700 mil.	
<b>Others</b>				
			Rp. 300 mil.	
Total			Rp. 5,490 mil.	

## Operation &amp; Maintenance

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Printing</b>				
Materials for training program	Rp.65 mil.	10 years	Rp. 650 mil.	
<b>Transportation</b>				
	Rp.300 mil.	10 years	Rp. 3,000 mil.	
<b>Personnel cost</b>				
Lecturers, staff	Rp.1.3 mil.	10 persons x10months 10 years	Rp. 1,300 mil.	
<b>Others</b>				
Running cost for activities and utility	Rp. 200 mil.	10 years	Rp. 2,000 mil.	
Total			Rp. 6,950 mil.	

Project No. SH-2

1.	PROJECT TITLE	<b>Development of Coastal Management Courses in Local Universities</b>
2.	LOCATION	North Sulawesi
3.	IMPLEMENTATION AGENCIES	<b>Leading agency :</b> Sam Ratulangi University <b>Related agency :</b> Universitas Katolik De La Salle Manado
4.	OBJECTIVES	<ul style="list-style-type: none"> <li>• to develop education course of local universities for coastal management</li> <li>• to train students as government officers</li> </ul>
5.	EXPECTED EFFECT/S	<ul style="list-style-type: none"> <li>• development of human resources of coastal management by competent and/or skilled persons from the local universities</li> <li>• Development of capability of local governments for coastal management</li> </ul>
6.	PROJECT COST	Rp. 2,834.0 million
	6-1. INITIAL INVESTMENT COST	Rp. 2,834.0 million (2003-2005)
	6-2. OPERATION / MAINTENANCE	None
7.	IMPLEMENTATION SCHEDULE	Short term 2003 – 2005
8.	PROJECT DESCRIPTION	<p>Initial Phase</p> <ul style="list-style-type: none"> <li>- to develop curriculum of coastal management course by universities and LGUs</li> <li>- to prepare and publish text books for coastal management</li> <li>- to install equipment for laboratory and survey</li> </ul> <p><u>Sam Ratulangi University</u></p> <ul style="list-style-type: none"> <li>- to allocate facilities and equipment of coastal environmental survey for education</li> <li>- to improve related library and GIS</li> </ul> <p><u>Universitas Katolik De La Salle Manado</u></p> <ul style="list-style-type: none"> <li>- to allocate facilities and equipment of coastal environmental survey for education</li> <li>- to allocate laboratory equipment for monitoring</li> <li>- to improve related library and GIS</li> </ul>
9.	RELATION WITH OTHER PROJECT/S	Project SH-1

Initial Cost

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Equipment</b>				
For Laboratory and survey			Rp. 2,400 mil.	
<b>Printing</b>				
Textbook			Rp. 100 mil.	
<b>Seminar &amp; Meeting</b>				
Meetings			Rp. 34 mil.	
<b>Others</b>				
Expenses for purchasing books			Rp. 300 mil.	
<b>Total</b>			<b>Rp. 2,834 mil.</b>	

Project No. SH-3

1.	PROJECT TITLE	<b>Establishment of Training for Extension Officers and Communication Center</b>
2.	LOCATION	Manado: 1site Bitung: 1 site Minahasa: Likupang, Amurang, Belang (3 sites) Bolaang Mongondow: Inobonto, Molibagu, Kalidipang (3 sites)
3.	IMPLEMENTATION AGENCIES	<b>Leading agency: PICMO</b> <b>Related agencies:</b> Provincial, Municipal/Regency, Village government agencies
4.	OBJECTIVES	<ul style="list-style-type: none"> <li>• to train extension officers for promotion of Community based Coastal Management</li> <li>• to advise communities on Community based Coastal Management</li> <li>• to exchange information and opinion among communities</li> </ul>
5.	EXPECTED EFFECT/S	<ul style="list-style-type: none"> <li>• implementation of Community based Coastal Management properly trained extension officers</li> <li>• provide support to Community based Coastal Management</li> </ul>
6.	PROJECT COST	Rp.2,480.5 million
	6-1. INITIAL INVESTMENT COST	Rp. 658.0 million (2003)
	6-2. OPERATION / MAINTENANCE	Rp.1,822.5 million (2004-2015)
	Short (2002-2005)	Rp. 247.5 million
	Mid (2006-2010)	Rp. 787.5 million
	Long (2011-2015)	Rp. 787.5 million
7.	IMPLEMENTATION SCHEDULE	Short to long term 2003 - 2015
8.	PROJECT DESCRIPTION	<b>year 2003</b> - to install education equipment at 7 centers <b>year 2004</b> - to train trainees at 4 centers - to operate consultation services for communities at 4 sites - to prepare 3 centers at government offices <b>year 2005 to 2015</b> - to train trainees at 7 centers - to operate consultation services for communities
9.	RELATION WITH OTHER PROJECT/S	SH-3 should be commenced with the beginning of MR-2, because SH-3 provides human resources to MR-2. MR-2 should be commenced together with this project

Initial Cost

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Equipment</b>				
OHP, Whiteboard	Rp.16 mil.	1set x 7 centers	Rp.112 mil.	
Copier	Rp.57 mil.	1set x 7 centers	Rp.399 mil.	
Computer	Rp.21 mil.	1set x 7 centers	Rp.147 mil.	
Total			Rp.658 mil.	

Operation & Maintenance

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Study &amp; Design</b>				
Training Program	Rp.4.1 mil	4 centers x 1st year + 7 centers x 2nd year to 12 <sup>th</sup> year (11year)	Rp.332.1 mil.	
<b>Printing</b>				
Handout	Rp.2.4mil.	4 centers x 1st year + 7 centers x 2nd year to 12 <sup>th</sup> year (11year)	Rp.194.4 mil.	
<b>Personnel cost</b>				
NGOs and Volunteers	Rp.12 mil.	4 centers x 1st year + 7 centers x 2nd year to 12 <sup>th</sup> year (11year)	Rp.972.0 mil.	
<b>Others</b>				
	Rp.4 mil.	4 centers x 1st year + 7 centers x 2nd year to 12 <sup>th</sup> year (11year)	Rp.324.0 mil.	
Total			Rp.1,822.5 mil.	

Project SE-1

1.	PROJECT TITLE	<b>Revision of Curriculum for Environmental Education</b>
2.	LOCATION	North Sulawesi Province
3.	IMPLEMENTATION AGENCIES	<b>Leading agency :</b> Education office <b>Related agencies :</b> PICMO, Regency/Municipal Education office, KICMO, Sam Ratulangi University
4.	OBJECTIVES	<ul style="list-style-type: none"> <li>to revise the curriculum to contain appropriate items that make school children/junior high school students understand the value of their own coastal environment/resources</li> </ul>
5.	EXPECTED EFFECT/S	<ul style="list-style-type: none"> <li>improvement of environmental awareness by the resource users through the environmental education.</li> </ul>
6.	PROJECT COST	Rp. 159.0 million
6-1.	INITIAL INVESTMENT COST	Rp. 143.0 million (2006, 2012)
6-2.	OPERATION / MAINTENANCE	Rp. 16.0 million
	Short (2002-2005)	None
	Mid (2006-2010)	Rp. 8.0 million (2007-2010)
	Long (2011-2015)	Rp. 8.0 million (2011, 2013-2015)
7.	IMPLEMENTATION SCHEDULE	Mid to long term 2006-2015
8.	PROJECT DESCRIPTION	<ul style="list-style-type: none"> <li>to develop the curriculum and teaching materials for environmental education through meetings</li> <li>to develop prototypes of teaching materials and examine the draft of textbook</li> <li>to revise the curriculum after 6 years if necessary</li> </ul>
9.	RELATION WITH OTHER PROJECT/S	Project SE-2 should follow after this project.

Initial Cost

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Development of Curriculum</b>				
Equipment				
Preparation of materials	Rp.0.1mil.	25 sets x 2 times	Rp.5.0 mil.	2 times (2006 and 2012)
Printing				
Draft of text	Rp.5,000	100 sets x 2 times	Rp.1.0 mil.	
Text	Rp.8,000	1,000set x 2 times	Rp.16.0 mil.	
Seminar & Meeting				
Meeting	Rp.9.5mil.	2 times	Rp.19.0 mil.	
Others				
Socialization cost	Rp0.25mil	100 person x 2 times	Rp.50.0 mil.	
Communication & others	Rp0.5mil.	2 times	Rp.1.0 mil.	
		Sub total	Rp.92.0 mil.	
<b>Development of Teaching Materials</b>				
Equipment				
Preparation of materials	Rp.4 mil.	2 times	Rp.8.0 mil.	2 times (2006 and 2012)
Printing				
Textbook	Rp.5 mil/ 1,000set	2 times	Rp.10.0 mil.	
Seminar & Meeting				
Meeting	Rp.12 mil.	2 times	Rp.24.0 mil.	
Others				
Socialization cost, reports	Rp.4 mil.	2 times	Rp.8.0 mil.	Report of suggestions, conclusion of workshop
Communication & others	Rp0.5mil.	2 times	Rp.1.0 mil.	
		Sub total	Rp.51.0 mil.	
		Total	Rp.143.0 mil.	

Operation & Maintenance

Items	Unit Cost	Quantity	Sub-Total	Remark
Study & Design				
Monitoring and Revision of Curriculum	Rp.1 mil.	8 times	Rp.8 mil.	8 times (2007-2011, 2013-2015)
Printing				
Questionnaire etc.	Rp.1 mil.	8 times	Rp.8 mil.	
		Total	Rp.16 mil.	



Project SE-2

1.	PROJECT TITLE	<b>Training Program on School Teachers for Environmental Education</b>
2.	LOCATION	North Sulawesi Province
3.	IMPLEMENTATION AGENCIES	<b>Leading agency :</b> Education office, PICMO <b>Related agency:</b> Regency/Municipality, village : Headmasters (SD/MI, SLTP/MTs), Teachers (SD/MI, SLTP/MTs), UNSRAT
4.	OBJECTIVES	<ul style="list-style-type: none"> <li>• to implement the education through improvement of the teachers' knowledge and competence on education for coastal management</li> <li>• to promote the implementation of the education for coastal management</li> </ul>
5.	EXPECTED EFFECT/S	<ul style="list-style-type: none"> <li>• development of appropriate teaching materials on environmental education by the trained teachers.</li> <li>• Improvement of environmental awareness of children/students</li> <li>• Enhancement of cooperation between schools and communities</li> </ul>
6.	PROJECT COST	Rp. 1,262.8 million
	6-1. INITIAL INVESTMENT COST	None
	6-2. OPERATION / MAINTENANCE	Rp. 1,262.8 million (2007-2012)
	Short (2002-2005)	None
	Mid (2006-2010)	Rp. 793.6 million
	Long (2011-2015)	Rp. 469.2 million
7.	IMPLEMENTATION SCHEDULE	Mid to long term 2007-2012

8.	PROJECT DESCRIPTION	<p><u>For teachers in remote coastal area</u>  For 400 primary schools on remote coastal area  - to train a total of 800 teachers in 2 years  1 teacher/school X 400 schools X 2 years=800 teachers  (50 teachers/1 time course X 8 times/year X 2 years=800)</p> <p>For 80 secondary schools on remote coastal area  - to train a total of 320 teachers in 2 years  1 teacher/school X 80 school X 2 years=320 teachers  (40 teachers/1 time course X 4 times/year X 2 years=320)</p> <p>The training period will be 3 days. After 2 years passed, the training will be completed and switched to the training for teachers in college/university.</p> <p><u>For schoolmasters in remote coastal area</u>  For 400 primary schools on remote coastal area  - to train a total of 400 schoolmasters in 2 years  1 schoolmaster/school X 400 schools = 400 schoolmasters  (100 schoolmasters/1 time course X 2 times X 2 years=400)</p> <p>For 80 secondary schools on remote coastal area  - to train a total of 80 teachers in 2 years  1 schoolmaster/school X 80 schools=80 schoolmasters  (40 schoolmasters/1 time course X 1 times X 2 years=80)</p> <p>Training period will be 2 days. After completion, the training will be held for only newly appointed schoolmasters.</p> <p><u>For teachers in coastal urban area</u>  For 350 primary schools on urban coastal area  - to train a total of 720 teachers in 2 years  1 teacher/school X 360 schools X 2 years=720 teachers  (45 teachers/1 time course X 8 times/year X 2 years=720)</p> <p>For 100 secondary schools on urban coastal area  - to train a total of 400 teachers in 2 years  1 teacher/school X 200 schools X 2 years=400 teachers  (50 teachers/1 time course X 4 times/year X 2 years=400)</p> <p>Training period will be 3 days. After 2 years passed, the training will be completed and switched to the training for the teachers in college/university.</p>
9.	RELATION WITH OTHER PROJECT/S	<p>Project SE-1 must be completed before this project.  The new textbook should be published before this Project.</p>

## Operation &amp; Maintenance

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>For teachers in remote coastal area</b>				
<b>Equipment</b>				
Preparation of materials	Rp.0.1 mil.	(50 sets x 8 times + 40 sets x 4 times) x 2 years	Rp.112.0 mil.	For primary school 16 times, secondary school 8 times during 2 years (2007,2008)
<b>Printing</b>				
Report	Rp.2,500	1,120 sets x 2 years	Rp.5.6 mil.	
<b>Seminar &amp; Meeting</b>				
Meeting	Rp.14.23 mil.	12 times x 2 years	Rp.341.6 mil.	
<b>Others</b>				
Communication & others	Rp.5 mil.	2 years	Rp.10.0 mil.	
			Sub total	Rp.469.2 mil.
<b>For school masters in remote coastal area</b>				
<b>Equipment</b>				
Preparation of materials	Rp.0.1 mil.	(100 sets x 4 times + 40 sets x 2 times) x 2 years	Rp.96.0 mil.	For primary school 8 times, secondary school 4 times during 2 years (2009,2010)
<b>Printing</b>				
Report	Rp.2,500	960 sets x 2 years	Rp.4.8 mil.	
<b>Seminar &amp; Meeting</b>				
Meeting	Rp.17.8 mil.	6 times x 2 years	Rp.213.6 mil.	
<b>Others</b>				
Communication & others	Rp.5 mil.	2 years	Rp.10.0 mil.	
			Sub total	Rp.324.4 mil.
<b>For teachers in coastal urban area</b>				
<b>Equipment</b>				
Preparation of materials	Rp.0.1 mil.	(45 sets x 8 times + 50 sets x 4times) x 2 years	Rp.112.0 mil.	For primary school 16 times, secondary school 8 times during 2 years (2011,2012)
<b>Printing</b>				
Report	Rp.2,500	1,120 sets x 2 years	Rp.5.6 mil.	
<b>Seminar &amp; Meeting</b>				
Meeting	Rp.14.23 mil.	12 times x 2 years	Rp.341.6 mil.	
<b>Others</b>				
Communication & others	Rp.5 mil.	2 years	Rp.10.0 mil.	
			Sub total	Rp.469.2 mil.
			Total	Rp.1,262.8 mil.

*Project SE-3*

1.	PROJECT TITLE	<b>Training Program on Coastal Community Leaders for Community Coastal Management</b>
2.	LOCATION	North Sulawesi Province
3.	IMPLEMENTATION AGENCIES	<b>Leading agency: KICMO</b> <b>Related agencies: PICMO</b>
4.	OBJECTIVES	<ul style="list-style-type: none"> <li>• to train community leaders for promotion of community based coastal management</li> <li>• to increase knowledge and develop capability of community based coastal management for community leaders</li> </ul>
5.	EXPECTED EFFECT/S	<ul style="list-style-type: none"> <li>• promotion of the CBCM in the communities where the participants live, in collaboration with extension officers</li> <li>• organizing of CBCM Boards and Community based Public Awareness activities by the trainees in their own villages</li> <li>• appropriate management of the coastal area by the people</li> </ul>
6.	PROJECT COST	Rp. 142.0 million
6-1.	INITIAL INVESTMENT COST	None
6-2.	OPERATION / MAINTENANCE	Rp. 142.0 million (2004-2005)
	Short (2002-2005)	Rp. 142.0 million
	Mid (2006-2010)	None
	Long (2011-2015)	None
7.	IMPLEMENTATION SCHEDULE	Short (2004 - 2005)
8.	PROJECT DESCRIPTION	- to hold training program for 400 community leaders (2 persons/community x 25 communities x 4 times/year x 2 years = 400)
9.	RELATION WITH OTHER PROJECT/S	

Operation & Maintenance

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Equipment</b>				
Training material	Rp.0.1 mil.	50 sets x 4 times x 2 years	Rp. 40.0 mil.	
<b>Printing</b>				
	Rp.2,500	400 sets x 2 years	Rp. 2.0 mil	
<b>Seminar &amp; Meeting</b>				
	Rp.11.25 mil.	4 times x 2 years	Rp. 90.0 mil.	
<b>Others</b>				
Communication & others	Rp.5 mil.	2 years	Rp. 10.0 mil.	
		<b>Total</b>	<b>Rp.142.0 mil.</b>	

Project SE-4

1.	PROJECT TITLE	Promotion of Awareness for Coastal Management for Local Government Officials
2.	LOCATION	North Sulawesi Province
3.	IMPLEMENTATION AGENCIES	Leading agency: PICMO Regency/Municipality: KICMO
4.	OBJECTIVES	<ul style="list-style-type: none"> <li>• to promote the local officials' awareness in terms of coastal management</li> <li>• to upgrade the proper knowledge in terms of coastal management</li> <li>▲ to make local government officers proud of the their job</li> </ul>
5.	EXPECTED EFFECT/S	<ul style="list-style-type: none"> <li>• creation of incentive for local government officials to make coastal management work</li> <li>• development of a sense of responsibility for coastal management in local government officials</li> </ul>
6.	PROJECT COST	Rp. 63.0 million
6-1.	INITIAL INVESTMENT COST	None
6-2.	OPERATION / MAINTENANCE	Rp. 63.0 million
	Short (2002-2005)	Rp. 63.0 million (2004-2005)
	Mid (2006-2010)	None
	Long (2011-2015)	None
7.	IMPLEMENTATION SCHEDULE	Short term (2004-2005)
8.	PROJECT DESCRIPTION	<ul style="list-style-type: none"> <li>- to prepare training materials</li> <li>- to conduct the training sessions</li> </ul>
9.	RELATION WITH OTHER PROJECT/S	

Operation & Maintenance

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Equipment</b>				
Training material	Rp. 0.1 mil.	40 sets x 3 times x 2 years	Rp.24.0 mil.	2 years (2004,2005)
<b>Printing</b>				
	Rp.2,500	240 sets x 2 years	Rp.1.2 mil.	
<b>Seminar &amp; Meeting</b>				
	Rp.3.8 mil.	3 times x 2 years	Rp.22.8 mil.	
<b>Others</b>				
Communication & others	Rp.1.5 mil.	2 years	Rp.3.0 mil.	
Miscellaneous	Rp. 6.0 mil.	2 years	Rp.12.0 mil.	
Total			Rp.63.0 mil	

Project No. SE-5

1.	PROJECT TITLE	Enlightenment Program for Coastal Users
2.	LOCATION	North Sulawesi Province
3.	IMPLEMENTATION AGENCIES	<b>Leading agency:</b> PICMO, KICMO <b>Related agencies:</b>
4.	OBJECTIVES	<ul style="list-style-type: none"> <li>to enlighten all the coastal users in the Province in terms of appropriate uses of the coast</li> </ul>
5.	EXPECTED EFFECT/S	<ul style="list-style-type: none"> <li>conservation of the coastal areas of the Province from human pressures such as destructive fishing methods through the Project</li> </ul>
6.	PROJECT COST	Rp. 50.0 million
6-1.	INITIAL INVESTMENT COST	None
6-2.	OPERATION / MAINTENANCE	Rp. 50.0 million (2003-2005)
	Short (2002-2005)	Rp. 50.0 million
	Mid (2006-2010)	None
	Long (2011-2015)	None
7.	IMPLEMENTATION SCHEDULE	Short term (2003-2005)
8.	PROJECT DESCRIPTION	<ul style="list-style-type: none"> <li>to prepare enlightenment materials</li> <li>to issue newsletter</li> <li>to hold workshops and seminars</li> </ul>
9.	RELATION WITH OTHER PROJECT/S	Project SF-1, Project MR-6

Operation & Maintenance

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Equipment</b>				
Newsletter	Rp. 1 mil.	2 sets x 3 times x 3 years	Rp.18.0 mil.	3 years (2003, 2004,2005)
<b>Printing</b>				
	Rp. 2,500	600 sets x 3 years	Rp. 4.5 mil	
<b>Seminar &amp; Meeting</b>				
	Rp. 2 mil.	3 times x 3 years	Rp.18.0 mil.	
<b>Others</b>				
Communication & others	Rp. 1.5 mil.	2 years	Rp. 3.0 mil.	
Miscellaneous	Rp. 6.0 mil.	2 years	Rp. 6.5 mil.	
Total			Rp. 50.0 mil.	

*Project No. SF-1*

1.	PROJECT TITLE	<b>Study of Environmental Fee/Levy Collection System</b>
2.	LOCATION	North Sulawesi Province
3.	IMPLEMENTATION AGENCIES	<b>Leading agency: PICMO, KICMO</b> <b>Related agencies: Other Municipality/Regency Offices</b>
4.	OBJECTIVES	<ul style="list-style-type: none"> <li>• to justify proposing coastal user fee and environmental fee/levy collection system</li> <li>• to prepare the imposition of coastal user fee and the operation of an environmental fee/levy collection system</li> </ul>
5.	EXPECTED EFFECT/S	<ul style="list-style-type: none"> <li>• ensure revenue for coastal management by introduction of new fee and levy system</li> <li>• implementation of coastal management through revenue</li> </ul>
6.	PROJECT COST	Rp. 326.0 million
	6-1. INITIAL INVESTMENT COST	None
	6-2. OPERATION / MAINTENANCE	Rp. 326.0 million (2004-2005)
	Short (2002-2005)	Rp. 326.0 million
	Mid (2006-2010)	None
	Long (2011-2015)	None
7.	IMPLEMENTATION SCHEDULE	Short term (2004- 2005)
8.	PROJECT DESCRIPTION	<ul style="list-style-type: none"> <li>- to collect related information and opinions from resource users</li> <li>- to hold meetings among the relevant agencies</li> <li>- to prepare reports based on the results of the surveys.</li> </ul>
9.	RELATION WITH OTHER PROJECT/S	Project SE-5

Operation & Maintenance

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Study</b>				
Collection of information and opinions	Rp. 2 mil.	10 sets and times	Rp. 10 mil.	
<b>Printing</b>				
Reports, etc.	Rp.10 mil.	2 times	Rp. 20 mil.	
Meeting paper, etc.	Rp.2 mil.	4 areas x 4 times x 2 years	Rp. 64.0 mil.	
<b>Seminar &amp; Meeting</b>				
Workshop, public hearing	Rp.7 mil.	4 areas x 4 times x 2 years	Rp. 224.0 mil.	
<b>Others</b>				
Communication, etc.			Rp. 8.0 mil.	
		<b>Total</b>	<b>Rp. 326.0 mil.</b>	



*Project No. DF-1*

1.	PROJECT TITLE	<b>Pilot Project of Seaweed Processing Development</b>
2.	LOCATION	Manado
3.	IMPLEMENTATION AGENCIES	<b>Leading agency:</b> Provincial Fishery Office <b>Related agency:</b> -
4.	OBJECTIVES	<ul style="list-style-type: none"> <li>• to assess the possibility of seaweed processing activities in the Province</li> </ul>
5.	EXPECTED EFFECT/S	<ul style="list-style-type: none"> <li>• identification of possible seaweed processing in the Province in order to improve the living environment of the people and their local economy</li> </ul>
6.	PROJECT COST	Rp. 6,160.0 million
6-1.	INITIAL INVESTMENT COST	Rp. 2,760.0 million (2005)
6-2.	OPERATION / MAINTENANCE	Rp. 3,400.0 million (2006-2010)
	Short (2002-2005)	None
	Mid (2006-2010)	Rp. 3,400.0 million
	Long (2011-2015)	None
7.	IMPLEMENTATION SCHEDULE	Short to Mid term (2005- 2010)
8.	PROJECT DESCRIPTION	<ul style="list-style-type: none"> <li>- to identify the seaweed processing products from the financial and other suitability</li> <li>- to design and construct the pilot seaweed factory</li> <li>- to sell the seaweed processing products</li> <li>- to evaluate the pilot project</li> </ul>
9.	RELATION WITH OTHER PROJECT/S (Important notice)	In the near future, the private sector should operate the pilot factory and project.

*Initial Cost*

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Study &amp; Design</b>				
Feasibility Study			Rp. 100 mil.	
Detailed design	Rp. 280 mil.	1	Rp. 140 mil.	7% of construction cost
<b>Construction of facilities &amp; structures</b>				
Pilot factory			Rp. 2,020 mil.	RC 1 floor
<b>Equipment</b>				
Seaweed processing materials			Rp. 500 mil.	
Total			Rp. 2,760 mil.	

*Operation & Maintenance*

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Printing</b>				
Evaluation Study			Rp. 100 mil.	
<b>Seminar &amp; meeting</b>				
Raw materials	Rp. 30	5 years	Rp. 150 mil.	
<b>Transportation</b>				
	Rp. 300 mil.	5 years	Rp. 1,500 mil.	
<b>Personnel cost</b>				
Processing workers	Rp. 1.3 mil.	10 persons x10months x 5 years	Rp. 650 mil.	
<b>Others</b>				
Running and maintenance costs	Rp. 200 mil.	5 years	Rp. 1,000 mil.	
Total			Rp. 3,400 mil.	

Project No. DF-2

1.	PROJECT TITLE	<b>Feasibility Study on Mariculture of Grouper</b>	
2.	LOCATION	North Sulawesi	
3.	IMPLEMENTATION AGENCIES	<b>Leading agency:</b> Provincial Fishery Office <b>Related agency:</b> Sam Ratulangi University	
4.	OBJECTIVES	<ul style="list-style-type: none"> <li>to study the feasibility of mariculture of Grouper for the local people in North Sulawesi</li> </ul>	
5.	EXPECTED EFFECT/S	<ul style="list-style-type: none"> <li>improvement of the living environment of the people and their local economy.</li> </ul>	
6.	PROJECT COST	Rp. 300.0 million	
	6-1. INITIAL INVESTMENT COST	Rp. 300.0 million (2004)	
	6-2. OPERATION / MAINTENANCE	None	
7.	IMPLEMENTATION SCHEDULE	Short term (2004)	
8.	PROJECT DESCRIPTION	- to study the feasibility of mariculture of Grouper including marketing, technical study, financial study	
9.	RELATION WITH OTHER PROJECT/S (Important notice)	In the near future, selected communities continue to operate the Project.	

Operation & Maintenance

Items	Unit Cost	Quantity	Sub-Total	Remark
Study				
Feasibility study			Rp. 300 mil.	
		<b>Total</b>	<b>Rp. 300 mil.</b>	

*Project No. DT-1*

1.	PROJECT TITLE	<b>Establishment of Certification System for Coastal Tourism Operators</b>
2.	LOCATION	North Sulawesi Province
3.	IMPLEMENTATION AGENCIES	<b>Leading agency:</b> PICMO, Tourism Office and other agencies concerned <b>Related agency:</b> KICMOs, Tourism Offices, and other agencies concerned, North Sulawesi Water Support Association
4.	OBJECTIVES	<ul style="list-style-type: none"> <li>• to improve the knowledge and skills for tourism operators in terms of environmental conservation through decreasing of impact from tourism activities</li> <li>• to encourage tourism operators to contribute to coastal environmental conservation such as monitoring illegal activities</li> <li>• to educate tourists in terms of environmental conservation by tourism operators</li> </ul>
5.	EXPECTED EFFECT/S	<ul style="list-style-type: none"> <li>• conservation of coastal environment in cooperation with tourism sector.</li> </ul>
6.	PROJECT COST	Rp. 466.0 million
	6-1. INITIAL INVESTMENT COST	Rp. 466.0 million (2003, 2008, 2013)
	6-2. OPERATION / MAINTENANCE	None
7.	IMPLEMENTATION SCHEDULE	Short to Long term (2003 – 2013)
8.	PROJECT DESCRIPTION	Preparation work <ul style="list-style-type: none"> <li>- to prepare training program</li> <li>- to prepare training materials</li> </ul> Operation <ul style="list-style-type: none"> <li>- to implement training program for tourism operators</li> <li>- to issue certificate for trained tourism operators</li> </ul>
9.	RELATION WITH OTHER PROJECT/S	Training Program will be held at Tourist Center (DT-1) or Local Government Training Center (SH-1).

Note: Training fee will cover operation cost and a certificate will be issued to participants.

Initial Cost

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Study &amp; Design</b>				
Preparation of Program			Rp. 100 mil.	
<b>Equipment</b>				
Copy machine	Rp. 72 mil.	1	Rp. 72 mil.	
White board	Rp. 3 mil.	1 x 3 times = 3	Rp. 9 mil.	2003, 2008, 2013
OHP	Rp. 15 mil.	1 x 3 times = 3	Rp. 45 mil.	2003, 2008, 2013
Computer sets	Rp. 30 mil.	2 x 3 times = 6	Rp. 180 mil.	2003, 2008, 2013
<b>Printing</b>				
Poster, handbills	Rp. 20 mil.		Rp. 20 mil.	
Presentation materials	Rp. 10 mil.		Rp. 10 mil.	
Training materials	Rp. 30 mil.		Rp. 30 mil.	
<b>Total</b>			<b>Rp. 466.0 mil.</b>	

Project No. DT-2

1.	PROJECT TITLE	Establishment of Tourist Center for Coastal Environmental Conservation
2.	LOCATION	Manado and Bunaken areas
3.	IMPLEMENTATION AGENCIES	Leading agency: Provincial Tourism Office Related agency: PICMO, KICMO, Municipal/Regency Tourism Offices
4.	OBJECTIVES	<ul style="list-style-type: none"> <li>to prepare environmentally friendly tourism improvement plan for promotion and control of tourism development by both public and private sectors</li> <li>to promote coastal environmental conservation from tourism sector</li> </ul>
5.	EXPECTED EFFECT/S	<ul style="list-style-type: none"> <li>orderly and appropriate promotion of the related tourism development from viewpoint of environmental conservation in the coastal area</li> </ul>
6.	PROJECT COST	Rp. 2,658.3 million
	6-1. INITIAL INVESTMENT COST	Rp. 1,393.5 million (2005-2008)
	6-2. OPERATION / MAINTENANCE	Rp. 1,264.8 million (2004-2013)
	Short (2002 - 2005)	Rp. 192.0 million
	Mid (2006 - 2010)	Rp. 670.5 million
	Long (2011 - 2015)	Rp. 402.3 million
7.	IMPLEMENTATION SCHEDULE	Short to long term (2004 - 2013)
8.	PROJECT DESCRIPTION	<ul style="list-style-type: none"> <li>to prepare environmentally friendly improvement plan for the tourism development in conformity with the proposed spatial use plan of the city of Manado.</li> <li>to initiate establishment of the project implementation organizations for management of the development projects</li> <li>to develop and operate tourism service facilities, such as visitor center, promenade, etc. with the cooperation of the private sector.</li> </ul>
9.	RELATION WITH OTHER PROJECT/S	- This project must be consistent with the project MS-1.

### Initial Cost

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Study &amp; Design</b>				
Detailed design			Rp.73.5 mil.	7% of construction cost
<b>Construction of facilities &amp; structures</b>				
Visitor center	Rp.3 mil.	300 m <sup>2</sup>	Rp.900 mil.	
Parking area	Rp.0.3 mil	500 m <sup>2</sup>	Rp.150 mil.	
<b>Equipment</b>				
			Rp.270 mil.	30% of construction cost of visitor center
Total			Rp.1,393.5 mil.	

### Operation & Maintenance

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Construction of facilities &amp; structures</b>				
Visitor center	Rp.27 mil.	8 years	Rp.216 mil.	3% of construction cost /year
Parking area	Rp.3 mil.	8 years	Rp.24 mil.	2% of construction cost /year
<b>Equipment</b>				
	Rp.8.1 mil	8 years	Rp.64.8 mil.	3 % of Initial equipment/year
<b>Personnel cost</b>				
	Rp.0.8mil.	10 staff x12months x10 years	Rp.960 mil.	
Total			Rp.1,264.8 mil.	

Project No. DT-3

1.	PROJECT TITLE	Development of Trekking and Cycling Roads in Manado Tua Island
2.	LOCATION	Manado Tua Island, City of Manado
3.	IMPLEMENTATION AGENCIES	<b>Leading agency:</b> PICMO, Tourism Office and other agencies concerned <b>Related agency:</b> KICMOs, Tourism Offices, and other agencies concerned <b>Private:</b> Tourism operators and villagers
4.	OBJECTIVES	<ul style="list-style-type: none"> <li>• to develop the infrastructure for the eco-tourism and living environmental development, including water supply, jetty, circular road and trekking road</li> <li>• to support the economic activities of the villagers.</li> </ul>
5.	EXPECTED EFFECT/S	<ul style="list-style-type: none"> <li>• improvement of the living environment and creation of eco-tourism areas</li> </ul>
6.	PROJECT COST	Rp. 21,912.5 million
	6-1. INITIAL INVESTMENT COST	Rp. 18,231.5 million (2004)
	6-2. OPERATION / MAINTENANCE	Rp. 3,681.0 million (2004-2015)
	Short (2002 - 2005)	Rp. 2,487.0 million
	Mid (2006 - 2010)	Rp. 570.0 million
	Long (2011- 2015)	Rp. 624.0 million
7.	IMPLEMENTATION SCHEDULE	Short to long term (2004 – 2015)
8.	PROJECT DESCRIPTION	<ul style="list-style-type: none"> <li>- to study and design the eco-tourism development of the Manado Tua Island by the consultant</li> <li>- to implement the infrastructure system of the island by the public sector (mainly by Manado City)</li> <li>- to implement private tourist service facilities such as home-stay, beach houses and rent-cycle shops by the villagers.</li> <li>- to promote and operate the tourism facilities and maintain the infrastructure.</li> </ul>
9.	RELATION WITH OTHER PROJECT/S	The location of the facilities, especially jetty should be carefully selected according to the zoning system of the Bunaken National Park



Initial Cost

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Study &amp; Design</b>				
Planning, Detailed Design			Rp.1,102.5 mil.	7% of construction cost
<b>Construction of facilities &amp; structures</b>				
Circular road	Rp.1 bil.	9 km	Rp.9,000 mil.	
Nature trail	Rp.200mil	10 km	Rp.2,000 mil.	
Sanitary facilities	Rp.3 mil.	20 m <sup>2</sup> 5 units	Rp. 300 mil.	
Pier	Rp.3000 mil.	1	Rp.3,000 mil.	
Home-stay houses	Rp.2.5mil.	100 m <sup>2</sup> 5 units	Rp.1,250 mil.	
Beach rest house	Rp.2 mil.	20 m <sup>2</sup> 5 units	Rp. 200 mil.	
<b>Equipment</b>				
Rent cycling service	Rp.0.8mil.	30 sets	Rp.24 mil.	
Sanitary facilities, Pier, Home-stay house, Beach rest house			Rp.1,355 mil.	3% of Sanitary facilities, 2% of Pier, 5% of Home-stay house, 2% of Beach rest house
Total			Rp.18,231.5 mil.	

Operation & Maintenance

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Construction of facilities &amp; structures</b>				
			Rp.2,284 mil.	1% of Nature trail, 2% of Circular road, Sanitary facilities, Pier, Home-stay house, 3% of Beach rest house
<b>Equipment</b>				
			Rp.203 mil.	1% of Pier, 3% of Sanitary facilities, Home stay house, Beach rest house, Bicycle for rent
<b>Personnel cost</b>				
Pier, Bicycle rental service	Rp.0.5mil.	3 persons x12months x 5 years	Rp.90 mil.	2006-2010
Home stay house, Beach rest house	Rp.0.8mil	10 persons x12months x 5 years	Rp.480 mil.	2006-2010
Pier, Bicycle rental service, Home-stay house, Beach rest house	Rp.0.8mil	13 persons x12months x 5 years	Rp.624 mil.	2011-2015
Total			Rp.3,681 mil.	

*Project No. LE-1*

1.	PROJECT TITLE	<b>Sanitation Facilities Development Project in the Rural Coastal Area</b>
2.	LOCATION	All rural coastal communities in the Study Area
3.	IMPLEMENTATION AGENCIES	<b>Leading Agencies:</b> PICMO or BAPELITBANG, KIMPRASWIL and Ministry of Health <b>Related Agency:</b> KICMO, or BAPPEDA/BAPPEKO, and other related Municipal/Regency agencies, District: Development and Env. Section of PMD Village: Management groups and community people
4.	OBJECTIVES	<ul style="list-style-type: none"> <li>to improve coastal environmental condition by reducing water pollution load of human waste in the rural coastal communities</li> </ul>
5.	EXPECTED EFFECT/S	<ul style="list-style-type: none"> <li>mitigation of pollution load from the human wastes in the coastal areas</li> </ul>
6.	PROJECT COST	Rp. 4,290.0 million
	6-1. INITIAL INVESTMENT COST	Rp. 4,290.0 million (2003-2015)
	6-2. OPERATION / MAINTENANCE	None
7.	IMPLEMENTATION SCHEDULE	2003 – 2015
8.	PROJECT DESCRIPTION	<p><b>Short to Mid term</b></p> <ol style="list-style-type: none"> <li>In 46 priority communities, community formulate sanitation improvement project in their master plan</li> <li>In 46 priority communities, community formulate sanitation improvement management groups</li> <li>In 46 priority communities, people participate in the construction of toilets which do not use coral rocks</li> <li>In 46 priority communities, people set up maintenance system</li> </ol> <p><b>Long term</b></p> <ol style="list-style-type: none"> <li>In second priority communities (54), sanitation facilities are established using the same procedure as the priority communities’.</li> </ol>
9.	RELATION WITH OTHER PROJECT/S	Project MW 2 is the same project as this one, although they have different codes. The third priority communities of 79 communities will be covered by a different or extended project after the year 2015.

Initial Cost

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Study &amp; Design</b>				
Survey on people's awareness & design of the construction sites		X 100 villages	Rp. 1,800 mil.	
<b>Construction of facilities &amp; structures</b>				
Community toilets	Rp. 4 mil.	5 units x 100 villages	Rp. 2,000 mil.	
<b>Printing</b>				
		X 100 villages	Rp. 40 mil.	
<b>Seminar &amp; Meeting</b>				
		X 100 villages	Rp. 200 mil.	
<b>Transportation</b>				
		X 100 villages	Rp. 250 mil.	
<b>Others</b>				
		<b>Total</b>	<b>4,290.0 mil.</b>	

*Project No. LE2*

1.	PROJECT TITLE	<b>Master Plan and Feasibility Study for Improvement of Water Supply and Other Social Infrastructure in Small Islands and Remote Areas</b>
2.	LOCATION	Coastal communities in the small islands and remote areas in the Study Area
3.	IMPLEMENTATION AGENCIES	<b>Leading Agency:</b> PICMO or BAPELITBANG, KIMPRASWIL and Ministry of Health <b>Related Agency:</b> KICMO, or BAPPEDA/BAPPEKO, and other related Municipal/Regency agencies <b>District:</b> Development and Env. Section of PMD <b>Village:</b> Management groups and community people
4.	OBJECTIVES	<ul style="list-style-type: none"> <li>to formulate a master plan for improvement of water supply and other social infrastructure in small island communities and rural areas by establishing new facilities and/or networking</li> </ul>
5.	EXPECTED EFFECT/S	<ul style="list-style-type: none"> <li>improvement of the quality of life in the small island communities and remote areas</li> </ul>
6.	PROJECT COST	Rp. 100.0 million
	6-1. INITIAL INVESTMENT COST	Rp. 100.0 million (2005)
	6-2. OPERATION / MAINTENANCE	None
7.	IMPLEMENTATION SCHEDULE	Short term 2005
8.	PROJECT DESCRIPTION	<ol style="list-style-type: none"> <li>Survey on water resources in small islands and remote areas</li> <li>Study on maintenance system by communities</li> <li>Identify key place in a networking</li> <li>Master planning</li> <li>Feasibility Study</li> </ol>
9.	RELATION WITH OTHER PROJECT/S	Project SE4 and SE3 should be implemented together with this project.

**Initial Cost**

Items	Unit Cost	Quantity	Sub-Total	Remark
<b>Study &amp; Design</b>				
Study on situation analysis of water resources Design networking for social infrastructure among small islands	Rp. 100 mil.		Rp. 100 mil.	
<b>Total</b>			Rp. 100 mil.	