

8. Inventory of Existing Facilities Condition in the Study Area

RIVER SYSTEM	RIVER NAME & LOCATION	FACILITY NAME	FACILITY SIZE		DATE CONSTRUCTED	EXPECTED EFFECT	EXISTING CONDITION	CAUSE OF FAILURE	
			HEIGHT(m)	LENGTH(m)					
YAWA River system	1.YAWA Legaspi city	a.Boulder dike	(4.00)	320	2-14-89	Fix flood flows course			
		b.Boulder dike	(4.00)	1,200	6-02-91	-do-			
		c.Concreting of boulder dike	(4.00)	1,250	11-01-89	-do-			
		d.Dike No.1,2,3,4	4.00	308	on-going	-do-	Broken part of structure damaged (about 50m)	Erosion on foundation of dike	
			Dredging		45000cu.m	1991			
	2.PAWA-BURABOD Legaspi city	a.Training levee		3.00	160	2-17-91	Control of MUD flow course	Missing structure in the field	
		b.Consolidation dam No.1		(2~3.00)	60	11-25-89	Prevent erosion of river bed	Partially left side bank eroded	Meander of flood flows
		c.Spur dike No.2		3.00	140	11-29-88	Control of MUD flow course	Structure of down stream damaged or destroyed	Erosion on foundation of dike
		d.Spur dike No.3		4.00	300	11-29-88	-do-	All structure destroyed	-do-
		e.Spur dike No.4		3.00	186	9-26-88	-do-		
		f.Spur dike No.5		4.00	280	12-24-83	-do-		
		g.Spur dike No.6		3.00	280	01-11-84	-do-		
		h.Spur dike No.7		3.00	350	9-26-88	-do-		
i.Revetmen down stream			3.00	275	12-20-92	Prevent erosion of river bank			
		j.Road dike	3.00	260	12-20-92	Road			
		Dredging		34929cu.m	1991				

*()=imaginary a value by field survey

DT II 8 Inventory of Existing Facilities Condition in the Study Area (2/7)

(Budio River, Anoling River)

RIVER SYSTEM	RIVER NAME & LOCATION	FACILITY NAME	FACILITY SIZE		DATE CONSTRUCTED	EXPECTED EFFECT	EXISTING CONDITION	CAUSE OF DAMAGE	
			HEIGHT(m)	LENGTH(m)					
YAWA River system	3.BUDIAO	a.Boulder dike (stone pitching)	3.00	640	1990?	Control MUD flow course	All structure destroyed	Erosion on foundation of dike or impact of boulders	
		Boulder dike No.2	(3.00)	200	4-5-91	-do-	?		
		Boulder dike No.3	(3.00)	240	4-5-91	-do-	?		
		b.Spur dike No.1	(down stream 3.00 up stream 5.00)	1,155	1986~1990	-do-			
		c.Spur dike No.2	(-do-)	2,380	1986~1989	-do-			
		d.Training levee (stone pitching)	(3.00)	520	1988~1989	-do-	All structure destroyed	Erosion on foundation of dike or impact of boulders	
		e.Spur dike (down stream)	(3.00)		1989	-do-			
		Channelization		5125cu.m	6-2-91				
YAWA River system	4.ANOLING Anoling Camalig Albay	a.Spur dike No.1	3.00	(200)	?	Control MUD flow course			
		b.Boulder dike 1-B	3.00	250	10-28-87	-do-			
		c.Boulder dike 1-A	3.00	280	10-28-87	-do-			
		d.Spur dike No.4	3.00	200	?	-do-			
		e.Spur dike with conc.cribs	(3.00)	230	6-18-88	-do-			
		f.Training levee	3.00	600	5-10-88 6-14-88	-do-	Failure at 3 sites (total L=500m)	Erosion on foundation of levee	
		g.Ground sill No.2	(2.00)	80	1-13-89	Prevent erosion of river bed			
		h.Spur dike	(3.00)	90	1-13-89	Control MUD flow course			

*()=imaginary a value by field survey

DT II 8 Inventory of Existing Facilities Condition in the Study Area (3/7)

(Quirangay River, Masarawag River)

RIVER SYSTEM	RIVER NAME & LOCATION	FACILITY NAME	FACILITY SIZE		DATE CONSTRUCTED	EXPECTED EFFECT	EXISTING CONDITION	CAUSE OF FAILURE	
			HEIGHT(m)	LENGTH(m)					
QUINALI(A) River system (up stream of the Bicol river)	5. QUIRANGAY Camalig Albay	a. Boulder dike No.3-B	2.60	655	12-27-89	Control of MUD flow course			
		b. Boulder dike No.3-A	2.60	440	12-27-89	-do-			
		c. Earth dike	2.60	400	12-27-89	-do-			
		d. Spur dike No.3-A	2.60	520	6-15-87	-do-			
		e. Spur dike No.2-A	2.60	(200)	11-30-84	-do-			
		f. Spur dike No.1-A	2.60	180	8-6-87	-do-			
		g. Training levee	2.60	400	2-22-88	-do-			
		h. Spur dike No.1-B	2.60	120	3-6-89	-do-	Missing structure in the field		
		i. Consolidation dam No.1	2.60	170	3-6-89	Prevent erosion of river bed	-do-		
		j. Boulder dike No.2-B	(2.60)	300	1990	Control MUD flow course			
		k. Boulder dike No.3-B	(2.60)	90	1990	-do-			
				Dredging	13977+8818cu.m	1990			
			6. TUMPA						
	7. MANINILA	Ground-sill No.5-B	?	20	1988	Prevent erosion of river bed			
		Ground-sill No.4-B	?	40	1988				
		Ground-sill No.7-B	?	40	1988				
	8. MASARAWAG Guinobatan Albay	a. Spur dike No.8A	(5.00)	280	4-18-89	Control MUD flow course			
		b. Spur dike No.7A	(5.00)	280	4-18-89	-do-			
		c. Spur dike No.6A	(5.00)	280	4-18-89	-do-			
		d. Spur dike No.5A	(5.00)	220	4-18-89	-do-			

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DT II 8 Inventory of Existing Facilities Condition in the Study Area (4/7)

RIVER SYSTEM	RIVER NAME & LOCATION	FACILITY NAME	FACILITY SIZE		DATE CONSTRUCTED	EXPECTED EFFECT	EXISTING CONDITION	CAUSE OF FAILURE
			HEIGHT(m)	LENGTH(m)				
QUINALI(A) River system (up stream of the Bicol river)	8.MASARAWAG Guinobatan Aibay	e.Boulder dike No.1A	(3.00)	280	2-25-91	-do-		
		f.Training levee	5.50	160	2-25-91	-do-		
		g.Boulder dike No.1	(3.00)	130	2-25-91	-do-		
		Spur dike	?	60+10	1992			
		Channelization	10993cu.m	4-23-91				
	9.OGSONG	Spur Dike NO.7	?	40	1992			
		Spur Dike NO.8	?	40	1992			
	10.NASISI	a.Consolidation dam No.1	5.00	88	8-16-83	Prevent erosion of river bed	Base of dam eroded	Erosion of down stream river bed from dam
		b.Ground sill No.1	3.00	180	3-7-89	-do-		
		c.Ground sill No.2	3.00	(180)	11-11-89	-do-		
		d.Ground sill No.3	3.00	205	2-4-91	-do-		
		e.Consolidation dam No.2	5.00	150	4-15-88	-do-	Missing structure in the field	
		Spur dike	?	194	1992			
QUINALI(B) River system	11.BUANG							
	12.QUINALI(B)							
	13.SAIV-VICENTE	a.Boulder dike No.1	(4.00)	115	12-22-90	Fix flood flows course		
		b.Boulder dike No.2	(4.00)	115	12-22-90	-do-		
		c.Boulder dike No.3	(4.00)	60	3-10-92	-do-		
		d.Boulder dike No.4	(4.00)	?	3-10-92	-do-		

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RIVER SYSTEM	RIVER NAME & LOCATION	FACILITY NAME	FACILITY SIZE		DATE CONSTRUCTED	EXPECTED EFFECT	EXISTING CONDITION	CAUSE OF FAILURE
			HEIGHT(m)	LENGTH(m)				
QUINALI(B) River system	13.SAN-VICENTE	e.Spur dike No.1	(4.00)	240	?	-do-		
		f.Spur dike No.2	(4.00)	240	?	-do-		
		Dredging	5488cu.m		1991			
ARIMBAY River system	14.ARIMBAY	a.Concrete rivetment	(2.50)	60	2-15-88	Prevent erosion of river bank		
		b.Spur dike No.1	(3.00)	420	12-18-90	Control MUD flow course		
		c.Spur dike No.2	(3.00)	300	12-18-90	-do-		
		d.Spur dike No.4	(3.00)	400	11-19-88	-do-		
		e.Spur dike No.5	(3.00)	250	88	-do-		
		f.Spur dike No.7	(3.00)	450	11-30-89	Control MUD flow course		
		g.Spur dike No.8	(3.00)	360	4-18-89	-do-		
		h.Spur dike No.9	(3.00)	(360)	7-26-92	-do-		
		i.Consolidation dam	?	70	4-18-89	Barangay road		
PADANG River system	15.PADANG	a.Spur dike No.1	(3.00)	(1,100)	~1990	Control MUD flow course		
		b.Spur dike No.2	(3.00)	(800)	~1991	-do-	Part of structure damaged (about 20m)	Erosion on foundation of dike
		c.Spur dike No.3	(3.00)	(420)	1987~1989	-do-	All structure destroyed	-do-
		d.Spur dike No.4	(3.00)	(760)	1987~1989	-do-	-do-	-do-
		e.Spur dike No.5	(3.00)	(560)	1987~1990	-do-	?	?
		f.Spur dike No.6	(3.00)	160	7-24-89	-do-	?	?
		g.Spur dike No.7	(3.00)	(540)	1987~1990	-do-	?	?

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DT II 8 Inventory of Existing Facilities Condition in the Study Area (6/7)

(Basud River)

RIVER SYSTEM	RIVER NAME & LOCATION	FACILITY NAME	FACILITY SIZE		DATE CONSTRUCTED	EXPECTED EFFECT	EXISTING CONDITION	CAUSE OF FAILURE
			HEIGHT(m)	LENGTH(m)				
BASUD River system	16.BASUD	a.Spur dike No.2	(4.00)	132	1985	Control MUD flow course		
		∕	∕	400	8-22-89	∕		
		b.Boulder dike No.1 (stone pitching)	(2.00)	170	1985	-do-	All structure destroyed	Erosion on foundation of dike or impact of boulders
		∕ (upstream)	∕	50	8-17-89	∕	∕	∕
		c.Boulder dike No.2 (stone pitching)	(2.00)	200	1985	-do-	-do-	-do-
		∕	∕	132	8-17-89	∕	∕	∕
		d.Boulder spur dike No.1	(3.00)	84	1985	-do-		
		e.Boulder dike No.5	?(3.00)	55	1992	Control MUD flow course	All structure destroyed	Erosion on foundation of dike or impact of boulders
		f.Boulder dike No.6	?(3.00)	65	1992	-do-	-do-	-do-
		g.Boulder dike No.8	?(3.00)	100	1986	-do-	-do-	-do-
		h.Spur dike No.1	(4.00)	370	6-2-88	-do-		
		i.Spur dike No.4	(4.00)	180	6-2-88	-do-		
		j.Spur dike No.5	(4.00)	55	1992	-do-		
	∕	∕	200	6-2-88	∕			
	k.Spur dike No.6	(4.00)	65	1992	-do-			
	∕	∕	100	6-2-88	∕			
	l.Spur dike No.9	(4.00)	(100)	?	-do-			
	m.Consolidation dam	(5.00)	(50)	4-17-91	Prevent erosion of river bed	Over-flow section of dam destroyed	Apron damaged by impact of boulders and erosion down stream	

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DT II 8 Inventory of Existing Facilities Condition in the Study Area (7/7)

(Basud River, Bulawan River)

RIVER SYSTEM	RIVER NAME & LOCATION	FACILITY NAME		FACILITY SIZE		DATE CONSTRUCTED	EXPECTED EFFECT	EXISTING CONDITION	CAUSE OF FAILURE
		HEIGHT(m)	LENGTH(m)	HEIGHT(m)	LENGTH(m)				
BASUD River system	16.BASUD	n.Spur dike of up stream from dam(Right bank)		(5.00)	(100)	4-17-91	Control MUD flow course		
		o.Spur dike of down stream from dam(Left bank)		(5.00)	(210)	4-17-91	-do-		
		p.Spur dike of 1.5km up stream from dam(Left bank)		(3.00)	(100)	?	-do-	All structure destroyed	Impact of boulders
		dredging			11327cu.m	1991			
		channel zation (upstream)			9797cu.m	1992			
BULAWAN River system	17.BULAWAN	a.Spur dike No.1		(5.00)	(900)	~1990	Control MUD flow course	Part of up stream damaged or destroyed	Impact of boulder
		b.Spur dike No.2		(5.00)	(1,300)	~1991	-do-		
		i.Consolidation dam		(2.00)	(55)	7-10-89	Prevent erosion of river bed	Foundation of dam eroded	erosion of down stream river bed from dam
		j.Revetment		(3.00~4.00)	(100)	?	Prevent erosion of river bed		
		e.Spur dike No.3		?	(370)	1989~1991			
		f.Spur dike No.4		?	(240)	1987~1990			
		g.Spur dike No.5		?	(260)	~1991			
		h.Spur dike No.6		?	(203)	1987~1992			
		k.boulder dike		?	80	7-10-89			
		l.boulder dike No.3			40	11-5-92			

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