

5. O&M Related Aggregate Plant

5.1 Summary Report of Environment & Natural Resource Office, Albay (ENRO) Processed Permits [from 1996 to 1998]

**DT II 5.1.1 Summary Report of Quarrying Permits Province of Albay
(As of December 31, 1996) (1/7)**

LOCATION/AREA OF CONCESSION	NO. OF PERMITS	NO. OF CONCESSIONERS	NAME OF PERMITTEE	VOLUME APPROVED FOR EXTRACTION (cu.m.)					AMOUNT OF TAXES PAID (P)												
				SAND	GRAVEL	BOULDER	EARTH-FILL	PEBBLES	TOTAL	SAND	GRAVEL	BOULDER	EARTH-FILL	PEBBLES	TOTAL						
Nagas, Tiwi	5	4	Altogenes Parcia ^a				2,000								10,000				10,000		
			NAPOCOR				12,500									125,000				125,000	
			Cenon Cuebas, Jr.		100		650									2,600				6,650	
			Annalyn Matsuoka ^r				1,000									4,000				4,000	
Tagoytoy, Malinao	2		Jackson Genio ^g				1,000							6,000				6,000			
			Annalyn Matsuoka ^r				1,000								4,000				4,000		
San Antonio, Tabaco	8		Altogenes Parcia ^a	700	200	100														10,600	
			Jonhson Sy	500	250	250															11,750
			Jackson Genio ^g	400	200	100	300														10,000
			Oscar Rocha	500	300	200	200														10,900
			Eliberto Berces Jr	400	100	100	500														8,100
			Luis Boyon	400	100	100	400														8,700
			Daniilo Conde	300	200	50	50														7,000
			Arthur Manzanilla ^g	500	250		750														8,750
Buang, Tabaco	1		William Cu	200	100	100	600													7,100	
			Eric Amurao	200	100	100	600													7,100	
			Johnny Rocha	50	175	450	360													10,565	
Oras, Tabaco	1	1	1	Alice Dacuya	200	50	50	200											3,950		
Binitayan, Malilipot	9		Eiberto Cleofe	300	200	100	600													7,400	
			Hermينيا Base	300	200	100	600													7,400	
			Msgr. Ralph Salazar	1,000	1,000	100	2,100														28,200
			Juan Bismonte	300	200	100	600														7,400
SUB-TOTAL	24	25	Cecilia Realizan	300	200	100	600													7,400	
				6,550	3,975	1,900	21,360	0	33,785	52,400	75,525	22,800	167,240	0	317,965						

**DT II 5.1.1 Summary Report of Quarrying Permits Province of Albay
(As of December 31, 1996) (2/7)**

LOCATION/AREA OF CONCESSION	NO. OF PERMITS	NO. OF CONCESSIONERS	NAME OF PERMITTEE	VOLUME APPROVED FOR EXTRACTION (cu.m.)				AMOUNT OF TAXES PAID (P)								
				SAND	GRAVEL	BOULDER	EARTH-FILL	PEBBLES	TOTAL	SAND	GRAVEL	BOULDER	EARTH-FILL	PEBBLES	TOTAL	
Mataas, Bacacay	1		Lorenzo Bermundo Jr	300	200	100						2,400	3,800	1,200		7,400
			Oscar Sumanga	400	200	100	200					3,200	3,800	1,200		9,400
			Teodolo Benig Jr	600	200	200						4,800	3,800			11,000
			Trinidad Candano	2,000	200	200						16,000	3,800	2,400		22,200
Mataas, Bacacay	1	1	Valentino Bataier						30						1,500	1,500
Igang, Bacacay	1	1	Mauro Barcoma	1,000	300	100						8,000	5,700	1,200		14,900
Baclayon, Bacacay	1	1	Josefina Valenzuela ¹	50	25	25						400	475	300		1,175
Vinitahan, Bacacay		1	Josefina Valenzuela ¹	50	25	25						400	475	300		1,175
Lidong, Sto. Domingo	5	3	GRASEMUCO ^b	110	525	80						880	9,975	960		11,815
			Delfin Co ^b	1,000	1,000	200						8,000	19,000	2,400		29,400
			Tomas Ranola ^c		1,000	500							19,000	6,000		25,000
Fidel Surtida, Sto. Domingo	6	4	GRASEMUCO ^b	80	450	80						640	8,550	960		10,150
			Willy Yu	100	600	200						800	11,400	2,400		14,600
			Rodrigo Lorejo				1,000								4,000	4,000
			Salima Ballesteros	100	150		50					800	2,850	200		3,850
San Isidro, Sto. Domingo	4	1	GRASEMUCO ^b	660	4,825	2,140						5,280	91,675	25,680		122,635
Urad, Manila, Rapu-rapu	1	1	Winston Florin						40						2,000	2,000
Bogtong, Leg. City	18	4	Tuanson Build. Corp	22,300								178,400				178,400
SUB-TOTAL	37	17		28,750	9,700	3,950	1,250	70	43,720	230,000	184,300	47,400	5,400	3,500	470,600	

**DT II 5.1.1 Summary Report of Quarrying Permits Province of Albay
(As of December 31, 1996) (3/7)**

LOCATION/AREA OF CONCESSION	NO. OF PERMITS	NO. OF CONCESSIONERS	NAME OF PERMITTEE	VOLUME APPROVED FOR EXTRACTION (cu.m.)				AMOUNT OF TAXES PAID (P)										
				SAND	GRAVEL	BOULDER	EARTH-FILL	PEBBLES	TOTAL	SAND	GRAVEL	BOULDER	EARTH-FILL	PEBBLES	TOTAL			
Rawis, Legazpi City	7		Ricardo Toledo	6,000												48,000		
			Michael Consorte	5,500													44,000	
			Andy Marcaida ^m	1,000													8,000	
Bonot, Legazpi City	3		Crisoforo Parcia Jr ^d	950			250								1,000	8,600		
			Ramir Flores ^e	700			750									3,000	8,600	
			Edgar Arizapa	500													4,000	
Bonot, Legazpi City	1		Crisoforo Parcia Jr ^d	1,550			250								1,000	13,400		
			Ramir Flores ^e	2,300			750									3,000	21,400	
Padang, Legazpi City	15		Arthur Manzanilla ^a	1,000	500	500	1,000								4,000	27,500		
			Jose Alfonso Bariso	1,000	500	500										6,000	23,300	
			Nanette Salamat				2,000										9,000	9,000
			Marilyn Dominguez	2,800	650	1,050	2,400										9,600	56,950
			Tuanson Bldg. Corp ^l			1,500	1,500										6,000	24,000
Bonga, Legazpi City	2		Benedicto Azul	150	150	200									2,400	6,450		
			Ismael Buban	350	200	100	350									1,400	9,200	
Pawa, Legazpi City	5		Alfredo Tan	145	288	133	872								4,094	12,322		
			Antonio Nidea	200		100	700									2,800	5,600	
			Antonio Villanueva	100	100	100										1,200	3,900	
Binitayan, Daraga	7		Antonio Mirabel Jr	1,000	50										950	8,950		
			Tomas Ranola ^c	5,500												44,000	44,000	
			Jose Oro Lee	1,000												8,000	8,000	
SUB-TOTAL	37	18		31,745	2,438	4,183	10,822	0	49,188	0	253,960	46,122	50,196	44,894	0	395,172		

**DT II 5.1.1 Summary Report of Quarrying Permits Province of Albay
(As of December 31, 1996) (4/7)**

LOCATION/AREA OF CONCESSION	NO. OF PERMITS	NO. OF CONCESSIONERS	NAME OF PERMITTEE	VOLUME APPROVED FOR EXTRACTION (cu.m.)				AMOUNT OF TAXES PAID (P)				TOTAL		
				SAND	GRAVEL	BOULDER	EARTH-FILL	PEBBLES	TOTAL	SAND	GRAVEL		BOULDER	EARTH-FILL
Kilicao, Daraga	1	2	Mariano Bajamundi Tomas Ranola ^c	250	50			300	2,000	950			2,950	
				500				500	4,000					4,000
Misi, Daraga	3	3	Tomas Ranola ^c Emmanuel Salamat Delfin Co ^p				1,000	1,000				6,000	6,000	
				500	100	100	1,000	700	4,000	1,900	1,200			4,000
Banag, Daraga	1	1	Dante Mirabete	1,000	50			1,050	8,000	950			8,950	
Salvacion, Daraga	3	2	Vivencio Castillo Andy Marcaida ^m	250	200	300	500	1,250	2,000	3,800		3,600	12,400	
						200		200		200		2,400		2,400
Quirangay, Camalig	3	3	Ariel Carreon Vince Camba Rolando Yap	500	100	100	300	1,000	4,000	1,900	1,200	1,800	8,900	
				300	100		300	700	2,400	1,900		1,200		5,500
				100	50	50	200	400	800	950	600	800		3,150
San Rafael, Guinobatan	4	2	SANFRA Devt Coop Efren Gonzales ⁱ	1,500	750	300		2,550	12,000	14,250	3,600		29,850	
				100	50			150	800	950				1,750
Moreira, Guinobatan		1	Efren Gonzales ^j	100	50			150	800	950			1,750	
Lower Binogsacan Guinobatan	1	1	SCFC MP Coop	100	100			200	800	1,900			2,700	
Bagumbayan, Ligao	25	2	Tomas Princesa ^h Carmen Buenaventura	15,150				15,150	121,200				121,200	
				17,550	100	50		17,700	140,400	1,900	600			142,900
SUB-TOTAL	41	17		37,900	1,700	1,100	3,300	44,000	303,200	32,300	13,200	16,800	365,500	

**DT II 5.1.1 Summary Report of Quarrying Permits Province of Albay
(As of December 31, 1996) (5/7)**

LOCATION/AREA OF CONCESSION	NO. OF PERMITS	NO. OF CONCESSIONERS	NAME OF PERMITTEE	VOLUME APPROVED FOR EXTRACTION (cu.m.)				AMOUNT OF TAXES PAID (P)					
				SAND	GRAVEL	BOULDER	EARTH-FILL	PEBBLES	TOTAL	SAND	GRAVEL	BOULDER	EARTH-FILL
Binitagan, Ligao	14	2	Jose Guanson ^f Tomas Princesa ^h	26,150 400	200			26,350 400	209,200 3,200	3,800			213,000 3,200
Guilid, Ligao	6	2	Jose Guanson ^f Tomas Princesa ^h	1,870 1,450	30			1,900 1,450	14,960 11,600	570			15,530 11,600
Pinit, Ligao	10	3	Pinit MP Coop. Provl. Govt of Cam Sur Roger Manzano	4,600 2,500 1,000	600			5,200 2,500 1,000	36,800 20,000 8,000	11,400			48,200 20,000 8,000
Barayong, Ligao	9	2	Barayong Quarry WA Govt of Cam Sur ⁿ	4,000 2,500	2,550	450		7,000 2,500	32,000 20,000	48,450	5,400		85,850 20,000
Basag, Ligao	3	2	Govt of Cam Sur ⁿ Tomas Ranola ^c	500	500	250	4,000 2,000	3,250	4,000	9,500	3,000	16,000 8,000	16,000 24,500
Batang, Ligao	6	1	Ruben Quillan ^o	959	1,081	2,028	3,025	7,093	7,672	20,539	24,336	15,100	67,647
Paulba, Ligao	2	1	Ruben Quillan ^o				677	677				2,708	2,708
Layon, Ligao	6	1	Ronaldo Mustera	1,700	2,800	100		4,600	13,600	53,200	1,200		68,000
Tagpo, Ligao	4	1	Agri-Movers MP Coop	2,200				2,200	17,600				17,600
Cavasi, Ligao	2	1	Antonio Pelo	1,000				1,000	8,000				8,000
Mahaba, Ligao	3	1	Porferito Quidtep	1,300				1,300	10,400				10,400
SUB-TOTAL	65	17		52,129	7,761	2,828	9,702	72,420	417,032	147,459	33,936	41,808	640,235

**DT II 5.1.1 Summary Report of Quarrying Permits Province of Albay
(As of December 31, 1996) (6/7)**

LOCATION/AREA OF CONCESSION	NO. OF PERMITS	NO. OF CONCESSIONERS	NAME OF PERMITTEE	VOLUME APPROVED FOR EXTRACTION (cu.m.)				AMOUNT OF TAXES PAID (P)							
				SAND	GRAVEL	BOULDER	EARTH-FILL	PEBBLES	TOTAL	SAND	GRAVEL	BOULDER	EARTH-FILL	PEBBLES	TOTAL
Calzada, Oas	17	2	Franklin Relleve Leonor Ratallo	15,000 8,600											120,000 68,800
Mayao, Oas	1	1	Cesar Regis	300											2,400
Kinale, Polangui	3	1	Harvey G.L. Imperial	1,750											14,000
Alomon, Polangui	3	1	Domingo Salem	600											4,800
East Carisac, Libon	1	1	Antonio Tantiado	500											4,000
Bacolod, Libon	3	1	Ricardo Remolacio ^k	100	600		200							800	13,000
San Agustin, Libon	5	1	Ricardo Remolacio ^k	2,500											20,000
Pantao, Libon	1	1	Ruby Tamares				50								2,500
Tambo, Libon	1	1	Leon Relocarcasa				25								1,250
SUB-TOTAL	35	10		29,350	600	0	200	75	30,225	234,800	11,400	0	800	3,750	250,750
GRAND TOTAL	239	104		186,424	26,174	13,961	46,634	145	273,338	1,491,392	497,106	167,532	276,942	7,250	2,440,222

**DT II 5.1.1 Summary Report of Quarrying Permits Province of Albay
(As of December 31, 1996) (7/7)**

NOTE: The actual number of concessors with approved permits is only 82.

- a - A. Parcia has 3 permits with 2 concession areas (Nagas, Tiwi and San Antonio, Tabaco)
- b - GRASEMUCO has 7 permits with 3 concession areas (Lidong, Fidel Surtida and San Isidro, Sto. Domingo)
- c - T. Ranola has 9 permits with 5 concession areas (Lidong, Sto. Domingo; Binitayan, Kilicao and Mi-isi, Daraga; Basag, Ligao)
- d - C. Parcia, Jr. has 3 permits with 2 concession areas (Rawis and Bonot, Legazpi City)
- e - R. Flores has 4 permits with 2 concession areas (Rawis and Bonot, Legazpi City)
- f - J. Guanzon has 14 permits with 2 concession areas (Binatagan and Guilid, Ligao)
- g - J. Genio has 3 permits with 2 concession areas (Tagoytoy, Malinao and San Antonio, Tabaco)
- h - T. Princesa has 22 permits with 3 concession areas (Bagumbayan, Binatagan and Guilid, Ligao)
- i - Tuanson B.C. has 6 permits with 2 concession areas (Bogtong and Padang, Legazpi City)
- j - E. Gonzales has 1 permit with 2 concession areas (Morera and San Rafael, Guinobatan)
- k - R. Remolacio has 8 permits with 2 concession areas (Bacolod and San Agustin, Libon)
- l - J. Valenzuela has 1 permit with 2 concession areas (Baclayon and Vinitahan, Bacacay)
- m - A. Marcaida has 2 permits with 2 concession areas (Bogtong, Legazpi City and Salvacion, Daraga)
- n - P.G. of Cam. Sur has 2 permits with 3 concession areas (Barayong, Pinit and Basag, Ligao)
- o - R. Quillan has 2 permits with 2 concession areas (Batang and Paulba, Ligao)
- p - D. Co has 2 permits with 2 concession areas (Lidong, Sto. Domingo and Mi-isi, Daraga)
- q - A. Manzanilla has 3 permits with 2 concession areas (Padang, Legazpi City and San Antonio, Tabaco)
- r - A. Matsuoka has 2 permits with 2 concession areas (Tagoytoy, Malinao and Nagas, Tiwi)

**DT II 5.1.2 Summary Report of PENRO-LGU Processed Permits Province Albay
(As of December 31, 1997) (1/8)**

LOCATION	NO. OF PERMITS	NO. OF CONCESSIONERS	NAME OF PERMITTEE	VOLUME APPROVED FOR EXTRACTION (cu.m.)					TOTAL	
				SAND	GRAVEL	BOULDER	EARTH-FILL	PEBBLES		
A COMMERCIAL PERMITS	10	6	Spillway Quarrying MP, Coop		100	100	1,300		1,500	
			Ulpiano Miralo		200	600	1,500		2,300	
			Julietta Cuebillas				2,000		2,000	
			Altogenes Parcia ^o				1,500		1,500	
			Solomon Odiamar			200		500	700	
			Leonor Costo			250		250	500	
	Tagoytoy, Malinao	1	1	Jackson Genio ^a			500		500	
	Sta. Elena, Malinao	8	1	Annalyn Matsuoka			18,597		18,597	
	San Antonio, Tabaco	9	6	Eriberto Berces, Jr.	400	200	100	200		900
				Jackson Genio ^a	600	400	300	2,400		3,700
Arthur Manzanilla ^b				250	250				500	
Altogenes Parcia ^o				300	100	100			500	
Pinagbobong, Tabaco	1	1	Oscar Rocha	500	300	100	100		1,000	
			Luis Boyon	400	100	100	400		1,000	
			Glenn Calleja	150	50	50	50		300	
Buang, Tabaco	1	1	Inigo Bringino		100	100		200		
Binitayan, Malilipot	9	9	Juan Bismonte	150	150	100		400		
			Trinidad Candano	2,000	200	200		2,400		
			Cecilia Realizan	125	100	25		250		
SUB-TOTAL	39	25		4,875	2,250	2,325	29,297	0	38,747	

**DT II 5.1.2 Summary Report of PENRO-LGU Processed Permits Province Albay
(As of December 31, 1997) (2/8)**

LOCATION	NO. OF PERMITS	NO. OF CONCESSIONERS	NAME OF PERMITTEE	VOLUME APPROVED FOR EXTRACTION (cu.m.)					TOTAL
				SAND	GRAVEL	BOULDER	EARTH-FILL	PEBBLES	
			Lorenzo Bermundo, Jr.	300	200	100			600
			Oscar Sumanga	500	300	200	100		1,100
			Ralph Salazar	1,000	1,000	100			2,100
			Elberto Cleofe	100	100	100	200		500
			Lilia Nallos	400	300		200		900
			Rodolfo Maralit	100	100	100			300
Barangay 9, Bacacay	1	1	Mauro Barcoma ^c	75	25				100
Barangay 13, Bacacay		1	Mauro Barcoma ^c	75	25				100
San Isidro, Sto. Domingo	3	1	GRASEMUCO	1,700	1,300	800			3,800
Fidel Surtida, Sto. Domingo	5	2	Luz Rodriguez Willy Yu	2,250 300	2,500 400	200 300	250		5,200 1,000
Carogcog, Rapu-Rapu	1	1	Valentino Battaller					30	30
Manila, Rapu-Rapu	1	1	Winston Florin					100	100
Buyo, Manito	2	1	NFH Const. & Supply ^a				5,000		5,000
It-ba, Manito	1	1	NFH Const. & Supply ^a				4,500		4,500
Padang, Legazpi City	10	5	Marilyn Dominguez Nathaniel Uy	2,300	550	650	2,600 6,000		6,100 6,000
SUB-TOTAL	24	14		9,100	6,800	2,550	18,850	130	37,430

**DT II 5.1.2 Summary Report of PENRO-LGU Processed Permits Province Albay
(As of December 31, 1997) (3/8)**

LOCATION	NO. OF PERMITS	NO. OF CONCESSIONERS	NAME OF PERMITTEE	VOLUME APPROVED FOR EXTRACTION (cu.m.)				TOTAL
				SAND	GRAVEL	BOULDER	EARTH-FILL	
Bonga, Legazpi City	2		Jose Alfonso Bariso	500	100	100		700
			Arthur Manzanilla	500	250			750
			Imperial Homes Corp.	2,000				2,000
Pawa, Legazpi City	2	2	Benedicto Azul	150	200			500
			Ismael Buban	200	100		200	500
Bogtong, Legazpi City	6	3	Ruben Baritua	500	100	50	250	900
			Jerry Jao	500	400	100		1,000
San Roque, Legazpi City	1	1	Michael Consorte	2,000	50			2,100
			Tuanson Builders Corp ^d	6,500				6,500
			Gloria Hona	1,000				1,000
Buyuan, Legazpi City	1	1	Mary Ann Pacheco	1,000				1,000
Bonot, Legazpi City	2	2	Flordeliza Encisa	450	100	200	4,250	5,000
			Ramir Flores ^e	250			500	750
Rawis, Legazpi City	23	4	Crisoforo Parcia, Jr.	250			500	750
			Ramir Flores ^e	250			500	750
Kilicao, Daraga	37	17	Crisoforo Parcia, Jr.	250			500	750
			Mariano Bajamundi ^f	1,400			400	1,800
			Tomas Ranola ^g	1,000				1,000
SUB-TOTAL	37	17		18,700	1,250	700	7,100	27,750

**DT II 5.1.2 Summary Report of PENRO-LGU Processed Permits Province Albay
(As of December 31, 1997) (4/8)**

LOCATION	NO. OF PERMITS	NO. OF CONCESSIONERS	NAME OF PERMITTEE	VOLUME APPROVED FOR EXTRACTION (cu.m.)					TOTAL
				SAND	GRAVEL	BOULDER	EARTH-FILL	PEBBLES	
Malobago, Daraga	4		Durabilt Conc. Products ^h Domingo Frecia	500	250	100			850
				1,125	200		400		1,725
Binitayan, Daraga	1	3	Mariano Bajamundi Domingo Frecia Derio Espinas	1,400	200		400		1,800
				1,125			400		1,725
Salvacion, Daraga	4	2	Tomas Ranola ⁹ Durabilt Conc. Products	300			1,900		2,200
				1,100	250	100			1,100
Mi-isi, Daraga	3	1	Tomas Ranola	500					850
				300	200	200			700
Quirangay, Camalig	2	3	Andy Marcaida Vivencio Castillo Interstate Build. & Supply	200	200	200			900
					50	100	750		9,250
Sua, Camalig	1	1	Daisy Nicerio			1,500			10,750
				200	100	100	300		2,500
Lower Binogsacan, Guinobatan	8	1	Lower Binogsacan SCFO	300	50	100			950
				1,940	605		5,000		5,000
San Rafael, Guinobatan	18	3	Sanfra Dev't. Coop Maria Tongco Leyan Tongco	500	250	100			700
				1,840	250	110			2,545
SUB-TOTAL	41	16		13,120	2,715	2,575	21,400	0	39,810

**DT II 5.1.2 Summary Report of PENRO-LGU Processed Permits Province Albay
(As of December 31, 1997) (5/8)**

LOCATION	NO. OF PERMITS	NO. OF CONCESSIONERS	NAME OF PERMITTEE	VOLUME APPROVED FOR EXTRACTION (cu.m.)					
				SAND	GRAVEL	BOULDER	EARTH-FILL	PEBBLES	TOTAL
Bagumbayan, Ligao	9	2	Carmen Buenaventura Tomas Princesa	2,050 3,500	650 50	50			2,750 3,550
Binatagan, Ligao	3	1	Jose Guanzon ^j	4,500	130				4,630
Guilid, Ligao		1	Jose Guanzon ^j	1,500					1,500
Mahaba, Ligao	11	1	Porferio Quidep	6,300	200				6,500
Barayong, Ligao	11	3	Barayong Quarry WA Prov'l Govt. of Cam. Sur ^m Jose Luis Imperial	5,600 75	5,100	700	2,500		11,400 2,500 150
Pinit, Ligao	28	7	Prov'l. Gov't of Cam. Sur Pinit MP Coop. Roger Manzano Fernando Robles, Jr. Eduardo Mattias III Jose Luis Imperial ^s Paulino Pobocan	10,000 1,750 4,150 1,700 75 100	1,050 100 1,100 650 100		2,500		2,500 11,050 1,850 5,650 2,350 150 250
Layon, Ligao	7	2	Ronaldo Mustera Pura Calleja	2,000 150	4,400 200	300 50			6,700 400
Cavasi, Ligao	14	5	Antonio Pelo ^u Cavasi Quarry Assn. Rafael Ante ^t	2,875 250 4,000					2,875 250 4,000
SUB-TOTAL	83	22		50,575	13,730	1,350	5,350	0	71,005

**DT II 5.1.2 Summary Report of PENRO-LGU Processed Permits Province Albay
(As of December 31, 1997) (6/8)**

LOCATION	NO. OF PERMITS	NO. OF CONCESSIONERS	NAME OF PERMITTEE	VOLUME APPROVED FOR EXTRACTION (cu.m.)					TOTAL
				SAND	GRAVEL	BOULDER	EARTH-FILL	PEBBLES	
Tagpo, Ligao	11		Agri-Movers MP Coop. ^v Joseph Lopez	1,500					1,500
				1,750					1,750
Basag, Ligao	20	3	Agri-Movers MP Coop. ^v Ruben Cardino, Sr. Antonio Pelo ^u	11,000					11,000
				850					850
				375					375
				1,520	4,150	3,380			9,050
Tambo, Ligao	1	4	Basag Quarry Assn. Tomas Ranola ⁹ Teodorico Residella, Jr. ⁿ Abraham Ranara ^p	1,075	725	475	825		3,100
				250	250	250			750
						750			750
				575	425	325	325		1,650
Batang, Ligao	5	2	Ruben Quillan ^r Carlos Gonzales	250	250	250			750
						750	100		750
Nasisi, Ligao	5	2	Rafael Ante ^t Edgar Regino						100
				1,128	1,032	1,186	1,526		4,872
Paulba, Ligao	1	1	Ruben Quillan ^r	780	550	1,000	500		2,830
Calzada, Oas	19	2	Franklin Rellve Leonor Rafallo	800	600	800			2,200
				300	100	450	500		850
SUB-TOTAL	62	18		51,153	8,182	9,716	3,676	0	72,727

**DT II 5.1.2 Summary Report of PENRO-LGU Processed Permits Province Albay
(As of December 31, 1997) (7/8)**

LOCATION	NO. OF PERMITS	NO. OF CONCESSIONERS	NAME OF PERMITTEE	VOLUME APPROVED FOR EXTRACTION (cu.m.)					
				SAND	GRAVEL	BOULDER	EARTH-FILL	PEBBLES	TOTAL
Mayao, Oas	3	1	Cesar Regis	550					550
Pistola, Oas	1	1	Cesaria de la Cruz				2,000		2,000
Kinale, Polangui	2	1	Harvey Imperial	1,500					1,500
Alomon, Polangui	2	1	Domingo Salem	800					800
Matacon, Polangui	2	1	Ucelo Gonzales, Jr.	700					700
San Agustin, Libon	8	2	Ricardo Remolacio ^k Rodolfo Buenafior	3,500 1,200					3,500 1,200
Bacolod, Libon	1	1	Ricardo Remolacio ^k		200		200		400
Pantao, Libon	1	1	Ruby Tamares					50	50
Tambo, Libon	1	1	Leon Relorcasa					25	25
SUB-TOTAL	21	10		8,250	200		2,200	75	10,725
TOTAL	307	122		155,773	35,127	19,216	87,873	205	298,194
B INDUSTRIAL PERMITS									
Nagas, Tiwi	3	1	Tuanson Builders Corp.			7,500	7,500		15,000
Nasisi, Ligao	1	1	Giant Aggregates, Inc.			3,500			3,500
TOTAL	4	2				11,000	7,500		18,500
GRAND TOTAL	311	124		155,773	35,127	30,216	95,373	205	316,694

**DT II 5.1.2 Summary Report of PENRO-LGU Processed Permits Province Albay
(As of December 31, 1997) (8/8)**

Note: The actual number of concessioners with approved permits is only 99.

- a - J. Genio has 5 permits with 2 concession areas (Tagoytoy, Malinao and San Antonio, Tabaco)
- b - A. Manzanilla has 2 permits with 2 concession areas (San Antonio, Tabaco and Padang, Legazpi City)
- c - M. Barcoma has 1 permit with 2 concession areas (Barangay 9 and 13, Bacacay)
- d - Tuanson Builders Corp. has 6 permits with 2 concession areas (Nagas, Tiwi and Bogtong, Legazpi City)
- e - R. Flores has 1 permit with 2 concession areas (Bonot and Rawis, Legazpi City)
- f - M. Bajamundi has 11 permits with 2 concession areas (Kilicao and Malobago, Daraga)
- g - T. Ranola has 10 permits with 5 concession areas (Kilicao, Binitayan and Mi-isi, Daraga; Basag and Tambo, Ligao)
- h - Durabilt Concrete Products has 1 permit with 2 concession areas (Kilicao and Binitayan, Daraga)
- i - D. Frecia has 9 permits with 2 concession areas (Kilicao and Malobago, Daraga)
- j - J. Guanzon has 3 permits with 2 concession areas (Binatagan and Gullid, Ligao)
- k - R. Remolcao has 5 permits with 2 concession areas (San Agustin and Bacolod, Libon)
- l - C. Parcia, Jr. has 1 permit with 2 concession areas (Bonot and Rawis, Legazpi City)
- m - Provincial Government of Cam. Sur has 1 permit with 2 concession areas (Barayong and Pinit, Ligao)
- n - T. Residilla Jr. has 1 permit with 2 concession areas (Basag and Tambo, Ligao)
- o - A. Parcia has 2 permits with 2 concession areas (Nagas, Tiwi and San Antonio, Tabaco)
- p - A. Ranara has 1 permit with 2 concession areas (Basag and Tambo, Ligao)
- q - NFFH Const, and Supply has 3 permits with 2 concession areas (Buyo and It-ba, Manito)
- r - R. Quillilan has 4 permits with 2 concession areas (Batang and Paulba, Ligao)
- s - J.L. Imperial has 1 permit with 2 concession areas (Barayong and Pinit, Ligao)
- t - R. Ante has 5 permits with 2 concession areas (Nasisi and Cavasi, Ligao)
- u - A. Pelo has 6 permits with 2 concession areas (Cavasi and Tagpo, Ligao)
- v - Agri-movers MPC has 12 permits with 2 concession areas (Cavasi and Tagpo, Ligao)

**DT II 5.1.3 Summary Report of ENRO Processed Permits Province of Albay
(As of December 31, 1998) (1/8)**

LOCATION	NO. OF PERMITS	NO. OF CONCESSIONERS	NAME OF PERMITTEE	VOLUME APPROVED FOR EXTRACTION (cu.m.)					TOTAL
				SAND	GRAVEL	BOULDER	EARTH-FILL	PEBBLES	
A <u>COMMERCIAL PERMITS</u> Nagas, Tiwi	4	3	Ulpiano Miralo SQUAMCO Altogenes Parcia ^a	100	100	100	1,000 2,300 500		1,200 2,500 500
	2	2	Jackson Genio ^b Teresita Calleja			50	500		500 50
	5	1	Annalyn Matsuoka				8,500		8,500
San Antonio, Tabaco	9	3	Jackson Genio ^b Altogenes Parcia ^a Luis Boyon	1,400 400 200	550 200 50	950 100 50	2,900 200 200		5,800 900 500
	3	1	Inigo Bringino ⁿ	350	550	350	400		1,650
	7	7	Ralph Salazar Oscar Sumanga Lilia Nallos Trinidad Candano	500 250 150 1,000	250 100 75 200	50 100 25 200	100 250		800 550 500 1,400
Fidel Surtida, Sto. Domingo	13	3	Rodolfo Maralit Cecilia Realizan Elberto Cleofe Willy Yu Amparo Sarza Tomas Robrigado	500 150 100 2,400 4,550 250	100 100 100 950 2,850 200	50 50 100 300 1,250 100			650 300 300 3,650 8,650 750
	43	20		12,200	6,475	3,925	17,050	0	39,650
	SUB-TOTAL								

**DT II 5.1.3 Summary Report of ENRO Processed Permits Province of Albay
(As of December 31, 1998) (2/8)**

LOCATION	NO. OF PERMITS	NO. OF CONCESSIONERS	NAME OF PERMITTEE	VOLUME APPROVED FOR EXTRACTION (cu.m.)					TOTAL
				SAND	GRAVEL	BOULDER	EARTH-FILL	PEBBLES	
It-ba, Manito	1	1	NHF Const. & Supply				11,570		11,570
Padang, Legazpi City	10	3	Marilyn Dominguez	7,350	850	1,250	1,000		10,450
			Jose Alfonso Bariso	500	200	100			800
			Arthur Manzanilla	500	250	250			1,000
Bonga, Legazpi City	6	2	Benedicto Azul	150	150	200			500
			Tuanson Builders Corp. ⁹				10,000		10,000
Pawa, Legazpi City	5	3	Ruben Baritua	500	150	100	450		1,200
			Jerry Jao	150	50	50			250
			Alfredo Tan	46	53	163	80		342
Bogtong, Legazpi City	3	3	Gloria Hona	1,000					1,000
			Michael Consorte	500					500
			Tuanson Builders Corp. ⁹	1,000					1,000
Buyuan, Legazpi City	1	1	Flordeliza Encisa	1,100	750				1,850
Matanag, Legazpi City	1	1	Tuanson Builders Corp. ⁹				2,000		2,000
Kilicao, Daraga	4	3	Dominga Frecia ^c				250		250
			Mariano Bajamundi ¹				375		375
			Tomas Ranola	150					150
Malobago, Daraga	2	3	Dominga Frecia ^c				250		250
			Derio Espinas				1,000		1,000
SUB-TOTAL	33	20		12,946	2,453	2,113	26,975	0	44,487

**DT II 5.1.3 Summary Report of ENRO Processed Permits Province of Albay
(As of December 31, 1998) (3/8)**

LOCATION	NO. OF PERMITS	NO. OF CONCESSIONERS	NAME OF PERMITTEE	VOLUME APPROVED FOR EXTRACTION (cu.m.)					
				SAND	GRAVEL	BOULDER	EARTH-FILL	PEBBLES	TOTAL
Binitayan, Daraga	1	1	Mariano Bajamundi ^l Tomas Ranola ^m	350	50	50	375		375
Mi-isi, Daraga	7	6	Myrnel Conc. Prod. Durablit Conc. Prod. Marlyn Olayres EQL Builders Companeros Gravel & Sand Tomas Ranola	500 1,000 300	200 500 100 200	200	500 1,000 3,050 500		700 1,700 1,000 1,200 3,050 500
Salvacion, Daraga	7	2	Vivencio Castillo Andy Marcaida	50 200	450 100	200 200	2,800 100		3,500 600
Quirangay, Camalig	2	2	Rommel Munoz Vince Camba				1,000 1,000		1,000 1,000
San Rafael, Guinobatan	8	2	Leyan Tongco Maria Tongco	4,600 300	325 20	175 20			5,100 340
Lower Binogsacan, Guinobatan	9	2	L. Binogsacan SCFO-MPC Harlan Ostonal	3,500 800	1,050 100				4,550 900
Banao, Guinobatan	6	1	Elvira Olaybal	12,000					12,000
Bagumbayan, Ligao	2	1	Tomas Princesa	2,000	100				2,100
SUB-TOTAL	42	17		25,600	3,195	945	10,325	0	40,065

**DT II 5.1.3 Summary Report of ENRO Processed Permits Province of Albay
(As of December 31, 1998) (4/8)**

LOCATION	NO. OF PERMITS	NO. OF CONCESSIONERS	NAME OF PERMITTEE	VOLUME APPROVED FOR EXTRACTION (cu.m.)					
				SAND	GRAVEL	BOULDER	EARTH-FILL	PEBBLES	TOTAL
Barayong, Ligao	13	3	Barayong Quarry WA	2100	850	250			3,200
			Jose Luis Imperial ^h	1,150	200	25			1,375
			Salvacion Azores ^j	1,275	650	150			2,075
Pinit, Ligao	23	6	Fernando/Marlene Robles	4,200	1,200	50	1,600		7,050
			Jose Luis Imperial ^h	1,150	200	25			1,375
			Salvacion Azores ^j	1,275	650	150			2,075
			Paulino Pobocan	100	150	100			350
			Fortunato Brojan, Jr.	2,800	900				3,700
			Pinit MPC	2,300	600				2,900
Layon, Ligao	15	3	Perfecto Ando	1,382	972		250		2,604
			Pura Calleja	1,500	1,000	500			3,000
			Ronaldo Mustera	4,400	2,000	200	2,500		9,100
Cavasi, Ligao	14	4	Joseph Lopez ^{**}	750					750
			Rafael Ante ^{*****k}	3,000					3,000
			Agri-Movers MPC ^{****d}	1,401					1,401
			Antonio Pelo ^e	3,714					3,714
Tagpo, Ligao	6	3	Agri-Movers MPC ^d	3,951					3,951
			Antonio Pelo ^{****e}	714					714
			Ruben Cardino, Sr.	500					500
* Includes over-extraction for 1997									
**Permit cancelled									
****Permit-re-granted. However, extraction operation in this barangay was no longer included in the present permit.									
*****Permit-re-granted in July 1998									
SUB-TOTAL				37,662	9,372	1,450	4,350		52,834

**DT II 5.1.3 Summary Report of ENRO Processed Permits Province of Albay
(As of December 31, 1998) (5/8)**

LOCATION	NO. OF PERMITS	NO. OF CONCESSIONERS	NAME OF PERMITTEE	VOLUME APPROVED FOR EXTRACTION (cu.m.)				TOTAL
				SAND	GRAVEL	BOULDER	EARTH-FILL	
Basag, Ligao	8	2	Basag Quarry Association Adolfo Talavera	1,200 200	1,550 450	1,750 250		4,500 900
Tambo, Ligao	4	1	Salvador Bello	100	100	1,200		1,400
Batang, Ligao	1	1	Carlos Gonzales				3,000	3,000
Nasisi, Ligao	2	1	Edgar Regino	1,135	75	100		1,310
Binatagan, Ligao	8	2	Abraham Barbastro ^f Jose Guanzon ^l	1,100 1,400		100		1,100 1,500
Bobonsuran, Ligao	13	1	Abraham Barbastro ^f	10,400				10,400
Guilid, Ligao		1	Jose Guanzon	700				700
Mahaba, Ligao	4	1	Proferio Quidep	2,200				2,200
Tinago, Ligao	10	1	Domingo Gonzalo	8,300	650			8,950
Pandan, Ligao	14	3	Rafael Ante ^k Rafael Ante ^k Zenaida Princesa Adrian Polidario	(1425) ^{***} 250 6,500 1,800				(1425) ^{***} 250 6,500 1,800
Bonga, Ligao	3	2	Rafael Ante ^k	(1425) ^{***}				(1425) ^{***}
***2000 from Cavasi: 850 balance for 1997								
SUB-TOTAL				35,285	2,925	3,300	3,000	44,510

**DT II 5.1.3 Summary Report of ENRO Processed Permits Province of Albay
(As of December 31, 1998) (6/8)**

LOCATION	NO. OF PERMITS	NO. OF CONCESSIONERS	NAME OF PERMITTEE	VOLUME APPROVED FOR EXTRACTION (cu.m.)					
				SAND	GRAVEL	BOULDER	EARTH-FILL	PEBBLES	TOTAL
Paulog, Ligao	2		Rafael Ante ^k Adoracion Payte	250					250
				1,650					1,650
La Medalla, Pioduran	1		Jesus Sariola	1,000			350		350
							300		300
Calzada, Oas	9		Franklin Rellve Leonor Rafallo	9,450	150				9,600
				2,500					2,500
Maayao, Oas	1		Cesar Regis	250					250
Pistola, Oas	1		Cesaria De la Cruz			1,000			1,000
Busac, Oas	2		Marites Padilla Rustom Rapay	300					300
				200					200
San Isidro, Oas	1		Inigo Bringino ⁿ			50			50
Alomon, Polangui	2		Domingo Salem	600					600
Kinale, Polangui	1		Harvey Imperial	1,000					1,000
San Agustin, Libon	3		Rodolfo Buenafior Felix Saminiada	600					600
				200					200
SUB-TOTAL	23	14		18,000	150	1,050	650		19,850
TOTAL	256	92		141,693	24,570	12,783	62,350	0	241,396

**DT II 5.1.3 Summary Report of ENRO Processed Permits Province of Albay
(As of December 31, 1998) (7/8)**

LOCATION	NO. OF PERMITS	NO. OF CONCESSIONERS	NAME OF PERMITTEE	VOLUME APPROVED FOR EXTRACTION (cu.m.)					
				SAND	GRAVEL	BOULDER	EARTH-FILL	PEBBLES	TOTAL
B INDUSTRIAL PERMIT Nagas, Tiwi	1	1	Tuanson Builders Corp. ⁹			2,500	2,500		5,000
TOTAL	1	1				2,500	2,500		5,000
GRAND TOTAL	257	93		141,693	24,570	15,283	64,850	0	246,396

Note: The actual number of concessioners with approved permits is only 89.

- a - A. Parcia has 3 permits with 2 concession areas (Nagas, Tiwi and San Antonio, Tabaco)
- b - J. Genio has 7 permits with 2 concession areas (Tagoytoy, Malinao and San Antonio, Tabaco)
- c - D. Frecia has 1 permit with 2 concession areas (Kilicao and Malobago, Daraga)
- d - Agri-Movers MPC has 6 permits with 2 concession areas (Cavasi**** and Tagpo, Ligao)
- e - A. Pelo has 8 permits with 2 concession areas (Cavasi & Tagpo****, Ligao)
- f - A. Barbaastro has 17 permits with 2 concession areas (Binatagan**** and Bobonsuran, Ligao)
- g - Tuanson Builders Corp. has 8 permits with 4 concession areas (Nagas, Tiwi, Bogtong, Bonga and Matanag, Legaspi City)
- h - J.L. Imperial has 3 permits with 2 concession areas (Barayong and Pinit, Ligao)
- i - J. Guanzon has 4 permits with 2 concession areas (Binatagan and Guilid, Ligao)
- j - S. Azores has 5 permits with 2 concession areas (Barayong and Pinit, Ligao)
- k - R. Ante has 5 permits with 3 concession areas (Cavasi, **** Pandan and Bonga, Ligao)
- l - M. Bajamundi has 2 permits with 2 concession areas (Kilicao and Malobago, Daraga)
- m - T. Ranola has 3 permits with 3 concession areas (Kilicao, Binitayan and Mi-isi, Daraga)
- n - I. Bringino has 4 permits with 2 concession areas (Buang, Tabaco and San Isidro, Oas)

**** Permit re-granted in June 1998. However, extraction operation in this barangay was no longer included in the present permit.
 ***** Extraction operation in this barangay was no longer included in the present permit.
 ***** Permit re-granted in July 1998.

**DT II 5.1.3 Summary Report of ENRO Processed Permits Province of Albay
(As of December 31, 1998) (8/8)**

LOCATION	NO. OF PERMITS	NO. OF CONCESSIONERS	NAME OF PERMITTEE	VOLUME APPROVED FOR EXTRACTION (cu.m.)			TOTAL
				PERLITE ORE	BENTONITE		
A QUARRY PERMIT Puro, Legazpi City	1	1	Virginia Miranda	500			500
B SMALL-SCALE MINING PERMIT Homapon, Legazpi City Lamba/Maslog, Legazpi City	2 1	1 1	Nolito Bayna UBS Mktg. Corp.	1,250	1,500		1,500 1,250
TOTAL	4	3		1,750	1,500		3,250

5.2 Quality Check of Aggregate Materials

DT II 5.2 Result Sheet of Aggregate Quality Test

Name of Sources	Kind of Materials	Fine Agregate			Course Aggregate		
		Specific Gravity	Absorprion (%)	Fineness Modulus (%)	Specific Gravity	Absorprion (%)	Abrasion Loss (%)
Albay							
1. Buang River	Volcanic Fine and Course	2.47	4.71	2.71	2.14	8.10	50.88
2. Nagas River	Fine and Course				2.92	3.64	38
3. San Vicente River	Volcanic Fine and Course	2.43	6.25		2.27	5.29	56.44
4. Bulawan River	Volcanic Fine and Course	2.79	1.74	2.16	2.25	2.84	49
5. Basud River	Volcanic Fine and Course	2.45	8.57	2.64	2.37	4.48	52.08
6. Caracaran River	Volcanic Fine and Course	2.54	0.005		2.92	0.108	28
7. Padang River	Volcanic Fine and Course	2.6	2.04	2.7	2.32	2.48	53.46
8. Yawa River	Fine Aggregate	1.0	1.03				
9. Foot of Mayon	Volcanic Fine and Course			4.19		5.36	
10. Nasisi River	Fine and Course	2.36	3.57	2.41	2.14	5.86	42
11. Bacolod River	Fine and Course				3.24	1.41	26
Camarines Sur							
12. San Jose River	Fine and Course	2.49	3.2		2.48	2.10	31.70
Camarines Norte							
13. Dogongan River	Fine and Course	2.55	4.04	3.89	2.41	5.86	47
Sorsogon							
14. Cawayan River	Fine and Coarse		37		2.1		
Masbate							
15. Bafiadero River	Fine and Course		23				

5.3 Aggregate Demand for Construction Use in Sorsogon, Naga City and Iriga City

DT II 5.3 Aggregate Construction Use in Sorsogon, Naga City and Iriga City by Hearing Survey

Municipality	Municipality Utilizing the Sand and Gravel Coming from Yawa River		Purpose : For Construction Demand							Cost per Cubic Meter		Source	Volume Annually (cu.m.)
	Sand	Gravel	Subdivision		One (1) Story House	Two (2) Stories House	Three (3) Stories & above House/Bldg.	Sand (P)	Gravel (P)				
			Horizontal Const.	Vertical Const.									
A SORSOGON													
1 Donsol	yes	yes	yes	yes	yes	yes	yes	yes	250	350	Mun. Engr	S - 2,920 G - 2,000	
2 Pilar	yes	yes	yes	yes	yes	yes	yes	yes	250	350	Mun. Engr		
3 Castilla	yes	yes	yes	yes	yes	yes	yes	yes	250	350	Mun. Engr		
4 Sorsogon	yes	small consumption	sand - yes	sand - yes	very low consumption	medium consumption	very high consumption	very high consumption	250	350	Mun. Engr		
5 Juban	yes	no (local source)	gravel-low sand only	gravel-low sand only	very low consumption	medium consumption	very high consumption	very high consumption	300	350	Mun. Engr		
6 Barcelona	no	no	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mun. Engr		
7 Bulusan	no	no	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mun. Engr		
8 Irosin	yes	no (local source)	sand only	sand only	very low consumption	medium consumption	very high consumption	very high consumption	350		Mun. Engr		
9 Sta. Magdalena	yes	no (local source)	sand only	sand only	very low consumption	medium consumption	very high consumption	very high consumption	350		Planning Officer		
10 Matnog	yes	no (local source)	sand only	sand only	very low consumption	medium consumption	very high consumption	very high consumption	350		Mun. Engr		
11 Bulan	yes	no (local source)	sand only	sand only	very low consumption	medium consumption	very high consumption	very high consumption	350		Mun. Engr		
12 Magallanes	-	-	-	-	-	-	-	-	-	-	-		
13 Pto. Diaz	-	-	-	-	-	-	-	-	-	-	-		
14 Casiguran	The Municipal Engineer and the Municipal Planning Officer are in the field for inspection.												
15 Bacon	The Municipal Engineer is in the field for inspection.												
16 Gubat	The Municipal Engineer and the Municipal Planning Officer are in the field for inspection.												
B NAGA CITY	yes	no	yes	yes	very low consumption	very low consumption	very low consumption	very low consumption	180		Asst. City Engr.		
C IRIGA CITY	yes	yes	sand - yes gravel - yes (low)	sand - yes gravel - yes (low)	sand only	sand only	sand only	sand only	200	350	Asst. City Engr.		

Note:

1. For government projects the sand and gravel from Yawa River is being utilized. (source: DPWH)
2. Very low, they can used the local source
3. Medium, they can used local and Albay sources
4. Very high, the Mun. Engr. Specified the Albay sand coz of high quality.
5. Naga City projects (horizontal construction) - sand only
6. Iriga City projects - no

5.4 LGU and Provincial Level Project

**DT II 5.4.1 Master Plan for the Legazpi-Iriga-Daga-Daet Growth Corridor
Project/Program Profile (1/7)**

SECTOR	Infrastructure
PROJECT TITLE	Improvement of Legazpi Port
CLASSIFICATION	National
LOCATION	Legazpi City
DESCRIPTION	The project involves the construction of additional berth to accommodate projected traffic for the next ten years. It also includes the expansion and improvement of vehicle circulation and cargo handling areas.
OBJECTIVES	The project aims to improve port efficiency in support of regional trade and commerce.
BENEFICIARIES	Passengers, Traders, Producers
COST	PhP 84 M
IMPLEMENTATION PERIOD	Phase I
POTENTIAL FUND SOURCE	National Government, Philippine Ports Authority
IMPLEMENTATION STRATEGY	The project may be implemented as a national project under the auspices of the Philippine Ports Authority
STATUS/ACTION NEEDED	For FS preparation

**DT II 5.4.1 Master Plan for the Legazpi-Iriga-Daga-Daet Growth Corridor
Project/Program Profile (2/7)**

SECTOR	Infrastructure
PROJECT TITLE	Completion of Quirino Highway
CLASSIFICATION	National
LOCATION	Del Gallego and Ragay
DESCRIPTION	The project involves the construction of the remaining portions of Quirino Highway, involving a total of about 25 kilometers of road pavement, including drainage structure, road signage and slope protection.
OBJECTIVES	The project aims to provide an all-weather trunk road to connect the Bicol Region to Manila through a shorter route. It aims to improve inter-regional flow of goods and services by reducing travel time and providing a higher level of service.
BENEFICIARIES	Land Owners, Passengers, Agricultural Producers and Traders
COST	PhP 210 M (out of the total estimated PhP 978 M)
IMPLEMENTATION PERIOD	Phase I
POTENTIAL FUND SOURCE	OECD and National Government
IMPLEMENTATION STRATEGY	The project is to be implemented under the auspices of the Department of Public Works and Highways, with financial assistance from the OECD of Japan
STATUS/ACTION NEEDED	On-going construction

**DT II 5.4.1 Master Plan for the Legazpi-Iriga-Daga-Daet Growth Corridor
Project/Program Profile (3/7)**

SECTOR	Infrastructure
PROJECT TITLE	Construction of Sipocot Transport Terminal
CLASSIFICATION	Regional
LOCATION	Sipocot-Quirino Highway Junction
DESCRIPTION	The project involves the creation of a new integrated transport terminal to serve the transfer junction at Sipocot and Quirino. It covers the construction of servicing and maintenance sheds, dormitories for drivers/crew and transient passengers, restaurants, rest rooms, gasoline station, taxi/jeepney and tricycle stands, and convenience shops. It shall include the provision of parking facilities and traffic control.
OBJECTIVES	The project aims to improve accessibility to basic services. It envisions to create a new activity center that can serve as a viable transfer point and complement the other settlement areas. It also aims to organize the management of both passenger and vehicular traffic through the provision of appropriately designed transport facilities.
BENEFICIARIES	Operators, Passengers and Commercial Development Investors
COST	PhP 45 M
IMPLEMENTATION PERIOD	Phase 2
POTENTIAL FUND SOURCE	Private Sector or LGU-Private Partnership
IMPLEMENTATION STRATEGY	The project may be developed under a joint venture or cooperative development scheme. Alternatively, it may be developed under a BOT scheme or any of its variant.
STATUS/ACTION NEEDED	For FS preparation

**DT II 5.4.1 Master Plan for the Legazpi-Iriga-Daga-Daet Growth Corridor
Project/Program Profile(4/7)**

SECTOR	Infrastructure
PROJECT TITLE	Construction of Ligao Transport Terminal
CLASSIFICATION	Regional
LOCATION	Ligao, Albay
DESCRIPTION	The project involves the creation of new integrated transport terminal to serve the transfer junction at Sipocot and Quirino. It covers the construction of servicing and maintenance sheds, dormitories for drivers/crew and transient passengers, restaurants, rest rooms, gasoline station, taxi/jeepney and tricycle stands, warehousing facilities and paved yard. It shall include the provision of parking facilities and traffic control.
OBJECTIVES	The project aims to improve accessibility to basic services. It envisions to create a new activity center that can serve as a viable transfer point and complement the other settlement areas. It also aims to organize the management of both passenger and vehicular traffic, including freight traffic to and from the Tabaco and the proposed Pantao Port, through the provision of appropriately designed transport facilities.
BENEFICIARIES	Operator, Passengers, and Commercial Development Investors
COST	PhP 38 M
IMPLEMENTATION PERIOD	Phase 2
POTENTIAL FUND SOURCE	Private Sector or LGU-Private Partnership
IMPLEMENTATION STRATEGY	The project may be developed under a joint venture or cooperative development scheme. Alternatively, it may be developed under a BOT scheme or any of its variant.
STATUS/ACTION NEEDED	For FS preparation

**DT II 5.4.1 Master Plan for the Legazpi-Iriga-Daga-Daet Growth Corridor
Project/Program Profile (5/7)**

SECTOR	Infrastructure
PROJECT TITLE	Improvement of Roads in Urban Growth Centers and Tourism Areas
CLASSIFICATION	Local
LOCATION	Daet, Mercedes, Basud, Libmanan, S. Fernando, Naga City, Pili, Minalabac, Baa, Nabua, Bula, Bato, Oas, Polangui, Ligao, Guinobatan, Daraga, Camalig, Legazpi
DESCRIPTION	The project involves the improvement and rehabilitation of a total of about 110 kilometers of access road and local streets in key urban areas and tourism areas. It covers pavement rehabilitation and construction to all-weather condition, provision and reconstruction of drainage structures, provision of safety signages and construction of directional control at selected locations.
OBJECTIVES	The project aims to improve the accessibility of areas around the identified growth centers.
BENEFICIARIES	Local community, passengers, tourists, shop and commercial operators
COST	PhP 790 M
IMPLEMENTATION PERIOD	Phase 2
POTENTIAL FUND SOURCE	LGU and National Government
IMPLEMENTATION STRATEGY	The project may be implemented using funds coming from the national government supplemented by funds from local government units under a cost-sharing scheme.
STATUS/ACTION NEEDED	For packaging/FS preparation

**DT II 5.4.1 Master Plan for the Legazpi-Iriga-Daga-Daet Growth Corridor
Project/Program Profile (6/7)**

SECTOR	Infrastructure
PROJECT TITLE	Improvement of Tabaco Port
CLASSIFICATION	National
LOCATION	Tabaco, Albay
DESCRIPTION	Tabaco Port handles traffic in the order of 20,000 metric tonnes of cargo and about 110,000 embarking and disembarking passengers. The project envisions improvement and rehabilitation to enhance operational efficiency. More specifically, the civil works involve rehabilitation of the existing berth, provision of a new RORO ramp, additional parking spaces and additional water lines.
OBJECTIVES	To enhance the efficiency of the port in handling projected traffic volumes. To improve inter-regional link and promote trade and industry.
BENEFICIARIES	Traders, Shipping Lines, Passengers
COST	PhP 50 M
IMPLEMENTATION PERIOD	Phase 2
POTENTIAL FUND SOURCE	National Government and Philippine Ports Authority
IMPLEMENTATION STRATEGY	The project may be implemented under the auspices of the Philippine Ports Authority through its annual investment program.
STATUS/ACTION NEEDED	For FS preparation

**DT II 5.4.1 Master Plan for the Legazpi-Iriga-Daga-Daet Growth Corridor
Project/Program Profile(7/7)**

SECTOR	Infrastructure
PROJECT TITLE	Bicol River Flow Control and Development Project
CLASSIFICATION	Regional/National
LOCATION	Central Camarines Sur and Quinale Area, Albay
DESCRIPTION	The project includes the physical constructions, agricultural production and relocation to mitigate recurring damages from flooding of the Bicol River in Baliwag-San Vicente, Rinconada and Quinale areas. The most important flood control measures are the water catchment development in Lake Baao, ring dike in Lake Bato and various irrigation and drainage structures in Quinale. Fisheries development in Lakes Bato and Baao are complimentary projects.
OBJECTIVES	To alleviate flooding, poverty, health hazards from flooding; increase farm income, mitigate property damage and loss of income from flooding; increase LGU revenues from real property tax.
BENEFICIARIES	LGUs, farmers and producers, citizenry
COST	PhP 5 B
IMPLEMENTATION PERIOD	Phase 2
POTENTIAL FUND SOURCE	ADB Loan
IMPLEMENTATION STRATEGY	Infrastructure component to be implemented by the National Government; Social component including relocation to be led by LGUs; Production component by DA/DENR, etc.
STATUS/ACTION NEEDED	FS and Detailed Engineering completed in 1991; needs restudy

DT II 5.4.2 Project Cost Summary (1/4)

- Tabaco Reclamation and Development Project -

Year	Phase/ Stage	Item	Quantity	Unit	Unit Cost	Unit	Amount
1	<u>I/1-2</u>	<u>RECLAMATION</u>					
		Rubble Dam	3,378	M ³	180	M ³	P 608
		Grouted Riprap	2,250	M	1,125	M	2,531
		Dredgefill	2,520,930	M ³	.60	M ³	151,256
		Total					P 154,395
2	<u>I/1</u>	<u>SITE DEVELOPMENT</u>					
		Conc. Pav't.	52,666	M ²	420	M ²	P 22,120
		Conc. Sidewalk	16,197	M ²	243	M ²	3,936
		Conc. Curb/Gutter	11,560	M	320	M	3,699
		Aggreg. Basecourse	12,778	M ³	180	M ³	2,300
		Manhole/Catchbasins	26	pcs.	1,450	pcs.	38
		Conc. Pipes 18" Ø x	4,275	M	750	M	3,206
		Conc. Pipes 24" Ø x	714	M	990	M	707
		Conc. Pipes 36" Ø x	1,152	M	1,480	M	1,705
		Conc. Pipes 48" Ø x	1,683	M	1,980	M	3,332
		Drainage Excavation	2,482	M ³	.138	M ³	343
		Waterworks System	5,780	M	1,250	M	7,225
		Firehydrants	116	pcs.	25,000	pcs.	2,900
		Sewage System and Treatment Plant	30	has.	500,000	has.	15,000
		Bridge 1 M x 30 M	x 35	M	9,375	M	9,844
		Bridge 2 M x 20 M	x 30	M	9,375	M	11,250
		Electrical Facil.	5.8	KM.	9,000,000	KM.	52,200
		SUB-TOTAL					P 139,804
	<u>I/2-3</u>	<u>RECLAMATION</u>					
		Dredgefill Mats.	1,186,320	M ³	60	M ³	P 71,179
3	<u>I/2-3</u>	<u>SITE DEVELOPMENT</u>					
		Conc. Pavement	111,914	M ²	420	M ²	47,004
		Conc. Sidewalk	34,418	M ²	243	M ²	8,364
		Conc. Curb & Gutter	24,566	M	320	M	7,861
		Aggregate Basecourse	27,154	M ³	180	M ³	4,888
		Manhole/Catchbasins @ 50 M. O.C.	549	Pcs.	1,450	Pcs.	796

DT II 5.4.2 Project Cost Summary (2/4)

- Tabaco Reclamation and Development Project -

Year	Phase/ Stage	Item	Quantity	Unit	Unit Cost	Unit	Amount	
3	<u>I/2-3</u>	<u>SITE DEVELOPMENT (Continuation)</u>						
		Waterworks System	12,283	M	1,250	M	P 15,354	
		Firehydrants	246	pcs.	25,000	pcs.	6,150	
		Electrical Facil.	12.3	KMS.	9	M/KMS.	110,700	
		Bridge 1 M x 20 M	x 50	M			9,375	
		Bridge 1 M x 10 M	x 35	M			3,281	
		Conc. Pipes 18" Ø	x 9,085	M	750	M	6,814	
		Conc. Pipes 18" Ø	x 1,517	M	990	M	1,502	
		Conc. Pipes 18" Ø	x 2,448	M	1,480	M	3,623	
		Conc. Pipes 18" Ø	x 3,577	M	1,980	M	7,082	
		Drainage Excavation	5,275	M ³	138	M ³	728	
		Sewage System and Treatment Plant	74	has.	500,000	ha.	37,150	
		SUB-TOTAL						P 270,671
		PHASE TOTAL						P 636,050
3	<u>II/1-2</u>	<u>RECLAMATION</u>						
		Rockbulkhead	2,500	M	7,920	M	P 19,800	
		1 ^ Dredgefill Mats.	1,038,735	M ³	60	M ³	62,324	
		SUB-TOTAL						P 82,124
4	<u>II/1</u>	<u>SITE DEVELOPMENT</u>						
		Drainage Excavation	2,878.8	M ³	138.65	M ³	P 399	
		Conc. Pipes 18" Ø x	3,542.4	M	750	M	2,657	
		24" Ø x	631	M	990	M	625	
		36" Ø x	1,070.4	M	1480	M	1,584	
		48" Ø x	1,310.4	M	1980	M	2,595	
		Manhole/Catchbasins	216	pcs.			428	
		Waterworks System	3,325.2	M			6,584	
		Firehydrants	67	pcs.			133	
		Sewage System and Treatment Plant	28.24	has.	500,000	has.	14,120	
		Conc. Pavement	33,580.5	M ²	420	M ²	14,104	
		Conc. Sidewalk	12,336	M ²	243	M ²	2,998	
		Conc. Curb & Gutter	6,650.4	M	320	M	2,128	
		Aggregate Basecourse	7,937	M ³	180	M ³	1,429	
		Electrical Facil.	3.3	KMS.	9	KMS.	29,700	
		SUB-TOTAL						P 79,483

DT II 5.4.2 Project Cost Summary (3/4)

- Tabaco Reclamation and Development Project -

Year	Phase/ Stage	Item	Quantity	Unit	Unit Cost	Unit	Amount
	II / 2	<u>RECLAMATION</u>					
		Dredgefill Mats.	1,190,217	M ³	60	M ³	<u>71,413</u>
5	II / 2	<u>SITE DEVELOPMENT</u>					
		Drainage Excavation	3,298.6	M ³	138.65	M ³	P 457
		Conc. Pipes 18" Ø	x 4,059	M	750	M	3,044
		24" Ø	x 723	M	990	M	716
		36" Ø	x 1,226.5	M	1,480	M	1,815
		48" Ø	x 1,502	M	1,980	M	2,974
		Manhole / Catchbasins	248	pcs.	145	pcs.	360
		Waterworks System	3,810	M	1,250	M	4,763
		Firehydrants	76	pcs.	25,000	pcs.	1,900
		Electrical Facil.	3.8	KMS.	9	M/KMS.	34,200
		Conc. Pavement	38,478	M ²	420	M ²	16,161
		Conc. Sidewalk	14,135	M ²	243	M ²	3,435
		Conc. Curb & Gutter	7,620.25	M	320	M	2,438
		Aggregate Basecourse	9,094.6	M ³	180	M ³	1,637
		Sewage Ststem and Treatment Plant	32.26	has.	500,000	has.	16,130
		SUB - TOTAL					<u>P 90,030</u>
	II / 3	<u>RECLAMATION</u>					
		R.C. File Wall 16" x 80"	2,250	pcs	35,000	pc	P 78,750
		Dredgefill Mats.	2,099,110	M ³	60	M ³	<u>125,947</u>
		SUB - TOTAL					<u>P 204,697</u>
6	II / 3	<u>SITE DEVELOPMENT</u>					
		Drainage excavation	5,818	M ³	139	M ³	P 807
		Conc. Pipes 18 " Ø	x 7,159	M	750	M	5,369
		24 " Ø	x 1276	M	990	M	1,263
		36 " Ø	x 2163	M	1,480	M	3,201
		48 " Ø	x 2648	M	1,980	M	5,243
		Manhole / Catchbasins	437	pcs.	1,450	pcs.	634
		Waterworks System	6720	M	1,250	M	8,400
		Fire Hydrants	134	pcs.	25,000	pcs.	3,350
		Electrical Facil.	6.5	KMS.	9	M/KMS.	58,500
		Conc. Pavement	67,861	M ²	420	M ²	28,502

DT II 5.4.2 Project Cost Summary (4/4)
- Tabaco Reclamation and Development Project -

Year	Phase/ Stage	Item	Quantity	Unit	Unit Cost	Unit	Amount
		Conc. Sidewalk	24,929	M ²	243	M ²	P 6,058
		Conc. Curb & Gutter	13,459	M	320	M	4,307
		Aggregate Basecourse	16,040	M ³	180	M ³	2,887
		Sewage System and Treatment Plant	56.825	has.	500,000	has.	28,413
7		Marginal Wharf with Loading Apron	500	M	350,000	M	175,000
		Water Reservoir and Pumping Station		1 unit	Lump Sum		160,032
			SUB-TOTAL				P 491,965
			PHASE TOTAL				P 1,019,711

5.5 Q&A about Dredging Work to the Regional Equipment Services (RES-V)

Hearing Survey about Dredging Work to the Regional Equipment Services (RES-V)

1. *May we know if dredging of rivers is being undertaken by the Regional Equipment Services (RES – V)?*

The dredging of rivers and other in-land waterways with approved requests either from LGU's (Local Government Units), DPWH Regional and District Offices that calls for the utilization of Dredging Machine are being undertaken by RES-V Dredge Personnel. Other dredging/desilting projects that only require the uses of bulldozers, front-end loaders and or backhoe/excavators are usually prosecuted by concerned LGU's/DPWH Regional Office and or District Engineering Offices.

2. *If so Why and How?
How? (procedures)*

For dredging projects where the Dredge Machine is utilized, the primary responsibility of RES-V is on the operation/utilization and on repair/maintenance of all its ancillary equipment and attendant plant.

The actual setup of the Dredge usually is performed in the following order: The dredge is mobilized/towed to the desired starting location; on the actual/dredging operation—the spuds are alternately lowered, and the swingline anchors are run. The pontoon line is then set into position at the stern of the dredge and connected to the discharge. Each piece of pipeline is individually added until the desired length or the point of discharge is obtained.

The whole procedure is termed dredging – the utilization of power with water to transfer solid materials. Dredge equipment is rated by the size of discharge line (i.e. Dredge 10"-1, Dredge 8"-5 and Dredge 10"-4). Said equipment is ideally suited for dredging inland waterways, rivers, ponds where siltations such as mud, sand/gravel are to be removed in limited quantities. Ideally the hydraulic materials should run between 15 to 20 percent solids for good production. The impeller and the discharge pipe is subject to considerable wear (especially on volcanic materials) the extent of which is directly proportional to the type of and velocity of materials which passes through it.

3. *How do the funds being transferred to your office?*

Funds for dredging of projects are not transferred to RES-V. Equipment utilization is covered with corresponding MOA-ERRO between RES-V and implementing office. (Regional Equipment Services, Region V, Legazpi City.)

4. *Do you have set-up for dredging works?*

The number of employees (laborers) needed in dredging projects depends largely on the nature and magnitude of the project.

The typical set-up however to man the Dredge and its ancillary equipment is composed of the following:

Dredge Master II
Engineer II
Launch Patron

Communication Equipment Operator
Marine Engineman II
Dredgeman II
Marine Engineman I
Dredgeman I

5. *Spoil bank area and dredging volume:*

Spoil bank area and dredging volume are treated/indicated in the corresponding plan and program of work for dredging and desilting project being prepared by the implementing office.

5.6 Mayon Sabo and River Improvement Projects

DT II 5.6.1 Mayon Sabo and River Improvement Projects Financial Requirements and Actual Releases

Year	Total Financial Requirement (1000pesoes)	Quinali (A) River, Quinali (B) River and Yawa River Systems (1000pesoes)									
		Sabo			River Improvement			Grand Total			
		Amount Programmed	Actual Release	(%)	Amount Programmed	Actual Release	(%)	Amount Programmed	Actual Release	(%)	Amount Programmed
1984	98,110	15,526	1,316	8.48%	82,584	0	0.00%	98,110	1,316	1.34%	
1985	127,380	24,954	7,000	28.05%	102,426	0	0.00%	127,380	7,000	5.50%	
1986	200,635	32,799	4,900	14.94%	167,836	0	0.00%	200,635	4,900	2.44%	
1987	269,624	37,601	3,000	7.98%	232,023	0	0.00%	269,624	3,000	1.11%	
1988	297,832	50,616	14,500	28.65%	247,216	500	0.20%	297,832	15,000	5.04%	
1989	305,415	56,511	19,300	34.15%	248,904	700	0.28%	305,415	20,000	6.55%	
1990	285,164	56,792	36,500	64.27%	228,372	3,500	1.53%	285,164	40,000	14.03%	
1991	269,941	42,609	41,500	97.40%	227,332	3,500	1.54%	269,941	45,000	16.67%	
1992	125,232	0	53,000		125,232	4,500	3.59%	125,232	57,500	45.91%	
1993	121,231	0	19,500		121,231	20,700	17.07%	121,231	40,200	33.16%	
1994		0	19,525		0	475		0	20,000		
1995		0	0		0	6,211		0	6,211		
1996		0	20,000		0	0		0	20,000		
1997		0	10,900		0	4,100		0	15,000		
1998		0	0		0	10,000		0	10,000		
Total	2,100,564	317,408	250,941	79.06%	1,783,156	54,186	3.04%	2,100,564	305,127	14.53%	
Foreign Currency	788,093	81,552	0	0.00%	706,541	0	0.00%	788,093		0.00%	
Local Currency	1,312,471	235,856	250,941	106.40%	1,076,615	54,186	5.03%	1,312,471	305,127	23.25%	

Source: DPWH Region V
1) ×1000pesoes

**DT II 5.6.2 Mayon Sano and River Improvement Projects Financial Requirements
and Releases of Yawa River System**

Year	Total Financial Requirement (1000pesoes)	Yawa River System - Yawa Rv., Pawa-Burabod Rv., Budiao Rv., Anuling Rv. (1000pesoes)					
		Sabo		River Improvement		Grand Total	
		Amount Programmed	Actual Release (%)	Amount Programmed	Actual Release (%)	Amount Programme	Actual Release (%)
1984	98,110	15,526				15,526	
1985	127,380	20,508	34%	12,499		33,007	7,000
1986	200,635	15,604	21%	13,710		29,314	3,250
1987	269,624	19,718		15,048		34,766	
1988	297,832	30,150	20%	16,527		46,677	6,000
1989	305,415	25,109	28%			25,109	7,100
1990	285,164	11,737	81%		2,500	11,737	12,000
1991	269,941				3,500		15,500
1992	125,232				3,500		15,500
1993	121,231						6,500
1994							5,100
1995							
1996							3,300
1997					2,000		3,100
1998					6,500		6,500
Total	2,100,564	138,352	53%	57,784	18,000	196,136	90,850
Foreign Currency	788,093	36,452	0%	19,600	0	56,052	0
Local Currency	1,312,471	101,900	71%	38,184	18,000	140,084	90,850

1) x1000pesoes

Source: DPWH Region V

**DT II 5.6.3 Mayon Sabo and River Improvement Projects Financial Requirements
and Actual Releases of Quinali (A) River System**

Year	Total Financial Requirement (1000pesoes)	Quinali (A) River System - Quirangay Rv., Tumpa Rv., Masarawag Rv., Ogsong Rv., Nasisi Rv.						
		Sabo		River Improvement		Grand Total		
		Amount Programmed	Actual Release (%)	Amount Programmed	Actual Release (%)	Amount Programme	Actual Release (%)	
1984	98,110		1,316	52,577		52,577	1,316	3%
1985	127,380	4,446		57,287		61,733		
1986	200,635	17,195	10%	100,796		117,991	1,650	1%
1987	269,624	17,883		158,782		176,665		
1988	297,832	20,466	11%	167,096		187,562	2,200	1%
1989	305,415	31,402	14%	179,303		210,705	4,400	2%
1990	285,164	45,055	27%	177,514		222,569	12,000	5%
1991	269,941	31,055	39%	171,523		202,578	12,000	6%
1992	125,232			125,232		125,232	11,500	9%
1993	121,231			121,231		121,231	15,200	13%
1994							6,650	
1995							0	
1996							7,733	
1997							2,100	
1998							3,500	
Total	2,100,564	167,502	39%	1,311,341	19,275	1,478,843	84,749	6%
Foreign Currency	788,093	42,300	0%	505,941	0	548,241	0	0%
Local Currency	1,312,471	125,202	52%	805,400	19,275	930,602	84,749	9%

1) x1000pesoes

Source: DPWH Region V

**DT II 5.6.4 Mayon Sabo and River Improvement Projects Financial Requirements
and Actual Releases of Quinali (B) River System**

Year	Total Financial Requirement (1000pesos)	Quinali (B) River System - Buang Rv., Quinali(B) Rv., and San Vicente Rv. (1000pesos)						
		Sabo		River Improvement		Grand Total		
		Amount Programmed	Actual Release (%)	Amount Programmed	Actual Release (%)	Amount Programme	Actual Release (%)	
1984	98,110			30,007		30,007		
1985	127,380			32,640		32,640		
1986	200,635			53,330		53,330		
1987	269,624			58,193		58,193		
1988	297,832			63,593		63,593		
1989	305,415			69,601		69,601		
1990	285,164			50,858		50,858		
1991	269,941	11,554		55,809		67,363		
1992	125,232					4,000	4,000	
1993	121,231					4,000	6,000	
1994						1,900	1,900	
1995								
1996						4,517	4,517	
1997						1,500	1,500	
1998								
Total	2,100,564	11,554	138%	414,031	2,000	425,585	17,917	
Foreign Currency	788,093	2,800	0%	181,000	0	548,241	0	
Local Currency	1,312,471	8,754	182%	233,031	2,000	-122,656	17,917	
								4%
								0%
								-15%

1) x1000pesos

Source: DPWH Region V

**DT II 5.6.5 Mayon Sano and River Improvement Project Financial Requirements
and Actual Releases of Other Rivers**

Year	Total Financial Requirement (1000pesos)	Arimbay Rv., Padang Rv., Basud Rv., Bulawan Rv. (1000pesos)					
		Sabo		River Improvement		Grand Total	
		Amount Programmed	Actual Release (%)	Amount Programmed	Actual Release (%)	Amount Programme	Actual Release (%)
1984	98,110						
1985	127,380						
1986	200,635						
1987	269,624		3,000				3,000
1988	297,832		6,300		500		6,800
1989	305,415		7,800		700		8,500
1990	285,164		15,000		1,000		16,000
1991	269,941		17,500				17,500
1992	125,232		22,000		4,500		26,500
1993	121,231		10,500		2,000		12,500
1994			6,350				6,350
1995					6,211		6,211
1996			4,450				4,450
1997			3,800				3,800
1998							
Total	2,100,564	0	96,700	0	14,911	0	111,611
Foreign Currency	788,093	0	0	0	0	0	0
Local Currency	1,312,471	0	96,700	0	14,911	0	111,611

1) ×1000pesos

Source: DPWH Region V