

APPENDIX 3.5 - 3

CLASSIFICATION OF ACTIVITY CENTERS

CLASSIFICATION OF ACTIVITY CENTERS

Page 1 of 17

PROVINCE	MUNICIPALITY / CITY	POPULATION	LAND AREA (sq. km.)	POPULATION DENSITY (per/sq. km.)	REGIONAL CAPITAL	PROVINCIAL CAPITAL	CITY OTHER THAN REG'L CAPITAL	POPULATION			AIRPORT			PORT			INDUSTRIAL			RATING	CLASSIFICATION
								2007	2007 - 1007	1007 - 507	Intl.	Trunkline	Secondary	Feeder	Base	Terminal	RO-RO	EPZ	RGC / RIC		
MARINDUQUE	BOAC(Capital)	199 910	919.3	217	A	A	B	A	C	A	A	B	C	A	B	A	A	B	1A + 4B	30	Primary
	BUENAVISTA	44 609	212.7	210		A						B		B							
	GASAN	17 358	81.3	214																	
	MOSOG	26 944	119.3	226																	
	SANTA CRUZ	28 201	98.5	286																	
	TORILLOS	56 991	246.6	231					C						B				1B + 1C	7	Secondary
	ABRA DE LOG	25 807	160.9	160																	
	CALINTAAN	304 381	5 874	54																	
	MAGSAYSAY	15 253	533.7	29											B				1B	5	Secondary
	MAMBURAO (Capital)	21 687	382.5	57																	
OCCIDENTAL MINDORO	MAGSAYSAY	26 347	296.7	91																	
	PALUAN	25 627	339.5	75		A					B										
	RIZAL	8 860	562.9	16																	
	SABLAYAN	27 112	242.5	112																	
	SAN JOSE	55 573	2 188.6	25																	
	SANTA CRUZ	101 411	446.7	227																	
	BACO	21 911	661.3	32																	
	BANSUD	608 616	4 067	150																	
	BONGABONG	25 915	241.7	107																	
	BULALACAO (SAN PEDRO)	31 301	343.5	93																	
ORIENTAL MINDORO	CALAPAN (Capital)	57 403	128.8	446																	
	GLORIA	24 047	305.1	79		A															
	MANALAY	96 906	250.1	386																	
	NALUAN	35 771	245.5	146																	
	PINAMALAYAN	29 765	513.0	58																	
	POLA	75 726	462.7	164																	
	PUERTO GALERA	65 903	277.3	238																	
	ROXAS	28 156	159.3	183																	
	SAN TEODORO	19 465	247.9	79																	
	SOCORRO	34 045	87.1	391																	
PALAWAN	VICTORIA	12 983	359.1	35																	
	ABORLAN	34 182	148.4	229																	
	BATARAZA	35 828	286.0	125																	
	BROOKES POINT	50 353	119.2	42																	
	DUMARAN	21 950	276.6	78																	
	EL NIDO (BACUIT)	33 303	726.2	46																	
	NARRA	41 924	841.8	50																	
	PUERTO PRINCESA CITY (Capital)	13 980	435.0	32																	
	QUEZON	21 948	465.1	47																	
	ROMBLON	SAN VICENTE	48 339	822.7	59																
TAYTAY		125 577	2 382.0	54		A															
RIZAL (MARCOS)		35 856	633.2	56																	
SOFRONIO ESPAOLA		44 370	1 188.8	37																	
ALCANTARA		19 449	842.5	23																	
CAJIDIOCAN		47 095	1 300.4	36																	
CALATRAVA		21 876	1 256.5	17																	
LOOC		22 986	461.6	50																	
MAGDIWANG		21 608	121.5	178																	

CLASSIFICATION OF ACTIVITY CENTERS

PROVINCE	MUNICIPALITY / CITY	POPULATION	LAND AREA (sq. km.)	POPULATION DENSITY (per/sq. km.)	REGIONAL CAPITAL	PROVINCIAL CAPITAL	CITY OTHER THAN REG'L CAPITAL	POPULATION			AIRPORT			PORT			INDUSTRIAL			TOURISM SPOT	RATING	CLASSIFICATION	
								2007	2007 - 1007	1007 - 507	Intl.	Trunkline	Secondary	Feeder	Base	Terminal	RO-RO	EPZ	RGC / RJC				Private Ecozone
ROMBLON	ODIONGAN	35,527	137.9	258	A	A															1B	5	Secondary
	ROMBLON (Capital)	32,290	72.3	474		A															1A + 1B	15	Primary
	SAN AGUSTIN	20,160	42.5	474																			
	SAN ANDRES	13,204	75.5	175																			
	SAN FERNANDO	18,551	201.9	92																			
CATANDUANES	SANTA FE	12,665	63.5	199																			
	FERROL	5,772	32.3	179																			
	SANTA MARIA (IMELDA)	7,785	48.0	162																			
		202,464	1,511.5	134																			
	BAGAMANOC	10,407	80.7	129																			
	BARAS	11,843	107.0	111																			
	BATO	16,535	48.6	340																			
	CARAMORAN	21,963	263.7	83																			
	GIGMOTO	6,736	176.8	38																			
	PANDAN	15,725	117.4	134																			
	PANGANIBAN (PAYO)	8,480	80.0	106																			
	SAN ANDRES (CALOLBON)	30,242	167.3	181																			
	SAN MIGUEL	12,052	129.9	93																			
	VIGA	18,569	158.2	117																			
	MASBATE	VIRAC (Capital)	48,912	194.7	256		A															1A + 2B	20
		508,248	3,312.5	154																			
ARORAY		55,110	440.3	125																			
BALENO		18,105	169.2	107																			
BALUD		27,533	231.3	121																			
CATAINGAN		27,065	191.6	220																			
CAYAYAN		45,834	276.2	166																			
DIMASALANG		20,568	120.0	171																			
ESPERANZA		17,023	67.5	252																			
MANDAON		28,716	280.8	102																			
MASBATE (Capital)		65,049	189.1	349		A															1A + 3B + 1C	27	Primary
MILAGROS		38,925	565.3	69																	1B	5	Secondary
MOBO		25,049	148.4	169																			
PALANAS		23,580	171.1	138																			
AKLAN		PIO V. CORPUZ (LIMBUHAN)	20,649	105.5	196																		
	PLACER	40,394	193.0	209																			
	USON	35,251	163.2	241																			
		410,539	1,935.0	224																			
	ALTAVAS	21,475	109.1	197																			
	BALETE	15,972	118.9	168																			
	BANGA	30,071	84.5	356																			
	BATAN	28,415	79.2	354																			
	BURUANGA	12,665	68.8	184																			
	IBAJAY	36,184	158.9	228																			
	KALIBO (Capital)	58,065	31.5	1,843		A															1A + 4B + 1C	32	Primary
	LEZO	11,536	23.4	493																			
	LIBACAO	22,812	325.9	70																			
	MADALAG	16,659	269.6	62																			
	MAKATO	21,955	64.4	341																			
	MALAY	18,406	67.3	288																			
	MALINAO	21,509	186.1	116																			
	NABAS	21,351	96.8	221																			
NEW WASHINGTON	31,068	66.7	478																				
NUMANCIA	22,356	26.0	860																		1C	2	Tertiary

CLASSIFICATION OF ACTIVITY CENTERS

PROVINCE	MUNICIPALITY / CITY	POPULATION	LAND AREA (sq.km.)	POPULATION DENSITY (per/sq.km.)	REGIONAL CAPITAL	PROVINCIAL CAPITAL	CITY OTHER THAN REG'L / CAPITAL	POPULATION			AIRPORT			PORT			INDUSTRIAL			TOURISM SPOT	RATING	CLASSIFICATION
								2007	2007 - 1007	1007 - 507	Intl.	Trunkline	Secondary	Feeder	Base	Terminal	RO-RO	EP2	RGC / RIC			
AKLAN ANTIQUE	TANGALAN	16,172	57.9	279	A			A	B													
	ANINI-Y	414,812	2,428.7	171																		
	BARBAZA	18,857	55.2	338																		
	BELUSON	17,313	154.3	112																		
	BUGASON	11,174	19.8	564																		
	CULASI	26,721	203.7	131																		
	TOBIAS FORNIER (DAO)	30,431	228.6	133																		
	HAMTIC	26,155	139.6	187																		
	LAUA-AN	36,167	207.8	174																		
	LIBERTAD	21,069	53.9	391																		
	PANDAN	13,274	149.8	89																		
	PATNONGON	24,978	28.2	886																		
	SAN JOSE (Capital)	29,235	25.6	1,142																		
	SAN REMIGIO	42,927	284.9	162																		
CAPIZ	SEBASTE	22,869	108.7	208																		
	SIBALOM	12,438	201.3	62																		
	TIBAO	45,143	181.2	255																		
	VALDERRAMA	19,628	111.7	176																		
		15,433	293.4	53																		
		624,469	2,478.8	252																		
	CUARTERO	26,477	178.2	149																		
	DAO	29,266	72.5	404																		
	DUMALAG	28,348	109.8	258																		
	DUMARAO	38,037	234.2	162																		
	IVISAN	22,720	34.2	419																		
	JAMINDAN	34,022	401.2	85																		
	MAAYON	30,333	141.4	215																		
	MAMBUSAO	35,632	116.7	305																		
ILOILO	PANAY	39,724	118.4	336																		
	PANITAN	33,269	89.9	370																		
	PILAR	36,464	115.6	315																		
	PONTEVEDRA	38,223	133.1	287																		
	PRESIDENT ROXAS	24,695	77.5	319																		
	ROXAS CITY (Capital)	118,715	95.1	1,248																		
	SAPILAN	22,534	80.0	282																		
	SIGMA	25,801	101.7	254																		
	TAPAZ	40,809	381.3	113																		
		1,749,561	4,795.0	365																		
	AJIY	38,415	152.3	252																		
	ALMODIAN	29,179	144.8	202																		
	ANILAO	20,711	75.4	275																		
	BADIANGAN	22,945	77.5	294																		
BALASAN	24,976	41.0	560																			
BANATE	24,976	118.9	210																			
BAROTAC NUEVO	40,968	94.5	434																			
BAROTAC VIEJO	33,652	142.3	236																			
BATAO	15,345	53.1	289																			
BINGAWAN	11,494	85.0	135																			
CABATUAN	42,264	13.8	3,063																			
CALINOG	45,452	232.8	195																			
CARLES	45,218	150.1	308																			
CONCEPCION	30,111	97.0	310																			
DINGLE	35,639	98.4	362																			

CLASSIFICATION OF ACTIVITY CENTERS

Page 4 of 17

PROVINCE	MUNICIPALITY / CITY	POPULATION	LAND AREA (sq. km.)	POPULATION DENSITY (per/sq. km.)	REGIONAL CAPITAL	PROVINCIAL CAPITAL	CITY OTHER THAN REG'L. CAPITAL	POPULATION			AIRPORT			PORT			INDUSTRIAL			TOURISM SPOT	RATING	CLASSIFICATION	
								2007	2007 - 1007	1007 - 507	Intl.	Trunkline	Secondary	Feeder	Base	Terminal	RO-RO	EPZ	RGC / RIC				Private Ecozone
ILOILO	DUE AS	28,954	90.5	320	A	A		A	B	C	A	A	B	C	A	B	A	A	B	B	1C	Tertiary	
	DUMANGAS	51,092	116.8	437						C											1B + 1C	Secondary	
	ESTANCIA	30,673	29.4	1,043						C						B					1C	Tertiary	
	GUIMBAL	26,316	44.5	591																			
	IGBARAS	25,960	141.7	183																			
	ILOILO CITY (Capital)	334,539	56.0	5,974	A	A		AA		C		A			A	B		A		B	7A + 2B	Primary	
	JANUARY	50,066	179.1	280						C											1C	Tertiary	
	LAMBUNAO	58,732	407.1	144						C											1C	Tertiary	
	LEGANES	19,235	32.2	597						C											1C	Tertiary	
	LEMERY	20,863	119.9	174																			
	LEON	41,043	140.2	293																	1C	Tertiary	
	MAASIN	29,364	156.6	188																			
	MIAGAO	52,276	156.8	333						C													
	MINA	16,419	43.4	378																			
	NEW LUCENA	16,873	44.1	383						C											1C	Tertiary	
	OTON	56,821	17.2	3,304						C												1C	Tertiary
	PASSI	59,539	250.7	237						C												1C	Tertiary
	PAVIA	26,756	35.0	764						C												1C	Tertiary
	POTOTAN	56,340	91.3	617						C												1C	Tertiary
	SAN DIONISIO	25,263	127.1	199																			
	SAN ENRIQUE	25,576	87.7	292																			
	SAN JOAQUIN	44,368	234.8	189																			
	SAN MIGUEL	18,819	32.0	588						C												1C	Tertiary
	SAN RAFAEL	12,000	145.8	82						C													
	SANTA BARBARA	39,667	77.5	512						C												1C	Tertiary
	SARA	38,652	183.0	211						C												1C	Tertiary
	TIGBAUAN	47,158	60.6	778						C												1C	Tertiary
	TUBUNGAN	18,450	34.6	533						C												1C	Tertiary
	ZARRAGA	17,519	82.5	212																			
GUIMARAS		126,470	488.7	259																			
	BUENAVISTA	37,681	94.6	398																			
	JORDAN	25,321	304.8	83		A										B					1A + 1B	Primary	
	NUOVA VALENCIA	27,158	89.3	304																			
	SAN LORENZO	18,537	46.6	398																			
	SIBUNAG	17,773	59.5	304																			
		2,434,186	6,133.1	397																			
	BACOLOD CITY (Capital)	402,345	156.1	2,577		A		AA				A								B	4A + 2B	Primary	
	BAGO CITY	132,338	361.9	366				B													2B	Secondary	
	BINALBAGAN	54,664	74.8	731						C											1C	Tertiary	
NEGROS OCCIDENTAL	CADIZ CITY	125,943	209.8	600				B		C											2B	Secondary	
	CALATRAVA	69,902	439.6	159						C											1C	Tertiary	
	CANDONI	17,004	191.7	89																			
	CAUAYAN	84,159	519.9	162						C											1C	Tertiary	
	ENRIQUE B. MAGALONA (SARAVIA)	54,421	113.3	480						C						B					2B + 1C	Secondary	
	ESCALANTE	79,928	304.9	262						C											1C	Tertiary	
	HIMAMAYAN	83,268	174.0	479						C											1C	Tertiary	
	HINGARAN	71,519	149.7	478						C													
	HINOBA-AN (ASIA)	40,819	414.1	99						C											1C	Tertiary	
	ILOG	43,905	87.5	502						C											1C	Tertiary	
ISABELA	49,019	241.5	203						C											1C	Tertiary		
KABANKALAN	139,282	174.8	797						C											1B	Secondary		
LA CARLOTA CITY	56,414	137.3	411				B		C											1B + 1C	Secondary		
LA CASTELLANA	59,620	174.8	341						C											1C	Tertiary		

A3-68

A3-69

CLASSIFICATION OF ACTIVITY CENTERS

PROVINCE	MUNICIPALITY / CITY	POPULATION	LAND AREA (sq.km.)	POPULATION DENSITY (per/sq.km.)	REGIONAL CAPITAL	PROVINCIAL CAPITAL	CITY OTHER THAN REG'L CAPITAL	POPULATION			AIRPORT			PORT			INDUSTRIAL		TOURISM SPOT	RATING	CLASSIFICATION	
								2007	2007 - 1007	1007 - 507	Intl.	Trunkline	Secondary	Feeder	Base	Terminal	RO-RO	EPZ				RGC / RIC
CEBU	COMPOSTELA	28,499	53.9	492	A	A	B	A	B	C	A	A	B	C	A	B	A	A	B	1C	Tertiary	
	CONSOLACION	49,205	32.6	1,509						C										1C	Tertiary	
	CORDOBA	26,613	13.0	2,047						C										1C	Tertiary	
	DAANBANTAYAN	61,845	92.3	703						C										1B + 1C	Secondary	
	DALAGUETE	48,778	135.2	361						C										1B	Secondary	
	DANAOG CITY	79,932	107.1	748			B													1B	Secondary	
	DUMANIG	35,279	85.3	414																4A + 4B	Primary	
	GNATILAN	11,921	70.1	170																1C	Tertiary	
	LAPU-LAPU CITY (OPON)	173,744	88.1	2,990			B			C	A	A	B		B	B	A	A	A	1C	Tertiary	
	LILUAN	50,973	52.1	978						C										2B	Secondary	
	MALABUYOC	17,080	57.8	296			B													1C	Tertiary	
	MANDAUE CITY	194,745	117	1,645						C										2B	Secondary	
	MEDELLIN	41,796	73.0	573						C										1C	Tertiary	
	MINGLANILLA	62,523	65.6	953						C										1C	Tertiary	
	MOALBOAL	22,021	124.9	176																1B	Secondary	
	NAGA	69,010	102.3	675						C										1B + 1C	Secondary	
	OSLOB	21,886	135.7	160																		
	PINAMUNGAHAN	44,009	111.0	396																		
	RONDA	16,561	57.1	290																	2B	Secondary
	SAMBOAN	15,770	56.0	282																	1B + 1C	Secondary
	SAN FERNANDO	38,700	62.5	619						C											1B	Secondary
	SAN REMIGIO	38,501	119.6	322																	2B	Secondary
	SANTANDER	12,352	35.7	347																	2B	Secondary
	SIBONGA	35,857	133.2	269																	1B	Secondary
	SOGOD	25,186	72.7	346																		
TABOGON	27,735	95.1	289																			
TABUELAN	16,936	140.9	120																			
TALISAY	120,292	85.2	1,395						B											2B	Secondary	
TOLEDO CITY	121,469	199.6	609						B											5B	Primary	
TUBURAN	47,818	224.2	213			B														2B	Secondary	
SIQUJOR	73,756	339.6	217																			
	ENRIQUE VILLANUEVA	4,968	24.5	199																1B	Secondary	
	LARENA	11,212	41.1	273																2B	Secondary	
	LAZI	16,339	69.8	234																		
	MARIA	11,106	75.0	148																		
	SAN JUAN	11,371	38.7	294																2B	Secondary	
	50.5	90.5	208																5B	Primary		
	18,860	213	217	A															2B	Secondary		
	1,511,251	5,631.7	268																2B	Secondary		
	48,905	344.2	142																			
LEYTE	ABUYOG	38,853	150.5	258																2B	Secondary	
	ALANGALANG	33,939	51.1	664																1A + 1C	Primary	
	ALBUERA	19,653	115.2	171						C										1C	Tertiary	
	BABATNGON	25,171	78.5	323																1B	Secondary	
	BARUGO	29,810	72.4	412																1B	Secondary	
	BATO	86,179	462.0	187																1C	Tertiary	
	BAYBAY	50,751	264.9	192																1B	Secondary	
	BURAIEN	31,074	137.6	225						C										1B	Secondary	
	CALUBAN	26,384	185.4	142																1C	Tertiary	
	CAPOCCAN	42,302	114.0	371																		
	CARGARA	27,039	150.0	169																1B	Secondary	
	DAGAMI	34,742	39.0	891						C										2C	Tertiary	
	DULAG	50,744	192.9	263						C										1B + 1C	Secondary	
	HILONGOS	16,567	127.4	130																2C	Tertiary	
	HINDANG																					

CLASSIFICATION OF ACTIVITY CENTERS

Page 8 of 17

PROVINCE	MUNICIPALITY / CITY	POPULATION	LAND AREA (sq. km.)	POPULATION DENSITY (per/sq.km.)	REGIONAL CAPITAL	PROVINCIAL CAPITAL	CITY OTHER THAN REG'L CAPITAL	POPULATION			AIRPORT			PORT			INDUSTRIAL			RATING	CLASSIFICATION
								2007	2007 - 1007	1007 - 507	Intl.	Trunkline	Feeder	Base	Terminal	RO-RO	EP2	RGC / RIC	Private Ecozone		
LEYTE	INOPACAN	18,864	94.6	199	A	A	B	A	B	C	A	A	C	A	B	B	A	A	B	2B + 1C	Secondary
	ISABEL	36,134	53.8	566																	
	JARO	32,728	207.2	158																	
	JAVIER BUGHO	21,538	141.8	152																	
	JULITA	11,671	53.3	219																	
	KANANGA	39,795	144.2	276																	
	LAPAZ	16,366	100.2	163																	
	LEYTE	34,126	47.8	231																	
	MACARTHUR	16,645	48.6	342																	
	MAHAPLAG	24,009	172.0	140																	
	MATAG-OB	17,333	75.4	230																	
	MATALOM	28,292	10.9	255																	
	MAYORGA	11,073	61.6	180																	
	MERIDA	23,822	95.2	250																	
	ORMOC CITY	144,003	490.3	294			B	B	B	C	B	B	B	B	B	B	B	B	B	5B	Primary
	PALO	43,095	67.6	638																1C	Tertiary
	PALOMPON	50,319	126.1	399																1B + 1C	Secondary
	PASTRANA	14,442	73.3	182																	
	SAN ISIDRO	33,204	105.2	304																	
	SAN MIGUEL	14,504	145.1	100																	
	SANTA FE	13,685	81.9	167																	
	TABANGO	31,837	129.2	246																	
	TABONTABON	7,547	25.0	302																	
SOUTHERN LEYTE	TACLOBAN CITY (Capital)	167,310	101.0	1,657	A	A	B	B	B	C	A	A	A	A	A	A	A	A	B	5A + 2B	Primary
	TANAUAN	40,716	78.4	519																1C	Tertiary
	TOLOSA	13,927	22.5	619																1C	Tertiary
	TUNGA	6,530	36.2	171																	
	VILLABA	34,674	125.0	275																	
		286,838	1,448.3	198																	
	ANAHAWAN	6,471	56.0	116																	
	BONTOC	24,047	102.1	236																	
	HINUNANGAN	22,170	155.9	142																	
	HINUNDAYAN	10,617	59.9	177																	
	LIBAGON	10,754	98.6	109																	
	LILUAN	17,160	96.3	178																	
	MAASIN (Capital)	63,746	211.7	301																	
	MACROHON	20,093	77.6	258	A	A				C	C	C	C	B	B					1A + 2B + 2C	Primary
EASTERN SAMAR	MALITBOG	17,976	140.4	128																	
	PADRE BURGOS	7,593	25.2	301																	
	SANTO BERNARD	21,363	56.6	377																	
	SAN JUAN (CABALAN)	11,392	26.0	438																	
	SILAGO	9,785	195.8	50																	
	SOGOD	31,052	61.0	509						C										1C	Tertiary
	TOMAS OPPUS	12,609	85.0	148																	
		362,324	3,965.1	91																	
	ARTECHE	12,536	160.2	70																	
	BALANGIGA	11,100	190.6	58																	
	BALANGKAYAN	8,849	193.2	46																	
	BORONGAN (Capital)	48,638	108.6	448	A	A														1A + 1B + 1C	Primary
	CAN-AVID	15,759	27.1	58																	
	DOLORES	34,272	306.5	112																1C	Tertiary
	GENERAL MACARTHUR	10,041	112.7	89																	
	GIPORLOS	10,050	107.3	94																	

CLASSIFICATION OF ACTIVITY CENTERS

PROVINCE	MUNICIPALITY / CITY	POPULATION	LAND AREA (sq. km.)	POPULATION DENSITY (per/sq. km.)	REGIONAL CAPITAL	PROVINCIAL CAPITAL	CITY OTHER THAN REG'L. CAPITAL	POPULATION			AIRPORT			PORT			INDUSTRIAL			TOURISM SPOT	RATING	CLASSIFICATION		
								2007	2007 - 1007	1007 - 507	Intl.	Trunkline	Secondary	Feeder	Base	Terminal	RO-RO	EPZ	RGC / RIC				Private Ecozone	
EASTERN SAMAR	GUIJUAN	35,447	40.4	877	A	A		A	B	C	A	A	B	C	A	B	A		B		2C	4	Tertiary	
	HERNANI	8,055	40.3	200																				
	JIPAPAD	6,222	234.8	26																				
	LAWAAN	9,725	162.6	60																				
	LLORENTE	16,071	395.6	41																				
	MASLOG	3,634	247.8	15																				
	MAYDOLONG	12,201	411.8	30																				
	MERCEDES	5,473	17.8	307																				
	ORAS	31,533	186.7	169																				
	QUINAPONDAN	12,844	65.8	192																				
	SALCEDO	16,026	114.7	140																				
	SAN JULIAN	11,858	113.8	104																	1B	5	Secondary	
	SAN POLICARPO	11,565	78.0	148																				
	SULAT	14,010	146.5	95																				
	TAFT	16,613	237.7	70																				
		421,411	3,425.1	123																				
	NORTHERN SAMAR	ALLEN	17,972	47.6	379																	1B	5	Secondary
BOBON		15,800	130.0	122																				
CATARMAN (Capital)		61,705	265.4	216	A	A															1A + 1B + 1C	17	Primary	
CATUBIG		25,190	276.3	91																				
GAMAY		19,457	115.1	169																				
LAOANG		47,438	246.8	192																				
LAPING		9,613	57.3	171																				
LAS NAVAS		25,031	210.8	119																				
LAVEZARES		20,492	119.5	171																				
MAPANAS		9,377	121.7	77																				
MONDRAGON		23,504	268.9	88																				
PALAPAG		24,947	179.6	139																				
PAMBUJAN		22,152	185.5	119																				
ROSARIO		8,626	31.6	273																				
SAN ISIDRO		22,991	255.9	90																	B	5	Secondary	
SAN JOSE		12,556	28.2	445																				
SAN ROQUE		18,094	153.0	118																				
SAMAR (WESTERN SAMAR)	SILVINO LOBOS	11,028	224.2	49																				
	VICTORIA	11,291	186.7	60																				
	LOPE DE VEGA	11,947	280.0	43																				
		510,143	5,385.1	95																				
	BASEY	40,114	572.7	70																				
	CALBAYOG CITY	128,216	963.0	133																				
	CALBICA	18,070	283.7	64																				
	CATBALOGAN (Capital)	76,324	274.2	278		A															4B	20	Primary	
	GANDARA	27,263	573.5	48																				
	HINABANGAN	12,151	372.2	33																				
	JABONG	15,484	67.7	229																				
	MARABUT	10,355	143.6	72																				
	MATUGUINAO	5,205	189.0	28																				
	MOTONG	3,177	74.4	76																				
	PINABACDAO	11,590	82.4	141																				
	SAN JOSE DE BUAN	5,471	366.9	15																				
	SAN SEBASTIAN	6,361	27.3	234																				
SANTA MARGARITA	19,146	144.4	133																					
SANTA RITA	28,930	222.5	130																					
TALALORA	6,565	28.0	234																					

A3-73

CLASSIFICATION OF ACTIVITY CENTERS

PROVINCE	MUNICIPALITY / CITY	POPULATION	LAND AREA (sq.km.)	POPULATION DENSITY (per/sq.km.)	REGIONAL CAPITAL	PROVINCIAL CAPITAL	CITY OTHER THAN REG'L / PROVL CAPITAL	POPULATION			AIRPORT			PORT			INDUSTRIAL			RATING	CLASSIFICATION
								2007	2007 - 1007	1007 - 507	Int'l.	Trunkline	Secondary	Feeder	Base	Terminal	RO-RO	EPZ	RGC / RIC		
MISAMIS OCCIDENTAL	TUDELA	22,805	49.2	464	A	A	B	A	B	C	A	A	B	C	A	B	A	A	B		
	DON VICTORIANO CHIONGBIAN (11)	6,878	351.5	20																	
		1,015,865	3,250.2	313																	
	ALUBUID	21,765	83.0	345																	
	BALINGASAG	46,018	123.7	372																1B	5 Secondary
	BALINGASAG	7,548	57.8	131																7A + 1B	75 Primary
	BALINGASAG	5,374	30.4	177																	
	CAGAYAN DE ORO CITY (Capital)	428,314	372.8	1,149	A	A	AA	AA				A	A	A	A	B	A	A			
	CLAVERIA	39,020	824.9	47																	
	EL SALVADOR	31,500	136.7	230				B													1B + 1C
MISAMIS ORIENTAL	GINGOOD CITY	87,530	249.8	350																	
	GITAGUM	11,327	37.5	302																	
	INITAO	23,340	116.5	200																	
	JASARAN	33,598	77.0	438																	
	KINOGUITAN	10,406	41.9	248																	
	LAGOGLONG	15,258	50.1	254																	
	LAGUINDINGAN	16,521	94.3	304																1A	10 Secondary
	LIBERTAD	9,258	24.0	386								A									
	LUGAIT	13,012	14.8	879																1C	2 Tertiary
	MAGSAYSAY (LINUGOS)	23,730	147.7	161																	
CAMIGUIN	MANTICAO	22,630	135.2	167																	
	MEDINA	23,319	116.3	201																	
	NAAWAN	14,578	93.3	156																	
	OPOL	23,958	128.3	187																	
	SALAY	18,923	70.3	269																	
	SUGBOGCOGON	6,957	26.5	263																1A	10 Secondary
	TAGOLOAN	40,929	55.3	740																	
	TALISAYAN	19,742	110.8	178																1A	10 Secondary
	VILLANUEVA	21,310	81.3	262																	
	CATARMAN	68,039	225.8	296																	
REGION XI DAVAO	GUINSILBAN	14,756	53.8	274																	
	MAHINOG	4,919	18.5	266																	
	MAMBALAO (Capital)	11,351	32.6	348																	
	SAGAY	27,770	40.1	693	A	A														1A + 2B + 2C	24 Primary
		9,243	44.4	208																B	
	ASUNCION (SAUG)	4,604,158	31,692.8	145																	
	CARMEN	1,114,448	7,768.4	144																	
	COMPOSTELA	57,072	286.5	192																1C	2 Tertiary
	KAPALONG	56,260	145.0	388																1C	2 Tertiary
	MABINI (DO A ALICIA)	55,030	341.0	161																	
REGION XI DAVAO	MACO	52,183	1,746.7	30																	
	MAWAB	29,548	355.7	83																	
	MONKAYO	58,609	299.3	196																	
	MONTEVISTA	29,878	138.6	216																	
	NABUNTURAN	66,550	269.1	247																	
	NEW BATAAN	31,905	192.0	166																1C	2 Tertiary
	NEW CORELLA	56,576	267.2	217																1C	2 Tertiary
	PANABO	43,327	481.1	90																	
	PANTUKAN	41,615	295.6	141																	
	SANTO TOMAS	130,585	319.0	409				B												1B	5 Secondary
MARAGUSAN (SAN MARIANO)	56,780	575.8	58																	1C	2 Tertiary
	77,182	254.4	303																		
	40,834	364.6	112																		

CLASSIFICATION OF ACTIVITY CENTERS

PROVINCE	MUNICIPALITY / CITY	POPULATION	LAND AREA (sq.km.)	POPULATION DENSITY (per/sq.km.)	REGIONAL CAPITAL	PROVINCIAL CAPITAL	CITY OTHER THAN REG. / PROVL. CAPITAL	POPULATION			AIRPORT			PORT			INDUSTRIAL			TOURISM SPOT	RATING	CLASSIFICATION	
								2007	2007 - 1007	1007 - 507	Int.	Trunkline	Secondary	Feeder	Base	Terminal	RO-RO	EPZ	RGC / RIC				Private
DAVAO	LAAK (SAN VICENTE)	51,073	851.0	60	A	A	B	A	B	C	A	A	B	C	A	B	A	A	B	B	1A + 1B	15	Primary
	TAGUM (Capital)	156,588	212.0	739		A																	
	TALINGOD	12,853	358.6	36																			
	BANSALAN	1,667,261	5,226.9	319																			
	DAVAO CITY	1,006,840	1,210.9	831	A	A	B	AA	B		A	A			A		B		A	B	8A + 3B	95	Primary
	DIGOS (Capital)	106,565	192.4	554		A															1A + 1B	15	Primary
	HAGONOY	41,752	106.9	391																			
	JOSE ABAD SANTOS (TRINIDAD)	47,893	809.6	59																			
	KIBLAWAN	36,375	140.0	260																			
	MAGSAYSAY	41,979	412.3	102																			
DAVAO DEL SUR	MALALAG	30,733	492.6	62																			
	MALITA	83,457	224.5	372																			
	MATANAO	43,455	81.3	535																			
	PADADA	22,384	276.9	81																			
	SANTA CRUZ	59,139	279.6	212																			
	SANTA MARIA	41,919	320.0	131																			
	SULOP	25,968	100.0	260																			
	DON MARCELINO	29,968	116.6	257																			
	BAGANGA	413,472	4,637.5	89																			
	BANAYBANAY	39,750	1,176.6	34																			
DAVAO ORIENTAL	BOSTON	33,082	354.9	91																			
	CARAGA	10,424	337.4	31																			
	CATEEL	31,617	128.7	246																			
	GOVERNOR GENEROSO	41,433	260.0	105																			
	LUPON	50,568	586.4	86																			
	MANAY	35,428	288.4	123																			
	MATI (Capital)	93,801	383.1	245	A	A																	
	SAN ISIDRO	30,279	206.7	146																			
	TARRAGONA	19,779	300.8	66																			
	SOUTH COTABATO	BANGA	948,328	4,223.1	225																		
GENERAL SANTOS CITY (DADIANGAS)		66,571	240.4	277																			
KORONADAL (Capital)		327,173	401.5	815																			
NORALA		118,231	283.3	417		A	B	AA	B		A	A			A	B							
POLOMOLOK		39,688	194.4	204																			
SURALLAH		96,274	351.6	274																			
TAMPAKAN		61,509	551.0	112																			
TANTANGAN		28,256	279.8	101																			
T'OLI		30,044	113.1	266																			
SARANGANI		TUPI	54,206	630.1	86																		
	SANTO NI O	46,555	282.8	165																			
	LAKE SEBU	32,103	106.0	295																			
	ALABEL (Capital)	47,617	786.1	61																			
	GLAN	367,006	3,306.5	111		A																	
	KIAMBA	46,527	346.4	133																			
	MAASIM	73,768	572.5	129																			
	MATUIM	39,717	277.9	143																			
	MALAPATAN	31,641	588.7	79																			
	REGION XIII (CARAGA)	MALUNGON	35,005	319.5	110																		
		47,911	628.5	76																			
		92,433	760.0	122																			
		1,942,687																					

CLASSIFICATION OF ACTIVITY CENTERS

PROVINCE	MUNICIPALITY / CITY	POPULATION	LAND AREA (sq. km.)	POPULATION DENSITY (per/sq. km.)	REGIONAL CAPITAL	PROVINCIAL CAPITAL	CITY OTHER THAN REG'L / PROVL CAPITAL	POPULATION			AIRPORT			PORT			INDUSTRIAL		RATING	CLASSIFICATION
								2007	2007 - 1007	1007 - 507	Intl.	Trunkline	Secondary	Feeder	Base	Terminal	RO-RO	EPZ		
AGUSAN DEL NORTE	BUENAVISTA	514,485	2,353.7	219	A	A	B	A	C	A	A	B	C	A	B	A	B	B		
	BUTUAN CITY (Capital)	45,011	308.4	146				A				B		B	B			3A + 2B 1C	40 2	Primary Tertiary
	CABADARAN	247,074	344.6	717	A	A			C											
	CARMEN	51,905	433.8	114																
	JABONGA	15,967	87.9	182																
	KITCHARAO	20,196	140.7	144																
	LAS NIEVES	14,679	315.0	47																
	MAGALLANES	22,966	128.2	179																
	NASIPIT	17,523	44.3	396																
	SANTIAGO	34,255	105.3	325											A				1A + 1B 15	Secondary
	TUBAY	15,616	287.5	54															1B 5	Secondary
	REMEDIOS T. ROMUALDEZ	16,672	138.0	121															1C 2	Tertiary
		12,921	81.5	155																
AGUSAN DEL SUR	BAYUGAN	514,736	9,407.9	55					C											
	BUNAWAN	89,959	505.0	178																
	BUNAWAN	24,515	512.2	48																
	ESPERANZA	42,118	1,150.9	37																
	LA PAZ	23,044	1,148.2	20																
	LORETO	24,022	1,796.9	13																
	PROSPERIDAD (Capital)	61,804	501.9	103		A				C									1A + 1C 12	Primary
	ROSARIO	26,836	355.0	74															1C 2	Tertiary
	SAN FRANCISCO	50,844	475.8	107						C										
	SAN LUIS	21,910	853.8	26																
	SANTA JOSEFA	21,190	103.0	206																
	TALACOGON	27,517	348.9	79																
	TRENTO	36,946	540.0	68																
SURIGAO DEL NORTE	VERUELA	35,706	385.5	93																
	SIBAGAT	28,155	530.8	45																
		256,561	1,207.9	212																
	ALEGRIA	11,764	65.3	180																
	BACUAG	12,309	44.8	275																
	CLAUVER	14,300	273.1	52																
	GIGAQUIT	15,261	129.1	118																
	MAINIT	21,780	107.8	202																
	MALIMONO	14,191	80.2	177																
	PLACER	20,712	61.3	338																
	SAN FRANCISCO (ANAO-AON)	10,005	43.8	228																
	SISON	8,853	54.7	162											A		B		2A + 3B 35	Primary
	SURIGAO CITY (Capital)	104,909	225.3	466																
SURIGAO DEL SUR	TAGANA-AAN	12,159	77.2	158																
	TUBOD	10,318	45.3	228																
		471,263	4,682.8	101																
	BAROBO	32,225	156.7	206															1C 2	Tertiary
	BAYABAS	6,423	28.7	224															2B 10	Secondary
	BISLIG	103,668	331.8	312																
	CAGWAIT	17,001	214.1	79				B												
	CANTILAN	24,061	240.1	100																
	CARMEN	8,248	160.0	52																
	CARRASCAL	12,018	285.8	45																
	CORTES	13,054	127.1	103																
	HINATUAN	34,602	268.1	117																
	LANUZA	8,843	290.6	30																
LIANGA	25,005	293.3	99																	

CLASSIFICATION OF ACTIVITY CENTERS

Page 14 of 17

PROVINCE	MUNICIPALITY / CITY	POPULATION	LAND AREA (sq.km.)	POPULATION DENSITY (per/sq.km.)	REGIONAL CAPITAL	PROVINCIAL CAPITAL	CITY OTHER THAN REG'L / CAPITAL	POPULATION			AIRPORT			PORT			INDUSTRIAL			RATING	CLASSIFICATION
								2007	2007 - 1007	1007 - 507	Int'l.	Trunkline	Secondary	Feeder	Base	Terminal	RO-RO	EPZ	RGC / RIC		
SURIGAO DEL SUR	LINGIG	23,477	256.9	91	A	A															
	MADRID	12,992	141.2	92																	
	MARIATAG	13,354	342.5	39																	
	SAN AGUSTIN	13,768	277.3	50																	
	SAN MIGUEL	24,006	558.0	43																	
	TAGBINA	32,295	242.5	133																	
	TAGO	27,100	188.4	144																	
	TANDAG (Capital)	39,222	291.7	134	A	A															
	DAPITAN CITY	770,697	6,648.0	116			B														
	DIPOLOG CITY (Capital)	62,997	215.0	293		A															
ZAMBOANGA DEL NORTE	KATIPUNAN	90,777	241.1	377																	
	LA LIBERTAD	37,918	196.3	193																	
	LABASON	7,702	45.3	170																	
	LILUY	28,515	309.5	92																	
	LILOY	32,417	123.6	262																	
	MANUKAN	29,681	106.8	278																	
	MUTA	8,915	158.1	56																	
	PIAN (NEW PIAN)	19,427	39.4	494																	
	POLANCO	31,700	89.3	355																	
	PRES. MANUEL A. ROXAS	31,662	156.3	203																	
	RIZAL	14,363	54.4	264																	
	SALUG	28,411	186.8	152																	
	SERGIO OSME-A SR.	26,014	556.4	47																	
	SIAYAN	27,850	395.6	71																	
	SIBUCO	23,243	766.4	30																	
	SIBUDAT	16,295	75.1	217																	
	SINDANGAN	72,068	204.9	352																	
	SIOCON	28,196	288.5	98																	
	SIRAWAI	22,063	222.5	99																	
	GUTALAC	25,022	500.1	50																	
	JOSE DALMAN (PONOT)	21,745	200.0	108																	
TAMPLISAN	17,732	151.1	117																		
ZAMBOANGA DEL SUR	BALIGUAN	12,671	490.1	26																	
	GODOD	15,053	265.6	57																	
	BACUNGAN (Leon T. Postigo)	20,728	359.8	58																	
	KALAWIT	17,352	250.0	69																	
		1,728,397	6,857.7	252																	
	ALICIA	27,959	216.2	129																	
	AURORA	40,157	151.3	265																	
	BAYOG	25,231	196.3	129																	
	BUJUG	34,175	113.0	302																	
	DIMATILING	23,116	141.8	163																	
	DINAS	28,364	41.0	692																	
	DUMALINAO	23,985	153.8	156																	
	DUMINGAG	36,155	209.9	182																	
	IPIL	43,991	91.1	483																	
	KABASALAN	34,483	289.2	119																	
	KUMALARANG	24,446	112.5	217																	
	LABANGAN	32,284	187.9	192																	
	LAPUYAN	23,512	329.0	71																	
	MAHUYAG	19,512	58.2	335																	
	MAHAYAG	40,806	92.8	440																	
	MALANGAS	26,916	121.2	239																	

CLASSIFICATION OF ACTIVITY CENTERS

Page 15 of 17

PROVINCE	MUNICIPALITY / CITY	POPULATION	LAND AREA (sq. km.)	POPULATION DENSITY (per/sq. km.)	REGIONAL CAPITAL	PROVINCIAL CAPITAL	CITY OTHER THAN REG'L / PROVL CAPITAL	POPULATION			AIRPORT			PORT			INDUSTRIAL			RATING	CLASSIFICATION					
								2001	2001 - 1001	1001 - 501	Intl.	Trunkline	Secondary	Feeder	Base	Terminal	RO-RO	EPZ	RGC / RJC			Private Ecozone				
ZAMBOANGA DEL SUR	MARGOSATUBIG	29,597	98.5	300	A	A	B																			
	MIDSALIP	25,258	161.6	156																						
	MOLAVE	40,423	191.8	211																						
	NAGA	31,421	246.3	128																						
	OLUTANGA	17,069	113.3	151																						
	PAGADIAN CITY (Capital)	125,182	331.6	378		A		B																		
	RAMON MAGSAYSAY (LARGO)	22,795	74.1	308																						
	SAN MIGUEL	14,054	39.5	356																						
	SAN PABLO	23,147	149.9	154																						
	SIAY	29,303	190.2	154																						
	TABINA	20,210	86.9	233																						
	TAMBULIG	29,147	81.6	357																						
	TITAY	35,065	129.6	271																						
	TUKURAN	30,506	111.6	273																						
	TUNGAWAN	28,552	410.9	69																						
	ZAMBOANGA CITY	511,139	463.5	1,103	A		AA																			
	INEIDA	22,760	81.7	279																						
	JOSEFINA	9,024	56.4	160																						
	LAKEWOOD	14,601	259.1	56																						
	PAYAO	25,013	127.7	196																						
	TALUSAN	15,012	32.8	458																						
	PITOGO	19,870	95.9	207																						
	DIPLAHAN	25,818	309.1	84																						
	SOMINOT (DON MARIANO MARCOS)	13,344	113.9	117																						
	VINCENZO A. SAGUN	17,410	57.4	303																						
	ROSELLER LIM	31,291	209.3	150																						
	GUIPOS	16,399	102.1	161																						
	TIGBAO	15,915	46.2	344																						
REGION XII LANAO DEL NORTE		2,359,808	23,293.2	101																						
		713,787	3,092.0	231																						
	BACOLOD	16,454	104.8	157																						
	BALOI	32,063	161.1	199																						
	BAROY	21,353	44.5	480																						
	ILIGAN CITY (Capital)	273,004	673.2	406	A			A																		
	KAPATAGAN	37,006	207.0	179																						
	SULTAN NAGA DIMAPORO (KAROMAT)	36,131	146.1	247																						
	KAUSWAGAN	18,349	53.9	340																						
	KOLAMBUGAN	24,845	202.9	121																						
	LALA	55,888	131.8	424																						
	LINAMON	14,529	38.8	374																						
	MAGSAYSAY	10,279	47.1	218																						
	MAIGO	16,822	40.6	414																						
	MATUNGAO	8,451	78.0	108																						
	MUNAI	13,893	146.1	95																						
	NUNUNGAN	10,783	466.0	23																						
	PANTAO RAGAT	14,637	114.6	128																						
	POONA PIAGAO	14,161	47.7	297																						
	SALVADOR	14,834	53.0	280																						
	SAPAD	14,595	32.5	449																						
	TAGOLOAN	8,027	41.7	192																						
	TANGCAL	4,904	104.7	47																						
	TUBOD	41,295	105.8	390																						
	PANTAR	11,704	500	234																						

A3-79

CLASSIFICATION OF ACTIVITY CENTERS

PROVINCE	MUNICIPALITY / CITY	POPULATION	LAND AREA (sq. km.)	POPULATION DENSITY (per/sq. km.)	REGIONAL CAPITAL	PROVINCIAL CAPITAL	CITY OTHER THAN REG'L CAPITAL	POPULATION			AIRPORT			PORT			INDUSTRIAL			RATING	CLASSIFICATION		
								2007	2007 - 1000	1001 - 500	Int'l.	Trunkline	Secondary	Feeder	Base	Terminal	RO-RO	EPZ	RGC / RIC			Private Ecozone	
LANAO DEL SUR	PAGAYAMAN (TATARIKAN)	8,900	38.9	241	A	A	B	A	B	C	A	A	B	C	A	B	B	A	A	B	1C	2	Tertiary
	PIAGAPO	19,198	20.0	960						C										B			
	POONA BAYABAO (GATA)	15,149	31.7	478																B			
	PUALAS	8,259	82.3	100						C										A			
	DITSAAN-RAMAIN	16,285	23.4	696						C										A			
	SAGUIARAN	18,703	33.2	563						C										A			
	TAMPARAN	17,507	21.8	803						C										A			
	TARAKA	16,505	29.1	567						C										A			
	TUBARAN	9,617	308.2	31																			
	TUGAYA	17,552	40.2	437																			
	WAO	27,503	336.2	82																			
	MAROGONG	13,765	107.0	129																			
	CALANOGAS	8,577	72.5	118																			
MAGUINDANAO	BUADIPOSO-BUNTONG	11,657	45.0	259																			
	MAGUING	15,539	52.2	298																			
	SULTAN GUMANDER	10,503	102.5	102																			
	LUMBAYANAGUE	13,888	30.0	463																			
	BUMBARAN	6,001	154.0	39																			
	TAGOLOAN II	7,760	200.1	39																			
	KAPATAGAN	6,702	116.4	58																			
	662,180	5,176.1	128																				
	AMPATUAN	27,200	550.4	49																			
	BULDON	24,209	451.0	54																			
	BULLUAN	38,695	311.8	124																			
	DATU PAGLAS	15,522	209.5	74																			
	DATU PIANG	55,104	425.2	130						C													
	DINAIG (DATU ODIN SINSUAT)	59,841	470.0	127						C													
	MAGANDY (Capital)	53,110	182.0	328		A				C													
	MATANOG	15,018	205.1	78																			
	PAGALUNGAN	45,401	154.0	301																			
	PARANG	49,962	243.2	204																			
	SULTAN KUDARAT (NULING)	76,125	207.6	367						C													
SULTAN SA BARONGIS (LAMBAYONG)	29,967	300.0	100																				
KABUNTALAN (TUMBABO)	19,409	206.0	94																				
UPI	46,440	896.8	67																				
TALAYAN	43,266	230.7	188																				
SOUTH UPI	23,186	115.0	202																				
BARIRA	17,825	75.6	236																				
GEN S. K. PENDATUN	20,260	163.2	124																				

APPENDICES
FOR
CHAPTER 4

APPENDIX 4.2 - 1

**SUMMARY OF ANSWERS FROM DEOS AND
REGIONAL OFFICES REGARDING ROAD MAINTENANCE**

ANSWERS FROM DISTRICT ENGINEERING OFFICES

Number of Responded District Offices = 50

A. OPINION/COMMENTS ON HIGHWAY STANDARD/STRUCTURES

1) Lane Width		
Comments on Standards		
• Present standards are sufficient	-----	4
• Present standards are not sufficient (3.35m, 3.5m, 3.65-4.0m)	-----	7
Comments on Existing Pavement Width		
• Existing width is sub-standard	-----	5
• Widening is needed	-----	2
No comment	-----	32
		<u>50</u>
2) Shoulder Width		
Existing width is sufficient	-----	4
Existing width is too narrow/insufficient	-----	22
No comment	-----	24
		<u>50</u>
Other problems/suggestions		
- Illegal encroachment	-----	2
- To be paved	-----	1
3) Pavement Structure		
Needs replacement/strengthening	-----	10
AC to be converted to PCC	-----	5
PCC thickness to be increased (25cm)	-----	3
PCC with steel matting	-----	1
Present pavement structure is sufficient	-----	1
No comment	-----	30
		<u>50</u>
Increase base course thickness	-----	1
4) Pavement Rehabilitation Method		
Present Rehabilitation Method being adopted		
• Regravelling	-----	1
• Reblocking/AC overlay	-----	11
Proposed Rehabilitation Method		
• AC to be replaced with PCC	-----	3
• Raising road elevation at flood area	-----	1
• Adopt stronger pavement	-----	1
No comment	-----	33
		<u>50</u>
5) Traffic Safety Facilities		
To be modernized	-----	1
Inadequate fund	-----	2
Present facilities insufficient	-----	19
No comment	-----	28
		<u>50</u>

What kind of facilities?		
Traffic lights	-----	3
Intersection signs	-----	1
Warning devices	-----	1
Overhead traffic signs	-----	1
6) Aesthetic / Beautification		
Tree planting outside shoulders	-----	9
Vegetation control	-----	1
Need improvement	-----	1
Provide center island	-----	1
Remove illegal structure within shoulder	-----	1
No comment	-----	37
		50
7) Bridge Stability		
So far, no problem	-----	1
Bridges with low design loads to be upgraded	-----	9
Temporary bridges to be converted to permanent	-----	7
Replacement of deteriorated bridges	-----	1
Sufficient fund for bridge repair	-----	2
No comment	-----	30
		50
8) River / Flood Control		
Construction of dikes, spur dikes, protection of bridge approach --	-----	13
Fund should be increased	-----	3
Dredging/rechanneling to be implemented	-----	3
Study should be made	-----	2
No comment	-----	29
		50
9) New Technology		
Usage of prestressed structure	-----	3
Stabilized gravel surface	-----	2
Recycling of bituminous pavement	-----	1
Usage of gabion	-----	1
New technology to be introduced	-----	1
No comment	-----	42
		50
10) Environmental Considerations		
Planting trees	-----	5
Following environmental requirement	-----	2
Avoid dumping / disposal along shoulders	-----	1
Existing road does not adversely affect ecological condition	-----	1
Usage of lumber in Bailey repair	-----	1
will not help forest conservation	-----	1
No comment	-----	40
		50

B. HIGHWAY / BRIDGE MAINTENANCE

1. Maintenance Programming

1) Frequency of Inspection

Daily	-----	8
3 times a week	-----	7
2 times a week	-----	10
1 time a week	-----	13
2 times a month	-----	5
1 time a month	-----	1
No answer	-----	6
		<hr/> 50

2) Inspection sheets / format used or not

Inspection sheet/format	-----	12
Log book/field book	-----	26
Map	-----	2
Straight Road Diagram	-----	1
No answer	-----	9
		<hr/> 50

3) How do you integrate inspection results?

Summarizing and compare with previous ones	-----	1
Integrate in straight line diagram	-----	1
Compilation	-----	1
Summarize by type of activities	-----	1
Maintenance activity selection and prioritization	-----	5
Determine activities by road section	-----	1
Group into major/minor works	-----	1
Prepare quincenal schedule	-----	8
Updating and determination of accomplishment	-----	1
Recommend preventive measures	-----	1
No answer	-----	29
		<hr/> 50

4) Prioritization Method

• According to immediate needs	-----	11
• Urgency, extent of damage, equipment availability, and public demand	-----	5
• Based on the actual field condition	-----	6
• Depend on the sections and degree of traffic disturbance	-----	4
• Based on rating	-----	1
• Depend on time required	-----	1
• By allocation	-----	1
• By activity	-----	1
• According to degree of importance	-----	1
• (1) Pavement, (2) Shoulder/drainage	-----	3
• (1) Pavement, (2) Base, (3) Drainage and shoulder	-----	1
• (1) Carriageway, (2) Erosion protection, (3) Roadside	-----	1
• (1) Carriageway, (2) Drainage, (3) Shoulder	-----	1
• (1) Carriageway, (2) Drainage, (3) Traffic Sign	-----	1
• Gravel road (1) Grading, (2) Regravelling (3) Drainage, (4) Vegetation Control	-----	1
• (1) Carriageway	-----	1
• (1) Road, (2) Bridge	-----	2
• No answer	-----	8
		<hr/> 50

5) How to segregate MBC/MBA activities

• By road section	-----	8
• MBC for equipment oriented activities and MBA for routinary activities	-----	6
• MBC and MBA are same	-----	6
• MBC for good to fair road, and		
• MBA for fair to poor road	-----	4
• 50~50% allocation	-----	3
• Depend on capability of contractor/DEO	-----	2
• MBC for good condition road, and MBA for light traffic road	-----	1
• MBC for paved road/unpaved road, and		
• MBA for unpaved shoulder	-----	1
• MBC scheduled for tri-monthly, and MBA scheduled for monthly	-----	1
• Follow guideline.	-----	1
• No answer	-----	17
		<hr/> 50

6) % of Road not economically maintainable

None (all economically maintainable)	-----	9
1~10%	-----	9
11~20%	-----	10
21~30%	-----	4
31~40%	-----	3
41~50%	-----	5
More than 50%	-----	1
No answer	-----	9
		<hr/> 50

2. MAINTENANCE EQUIPMENT

1) Maintenance Equipment at present by condition

	Number of Units			Total
	Operational	Frequent Breakdown	Not Operational	
45 District Offices				
Equipment	206 (45.6%)	193 (42.7%)	53 (11.7%)	452 (100%)
Service Vehicle	63 (64.3%)	28 (28.6%)	7 (7.1%)	98 (100%)
Total	269 (48.9%)	221 (40.2%)	60 (10.9%)	550 (100%)
Average Per District Office				
Equipment	5	4	1	10
Service Vehicle	1	1	0	2
Total	6	5	1	12

Note: Some District Offices did not include service vehicle.

2) Additional Equipment Needed

Additional Equipment Needed Including Replacement of Old Equipment

	44 District Office	Average per District Office
Dump Truck	111	2.5
Roller	58	1.3
Grader	44	1
Backhoe/Excavator	30	0.7
Loader	29	0.7
Water Truck	16	0.4
Bulldozer	10	0.2
Asphalt Kettle/Distributor	10	0.2
Mighty Mite/Road Maintainer	8	0.2
Stake Truck	7	0.2
Crane	5	0.1
Concrete Mixer	3	0.1
Prime Mover	2	0.1
Other Minor Equipment	40	0.9
Service Vehicle	102	2.3

Note: Other minor equipment includes concrete cutter, welder, plate compactor, jackhammer, etc.

3. MAINTENANCE PROBLEMS

1) Maintenance Budget

Enough	-----	7
Not enough	-----	36
No answer	-----	7
		<u>50</u>

If not enough, how much per EMK/year?

Current base cost: P66,835.00/EMK (1997)

		Times	
P70,000	----- 1	1.01 - 1.25	----- 4
75,000	----- 1	1.26 - 1.50	----- 15
80,000	----- 2	1.51 - 2.00	----- 5
85,000	----- 3	2.01 - 2.50	----- 4
90,000	----- 2	2.51 - 3.00	----- 3
100,000	----- 10	3.01 - 4.00	----- 1
120,000	----- 1		<u>32</u>
130,000	----- 1		
132,000	----- 3		
150,000	----- 4		
200,000	----- 3		
267,300	----- 1		
	<u>32</u>		

Note: Four DEO answered only not enough.

2) Release of Maintenance Budget

Timely	-----	5
Delayed	-----	39
No answer	-----	6
		<u>50</u>

3) Maintenance Work Force

Too many	-----	2
Just enough	-----	6
Not enough	-----	31
No answer	-----	11
		<u>50</u>

4) Maintenance Equipment

Enough, no problem	-----	1
Not enough, old age, frequent breakdown	-----	41
No answer	-----	8
		<u>50</u>

5) Procurement of Materials

No problem	-----	13
Problem	-----	15
No answer	-----	22
		<u>50</u>

Problems

- Heavy equipment parts
- Affected by delay of fund release
- Procurement of lumbers, timbers
- Procurement of sand and gravel
- Limited material sources
- Delayed delivery of materials

6) Performance of MBC contractors

Satisfactory	-----	19
Satisfactory, but slow	-----	2
Fair	-----	3
Not satisfactory	-----	9
No answer	-----	17
		<u>50</u>

7) Comments on MBC

• Fine, good result	-----	8
• Prefer MBC to MBA	-----	4
• 50-50% share is O.K.	-----	3
• MBA's problem is equipment, MBC acceptable	-----	1
• Share of MBC and MBA should be 30% and 70%	-----	1
• Participation of more capable contractor	-----	1
• Local contractor cannot immediately response to emergency repair	-----	3
• Unsatisfactory performance of MBC contractor	-----	1
• MBC not flexible	-----	1
• Not favorable, if District is provided with equipment	-----	1
• MBC not effective	-----	1
• MBA, insufficient in equipment/laborers	-----	1
• MBA, low accomplishment due to aged laborers and no good work attitude	-----	1
• No comment	-----	23
		<u>50</u>

8) Other Comments and Suggestions

- To replace old equipment with new ones including service vehicles.
- To increase maintenance fund
- Release of fund should be on time.
- To avail of good weather condition, 2/3 of fund should be released in the 1st and 2nd quarters.
- More strict screening of MBC contractors
- Early bidding
- MBC should include bridge maintenance
- For MBA, rental of equipment from private owners should be allowed, when not available.
- Regular routinary laborers could hardly meet the target volume due to old age, adoption of labor employment through Pakyaw contract is recommended.
- Field supervisors should be trained to acquire proper field managerial techniques.
- Work attitude of routinary laborers should be improved.
- Service vehicles should be allocated for each area.
- Public utility companies should undertake seminars for their staff/contractors regarding restoration work.

9) Drastic Measures to Improve Road Maintenance

• Replace old equipment with new ones	-----	14
• Rehabilitate deteriorated pavement and upgrade gravel to paved road under infrastructure fund	-----	11
• Increase maintenance fund and release fund timely	-----	8
• Train field personnel and improve their working attitude. Also train field supervisor	-----	2
• Repair of equipment by DEO should be allowed, Area equipment should be under DEO	-----	2
• Provide service vehicle to maintenance engineer	-----	2
• Install asphalt plant for bit. pavement maintenance	-----	1
• Increase manpower	-----	1
• Replace old workers	-----	1
• Adopt new technology	-----	1
• Strict monitoring of permits to haulers/tracking companies to prohibit overloading	-----	1
• Power should be given to DEO to prohibit blocking of drainage and squatting	-----	1
• Eliminate political intervention	-----	1
		<hr/>
		46

C. LOCAL ROADS

1. TECHNICAL GUIDANCE IS PROVIDED TO LGUs or NOT

Yes, Yes, when requested	-----	24
No	-----	7
No answer	-----	19
		<hr/> 50

2. TECHNICAL COORDINATION WITH LGUs

Yes	-----	28
No	-----	4
No answer	-----	18
		<hr/> 50

3. COMMENTS ON LOCAL ROADS

- Some provincial roads should be integrated with national road network.
- Some road sections are not maintained well.
- All local roads should be properly maintained.
- Poor drainage system of local roads affect national roads.
- Maintenance should be given priority.
- Some local roads are no longer maintainable.
- LGUs do not give attention to maintenance of their roads, but focus on new construction.
- IRA funds are concentrated at Poblacion
Barangay roads are left behind.
- Most local roads need regravelling.
- Kilometrage system should follow that of national roads.

ANSWERS TO QUESTIONNAIRES: **REGIONAL OFFICE**

REGION	Assessment of Highway Network Development
IV-B	1,867.4 km. Only 30% paved. Road density 0.29 km/km ² very low, particularly Mindoro Island, Palawan Island. Inadequacy of paved roads. Low priority given to the Region in terms of budgetary allocation, compared with Region IV-A.
V	Island provinces, 72% are still gravel.
VI	2,884 km. 46% or 1342 km paved, but 105 km are in bad condition. Urban areas are experiencing traffic congestions. Condition of many roads is poor due to initial low design standards. Many existing bridges are weak.
VII	3,812 km. 61% paved. 1482 km gravel/earth. Cebu road density is substandard, especially Metro Area. Negros still manageable. Bohol and Siquijor are sufficient, at present. Pavement design needs strengthening.
VIII	46.5% Gravel, 8.2% Asphalt, 45.3% PCC
X	Along Cagayan de Oro - Iligan Corridor (CIC), widening of road, bridge strengthening, construction of parallel bridges are needed. National Secondary Roads feeding CIC needs improvement and rehabilitation.
XI	1698.7 km are National Roads. 52% or 883 km paved. 816 km unpaved. There are many unopened sections. Urban areas like Davao City and Gen. Santos City suffer traffic congestion.
XIII	Road density is insufficient. Lack major route connecting adjacent regions/provinces.

ANSWERS TO QUESTIONNAIRES: REGIONAL OFFICE

ANSWERS TO QUESTIONS: REGIONAL OFFICE

HIGHWAY STRUCTURE AND STANDARDS										
REGION	Lane Width	Shoulder Width	Pavement Structure	Pavement Rehabilitation Method	Traffic Safety Facilities	Aesthetic / Beautification	Bridge Stability	River/Flood Control	New Technology	Environmental Considerations
IV-B	Light Traffic 6.10 enough	1.0~1.5 m enough	—	—	—	Planting trees sodding on slopes and pairing road facilities	Strict compliance with AASHTO Spec.	—	—	—
V	Narrow in mountainous area	Not well-defined in some road sections, specially Masbate	• Some portion hanging	—	—	—	—	—	—	—
VI	• At least 3m • Future expansion should be considered.	Increasing present standard just encourage illegal squatters.	PCCP preferred 0.23m inadequate due to overloaded trucks	• Deteriorated AC changed to PCC • Maintenance cost of AC is high.	• Should be properly installed	Planting trees, flowers outside roadbed.	• Immediate replacement of weak bridges and temporary bridges. • Design loading must be increased.	Comprehensive studies should be undertaken.	—	—
VII	—	—	—	—	Installation of reflectORIZED highway traffic signs/signals.	• Tree planting • Seawalls serve as benches for tourist. • Placing monuments at boundaries.	—	—	—	—
VIII	—	—	—	Reblocking, AC overlay	• Repair of traffic islands • Installation of Traffic Signs	• Tree planting	—	Gabions	Auto-CAD, Surveying	—
X	Need widening	2m concrete paved shoulder	—	—	Additional signs	Tree planting, Flowering	—	Projects needed	—	Butter plants, slope protection, to be implemented
XI	—	—	• AC should be discouraged	Seal coating, overlay should be implemented still fair condition. Reblocking	Lack road safety facilities	Has not been emphasized.	—	No fix spec. on allowable steepness of side slope.	Stabilizing sub-base and base course.	—
XIII	Sufficient	Insufficient when not properly maintained.	Weak	—	Insufficient as Road Right-of-Way are encroached by squatters.	Should be included in Maintenance Program.	Affected due to quarrying.	Insufficient funding.	MBA not effective.	During design.

REGIONAL OFFICE

REGION	Assessment of Present Maintenance. Deficiencies in Maintenance.
IV-B	<ul style="list-style-type: none"> • Maintenance needs could not be coped due to lack of equipment and service vehicles.
V	<ul style="list-style-type: none"> • Both MBC and MBA are properly attended to. • Unpaved sections should be paved. Unpaved roads are more essential to maintain, due to difficulties in the extraction of aggregates from some sources, too high loyalties and some political intervention. • Non-availability of reliable equipment.
VI	
VII	<ul style="list-style-type: none"> • Incapability of equipment • Insufficient fund
VIII	(Physical Deficiency) Inspectorate Team from Manila, Regional representative undertake joint inspection by semester.
X	<ul style="list-style-type: none"> • Very much improved due to increased fund and MBC implementation.
XI	<ul style="list-style-type: none"> • Maintenance ----> good • Delayed release • Insufficient funding
XIII	Fair

ANSWERS TO QUESTIONNAIRES: REGIONAL OFFICE

REGION	Maintenance Problems					Work Force	MBC	% of road not economically maintainable	Maintenance Equipment	Others
	Budget/Release	Identification of Maintenance Needs	Prioritization							
IV-B	100,000 P/EMK Release O.K.			Insufficient. There is a need to minimize MBC.		Not so effective.		20%	<ul style="list-style-type: none"> Old, vintage type Very inadequate 	Indifferent attitude of maintenance personnel toward maintenance operations.
V	66,835 - is sufficient, if only used for maintenance purpose, but used mostly for rehabilitation	Foreman/Area Engineers once a week submit listing of maintenance needs		Sufficient.		Good, but MBC can be implemented only for good/fair condition road. There are 75% of road rated poor, which MBC cannot be implemented.		8%	<ul style="list-style-type: none"> Old, sometimes no longer serviceable. 	<ul style="list-style-type: none"> Service vehicles Allowance for maintenance personnel
VI	(No answer. Questionnaire seems to be given to District Engineering Offices)									
VII	100,000-120,000 P/EMK Delayed especially during the 1st quarter.	Inspection		Generally sufficient		<ul style="list-style-type: none"> Not adaptable. Labor employment and execution of activities greatly accepted. Cannot respond emergency activities. 		65-70%	Equipment Service cannot supply as needed.	
VIII	Sufficient Delayed			Sufficient				15%	Lack of service vehicles	MBA preferred.
X	<ul style="list-style-type: none"> To be increased or doubled for high AADT section and deteriorated paved and unpaved roads. Not timely 	AMWP/PB Y		First class district to be increased.		Depend on pre-qualification			<ul style="list-style-type: none"> Time to purchase new equipment. Needs service vehicles 	
XI	2 times Delayed	Inspection		District has to reduce their work force due to MBC Emergency ---> not enough.		Good		2%	<ul style="list-style-type: none"> Very old. Equipment are also used for projects by administration. 	Due to attrition law, office cannot employ qualified personnel.
XIII	<ul style="list-style-type: none"> Enough, but not sufficient to emergency needs. Not timely, over-draft not allowed anymore. 	Area Engr.--> weekly inspection Regional Level Monthly inspection		District--> sufficient Regional--> not sufficient		<ul style="list-style-type: none"> Manpower/equipment availability --> advantage Delayed response in times of calamity. 		10%	Problem	

ANSWERS TO QUESTIONNAIRES:

REGIONAL OFFICE

REGION	Some Measures to Drastically Improve Maintenance	Preparedness for Emergency Cases Minimum Equipment	Manpower	Materials	System
IV-B	<ul style="list-style-type: none"> To train more maintenance personnel in their line of specialization on each maintenance activities. 	3 Bulldozers 3 Loader 4 Grader 10 Dump Trucks For Each District Office			<ul style="list-style-type: none"> Presently utilize the equipment and personnel. Sometimes tap contractor's equipment which seldom fined during emergency.
V	<ul style="list-style-type: none"> Service vehicles Give incentives to maintenance personnel Complete maintenance equipment 				
VI					
VII	<ul style="list-style-type: none"> Improve work attitude of maintenance personnel. Increase fund Supply of equipment as needed. 	1 Service Vehicle 2 Dump Trucks 2 Chainsaws 2 Loaders 2 Graders (per District)	5 men per road section	Good for one temporary structure	Task Forces on 24-hour standby at Regional/District Level.
VIII					
X	<ul style="list-style-type: none"> Purchase new equipment and service vehicles. Follow maintenance budgeting/programming. Increase capital outlay to make all road sections all-weather passable. 	1 Bulldozer 2 Dump Trucks 1 Loader 1 Explosive Devices 1 Crane, 1 Jack Hammer		Lumber Bailey pannels etc.	
XI	<ul style="list-style-type: none"> Quantity standards should be increased. Maintenance equipment solely for maintenance. New equipment. 	Grader Loader Dump Trucks (2-3) Bulldozer Service Vehicle, Backhoe, Crane	Engineer Foreman Service Driver Operator Bridge Gauge Maintenance Crew (t)	Bailey Pannels Transom Cement Aggregates Lumber Nails, etc.	Stand-by Emergency Crew
XIII	<ul style="list-style-type: none"> Provide adequate equipment Increase MBC 	4 Communication 3 Dumptrucks 1 Payloaders 1 Grader 1 Backhoe, 3 Service Vehicle	10 laborers 4 operators 3 drivers	Aggregate Cement Lumber Hazard Markers Traffic Signs	Repair works automatically acted upon using any available resources.

APPENDICES
FOR
CHAPTER 5

APPENDIX 5.1-1(1) LIST OF TRAFFIC SURVEY STATIONS

Station No.	Island	Region	Province	Municipality	Barangay	Road Section
<u>OD and Count Station</u>						
01	Panay	VII	Antique	Bugasong	Cubay Norte	Lau-an - Bugasong
02	Panay	VII	Antique	San Joaquin	Sta. Rita	Tiolas - Hantic
03	Panay	VII	Aklan	Banga	Libas	Balete - Banga
04	Panay	VII	Capiz	Passi	Nam-it	Passi - Duenas
05	Panay	VII	Iloilo	Barotac Viejo	Santiago	Barotac Viejo - Ajuy
06	Negros	VI	Negros Occidental	Victorias	Brgy. 21	Manapla - Victorias
07	Negros	VI	Negros Occidental	Binalbagan	San Jose	Binalbagan - Himamaylan
08	Negros	VI	Negros Occidental	Vallehermoso	Bagawis	Vallehermoso - San Carlos
09	Negros	VI	Negros Oriental	Bais	Tamiso	Bais - Manjuyod
10	Negros	VI	Negros Oriental	Zamboangita	Mayabong	Siaton - Zamboangita
11	Cebu	VII	Cebu	Campostela	Nagay	Danao - Campostela
12	Cebu	VII	Cebu	Balamban	Buanoy	Balamban - Toledo
13	Cebu	VII	Cebu	Toledo	Ilihan	Toledo - Naga
14	Cebu	VII	Cebu	Carcar	Perrelos	San Fernando - Carcar
15	Cebu	VII	Cebu	Barili	Sayaw	Barili - Dumanjug
16	Samar	VIII	N. Samar	San Isidro	Palanit	Calbayog - San Isidro
17	Samar	VIII	N. Samar	Catarman	Magsaysay-Bonbon	Bonbon - Catarman
18	Samar	VIII	W. Samar	Catbalogan	New Mahayag	San Jorge - Catbalogan
19	Samar	VIII	W. Samar	Wright	Pequit	Wright - Taft
20	Samar	VIII	W. Samar	Tacloban	Calbiga	Tacloban - Calbiga
21	Leyte	VIII	Leyte	Capoocan		Carigara - Cananga
22	Leyte	VIII	Leyte	Albuera	Tinag-an	Albuera - Baybay
23	Leyte	VIII	Leyte	Tolosa	San Isidro	Tolosa - Dulag
24	Leyte	VIII	Leyte	Mahaplag	Polahangan	Mahaplag - Sugod
25	Leyte	VIII	Leyte	Matalom	Sta. Fe	Maasin - Matalom
26	Misamis	X	Misamis Occidental	Calamba	Bunawan	Sapang Dalaga - Calamba
27	Misamis	X	Misamis Oriental	Lugait	Biga	Lugait - Manticao
28	Misamis	X	Misamis Oriental	Talakag	Mambuaya	Talakag - Cagayan De Oro
29	Mindanao	X	Bukidnon	Manolo Fortich	Lonocan	Manolo Fortich - Cagayan De Oro
30	Mindanao	XIII	Butuan City	Butuan	Antongalon	Bayugan - Butuan City
31	Mindanao	XIII	Agusan Del Norte	Kitcharao	Canaway	Kitcharao - Alegria
32	Mindanao	XIII	Agusan Del Norte	Carmen	Taglatong	Carmen - Magsaysay
33	Mindanao	XIII	Agusan Del Norte	Monkayo	Baylo	Trento - Monkayo
34	Mindanao	X	Bukidnon	Kilbawe	East Poblacion	Kilbawe - New Damulog
35	Mindanao	XI	Davao Del Norte	Panabo	J.P. Jaurel	Panabo - Davao City
36	Mindanao	XI	Davao Del Norte	Pantukan	Fuentes	Pantukan - Banay Banay
37	Mindanao	XI	Davao Del Norte	Sta. Cruz	Caronan	Davao - Sta. Cruz
38	Mindanao	XI	Davao Del Norte	Banasalan	Dolo	Makilala - Banasalan
39	Mindanao	XI	South Cotabato	Polomolok	Pagahungan	Polomolok - Tupi
40	Mindanao	XI	Sarangani	Malungon	Malandag	Malungon - Gen. Santos City

APPENDIX 5.1-1(2) LIST OF TRAFFIC SURVEY STATIONS

Station No.	Island	Region	Province	Municipality	Barangay	Road Section
<u>Traffic Count Station</u>						
41	Mindoro	IV-B	Occidental Mindoro	Sta. Cruz	Pinagtuliran	Sta. - Sablayan
42	Mindoro	IV-B	Oriental Mindoro	Gloria	Lucio Laurel	Gloria - Bansud
43	Masbate	V	Masbate	Masbate	Asid	Masbate - Milagros
44	Masbate	V	Masbate	Mobo	Marintoc	Mobo - Dimasalang
45	Bohol	VII	Bohol	Diniao	Taongon Kan-Andan	Diniao - Valencia
46	Bohol	VII	Bohol	Claviri	Bacani	Tubigon - Claviri
47	Palawan	IV-B	Palawan	Puerto Princesa	Roxas	Luzviminda
48	Palawan	IV-B	Palawan	Puerto Princesa	Aborian	Langugan
49	Catanduanes	V	Catanduanes	San Miguel	San Andres	San Andres-Caramoran
50	Catanduanes	V	Catanduanes	San Miguel	Pagsangahan	Vigan - Virac
51	Camiguin	X	Camiguin	Mambajao	Tupsas	Mahinog - Mambajao
52	Camiguin	X	Camiguin	Catarman	Sagay	Sagay - Catarman
53	Mindanao	IX	Zamboanga Del Sur	Zamboanga City	Cawit	Zamboanga City - Sibuco
54	Mindanao	IX	Zamboanga Del Sur	Zamboanga City	Manicaban	Zamboanga City - Culuan
55	Mindanao	IX	Zamboanga Del Sur	Zamboanga City	Vitali	Culuan - Tunganas
56	Mindanao	IX	Zamboanga Del Norte	Tampilisan	Molos	Tampilisan - Liloy
57	Mindanao	IX	Zamboanga Del Norte	Liloy	Banigan	Labason - Liloy
58	Mindanao	IX	Zamboanga Del Norte	Sindangan	Siari	Sindangan - Jose Dalman
59	Mindanao	IX	Zamboanga Del Norte	Dipolog City	Olingan	Katipunan - Dipolog
60	Mindanao	IX	Zamboanga Del Sur	Imelda	Gandiangan	Imelda - Siay
61	Mindanao	IX	Zamboanga Del Sur	Tigbao	La Nilo	Tigbao - Dumaliniao
62	Mindanao	IX	Zamboanga Del Sur	Guipos	Canunan	Dumaliniao - Mangosatubig
63	Mindanao	XII	Lanao Del Norte	Kapatagas	Taguitik	Kapatagan - Aurora
64	Mindanao	XII	Lanao Del Norte	Kapatagas	Bansalville	Kapatagan - Karomatan
65	Mindanao	XII	Lanao Del Norte	Karomatan	Coreo	Karomatan - Sultan Gumandes
66	Mindanao	XII	Lanao Del Norte	Bacolod	Linagan	Bacolod - Maigo
67	Mindanao	XII	Lanao Del Norte	Saguianan	Bobong	Marawi - Saguianan
68	Mindanao	ARMM	Lanao Del Sur	Manantao	Cawayan	Marawi - Marantao
69	Mindanao	ARMM	Lanao Del Sur	Ditsaan Ramin	Puguan	Marawi - Ditsaan Ramin
70	Mindanao	ARMM	Maguindanao	Parang	Macasandag	Matunog - Parang
71	Mindanao	ARMM	Maguindanao	Cotabato City	Sitio - Tenorio	Cotabato - Upi
72	Mindanao	XII	North Cotabato	Libungan	Sinawingas	Pigcawayan - Libungan
73	Mindanao	ARMM	Maguindanao	Dinaig	Datu Udis Sinsuat	Cotabato - Dinaig
74	Mindanao	XII	Sultan Kudarat	Esperanza	Alah	Esperanza - Isulan
75	Mindanao	XII	Sultan Kudarat	Taculong	Kalandagan	Tacurong - Tantangan
76	Mindanao	XI	Sarangani	Maitum	Maguling	Palimbang - Maitum
77	Mindanao	XII	North Cotabato	Kidapawan	Paco	Kidapawan - Matalam

ON VISA YAS AND MINDANAO ISLANDS STRATEGIC ROAD
NETWORK DEVELOPMENT PROJECT
PASSENGER OD SURVEY SHEET

[illegible]

APPENDIX 5.1-3 SURVEY FORM FOR TRAFFIC COUNT SURVEY

MASTER PLAN STUDY ON VISAYAS AND MINDANAO ISLANDS STRATEGIC ROAD NETWORK DEVELOPMENT PROJECT TRAFFIC COUNT SURVEY SHEET

STATION NO.:		
DATE:	HOUR FROM:	HOUR TO:
WEATHER:		RECORDED BY:

SUB TOTAL	FROM: TO:	VEHICLE TYPE	FROM: TO:	SUB TOTAL	TOTAL
		CAR/ TAXI/ JEEP			
		JEEPNEY			
		PICK- UP/ VAN			
		MINI BUS			
		LARGE BUS			
		TRUCK 2- AXLE			
		TRUCK 3- AXLE			
		TRUCK 4 OR MORE AXLE			
		MOTOR TRI- CYCLE			
		MOTOR CYCLE			
		SPECIAL			
		TOTAL			

APPENDIX 5.2-1 INTER-REGIONAL SEA PASSENGER MOVEMENTS

Passenger

	NCR	I-III, CAR	IV	V	VI	VII	VIII	IX	X	XI	XII, ARMM	XIII	Oversea	Total
NCR														
I-III, CAR														
IV	261,539	166,487	198,350	507,798	228,922	102,771	166,156	102,787	576,575	17,179	144,316	62,394	-	2,266,331
V	635,980	17,867	547,849	179,450	86,970	166,156	102,787	576,575	17,179	144,316	62,394	-	-	2,280,559
VI	17,867	138,776	363,026	463,715	299,035	426,633	141,963	62,810	45,886	439,619	118,975	224,664	-	2,960,827
VII	547,849	197,155	463,715	1,091,742	564,881	42,771	13,922	7,162	60,089	234,187	39,125	13,912	-	4,932,038
VIII	507,798	179,450	86,970	166,156	102,787	576,575	17,179	144,316	62,394	-	-	-	-	1,417,369
IX	228,922	102,771	166,156	102,787	576,575	17,179	144,316	62,394	-	-	-	-	-	1,462,108
X	102,771	166,156	102,787	576,575	17,179	144,316	62,394	-	-	-	-	-	-	2,773,113
XI	17,179	144,316	62,394	-	-	-	-	-	-	-	-	-	-	323,610
XII, ARMM	144,316	62,394	-	-	-	-	-	-	-	-	-	-	-	1,427,825
XIII	62,394	-	-	-	-	-	-	-	-	-	-	-	-	760,810
Oversea	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	2,266,331	819,320	2,960,827	4,932,038	1,417,369	1,427,825	760,810	-	21,423,910	-	-	-	-	-

APPENDIX 5.2-2(1) INTER-REGIONAL SEA CARGO MOVEMENTS

Total Commodity (ton)

	NCR	I-III, CAR	IV	V	VI	VII	VIII	IX	X	XI	XII, ARMM	XIII	Oversea	Total
NCR														
I-III, CAR														
IV	1,499,616	721,670	1,621,444	822,830	1,214,634	981,057	881,800	270,253	2,205,723	887,454	394,865	665,241	3,113,011	15,279,598
V	1,113,945	59,009	408,665	47,600	596,883	236,684	194,777	194,339	40,642	525,820	272,750	-	306,968	4,79,922
VI	1,986,929	468,201	16,373	62,890	300,397	285,430	356,991	82,958	767,225	165,272	196,655	102,378	500,623	7,204,106
VII	764,378	-	210,236	114,827	280,113	312,627	11,014	12,221	14,752	30,476	18,027	35,856	1,089,907	1,210,746
VIII	1,241,596	-	114,827	409,921	121,342	338,812	11,136	136,700	15,611	78,575	45,551	67,650	2,057,346	3,151,970
IX	1,446,103	-	101,718	-	90,675	62,378	38,113	234,018	27,931	-	-	-	-	4,735,693
X	1,486,799	-	49,989	-	278,399	766,745	39,406	70,579	15,611	-	-	-	-	3,260,924
XI	216,153	-	15,078	-	302,977	392,191	88,416	66,955	5,708,317	1,032,239	1,733,243	158,580	-	8,082,993
XII, ARMM	637,567	-	126,854	-	614,131	392,191	88,416	70,579	15,611	-	-	-	-	4,153,072
XIII	948,517	-	232,519	-	140,327	95,856	57,549	66,955	5,708,317	1,032,239	1,733,243	158,580	-	2,769,353
Oversea	17,755,368	807,205,11	527,975	55,949	640,159	483,656	1,815,488	1,234,602	9,028,971	3,348,158	2,890,035	1,157,233	16,812,319	41,785,134
Total	30,025,655	1,997,076	14,484,687	1,520,532	4,458,695	4,300,574	3,571,975	1,234,602	9,028,971	3,348,158	2,890,035	1,157,233	16,812,319	94,830,512

APPENDIX 5.2-2(2) INTER-REGIONAL SEA CARGO MOVEMENTS

Agricultural Products (ton)

	NCR	I-III, CAR	IV	V	VI	VII	VIII	IX	X	XI	XII, ARMM	XIII	Oversea	Total
NCR	-	419	13,277	23,484	26,934	74,688	20,806	10,641	85,405	18,392	22,163	16,565	309,230	622,004
I-III, CAR	9,032	-	668	3,753	34,324	23,056	9,904	29,827	1,217	34,231	50,732	-	187,581	9,712
IV	202,871	936	29,370	12,869	-	19,533	12,408	57,221	16,926	60,986	101,873	7,777	59,967	607,802
V	156,274	-	1,104	20,702	40,362	53,721	47,403	28,767	196,880	34,591	69,261	15,639	25,635	262,155
VI	275,622	-	13,874	44,042	52,631	56,102	1,440	2,902	1,092	4,017	6,800	1,754	37,391	635,952
VII	237,287	-	3,910	25,667	-	51,443	3,325	49,168	10,704	38,679	5,016	85,873	337,720	822,130
VIII	236,361	-	12,100	-	29,456	30,481	3,983	171,630	5,540	66,220	12,520	-	365,534	337,720
IX	123,081	-	3,783	-	39,751	239,166	13,624	30,400	15,801	41,987	5,023	-	1,038,288	1,038,288
X	252,623	-	62,222	-	133,868	149,344	6,674	-	-	238,394	282,452	104,465	126,722	3,052,647
XI	758,624	-	49,998	-	65,405	117,149	4,140	-	-	-	-	-	3,408	742,612
XII, ARMM	355,817	-	-	-	23,928	30,313	-	-	-	-	-	-	-	461,625
Oversea	3,931,055	25,481	534,249	13,362	228,532	68,711	-	51,938	125,582	537,497	550,824	185,779	2,872,606	5,604,221
Total	6,861,073	26,836	745,257	123,177	675,171	913,707	122,707	432,494	522,517	537,497	550,824	185,779	2,872,606	14,569,645

Manufactured Products (ton)

	NCR	I-III, CAR	IV	V	VI	VII	VIII	IX	X	XI	XII, ARMM	XIII	Oversea	Total
NCR	-	56,377	370,327	465,842	727,377	531,461	489,354	141,666	512,937	411,722	155,516	280,900	2,097,136	6,240,615
I-III, CAR	2,971	-	774	13,744	240,075	68,287	70,672	63,162	5,403	157,861	63,152	-	2,002	5,747
IV	456,183	21,318	87,955	45,534	-	94,024	64,331	105,432	82,029	244,080	98,946	86,938	115,665	1,305,859
V	602,138	-	14,942	177,156	239,425	228,561	141,268	45,233	178,200	112,721	54,929	54,825	102,941	936,634
VI	942,228	-	60,264	84,652	166,161	142,651	6,934	8,033	7,244	21,654	8,773	21,908	287,769	2,307,736
VII	664,573	-	50,421	82,960	-	222,948	7,042	29,555	10,698	31,955	11,438	58,576	855,523	1,993,246
VIII	898,478	-	21,601	-	48,839	26,015	17,656	30,275	7,326	79,712	11,757	-	316,437	2,184,876
IX	71,828	-	6,462	-	104,035	295,325	17,656	29,555	26,407	-	-	-	385,763	287,992
X	299,623	-	51,213	-	101,899	59,038	17,422	30,275	6,281	-	-	-	28,279	1,167,888
XI	193,484	-	143,536	-	294,784	184,471	50,405	19,250	-	51,810	4,959	-	385,763	893,780
XII, ARMM	515,165	-	-	-	66,652	41,536	15,927	8,504	290,327	456,877	1,241,406	13,063	297,744	1,496,428
XIII	331,445	-	-	-	-	-	-	-	-	-	-	-	-	531,579
Oversea	7,337,010	428,530	429,656	21,447	310,690	300,426	551,644	451,110	1,126,852	1,568,392	1,639,438	501,393	4,575,603	11,589,580
Total	12,315,126	506,225	1,414,307	714,179	2,299,937	2,194,743	1,432,655	451,110	1,126,852	1,568,392	1,639,438	501,393	4,575,603	30,739,960

APPENDIX 5.2-2(3) INTER-REGIONAL SEA CARGO MOVEMENTS

Mineral Products (ton)

	NCR	I-III, CAR	IV	V	VI	VII	VIII	IX	X	XI	XII, ARMM	XIII	Oversea	Total
NCR	1,499,616	662,196	1,236,142	326,495	457,483	356,280	369,671	117,946	1,607,381	456,974	217,186	366,189	702,871	8,376,430
I-III, CAR	58,118	-	39,172	-	-	-	-	-	-	-	-	-	304,954	402,244
IV	1,328,953	440,331	286,455	15,425	315,616	145,238	114,201	101,350	33,756	333,543	158,866	-	1,986,993	5,258,727
V	5,966	-	327	170	-	631	325	-	-	-	-	-	-	7,419
VI	23,353	-	11,417	-	2,522	3,103	-	1,275	5,421	4,062	2,094	2,075	99,197	154,519
VII	469,887	-	10,852	2,886	14,721	80,822	33,588	4,642	341,867	16,874	51,489	28,998	187,201	1,243,827
VIII	351,743	-	47,387	12,489	-	64,247	2,527	1,286	6,416	4,805	2,454	12,191	196,993	702,538
IX	19,644	-	15,521	-	5,490	3,792	1,015	-	7,405	5,577	-	2,881	151,168	212,493
X	9,834	-	429	-	1,738	7,436	380	550	447	2,101	260	644	5,270,353	5,293,528
XI	4,757	-	3,211	-	1,045	761	227	341	1,657	-	-	4	1,135	13,778
XII, ARMM	10,444	-	6,990	-	2,501	1,938	567	-	25	-	17	-	8,376	30,825
XIII	205,470	-	-	-	11,517	5,630	18,415	3,645	5,291,612	308,182	193,774	41,052	-	674,534
Oversea	5,953,998	344,665	10,552,015	1,560	3,005	91,615	1,263,844	6,513	7,295,987	1,145,787	626,140	454,034	9,325,612	24,051,835
Total	9,939,783	1,447,192	12,209,918	359,025	815,438	761,493	1,804,740	237,548	14,587,987	2,145,787	1,145,787	626,140	9,325,612	46,422,697

Construction Materials (ton)

	NCR	I-III, CAR	IV	V	VI	VII	VIII	IX	X	XI	XII, ARMM	XIII	Oversea	Total
NCR	43,824	2,678	1,698	7,009	2,840	18,628	1,969	-	-	366	-	1,587	3,774	40,549
I-III, CAR	922	5,616	18,395	14,678	6,868	103	-	-	266	185	-	-	195	62,219
IV	-	-	4,885	4,317	-	-	-	-	-	-	-	-	-	33,718
V	-	-	-	-	-	-	-	-	-	-	-	-	-	4,538
VI	393	-	961	-	18,108	45	-	2,651	27	-	11,578	-	-	33,763
VII	74,356	-	29,837	278,341	46,600	33,052	134,732	4,316	50,278	1,086	20,976	2,916	-	676,490
VIII	217	-	-	226	-	174	113	-	-	-	-	3	-	733
IX	1,600	-	767	-	6,890	2,090	754	-	1,974	2,364	-	826	-	17,265
X	75,487	-	4,404	-	132,875	224,818	16,094	57,427	2,298	48,872	21,014	-	-	583,289
XI	23,420	-	10,208	-	66,165	21,807	8,133	31,772	22,152	-	-	9,210	-	192,867
XII, ARMM	67,091	-	31,995	-	251,441	88,633	30,790	-	5,824	-	-	1,485	22,229	499,488
XIII	89,058	-	-	-	38,430	18,377	19,067	-	-	14,823	4,454	-	12,300	213,793
Oversea	533,305	8,529	12,055	19,580	97,932	22,904	-	17,284	796	28,786	15,611	-	-	739,498
Total	909,673	16,823	115,205	324,151	668,149	430,631	211,873	113,450	83,615	96,482	73,633	16,027	38,498	3,098,210

APPENDIX 5.3-1 AIR PASSENGER OD BETWEEN AIRPORTS: 1996

Air Passenger OD (1/2)														
	Marinduque	Mamburao	San Jose (Mindoro)	Puerto Alcantara (Rambion)	Masbate	Caticlan	Kalibo	Roxas	Iloilo	Bacolod	Tagbilaran	Mactan	Dumaguete	Tacloban
Marinduque	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mamburao	-	-	-	-	-	-	-	-	-	-	-	-	-	-
San Jose (Mindoro)	-	-	-	-	-	-	-	-	10,334	-	-	-	-	-
Puerto Alcantara	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Masbate	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Caticlan	-	-	-	-	-	-	-	-	-	-	-	8,626	-	-
Kalibo	-	-	-	-	-	-	-	-	-	-	-	50,827	-	-
Roxas	-	-	-	10,334	-	-	-	-	-	-	-	43,951	-	-
Iloilo	-	-	-	-	-	-	8,626	-	50,827	43,951	8,760	4,846	4,846	10,116
Bacolod	-	-	-	-	-	-	-	-	-	-	-	10,116	-	-
Tagbilaran	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mactan	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dumaguete	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tacloban	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cataman	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calbayog	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ozamis	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cagayan de Oro	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gen. Santos	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Davao	-	-	-	-	-	-	-	-	2,339	-	-	9,816	-	-
Butuan	-	-	-	-	-	-	-	-	-	-	-	11,191	-	-
Surigao	-	-	-	-	-	-	-	-	-	-	-	32,717	-	-
Tandag	-	-	-	-	-	-	-	-	-	-	-	82,061	-	-
Dipolog	-	-	-	-	-	-	-	-	-	-	-	14,379	-	-
Zamboanga	-	-	-	-	-	-	-	-	-	-	-	1,516	-	-
Cotabato	-	-	-	-	-	-	-	-	-	-	-	6,507	-	-
Manila	-	-	-	-	-	-	-	-	-	-	-	8,764	-	-
Legaspi	-	-	-	-	-	-	-	-	-	-	-	35,578	-	-
Total	15,209	3,130	21,102	77,558	1,250	16,248	121,909	35,735	230,646	160,505	16,165	662,252	40,356	112,944
	15,209	3,130	21,102	87,892	1,250	19,152	130,535	35,735	294,146	204,456	24,925	1,011,808	45,202	123,060

Air Passenger OD (2/2)															
	Cataman	Calbayog	Ozamis	Cagayan de Oro	Gen. Santos	Davao	Butuan	Surigao	Tandag	Dipolog	Zamboanga	Cotabato	Manila	Legaspi	Total
Marinduque	-	-	-	-	-	-	-	-	-	-	-	-	15,209	-	15,209
Mamburao	-	-	-	-	-	-	-	-	-	-	-	-	3,130	-	3,130
San Jose (Mindoro)	-	-	-	-	-	-	-	-	-	-	-	-	21,102	-	21,102
Puerto Princesa	-	-	-	-	-	-	-	-	-	-	-	-	77,558	-	77,558
Alcantara	-	-	-	-	-	-	-	-	-	-	-	-	1,250	-	1,250
Masbate	-	-	-	-	-	-	-	-	-	-	-	-	16,248	2,904	19,152
Caticlan	-	-	-	-	-	-	-	-	-	-	-	-	13,006	-	13,006
Kalibo	-	-	-	-	-	-	-	-	-	-	-	-	121,909	-	121,909
Roxas	-	-	-	-	-	-	-	-	-	-	-	-	35,735	-	35,735
Iloilo	-	-	-	-	2,339	-	-	-	-	-	-	-	230,646	-	230,646
Bacolod	-	-	-	-	-	-	-	-	-	-	-	-	160,505	-	160,505
Tagbilaran	-	-	-	-	-	-	-	-	-	-	-	-	16,165	-	16,165
Mactan	-	-	9,816	11,191	32,717	84,061	11,379	7,516	6,507	8,764	35,578	6,470	662,252	8,491	1,011,808
Dumaguete	-	-	-	-	-	-	-	-	-	-	-	-	40,356	-	40,356
Tacloban	-	-	-	-	-	-	-	-	-	-	-	-	112,944	-	112,944
Cataman	-	-	-	-	-	-	-	-	-	-	-	-	12,101	-	12,101
Calbayog	-	-	-	-	-	-	-	-	-	-	-	-	10,814	-	10,814
Ozamis	-	-	-	-	-	-	-	-	-	-	-	-	9,816	-	9,816
Cagayan de Oro	-	-	-	-	-	15,628	-	-	-	-	-	4,905	148,494	-	160,218
Gen. Santos	-	-	-	15,628	-	-	-	-	-	-	-	-	13,678	-	48,734
Davao	-	-	-	-	-	-	-	-	-	-	11,826	-	292,931	-	404,446
Butuan	-	-	-	-	-	-	-	-	-	-	-	-	19,924	-	31,303
Surigao	-	-	-	-	-	-	-	-	-	-	-	-	625	-	8,141
Tandag	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,507
Dipolog	-	-	-	-	-	11,826	-	-	-	-	-	-	20,645	-	29,409
Zamboanga	-	-	-	-	-	-	-	-	-	-	-	-	75,985	-	123,389
Cotabato	-	-	-	4,905	-	-	-	-	-	-	-	-	37,950	-	49,265
Manila	-	-	-	148,494	13,678	292,931	19,924	625	-	20,645	75,985	37,950	-	-	2,161,162
Legaspi	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11,395
Total	12,101	10,814	9,816	180,218	48,734	404,446	31,303	8,141	6,507	29,409	123,389	49,265	2,161,162	11,395	5,117,308