(which comprise about 13% of the basin's total area), the grasslands and brushlands (although sometimes taken over by the plantations), and marshlands have natural-type vegetation.

2.4.2 Wildlife

No virgin or undisturbed forests remain in the study area due to its long history of exploitation. Although there is no commercial forest or permitted logging, illegal logging and kaingin farming are going on unabated. It may be considered that wildlife could not thrive under these conditions.

Table 2.5 lists the threatened, rare and endangered wildlife species in the Luzon, and Tables 2.6 and 2.7 enumerate the wildlife species probably found in the study area.

2.5 Economic Activities

2.5.1 Agriculture

The intensively cultivated areas or croplands comprise about 44% of the basin's areal extent and are covered by economic crops or cultivated-type vegetation.

Table 2.8 presents the Economic Crop Area and Production by Type of Crop in the Study Area. Tarlac and Pangasinan are part of the "Rice Granary" (Central Luzon) of the Philippines while Benguet particularly Baguio and La Trinidad are referred to as the "Salad Bowl" of the country. The chief occupation or employment source in the basin is agriculture.

2.5.2 Fisheries

Table 2.9 lists the area and production of fishery in the Agno River basin. In the study area, Pangasinan has the basin's coastline and the richest fishery resources. Aside from its natural marine, brackish and freshwater fisheries, it engages in extensive brackish water aquaculture (milkfish and prawn), oyster culture, sea-weed culture, and freshwater inland fishponds and rice-fish culture.

Although Tarlac and Benguet are both land-locked and not as rich in fishery resources, Tarlac and Pangasinan share the Poponto Swamp area (called Mangabol Marsh in Pangasinan). Traditionally, the marsh has been a productive area for freshwater fish and crustaceans, mollusks and water fowl. Colisao Creek in Pangasinan is a known spawning or breeding ground for migratory fish species.

2.6 Aesthetics and Cultural Tribes

2.6.1 Aesthetics and Archaeological Sites

Table 2.10 lists the reservations and archaeological sites in and around the Study Area. These are composed of 6 national parks, 1 municipal park, 1 barangay forest park, 2 watershed forest reservations (Ambuklao and Binga), 3 military reservations, and 10 archaeological sites (2 in Pangasinan and 8 in Benguet). Fig. 2.6 shows their locations in the map of the study area.

2.6.2 Cultural Tribes

Ilocanos are the predominant or the most numerous ethnic group in the Study area comprising the biggest ethnic group in Tarlac, Pangasinan and Benguet. The natives of Pangasinan are the next largest group, followed by the Pampangos and the Tagalogs, in that order. The cultural minorities present in the study area are: the natives of Benguet (the Kankanais and the Inibaloys), the Bolinao or Sambal, Bontoks, Ifugaos, and the Kalingas (in decreasing number). Other cultural minorities present are the Ayta, Ilanum, Isinai, Ivantan, Subanon, and Yogod. Table 2.11 contains the population and location of cultural minorities in the study area, and Fig. 2.6 shows their location.

-EI.11-

2.7 Public Health

2.7.1 Water-borne Parasitic Diseases

Since the project involves the impounding of floods, the spread of waterborne diseases such as malaria might be caused by the project. The historical mortality and morbidity rates were compiled for 1975 to 1987 on Table 2.12.

In the three provinces, malaria incidence rates took an upward trend with Benguet showing the highest morbidity incidence, followed by Tarlac, and the least Pangasinan. Other water-borne parasitic diseases are not reported in the study area.

2.7.2 Water Supply

Table 2.13 shows the percentage of households utilizing the various water supply levels in the Agno River basin in 1985.

Only Benguet is served by a waterworks system of significant coverage. Water supply remains a problem in Benguet. Due to decreasing water pressure, water rationing is practiced during the summer months. In Pangasinan and Tarlac, most households depend on private deep or shallow wells for water supply. Most industries and commercial establishments are installing their own deep wells for their industrial and domestic water needs.

3. ENVIRONMENTAL IMPACT ASSESSMENT (EIA) IN THE MASTER PLAN STAGE

3.1 Methodology of EIA for the Project

To attain the objectives of this environmental study , Initial Environmental Examination (IEE) is conducted. IEE is essentially an initial examination of the environmental effect potentials of the proposed project based mostly on the preliminary information which can be readily obtained. The IEE thus, is a first approach of EIA by scooping. Through the IEE, it is determined whether an EIA will be required in the next Feasibility Study stage.

A checklist method is applied as a basic tool of IEE in this environmental study, because it is one of the useful initial tools for identification of impacts and evaluation of their significance of them. The checklist is prepared by using major items of environmental effect as rows and major project components as columns. The expected effects are evaluated from A to C for each project component with classification whether positive or negative. The checklist items are selected taking into consideration the feature of the project and the guidelines prepared by GOP and the Asian Development Bank (ADB). (Refer to Table 3.1)

3.2 Result of IEE for the Project

The result of EIA for the Project is summarized in Table 3.1.

3.2.1 Agno River

The major components/schemes of flood control in the Agno River are the San Roque dam, Moriones-Lower O'Donnell dam, river improvement works along the Agno River and Poponto retarding basin. The schemes which are expected to cause relative significant effects on the environment are the San Roque dam and Moriones-Lower O'Donnell dam.

First of all, resettlement issues are expected especially at the inundation area of Moriones-Lower O'Donnell dam. Agricultural lands in the proposed reservoir areas are also to be affected by inundation. Secondly, erosion problems in the upstream and downstream areas are expected because both are located in the erosion susceptible area with slope 8° - 15° . Water quality deterioration may not be caused by the dams, but eutrophication and saline water intrusion might be expected.

As for the river improvement works in the Agno River and Poponto retarding basin, there may be no crucial environmental effects caused by the project, though several environmental impacts are expected.

3.2.2 Pantal-Sinocalan River

The major schemes of the Pantal-Sinocalan River flood control are the river improvement works and Binalonan floodway.

Although no crucial environmental issues are expected by the project, water quality deterioration in the downstream area of the Sinocalan River might be caused by the diversion of flood water from the Tuboy river to the Angalacan River through the Binalonan floodway.

3.2.3 Cayanga-Patalan River

The major schemes of the Cayanga-Patalan River flood control are the river improvement works and the Bued closing dike. However, the Bued closing dike is not planned to be constructed in the river, so it can be considered that the environmental impacts caused by the dike are similar to those of the river improvement works.

Several environmental impacts are expected by the project, but there are no crucial environmental effects caused by the project. The significance of the possible impacts can be reduced by taking proper countermeasures.

-EI.14-

3.3 Conclusion and Recommendation

3.3.1 Conclusion of IEE for the Project

- (1) According to the EIA guideline of DPWH, the project shall be required to undertake an EIA report, because it includes two large scale dams and the project area is considered prime agricultural lands.
- (2) Among the proposed schemes of the Project, San Roque dam and Moriones-Lower O'Donnell dam may have environmentally crucial impacts, such as resettlement problem and encroachment of agricultural lands. Thus, more careful attention shall be paid to those impacts.
- (3) As for the other schemes, no crucial environmental effects may be expected by the Project. However, several low or medium level of significant impacts may be expected, so further environmental study shall be required to make clear the expected impacts, in order to propose proper and possible countermeasures.

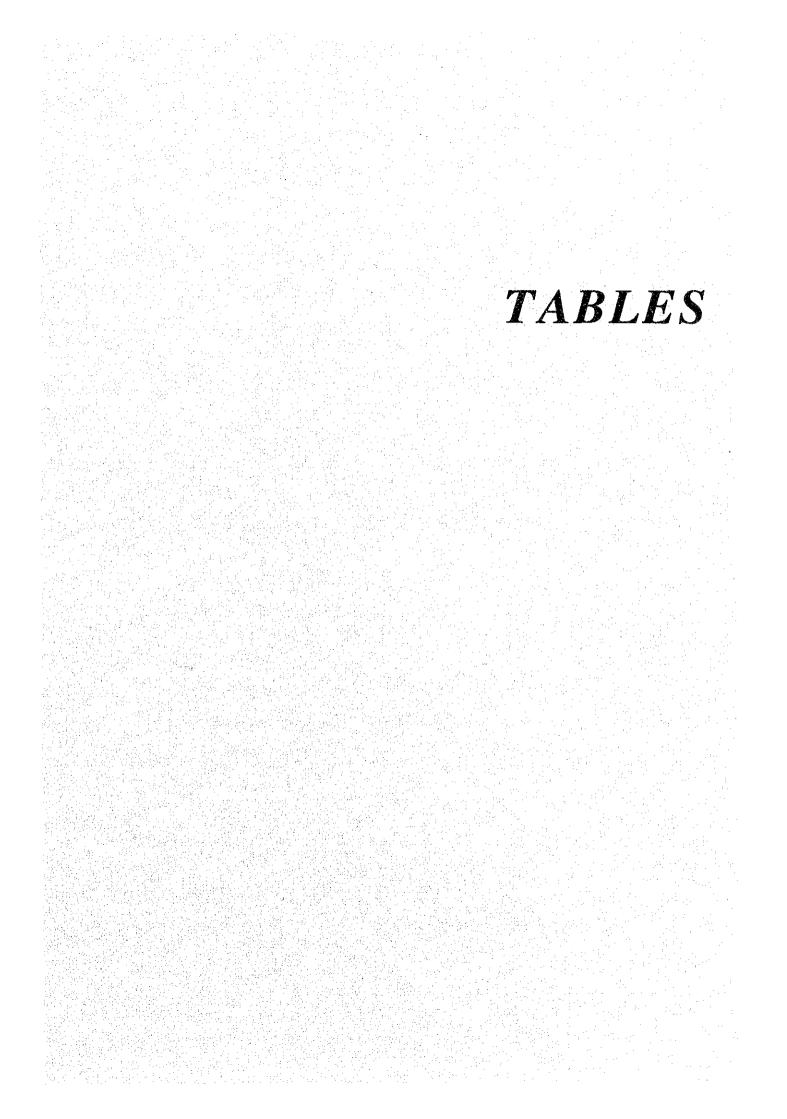
3.3.2 Environmental Effects to be Studied in the Feasibility Study Stage

Through the result of IEE in the Master Plan stage, the following major environmental effects shall be focused in the further environmental study. However, the scope of work of the environmental study is also determined by the detailed plan of the selected high priority schemes in this project. Therefore, the concrete and specific scope of work to be studied in the Feasibility Study should be rearranged.

- To evaluate qualitatively and quantitatively about resettlement problems, and to prepare proper resettlement programs for the San Roque and Moriones-Lower O'Donnell dams,
- To evaluate qualitatively and quantitatively about the evacuation of the local people and to prepare proper programs,

- To evaluate qualitatively and quantitatively about the loss of agricultural lands in the proposed reservoir areas and Binalonan floodway area,

- To assess the possibility of eutrophication of the proposed reservoir areas, and the water quality deterioration by the operation of the Binalonan floodway,
- To assess the impairment of navigation in the Agno River and the Allied Rivers,
- To assess the magnitude of soil erosion and to recommend necessary management plans.



LAND CLASSIFICATION OF 4 PROVINCES IN THE STUDY AREA Table 2.1

(1)070) 905 75.478 (0.23) 606 (1110) Fish Ponás serration civil Re-165.935 (0.63) 665 :23 (27-0) (\$0-0\$) (0.25) 1,727 Ailitar7 Reserve-36,538 (12,0%) 101,330 (110,330 (0.4%) (12.0) 1955 288 (0-13) 63, 300 (12.15) 101 Gross/RA Classified Lational 1,342,416 \$,110 (\$.55%) (15.1) 5,512 (2.23) (10.0) 3,504 (10.0) Parks Established Established Tixber Land 10.015.427 (33.4%) 356,296 81.115 (17.23) (52.33) 102,792 (19.15) 31,679 (6.0%) Forest Land 3,271.504 (10.94) 127,110 84,500 [16.0%] 13.735 (1.(1) 22,275 (1.31) Porest Reserve 1 881.157 15,001,090 (2.99) (50.03) 127,576 129, 375 15(,611 (62.0%) 183,722 (34.84) (33.43) 596,279 (36,444) Total 2,347 29, 503 (1.313) Doclassi-13.030 13,726 []ed 15.882.247 (52.25) 151, 448 (37. 48) 625, 582 (38, 251) 177, S41 (56, 33) 130.423 (24.21) 120.370 (11.41) Total (,392,603 (12.7%) 486,678 (29.75**%**) Built-up 47.120 (17.7%) 215,566 (40.2%) 140.200 (26.433) **33, 792** (**27, 5**%) Area Alienzble and Dispossble Land 9,725.150 (34.4%) (12.48) 190, 529 (35, 5%) 190,785 101.133 523,574 (32.01) Fars Land (33.15) Certified 14,117,753 (\$7.1%) 1,010,252 330,995 (62,63) 134,975 57,257 (33.11) (\$£°.30) \$60°.30) (\$0.6%) Total 305,345 265,538 535,818 528,433 Total Area Philippines 30,000,000 1,635,134 goo/Allied Raeva Ecija Province Pangasinan Bengaet Sarlac Bastas 17 --

Scarce : Philippine Forestry Statistics 1986 FOREST ANAGEMENT JUREAGE, DEAR

Dait : ba

- EI.

		Be	nguet	··· .	Panga	ISIDAD	Tarla	C
Mineral and Non-Mineral Re:	SOUTCES	Reserves (1981-Thou- sand KT)		Annual Production (1984-KT)	Reserves (1981-Thou- sand MT)	Annual Production (1984-HT)	Reserves (1980-MT)	Annual Productio
etallic							•	
Gold		659,244.8		10.4	NDA	0.032	NDA .	NDA
Copper		843,913.7		21,286.0	318.9	2,662.0	NDA	HDA
Cadmium		47.2		NDA			RDA -	NDA
Xol ybdenun		111,526.0		NDA			NDA	90X
Linc		488.9		2,181.0			NDL	KDA
Iron (lanp Ore)							NDA	NDA
Titaniferous Magnetite Sa	and			•		e de la companya de l	153,800.0	NDX
Kanganese			•				190,000.0	ADY
Chronite Ore					987.4	XDA	HDA	EDA
Silver	•	X D A		13.9	XDX	1.122	NDA	XDA
Copper Concentrate					KDA	14,220.0 DXT	ADA	RDY
Refractory					NDX	614.0 DHT	NDA	NDX
nn-Netallic				•				
Linestone (Cenent Raw Mal	terials)				811,167.0	811,167.0	NDA	RDA
Shale Clay					NDL	175,660.0	NDA	NDA
Rhite Clay					NDA	423.0	NDA	RDA .
Linestone Ore		980.0		NDL	50.0	NDX	NDA	NDA
Pyrite Ore		387.4		NDA		. · · ·	ADA	ND2
Silica Rock		2,580.0		NDA			ADY	HDA
Silica Sand		540,939.6	÷.,	NDA .			NDA	KDA
Cenent					NDA	13,001,373.0 bags	8DA	XDX
Sand and Gravel	1.1	5,215,800.0	cum	27,327.0	cun XDA	77,594.0 cu r	ADA	NDA
Stones, Cobbles, Boulders	s	RDX		4,157.0		17.0 cu r		XDA
Aggregates	-	NDA		13,148.0	cu n	at a second	ADA	NDA
Quickline		NDA		14,161.0			NDA	XDX
Pyrite Concentrate		XDX		3,870.0	NDA	13,895.0 DHT	RDA	NDA
Asbestos				••	1,466,625.0	NDA	NDA	NDX
Salt		· · ·				52,795.0	8DA	NDY
Guano						9.0	XDA	HON

MINERAL RESERVES AND PRODUCTION BY TYPE, QUANTITY AND LOCATION Table 2.2

Sources:

a. Medium-Term Ilocos Region Development Plan, 1987-1992, RDC Region I
b. Bureau of Hines and Geo-Sciences, Region I
c. Bureau of Hines, 1984

d. PDS, 1984, Provincial Government Of Pangasinan

e. Agno River Basin Pranework Plan, NWRC, 1983

- EI. 18 -

Class		AA		Fresh Surface Water							
			A	В	С	D	E				
0.1. The take			149 (P ²		50						
Color, Units			75	50	° 50						
Temperature ^O C	,		30	30	3(e)	3(e)					
Transparency			-	(C)	(c)	(c)					
Dissolved Oxyg			5	5	5	3	2				
5-day BOD at 2			10	15	20						
Fotal Dissolve	ed Solids				1,000	1,000					
Fotal Solids		(a)	(a)	<i></i>	2,000	2,000					
PH		(a)		6.5-8.5		6.0-8.5	5.0-9.0				
Coliform, MPN/		50	5,000	1,000	5,000						
Phenolic subst	ances	(a)	(a)	0.002	0.02						
3. 4.	0.07 (e) rise All valu which is All units	mmended mg/L. in temp es are minimum in mg/ age and	erature. maximum pe permissibl L except th	ermissible .e. .ose indic	ion for ir e except fo cated. cesh surface <u>Best u</u>	or Dissolv water:					
			· · · · · · · · · · · · · · · · · · ·								
	- Class A	A			ublic water						
		: . [.] .			orimarily n are uninha						
e de la compañía de l											
and the second second					which requ order to						
	· •		1 A A A A A A A A A A A A A A A A A A A		Drinking Wa						
			Philipp		orrugrug ag	ter (Noby					
	C1000 /				ater supply	that wi	I rooui				
	- Class A	1	comple		treatment		gulation				
	· · · · · · ·				filtration a						
	1997 - A.			o meet th		ing grann	ection).				
	Olean I	;) ·				ion					
	- Class H				act recreat		fich				
	- Class C				tion and g	stowen or	tish al				
	01	. .		quatic re			1				
	- Class I)		•	re, irrig						
1			wateri	ng and	industri	al COO]	ing an				
			process								

Table 2.3 PARAMETERS OF WATER QUALITY CRITERIA

- EI. 19 -

n de la composition de la composition de la composition Table 2.4 UPPER AGNO RIVER SURFACE WATER QUALITY, DECEMBER 1983 - NOVEMBER 1984

Fixed Point A; Binga Dam Downstream

THE THE STORE AND
4.57 2.54 3.1 5.20 7.7 2000+ 90240 0.003 0.004 4.0003 55 7.3 0.01 7.21 7.65 7.3 510 7.4 12500- 10000 0.005 0.000 0.0003 76 123 0.03
4.59 23.4 8.1 520 7.7 2000 9000 0.003 0.004 0.0003 55 7.3 0.01
4.02 25.0 77 390 7.8 1800+ 6600 0.003 0.01 0.0004 100 6.4 0.00 4.9 23.4 31 530 7.7 2000 900 0.003 0.004 0.003 5.7 0.00 7.7 250 7.1 7.7 2000 1004 0.003 0.004 0.003 7.0 0.00
2.11. 24.0 1/3 1/3 1/3 1/2 2007 1/0000 0.003 0.004 1/3 3/1 0/01 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/
2.12. 26.3 7.9 760 7.7 2000+ 10000 0.008 0.009 0.0004 143 9.1 0.01 355 4.09 25.0 7.7 390 7.8 1300+ 6600 0.003 0.0014 1000 6.4 0.00 238 4.59 23.4 3.1 6.20 7.7 2004 9.000 5.004 0.0003 55 7.3 0.01 226
0.75 1.75 0.2 12.80 7.3 2009 1.900 0.000 1.27 9.2 0.01 640 1.21 2.02 1.22 2.03 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1.20
075 277 52 1200 75- 2000- 11000 0.000 2000 0.000 207 92 0.01 640 VULVEY UVVAT 1900 NESCUAY OI The San Roque Multipurpose 242 243 750 77 500 77 500 0.000 0.000 0.000 0.000 100 535 448 250 77 500 750 500 0.000 0.000 0.000 100 53 459 250 31 500 77 200 0.000 0.000 0.000 0.000 100 235
041 784 8.1 100 77 2004 1000 0.01 0.04 0.000 357 105 0.00 89 SOULCE; JICA, I 0.0 17 2004 11000 0.006 0.01 0.000 127 10.0 105 0.00 100 100 120 121 243 79 76 77 2004 1000 0.006 0.000 100 100 100 100 135 11 20 125 11 20 7 12 100 100 0.000 0.000 100 6.4 0.0 238 4.0 135 11 20 12 12 12 12 12 12 12 12 12 12 12 12 12
041 242 213 1200 77 2000 2010 0404 0000 337 103 040 209 809 249 257 103 105 700 1000 040 0404 0000 257 105 100 1000 0000 0000 0000 0000 0000
041 254 51 100 15 1000 1000 0001 0001 0001 00
us 28.8 46 1700 6.8 1700 6.10 0.01 0.001 317 8.6 0.01 781 0.4 226 2.3 1200 77 2000 1000 0.001 0.001 317 8.6 0.01 781 0.5 217 3.2 7.000 1.100 0.000 0.000 1.7 200 0.000 1.7 2.0 0.0 640 2.11 2.43 7.5 0.7 2000 1000 0.000 100 6.0 0.00 100 640 4.00 2.5 7.7 500 7.7 2000 0.000 100 6.0 0.00 100 640 4.00 2.5 7.7 500 7.7 2000 0.000 100 6.0 0.0 238 4.0 2.4 24 24 24 27 200 0.000 0.000 100 6.0 238 4.0 24 24 24 24 27 200 0.000 0.000 100 0.000 100 238 4.0 24 24 24 24 24 24 24 24 24 24 24 24 24
un 221 15 100 74 2000 1000 000 0000 000 0000 259 80 001 702 un 228 25 100 61 9000 13000 0000 0000 0000 171 86 001 79 un 228 25 1000 73 0000 1000 0000 0000 0000 0000 0
UN 237 12 1200 74 2000 1000 0010 0000 255 84 001 701 1338 155 1700 131 2000 1000 0010 0001 0000 371 85 001 701 041 254 23 1200 77 2000 1000 0010 0001 201 001 201 055 271 200 1000 0000 0000 0000 0000 137 92 001 640 058 271 300 73 2000 1000 0000 0000 100 64 000 231 249 244 11 670 73 200 0000 0000 0000 100 64 000 231 249 244 11 670 73 200 0000 0000 0000 100 100 231 249 244 11 670 73 200 0000 0000 000 100 000 231 249 244 11 670 73 200 0000 0000 000 100 000 231 249 244 11 670 73 200 0000 0000 000 100 000 231 249 244 11 670 73 200 0000 0000 000 100 000 231 249 244 11 670 73 200 0000 0000 000 100 000 231 249 244 11 670 73 200 0000 0000 000 000 100 000 231 249 244 11 670 73 200 0000 0000 000 100 000 231 249 244 11 670 73 200 0000 0000 000 000 231 249 244 11 670 73 200 0000 0000 000 100 000 231 249 244 11 670 73 200 0000 0000 000 100 000 231 249 244 11 670 73 200 0000 0000 000 100 000 231 249 244 14 670 73 200 0000 0000 000 000 100 000 231 240 240 73 700 000 0000 0000 0000 000 100 000 231 240 240 73 700 000 000 000 0000 000 000 000 00
1.28 217 55 560 507 7700 0.010 0000 417 53 - 319 0.18 253 55 1200 74 2000 10000 0000 0000 0000 259 58 0.01 701 0.18 253 55 1200 77 2000 1000 0000 0000 0000 377 105 0.01 79 0.18 253 73 2000 1000 0000 0000 0000 0000 577 105 0.00 640 0.18 253 73 260 73 2000 1000 0000 0000 0000 100 640 0.18 253 73 260 73 2000 1000 0000 0000 000 640 000 238 0.19 253 73 200 1000 0000 0000 000 000 100 640 0.19 253 73 200 1000 0000 0000 000 100 513 0.10 254 21 200 1000 0000 0000 000 100 238 0.19 253 73 200 1000 0000 000 0000 100 238 0.10 254 21 200 1000 0000 000 000 000 238 0.10 254 21 200 1000 000 000 000 000 238 0.10 254 21 200 1000 000 000 000 000 258 0.10 254 21 200 1000 000 000 000 000 258 0.10 250 77 200 1000 000 000 000 000 258 0.10 250 77 200 1000 000 000 000 000 258 0.10 250 77 200 1000 000 000 000 000 258 0.10 250 77 200 1000 000 000 000 000 000 258 0.10 250 77 200 1000 000 000 000 000 258 0.10 250 77 200 1000 000 000 000 000 258 0.10 250 77 200 1000 000 000 000 000 000 258 0.10 250 77 200 1000 000 000 000 000 258 0.10 250 77 200 1000 000 000 000 000 258 0.10 250 77 200 1000 000 000 000 000 000 258 0.10 250 77 200 1000 000 000 000 000 000 258 0.10 250 77 200 1000 000 000 000 000 000 258 0.10 250 77 200 1000 000 000 000 000 000 258 0.10 250 77 200 000 000 000 000 000 000 000 258 0.10 250 77 200 000 000 000 000 000 000 000 000
1.2 217 25 460 8.0 500+ 7700 0.010 0.005 0.0010 187 6.3 733 0.41 254 55 1200 7.4 2000+ 10000 0.010 0.0010 187 6.3 733 0.41 254 5.3 1200 7.4 2000+ 10000 0.010 0.001 181 0.0 170 0.51 254 5.3 1200 7.5 2000+ 1000 0.001 0.0001 257 9.2 0.01 540 0.51 256 7.3 0.00- 11000 0.000 0.000 0.000 0.000 0.000 183 0.51 250 7.7 300- 1000 0.000 0.000 0.000 0.000 183 9.1 0.01 556 0.51 250 7.7 300 0.000 0.000 0.000 0.000 100 0.001 235 0.51 250 7.7 300 0.000 0.000 0.000 0.000 100 0.001 235 0.51 250 7.7 300 0.000 0.000 0.000 0.000 100 0.001 235 0.51 250 7.7 300 0.000 0.000 0.000 0.000 100 0.001 235 0.51 250 7.7 300 0.000 0.000 0.000 0.000 100 0.001 235 0.51 250 7.7 300 0.000 0.000 0.000 0.000 100 0.001 235 0.51 250 7.7 300 0.000 0.000 0.000 0.000 0.000 100 0.000 100 0.000 100 0.51 250 7.7 300 0.000 0.000 0.000 0.000 0.000 100 0.000 100 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 100 0.000 100 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 100 0.000 100 0.0000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
(a) (c) (a) (a) <th(a)< th=""> <th(a)< th=""> <th(a)< th=""></th(a)<></th(a)<></th(a)<>
<pre>Main (Top Pf LeXim) (mg/0 (prim) (mg/0 (mg/</pre>
<pre>#### 750 PH 55 PH 5</pre>
First Water Water Water <th< td=""></th<>
Math Math Math Math Sec Dot Math Math
Multi Rev Norm
Point C; Albian Creek Downstream of Philex T. Dam 1 Made For Yate The Control of The State Mark Can Mark Can So Mate The Trans State Control of The State Mark Can So Mate Trans State Control of The State Mark Can So Mate Trans State Control of The State Mark Can So Mate Trans State Control of The State Mark Can So Mark Can State Control of The State Mark Can So Mark Can State Control of The State Mark Can So Mark Can State Control of The State Mark Can So Mark Can State The State Control of The State Mark Can So Mark Can State The State Control of The State Mark Can So Mark Can State The State Control of The State Mark Can So Mark Can State The State Control of The State Mark Can So Mark Can State The State State Control of The State Mark Can So Mark Can State The State State Control of The State Mark Can So Mark Can State The State State Control of The State Mark Can So Mark Can State The State State Control of The State Mark Can So Mark Can State The State State Control of The State Mark Can So Mark Can State The State State Control of The State Mark Can State Control of The State Control of Th
Point C; Albian Creek Downstream of Philex T. Dam 1 Must Rev Vare (C) rule (C)
Point C; Albian Creek Downstream of Philex T. Dam 1 Made Rev 2000 1000 1000 100 100 100 100 100 100
Point C; Albian Creek Downstream of Philex T. Dam 1 Made Not with Constraint of the state
Point C; Albian Creek Downstream of Philex T. Dam 1 Number Numb
Point C; Albian Creek Downstream of Philex T. Dam 1 Mania Ray and Sec Do 7100 (127)
Point C; Albian Creek Downstream of Philex T. Dam 1 Name Not 12 10 11 25 Albian Creek Downstream of Philex T. Dam 1 Man Not 12 11 25 Not 12 10 11 11 12 12 12 12 12 12 12 12 12 12 12
- : Modat Point C; Albian Creek Downstream of Philex T. Dam 1 Num Num region North (Spin) (
- : Model Point C; Albian Creek Downstream of Philex T. Dam 1 Made Fire 700 100 100 100 100 100 100 100 100 100
- 1 Moda Point C; Albian Creek Downstream of Philex T. Dam 1 Name New Print William Creek Downstream of Philex T. Dam 1 Mark New Print Sci Philes C Philex T. Dam 1 Name New Print Sci Philes Philes Philes T. Dam 1 Name New Print Sci Philes
The Sil 277 El 90 73 50 520 6179 6013 60143 161 154 631 474 431 161 154 631 474 431 474 631 47
cute S11 S17 S1 S10 S20 L13 S10 S10 L13 S10 S10 L13 S10 L13 S10 L13 S10 L13 S10 L13 S10 C11 C11 C13 C14
Constraine Still
Note: 7.7 3.7 </td
Note Note <th< td=""></th<>
conc. case store sto
Chr. Sist 31 30 71 30 71 30 71 30 71 30 71 30 71 30 71 30 71 30 71 30 71 30 71 30 71 30 70 70 70 70 70 70 70 70 70 70 70 70 70
 13.9 357 13 73 73 80 400 013 0004 18 24 033 500 0004 18 24 033 53 23.7 13 73 73 73 73 90 130 0004 0033 40 13 73 033 501 24.7 13 10 73 10 73 100 13 0004 0003 41 13 13 03 13 001 74 100 001 0004 0003 41 13 001 25.1 127 14 1 90 73 13 00 133 0013 0014 14 13 13 0 14 10 134 011 414 10 15 100 101 0004 0003 41 13 9 001 25.1 127 14 1 90 73 10 13 001 10013 0014 14 13 13 0 14 14 10 14 10 11 10 12 100 1013 0004 0003 41 13 9 001 25.1 127 14 1 90 73 10 12 0013 0014 0013 0014 14 13 10 14 11 10 12 100 1013 0004 0003 41 13 9 001 20.1 1442 13 13 11 10 12 10 11 10
No. 113.9 35.7 13.0 <th< td=""></th<>
Mar. Mar. <th< td=""></th<>
Num
With Try Strip 10 11 11 11 11 11 11 11 11 11 11 11 11
www. 4.9 7.3 80 0.013 0.003 0.001 </td
www. with sin work www. with
Wer JJ 23 11 100 71 60 100 000 0011 71 80 000 0011 71 80 000 0000 0
11 21 31 11 10 71 60 60 61 60 61 60 <td< td=""></td<>
With 11 25 11 25 11 25 11 11 25 11 10 12 25 10 12 25 10 12
Wer LH 351 LH 651 LH 351 LH 651 LH 351 LH 751 LH 751 <t< td=""></t<>
Wr Wr <td< td=""></td<>
Mr.
<pre> The first is not first in the first is not first in the firs</pre>
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
Mar First Mar Mar </td
Mr. 113 333 75 600 71 700 710 700 710 700 710 700 710 700 710 700 710 700 710 700 710 700
No. 11 No.
He as 1 holds of 1 holds
Mar
Mr. Mr. <thmr.< th=""> <thmr.< th=""> <thmr.< th=""></thmr.<></thmr.<></thmr.<>
Mar Vis
(a) (b) (c) (a)
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
matrix
Des Test Des Des <thdes< th=""> <thdes< th=""> <thdes< th=""></thdes<></thdes<></thdes<>
Mar War War <thwar< th=""> <thwar< th=""> <thwar< th=""></thwar<></thwar<></thwar<>
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
G Point B; Ambaranga River Downstream of BOI & ISMI Fixed Point B; Ambaranga River Downstream of SOI & ISMI ab 700 70 70 400 100 100 100 100 100 100 100 100 10
d Point B: Ambaranga River Downstream of BCI & ISMI Fixed Foint E: Agno River Downstream of San July (10) ab: Not the state of the st
Cd Point B: Ambaranga River Downstream of BCI & ISMI Fixed Foint B: Agno River Downstream of San I Mark Norm New Norm
G Point B: Ambaranga River Downstream of BCI & ISMI Fixed Foint E: Agno River Downstream of San J abs No
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $
C Point B: Ambaranga River Downstream of BCI & ISMI Fixed Foint E: Agno River Downstream of SCI & ISMI above The Managa River Downstream of BCI & ISMI Fixed Foint E: Agno River Downstream of SCI & ISMI above The Managa River Downstream of BCI & ISMI Non Managa River Downstream of SCI & ISMI above The Managa River Downstream of BCI & ISMI Non Managa River Downstream of SCI & ISMI above The Managa River Downstream of BCI & ISMI Non Managa River Downstream of SCI & ISMI above The Managa River Downstream of BCI & ISMI Non Managa River Downstream of SCI & ISMI above The Managa River Downstream of BCI & ISMI Non Managa River Downstream of SCI & ISMI above The Managa River Downstream of BCI & ISMI Non Managa River Downstream of SCI & ISMI above The Managa River Downstream of BCI & ISMI Non Managa River Downstream of SCI & ISMI above The Managa River Downstream of BCI & ISMI Non Managa River Downstream of SCI & ISMI above The Managa River Downstream of BCI & ISMI Non Managa River Downstream of SCI & ISMI above The Managa River Downstream of BCI & ISMI Non Managa River Downstream of SCI & ISMI above The Managa River Downstream of BCI & ISMI Non Managa River Downstream of SCI & ISMI above The Managa River Downstream of BCI & ISMI Non Managa River Downstream of SCI & ISMI above The Managa River Bio River Downstream of
$ \begin{array}{c} \label{eq: 1.1.1} $ L$ $ Ambaranda River Downstream of BCI $ $ ISMI $ Fixed Foint $ $ $ Agno River Downstream of San $ $ $ $ $ $ $ $ $ $ $ $ $ $ $ $ $ $ $$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$ \begin{array}{c} eq: 1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.$
$ \begin{array}{c} \mbox{Constrained} \mbox{Lossendo} \mbox{Constrained} Co$
Constraint Fixed Point B: Ambarange River Downstream of BCI & ISMI Fixed Point B: Ambarange River Downstream of Sul (Structure) Cd Point B: Ambarange River Downstream of BCI & ISMI Fixed Point B: Ambarange River Downstream of Sul (Structure) Exc (Structure) Structure) Structure
$ \begin{array}{c} Model of the March Mar$
$ \begin{array}{c} \begin{array}{c} \begin{array}{c} Tixed Foilt E: Agno River Downstream of BCI & ISMI \\ \hline \text{Eixed Foilt E: Agno River Downstream of BCI & ISMI \\ \hline \text{Eixed Foilt E: Agno River Downstream of BCI & ISMI \\ \hline \text{Eixed Foilt E: Agno River Downstream of BCI & ISMI \\ \hline \text{Eixed Foilt E: Agno River Downstream of BCI & ISMI \\ \hline \text{Eixed Foilt E: Agno River Downstream of BCI & ISMI \\ \hline \text{Eixed Foilt E: Agno River Downstream of BCI & ISMI \\ \hline \text{Eixed Foilt E: Agno River Downstream of BCI & ISMI \\ \hline \text{Eixed Foilt E: Agno River Downstream of BCI & ISMI \\ \hline \text{Eixed Foilt E: Agno River Downstream of BCI & ISMI \\ \hline \text{Eixed Foilt E: Agno River Downstream of BCI & ISMI \\ \hline \text{Eixed Foilt E: Agno River Downstream of BCI & ISMI \\ \hline \text{Eixed Foilt E: Agno River Downstream of BCI & ISMI \\ \hline \text{Eixed Foilt E: Agno River Downstream of BCI & ISMI \\ \hline \text{Eixed Foilt E: Agno River Downstream of BCI & ISMI \\ \hline \text{Eixed Foilt E: Agno River Downstream of BCI & ISMI \\ \hline \text{Eixed Foilt E: Agno River Distream OR & Distream Distream OR & Distream Distream OR & Distream Distream OR & Distream Distre$
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $
The procession of promotion of promotion of the construction of the constructi
$ \begin{array}{c} \begin{array}{c} eq: 1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.$
$ \begin{array}{c} \begin{array}{c} The formation of the $
$\frac{1}{100000} = \frac{1}{10000000000000000000000000000000000$
$\frac{1}{10000000000000000000000000000000000$
$\frac{1}{10000000000000000000000000000000000$
Fixed Foint B: Ambarange River Downstream of BCI & ISMI River Downstream of San I was an intervent and an
Fixed Foint B: Ambarange River Downstream of BCI & ISMI Fixed Foint E: Agno River Downstream of San I was an under an and the second
Fixed Fourth B: Ambarange River Downstream of BCI 4 ISMI Fixed Foint B: Ambarange River Downstream of San 1 Cd Point B: Ambarange River Downstream of San 1 Fixed Point B: Ambarange River Downstream of San 1 Fixed Point B: Ambarange River Downstream of San 1 Fixed Point B: Ambarange River Downstream of San 1 Fixed Point B: Ambarange River Downstream of San 1 Fixed Point B: Ambarange River Downstream of San 1 Fixed Point B: Ambarange River Downstream of San 1 Fixed Point B: Ambarange River Downstream of San 1 Fixed Point B: Ambarange River Downstream of San 1 Fixed Point B: Ambarange River Downstream of San 1 Fixed River B: Point
Fixed Foint B: Ambarange River Downstream of BCI & ISMI Fixed Foint B: Agno River Downstream of San I was an under an and the second and t
Fixed Foint B: Ambarange River Downstream of BCI & ISMI Fixed Foint B: Agno River Downstream of San I was been approximate and the construction and the form a
Fixed Total B: Ambarange River Downstream of BCI & ISMI Fixed Point B: Agno River Downstream of San J and Were Were Were Were Were Were Were Wer
$ \begin{array}{c} \begin{array}{c} \text{ Fixed} \\ is all of the first field of the Constration bar is detailed by the Constration of BCI & ISMI \\ \text{ is all of the first field of the Constration bar is detailed by the Constration of SAI \\ \text{ is all of the first field of the Constration bar is detailed by the Constration of SAI \\ \text{ is all of the field of the Constration bar is detailed by the Constration bar is detailed by the field of the Constration bar is detailed by the field of the fiel$
$ \frac{1}{2} 1$
New Mark
Weak Near
Weak Near
Weak Near
Weak Near
Weak Near
Weak Near
Weak Near
New Mark
New Mark
$ \frac{1}{2} 1$
$ \begin{array}{c} \begin{array}{c} \text{ Fixed} \\ is all of the first interval and the Constant number of BCI & ISMI \\ \text{ is all of the first interval and the Constant number of BCI & ISMI \\ \text{ is all of the first interval and the Constant number of BCI & ISMI \\ \text{ is all of the first interval and the Constant number of BCI & ISMI \\ \text{ is all of the first interval and the Constant number of BCI & ISMI \\ \text{ is all of the first interval and the Constant number of BCI & ISMI \\ \text{ is all of the first interval and the Constant number of BCI & ISMI \\ \text{ is all of the first interval and the Constant number of BCI & ISMI \\ \text{ is all of the first interval and the Constant number of BCI & ISMI \\ \text{ is all of the first interval and the Constant number of BCI & ISMI \\ \text{ is all of the first interval and the Constant number of BCI & ISMI \\ \text{ is all of the first interval and the Constant number of BCI & ISMI \\ \text{ is all of the first interval and the Constant number of BCI & ISMI \\ \text{ is all of the first interval and the Constant number of BCI & ISMI \\ \text{ is all of the first interval and the Constant number of BCI & ISMI \\ \text{ is all of the first interval and the Constant number of BCI & ISMI \\ \text{ is all of the first interval and the Constant number of BCI & ISMI \\ \text{ is all of the first interval and the Constant number of BCI & ISMI \\ \text{ is all of the first interval and the Constant number of BCI & ISMI \\ \text{ is all of the first interval and the Constant number of BCI & ISMI \\ \text{ is all of the first interval and the Constant number of BCI & ISMI \\ \text{ is all of the first interval and the Constant number of BCI & ISMI \\ \text{ is all of the first interval and the Constant number of BCI & ISMI \\ \text{ is all of the first interval and the Constant number of BCI & ISMI \\ \text{ is all of the first interval and the Constant number of BCI & ISMI \\ \text{ is all of the first interval and the Constant number of BCI & ISMI \\ \text{ is all of the first interval and the Constant number of BCI & ISMI \\ \text{ is all of the first interval and the Constant number of BCI & ISMI \\ \text{ is$
Fixed Foint B: Ambarange River Downstream of BCI & ISMI Fixed Foint B: Agno River Downstream of San I was been approximate and the construction and the form a
Process The standard of the formation of the formation of BCI & ISMI Fried Form E. Agrono River Downstream of San J and the formation of San J and the fo
Fixed Foint B: Ambarange River Downstream of BCI & ISMI Fixed Foint E: Agno River Downstream of San I was an under an and the second
Fixed Foint B: Ambarange River Downstream of BCI & ISMI River Downstream of San I was an intervent and an
$\frac{1}{2000} = \frac{1}{1000} = 1$
Mean Constrained Fixed Point E: Ambaranga River Downstream of BCI & ISMI d Point E: Ambaranga River Downstream of BCI & ISMI Fixed Point E: Agno River Downstream of San J a Down Wr Wr W and Wr Wr W and Wr Wr W and Wr Wr W and Wr W an
$\frac{1}{10000000000000000000000000000000000$
Wate of Control B: Ambarange River Downstream of BCI & ISMI Fixed Foint B: Agno River Downstream of San J above Signations Fixed Foint B: Agno River Downstream of San J above Signations Fixed Foint B: Agno River Downstream of San J above Signations Fixed Foint B: Agno River Downstream of San J above Signations Fixed Foint B: Agno River Downstream of San J above Signations Fixed Foint B: Agno River Downstream of San J above Signations Fixed Foint B: Agno River Downstream of San J above Signations Fixed Foint B: Agno River Downstream of San J above Signations Fixed Foint B: Agno River B: Agno Ri
$\frac{1}{100000} = \frac{1}{10000000000000000000000000000000000$
$ \begin{array}{c} \begin{array}{c} eq: 1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.$
$ \begin{array}{c} \begin{array}{c} eq: 1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.$
And and the field of the f
The production of product and the formation of the construction of the constru
$ \begin{array}{c} \text{Fixed Forth Elements of the relation of the first power the construction of BCI & ISMI \\ \text{and } \begin{array}{c} \text{Fix } mark of the line of the lin$
$ \begin{array}{c} Fixed for the advancement of the constrained of the constrai$
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $
$ \begin{array}{c} Trived France for the first matrix matrix matrix matrix matrix$
$ \begin{array}{c} \begin{array}{c} \label{eq: 1.5.5} \\ \mbox{c} \end{result} \end{result} \\ \mbox{c} \end{result} \end{result} \\ \mbox{c} \end{result} \end{result} \\ \mbox{c} \end{result} \end{result} \end{result} \end{result} \\ \mbox{c} \end{result} resul$
$ \begin{array}{c} \begin{array}{c} \label{eq: 1.5.5} \\ \mbox{c} \end{result} \end{result} \\ \mbox{c} \end{result} \end{result} \\ \mbox{c} \end{result} \end{result} \\ \mbox{c} \end{result} \end{result} \end{result} \end{result} \\ \mbox{c} \end{result} resul$
$ \begin{array}{c} \begin{array}{c} The first prime for the fir$
$ \begin{array}{c} \begin{array}{c} \begin{array}{c} \mbox{cl} \mbox{lim} \mbox$
$ \begin{array}{c} \mbox{rel} \mbox{lift} \mbox{lift}$
$ \begin{array}{c} \mbox{definition} \mbox{metric} \mbo$
$ \begin{array}{c} Model of the March Mar$
$ \begin{array}{c} \mbox{charged} \mbox{mark} m$
$ \begin{array}{c} \mbox{charge} \mbox{marge} mar$
$ \begin{array}{c} eq: 1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.$
Constraint Fixed Point B: Ambarange River Downstream of BCI & ISMI Fixed Point B: Ambarange River Downstream of Sul (Structure) Cd Point B: Ambarange River Downstream of BCI & ISMI Fixed Point B: Ambarange River Downstream of Sul (Structure) Exc (Structure) Structure) Structure
Constraint Fixed Point B: Ambarange River Downstream of BCI & ISMI Fixed Point B: Ambarange River Downstream of Sul (Structure) Cd Point B: Ambarange River Downstream of BCI & ISMI Fixed Point B: Ambarange River Downstream of Sul (Structure) Exc (Structure) Structure) Structure
Constraint Fixed Point B: Agno River Downstream of Sul (S) Eixed Point B: Agno River Downstream of Sul (S) Cd Point B: Ambaranga River Downstream of Sul (S) Eixed Point B: Agno River Downstream of Sul (S) Eixed Point B: Agno River Downstream of Sul (S) Mont B:
The interval of the interval o
The interval of the interval o
Constraint Fixed Point B: Agno River Downstream of Sul (S) Eixed Point B: Agno River Downstream of Sul (S) Cd Point B: Ambaranga River Downstream of Sul (S) Eixed Point B: Agno River Downstream of Sul (S) Eixed Point B: Agno River Downstream of Sul (S) Mont B:
Constraint Fixed Point B: Agno River Downstream of Sul (S) Eixed Point B: Agno River Downstream of Sul (S) Cd Point B: Ambaranga River Downstream of Sul (S) Eixed Point B: Agno River Downstream of Sul (S) Eixed Point B: Agno River Downstream of Sul (S) Mont B:
Constraint Fixed Point B: Agno River Downstream of Sul (S) Eixed Point B: Agno River Downstream of Sul (S) Cd Point B: Ambaranga River Downstream of Sul (S) Eixed Point B: Agno River Downstream of Sul (S) Eixed Point B: Agno River Downstream of Sul (S) Mont B:
Constraint Fixed Point B: Ambarange River Downstream of BCI & ISMI Fixed Point B: Ambarange River Downstream of Sul (Structure) Cd Point B: Ambarange River Downstream of BCI & ISMI Fixed Point B: Ambarange River Downstream of Sul (Structure) Exc (Structure) Structure) Structure

- EI. 20 -

-: No data

-

Table 2.5 THREATENED, RARE AND ENDANGERED WILDLIFE SPECIES IN LUZON

	the second second states and the second s		
1 Bir	ls		
1.1	Asiatic Honey Buzzard (Fernis apivorus)*	-	Luzon
1.2	Barred Honey Buzzard (Persis celebensis)*	-	Luzon
1.3	Black-wiged Kite (Elanus caerulens)*	-	Northern Luzon
1.4	Bleeding Heart Pegion (Gallicolumba luzonica)*	-	Luzon
1.5	Blue-naped Parrot (Tanygnathus lucionensis)*	-	Luzon, Sierra Madre
1.6	Brahminy Kite (Hariastus indus intermedius)*		Luzon
1.7	Crested Goshawk (Accipiter trivirgatus)*		Luzon
1.8	Eastern Sarus Crane (Grus antigone sharpii)*		Luzon
1.9	Gray Frog Hawk (Accipiter soloensis)*	-	Luzon
1.10) Koch's Pitta (Pitta kochi)*		Luzon
1.1	Marsh Harrier (Circus aeruginosus)*	-	Luzon
1.1	2 Mosque Swallow (Hirundo striolata striolata)*	-	Luzon
1.1	3 Feregrine Falcon (Falco peregrinus)*	••	Luzon
1.14	Philippine Eagle (Pithecopaga jefferyi)*	~	Luzon
1.1	5 Philippine Falconet (Microhierax erythrogonys)*	-	Luzon
1.1	5 Pied Harrier (Circus melenoleusus)*	-	Luzon
1.1	/ Oriental Hobby (Falcon severus)*		Luzon
1.1	3 Osprey (Pandion haliastus)*	-	Luzon
1.1	Rufous Hornbill (Buceros hydrocorox)*	-	Luzon
1.2) Sunda Ground Thrush (Zoothera andromedae)*	-	Luzon
2 Mam	als		
2.1	Brown-tailed Northern Luzon Fruit Bat (Carponys phaenrus)	-	Mt. Data
2.2	Philippine Bush Rat (Batamoys grantii)	- '	Mt. Data
2.3	Philippine Deer (Ceruns philippinensis)*	~	Luzon
			1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -
3 Ampl	ibians		
3.1	Horned Forest Frog (Platymantis cornutus)	-	Luzon
3.2	Luzon Forest Frog (Platymantis subterritris)	_	Luzon
3.3	Luzon Narrow-mouthed Tree Frog (Kaloula rigida)	-	Baguio
4 Rept	tiles		· .
4.1	Banded Worm Snake (Calamaria bitorgus)	-	Inzon
4.2	Barred Coral Snake (Calliophis calligaster)	-	Luzon
4.3	Biyer's Sphenomorphus (Sphenomorphus beyeri)	-	Northern Luzon
4.4	Black-sided Sphenomorphus (Sphenomorphus decipiens)		Luzon
4,5	Cuming's Flap-legged Gecko (Luperosaurus cumingi)	-	Luzon
4.6	Cumings Eared Skink (Otosaurus cumingi)		Luzon
	Gervais Worm Snake (Calamaria gervaisi)	-	Nationwide
4.8	Girard's Tree Skink (Lipinia vulcanium)	-	Luzon
4.9	Gray's monitor (Varamus grayi)*		Philippines
4.1) Highland Sphenomorphus (Sphenomorphus luzonensis)		Benguet
4.1	Large Hemadactylid Gecko (Hemadactilus garnoti)	<u> </u>	Luzon
4.1	2 Myer's Snake (Myersophis alpestris)		Banawe, Mr. Province
4.1	Northern Four-Fingered Burrowing Skink (Brachimeles wrighti)	~ .	Northern Luzon
	Northern Water Snake (Natrix spilogaster)	-	Luzon
	5 Philippine pryophiops (Dryphiops philippina)	-	Luzon
-	6 Philippine Blunt-Headed Snake (Bioga angulata)		Luzon
	Variable Monitor Lizard (Varamus salvator)	-	Philippines
An an Arrest	White-spotted Flying Lizard (Draco ornatus)	-	Luzon
	White-spotted Sphenomorphus (Sphenomorphus leucospilos)	-	Luzon
7.4			
Source	Protected Areas and Wildlife Bureau, 1988.		* Found in the
200L1.0			and the second se
	"Statistics on Philippine Protected Areas and Wildlife Resour	ces	" Agno River Basin

Table 2.6 WILDLIFE MAMMALS PROBABLY FOUND IN THE STUDY AREA

· · · · · · · · · · · · · · · · · · ·	·	i.	Re	gion	
Common Name			I	111	
Brown-Tailed Northern Luzon Fro	uit Bat		×		
Bushy-Tailed Cloud Rat	· · ·	e An an	x		
Common Philippine Field Rat			x	` x	
Geoffrey's Rousette			x	x	
Greater Phil. Short-nosed or De	og-faced Fruit Bat		x	x	
Horsefield's Pipistrelle			x	×	•
Least Flat-headed Bat			×	x	
Malay Civet or Tangalong Civet		• •	×	x	
Malay False Vampire Bat			x	×	
Northern Luzon Rind Rat			x		
Palm Civet				x	
Philippine Dawn Bat		an di sana di s	×	x	:
Philippine Deer	· · · · · ·		x	x	1
Philippine Chestnut House Mouse	6	: · ·	x	x	•
Philippine Gray Water Rat	ning series Series Series		x	1.1 2	*.
Philippine Monkey or Macaque		an an Arthur an Arthur An Anna Anna Anna Anna Anna Anna Anna A	x	x	
Philippine Sheath-Tailed Bat			x	×	· .
Slender-Tailed Cloud Bat		. *	x		
Striped Water Rat			x	x	
Temminck's Yellow Bat			x	×	
Wild Pig			x	. x	
and a second	and a second	n da sera da sera. Na sera da sera da sera	i de les G	n da Hey	· · ·

 e : Protected Areas and Wildlife Bureau, 1980.
 "Statistics on Philippine Protected Areas and Wildlife Resources".

	Τα	Table 2.7		BIRDS PROBABLY FOUND IN THE STUDY ARE
		Region		
Comments	Scientific Nane	III I	Compon Naria	COLOURIC NAME
Asiacic Boney Buzzard	Pernis apivorus	×	Gray Frog Havk	Accipitor solosnais
Asiatic Migratory Quail	Conurnix coturnix	н н	Cray Bayon	Ardes cineres
Astacte Sparrow Bawk	Accipiter gularia	X X	Great Reed Sarbler	Acrocophalus arundinaceus
daistic Grasshopper Warbler Banded Rail	Locusteile carthiole Rallus p. philippicensis	ж. ж.	Greater Egret Greater Scaup Duck	Kgretta alba Aythya marila
Reverses Burrend	Partie calabarat a	× ×		
Barred Rott	Rallue t. toroughs	(K	Green tormonant Green farad Darror Minch	Ervehrute Viridisetat
Black Bittern	Duperor f. flavicollis	×	Issbella Oriole	Oriolum imaballam
Black Coot	Fulica atta	× ×	Japanese Bitterst	Gorwachius guisagi.
Black-necked Dabchick	Podiceps nigricollis nigricollis	н Н	Jungle Youl	Gellus gallus
Black counsed Night Haron	Nectionar benfortar	н	letterterterterterterterterterterterterte	yaleo rinnutevina
Black-reped Blue Monarch	Eypechymds szures	н ,	Large-billed Crow	Corvus macrohynches
Black-usped Oriols	Oricius chinensis	H.H	Lassor Rgret	Egretus intermedia
Black-winged Kite	Elarus crerulous	н х	Losser Frigate Bird	Fregats a. ariel
Blue Rock Thrush	Monticola solitarius	'ң ,	Little %gret	Egratia garzetua
Blue-faced Bouby	Sula dactylatra	к К	Little Mangrove Haron	Batoridae strietus
Brakuiny Kita	Hallasuus indus intermidius	x x	Little Pied Flycetcher	Ficedula westermanni
Brown Booby	Supla laucogaster	ĸ	Long-Tailed Ground Warbler	Bradypterus caudatus
Brown-banded Rail	Rellue mirificue	x	Malay Biccerm	Gorsechius melenophus
Latele Egret	Egratte s. macra	н	Malaysian Fantail	Rhipidure javanica
Caleariel Blue Monarch	Bypothymis coelestis	н	Marsh Eartiat	Corcus servetacess
Chinese Least Bitter	Luobrychus a, ainensis	н н	Magapode	Megepodius freycinet
Chinese Pond Birtarn	Ardeola bacchus	й н 3	Mountain leaf Warblar Vernetie meres bies	Phylloscopus Erivirgatus Arternate atoullante
Cimanon Langt Sittern Common Bittern	Bocarra e. stallerie	с ж с ж	Nerolewus Plynetabar	Muscicopa narchasina
Common Shoveler	roticers it reals	к н ; н	Criencal Arhings	Antinga rufa
Common Teal	Ansa crecca	×	Orthennal Robby	Falco severus
Cotton Teal	Nattapus coronaudallanus	ж	Orientel Tree Pipit	Anthus todgeoni.
Dusky Tarush	Turdus obscurue	x	Caprey	Pandion halfaetus
Dwarf Rail.	Porzene pueille	н	Pacific Swallow	Hirundo rahirica
Eastern Sarus Crane	Grue antigone sharpii	к я	Painted Quail	Conural x chineses.
Wedge-Tailed Shearwarer	Pirtious pecticus	ж ж	Peregrite Falcon	Telco peregrizus
European Fochard	Aythys feriva	×	Pacchora Figir	APERDUS SUMPARY
European Wdgeon	Aras penelope	×	Pheesant-reiled Jacane	Bydropheatenuc antergue
Callfrad o	Gallinula chloropus lozanot	x x	Puilippine Banded Crake	Reiline eurozonoides
Garganay Teal	alubarguarga ana	к н	Thilippine Bulbul	Sypeipates philippiaus
Glossy Ibis	Plegades alcinellus	к К	Philippine Glossy Starling	Aplonis panayenais
				•

Source: Protected Areas and Wildhife Burmau, 1980. "Statistics on Philippins Protected Areas and Wildlife Resources".

Table 2.7 BIRDS PROBABLY FOUND IN THE STUDY AREA

koonet aa ekat 22pit 22p			Region
Pilos Falconac Microfitares: arythrogenys Microfitares: arythrogenys Amarenes: Current and moleucue Microfitares: arythrogenys Amarenes: Current and moleucue Microfitares: arythrogenys Sampphen: Lalago uigea Microfitares: arythrogenys Sampphen: Current and purpusa Microfitares: arythrogenys Sampphen: Current and anterpusa Microfitares: arythrogenys Sampphen: Current and anterpusa Microfitares: arythrogenys Sampphen: Current and anterpusa Microfitares: arythrogenys Colos Current and anterna Microfitares: arythrogenys Colos Current and anterna Microfitares: arythrogenys Colos Current and anterna Microfitares: arythrome Microfitare: Currents and anterna Microfitares: arythrome Colos Currents and anterna Microfitares: arythrome Microfitare: Currents and anterna Microfitares: argonestilorycitares Microfitare: Microfitares: argonestilorycitares Microfitares Microfitare: Microfitares: argonestilorycitares Microfitares Microfitare: Microfitares Microfitares Microfitare: Microfitares Microfitares Microfitare: Microfitares Mi		Scientific Nane	
 Pinte Falconet Microlifaran arythrogonya x Kartier Curren alamolautua x Kartier Curren alamolautua x Kampine Curren alamolautua x Sampine Curren alamolautua x Sate Bittenn Curren alamada x Sate Bitten Curren alamada x Sate Bitten Curren alamada x Sate Bitten Curren alamada x Sate Woodpenden Curren alamada x Sate Woodpenden Curren alamada x Sate Woodpenden Paulitata articuta x Sate Bitten Curren alamada articuta x Sate Bitten Curren alamada articuta x Sate Woodpenden Paulitata alauteu articuta x Sate Bitten Curren Alamata articuta x Sate Woodpenden Paulitata alauteu articuta x Sate Bitten Curren Alamata articuta articuta x Sate Bitten Curren Alamata articuta x Sate Bitten Curren Alamata articuta x Sate Bitten Curren Alamata articuta x Sate Bitten Curren Curren Alamata articuta x Sate Bitten Cu			
picins Falconst Microfiness arythrogenys x Martin Lange uffera arythrogenys x Martin Lange uffera x x Swamphen Arden purpuses x 1 menning and purpuses x x 1 menning arythrogenytic x x 1 menning arythrogenytic x x 2 demaphen Rother present x x 2 demaphen Rother arthrow x x x x x x 2 demaphen Rother Rother arthrow x x x x x x x x x x x x x x x x x x x			
Antifar Carces melanolaucus x Autor de auge atige at a servire bisane programen x Amauronale olivecous x Samphus Fort attenue caritatia x Forthur corritatia corritatia x Forthur corritatia attenue atient x Anthu noras assidiation x Anthu noras assidian x Forthur corritatia attenue x Anthu noras assidian x Forthur corritatia x Forthur corritatia x Forthur corritatia x Forthur corritatia x Forthur corritatia attenue x Anthu noras assidian x Forthur corritatia attenue x Anthur corritatia attenue x Anthur attenue attenue x Arboros attenue attenue	Philippine Falconet	Microhiarex erythrogonys	ж ж
Adiller Adaa purpursa x Sampher Adaa purpursa x Sampher Adaa purpursa x Sampher Adaa purpursa x Samphen Adaa purpursa x Samphus Torphyrico porjhyric x Seeted Spit Corphyrico porjhyric x Adaa purpursa y Adaa y Adaa purpursa y Adaa y Adaa purpursa y Adaa y Adaa purpursa y Adaa y A	Pied Barrier	Circue melenoleucue	ĸ
Li Mara acti a divecus ra Samphen Amarornis olivecus ra Samphen Araba purpasa Samphen Zoverpokie Araba purpasa Samphen Zoverpokie Zorphyric porphyric ra Zoverpokie Dirawa yayaasa Zoverpokie Dirawa yayaasa Zoverpokie Dirawa yayaasa Kata Piki Hern Kristen astro Krista Crithen astro Krista Dirawa astrona Crithen Crithen allopo Krista Dirawa astrona Crithen and Krista Dirawa astrona Crithen astrona Crithen astrona Krista Dirawa astrona Crithen astrona Crithen astrona Crithen astrona Crithen Brown Krista Dirawa Araba Mai Dirawa Araba Kata Bila Monarch Byhothyria balanasa Kata Spilernia balasa Kata Kata Bila Monarch Byhothyria balanasa Kata Crithen astrona Crithen astrona Crithen Crithen astrona Crithen astrona Crithen Crithen astrona Crithen Crithen astrona Crithen Crithen astrona Crithen Crithe	Pied Triller	argin ogeiel	ĸ
Stampher Amuroratie olivaceute r lincon Ardaa purpusa i Semuphu. Porthyrici opophyrici r Zlovarpoteker Dicasuu pygaaeun ruszeta Zipit Arthuu servincia r ruszeta Zipit Arthuu servincia r ruszeta Zipit Arthuu servincia r Geta Portana fuses sulitope r Nyrticiora takonaska r Spinar bittaern konsaka r Krithe Lanta bittaern konsaka r Krithe Spinar beinasa r Hallu beina sciareus r Krithe Spinar beinasa r Hallu srither beinasa r Hallu srither beina beinasa r Krithe beina beinas r Krithe sechoptica r Krithe sechotica r K	Pinceil	Anas acuta	×
 Affection Action purphose Affection Action purphose Action purphose Action programming and action program action Action action programming and action action programming and action ac	Platu Swamphon	Amourorais olivaceus	ĸ
 Affreen Ardea purpuses Affreen Ardea purpuses Somerboker Disaver pygaaeen Somerboker Disaver pygaaeen Somerboker Disaver pygaaeen Rekleus Spit Zerta aers Regis Zerta aers Ryter Arthun porsaasladias Ryter Arthun Porsaas at a arthun Ryter Arthun Porsaas Ryter Arthun Porsaas Ryter Arthun Porsaas Ryter Arthun Arthun Arthun Arthun Ryter Arthun Art		********************************	*****
<pre>\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$</pre>	Purple Heron	Ardes purpuse	к Х
<pre>Ziowsrpecker Dicasus pygaseun week Pipic Autheus cervinnia x die Pipic Autheus cervinnia x die Pipic Autheus actim x die Pipis Haren Nyrticioxx caledonicus x Creisa Nyrticioxx caledonicus x die Pipis Haren Nyrticioxx caledonicus x die Pipis Haren Nyrticioxx caledonicus x die Pipis Spilornia bolosytius x k Mui Port Autheus enhythmue x Autheus Spilornia bolosytius x definis Autheus alla seriatus x and Anas poscitorracia x definis Autheus alla seriatus x beeseted Blue Minarch Hagaluum priveria x definis Autheus poscitorracia x beeseted Blue Minarch Hagaluum priveria x adorna endorma autorna x definite Autheus priveria x definite Autheus priveria x definite Duck Anas poscitorracia x definite Duck Anas poscitoratus x definite Bula Minarch Hagaluum priveria ta Witerin Quali Turnix sylveria x definite Duck Dusta arcueus x browed Rail Pusic Duck cineres x bulid Slaarnates Putificus sectoneus x bulid Slaarnates Putificus sectores bulid Slaarnates Putificus sectoneus x bulid Slaarnates Putificus sectores y x bulid Slaarnates Putificus sectores x bulid Slaarnates Putificus sectores x bulid Blabuli Puticus sectores sectores sectores y bulites burea Bulidu Puticus sectores sectores y bulites burea Bulidu Puticus sectores sectores and bulites Puticus sectores sectores bulites Puticus sectores y bulites Puticus sectores y bulites Puticus sectores y bulites Puticus sectores bulites Puticus sectores bulites Puticus sectores y bulites Puticus sectores bulites Puticus Puticus sectores bulites Pu</pre>	Purple Swaphen	Ροτράμτίος ρουράμτις	××
<pre>cronted Fipit Anthus carvians x x x x x x x x x x x x x x x x x x x</pre>	Pygny Zlowscher	Dicasus pygnasus	к
Greek Egretta aetra aetra aetra at die Fight Anthue novaaasledieo x x Corda Toeraa fueea tues orderie a x a forea fueea tues and anthue novaasledieo x x anthue novaata fueea x anthue articlas eshach a x a cord a brite a control articlas eshach a x a control and anthue articlas anthue articlas a x a control and anthue articlas and anthue articlas anthue articlas and anthue articlas and anthue articlas anthue articlas and anthue articlas anthue articlas and anthue articlas and anthue articlas anthue articlas and anthue articlas articlas anthue articlas articlas anthue articlas articlas anthue articlas ar	Rad-Threated Pipit		к к
<pre>X's Fight Anthus normanaladian x Genka Routh fusce Fight Haren Formanaladian x Fight Haren Formanaladian x Forma Russ Enthese allippe x Aren Cettheore callippe x cettheore callippe x Enthe Form Exhemats a formation and an x Formanal and an x Formanal and an x Formation an</pre>	Reaf Egrec		N K
 Might Haren, Portana fraca andenicua x Nyerlooma calidonicua x Nyerlooma calidonicua x Shrika Nyerlooma calidonicua x Shrika Nyerlooma calidonicua x Crithoena choch calidonicua x Crithoena choch calidonicua x Crithoena choch calidonicua x Crithoena choch calidonicua x Spiloenia belenas x Spiloenia belenas x Dorea calidonicua choch x Dorea calidonicua x Crithoena calidonicua x Duc x Arthoena calidonicua x Duc x Arthoe calidonicua x Cool Sharwatea chocea and a chorea a chorea x Duc beareatea threadonic a sethecua x Duc beareatea buttolicue a scholonicue x Duc beareatea threadonic a sethecua x Duc beareatea buttolicue a contecua x Duc beareatea threadonic a sethecua x Duc beareatea threadonic a sublucea x Duc beareatea threadonic a sethecua x Duc beareatea threadonic a sublucea x 	terteleter turnen terten en e		
verae filter for a fortant fuere all tops a verae fuere fortant fuere all tops a libride for fitthere all tops all tops a libride contract at a critchere all tops a libride contract at a critchere all tops are alloced all tops are alloced alloced alloced alloced al			K,
<pre>Magnet Marcun Myrctcorax caledomicua x Mrees Carbone calitopa x ct's Laart Bitteern Kohoryohus euthythuue x ct's Laart Bitteern Kohoryohus euthythuue x ct's Laart Bitteern Kohoryohus euthythuue x wa Tadorna tadorna holeopilua x wa Tadorna tadorna holeopilua x created Biue Monarch Bythorhyth holeono x breasted Aulh Kanarch Bythorhyth holeono x d-Button Quail Railus srriatus x d-Button Quail Turnix sylverica x d-Button Quail Turnix benerosta x d-Button Quail Turnix benerosta x d-Button Cuail Turnix sylverica x d-Button Cuail Turnix benerosta x d-Button Cuail Turnix benerosta x d-Button Paulid-Buttu Turnix benerosta x d-Button Turnix Pyronootus gofarier x benered Buthul Turnix Pyronootus gofarier x breated Buthul Pyronootus gofarier x</pre>	KUGGY CREKS	Porgang fuece	×
Mrone Gritchoere allioye wityrhuue wityrhuu withryrhuu withr	Kuloue Might Meron	Nycricorax caladonicus	×
 A Breike Jankis Jankis Lankis Ch's Lagte Bitteern Loobyrychus enthyrhmue Rail Porzana takuanafa Rain Spilotria bolospilua Rain Spilotria bolospilua Rain Porzana takuanafa Rainu striatua Rainu stria Rai	Auby Inroat	Crithocue calliope	ĸ
cy's Jeast Bittern Icobrychus euthychmue E Mail Fagia Spilarnis bolosykiua E ww. ww. creeted Blue Monarch Hydourywis belenses X ww. creeted Blue Monarch Hydourywis belenses X beensred Kail Wallus zristue X beensred Kail Ruhu zristue X d'Burton Quail Turnix sylvetia X d'Burton Quail Turnix Socosyma arcueta X d'Burton Quail Turnix Socosyma arcueta X d'Burton Quail Turnix Packicalia enthicpica X buek Aybha diatalatia Puccomelae X died Sharrates Pulifiale leucomelae X burton Quail Turnix Pycononie uroaticue X burton Quail Turnix Pycononie uroaticue X burti Turnix Pycononie uroaticue X burton Quail Turnix Pycononie golaviar	Squach Shrike	Lankue schech	ĸ
Mil Portana and and a balana a a balana balana a a spilornia balana a a spilornia balana a a cesada Blus Mnarch Byhothyna balanaa a a breased Blus Mnarch Byhothyna balanaa a a breased Rail Rahuborta a guirus paluerria a a burch quail Nurth sylvatica a a diburch quail Nurth sylvatica a a diburch quail Nurth sylvatica a a burch quail burd different balana a cineres a a burch different a burch different a burch different a burch dual burd burd burd burd burd burd burd burd			
r Englo Spilornia beloopiua x who state Spilornia beloopiua x creeted Blue Monarch Hyphothymia belonmas x beneared Rail Hyphothymia belonmas x d-Burton Quail Amae poecileryncha x ad Canograes Marbiar Magalurus peluarria x ad Canograes Marbiar Magalurus peluarria x d-Burton Quail Amai yylvetica x ad Canograes Marbiar Magalurus peluarria x d-Burton Quail Turnix sylvetica x tag Wifetilg Duck Zoothere androweda a x d-Burton Quail Turnix sylvetica x tag Wifetilg Duck Zoothere androweda x bulk Theodon and arounta x bulled Thearneter Putfinis leucomale x tar Putfinis Iucomale x bulled Thearneter Putfinis leucomale x tar burton Quail Turnix vorcenteri belied Thearneter Putfinis leucomale x ter's Burton Quail Turnix vorcenteri bulled Blueronous golavier y ter's Burton Quail Puther		Portene reference	н :
we are alle Monarch Hypothymis belanza x created Blue Monarch Hypothymis belanza x breazed Rail Hypothymis belanza x breazed Rail Anae pesciloryncha x d-Burton Quail Aurik sylvarica y x d-Burton Quail Turnik sylvarica x definited Buck Duck Devocopa are x bulled Shearnster Puffinie Inucceslae ter's Burton Quail Turnik vorcenteri bullid Tycarcher Zebyensia philiophines x ter's Burton Quail Turnik vorcenteri bullid Tycarcher Zebyensia philiophines x burton Quail Turnik vorcenteri bullid Tycarcher Zebyensia philiophines x burton Quail Turnik vorcenteri bullid Tycarcher Puffinie Inucceslae burton Quail Turnik vorcenteri bullid Tycarcher Zebyensia philiophines x burton Quail Turnik vorcenteri bullid Tycarcher Zebyensia philiophines x burton Quail Pyrancher Corrise gelaviar	Sevent Farle		×
creeted Blue Monarch Hydochymls belenas x breasted Rail Hydochymls belenas x 11 Duck Anas posciloryacha x ad Canogras Marbhar Turnix ocullata ed Canogras Marbhar Turnix opluarts x ad Canogras Marbhar Turnix opluarts x d-Burton Quail Turnix opluarts y ad Canogras Marbhar Hambdornis systicalis x d-Burton Quail Turnix opluarts x d-Burton Quail Turnix opluarts y d-Burton Quail Turnix opluarts y at hydrolena to the second har Walfeiling Duck Cineres x buck Auti Pock Danderoygen archite the Shaarwater Putfinds Jack Möndpester Putfinds Jarochoenes y bulled Shaarwater Putfinds Jackonster Duck Jack Wöndpester Putoonelas ta Burton Quail Turnix vorcentert bulled Flycarcher Pytonoorus conticues x bulled Flycarcher Pytonoorus gofavier bulled Flycarcher Pytonoorus gofavier x bulled Bulbul Pytonoorus gofavier y burenes Bullul Pytonoorus gofavier x	Shelldruke	Terrente services	K
breasted Rail Railuu arriatua x x debute Railuu arriatua x x d-Burton Quail Turnix specificryatia x x d-Burton Quail Turnix spivetia x x d-Burton Quail Turnix spivetia x x d-Burton Quail Turnix spivetia x x d-Burton Quail Turnix spituatria x x x d-Burton Quail Turnix spituatria x x x d-Burton Quail Turnix spituatria x x x x d-Burton Quail Turnix spituates x x x d-Burton Quail Turnix spituates x x x x x x x x x x x x x x x x x x x	Short-created Blue Nonarch	Renverties a values	к к 1
<pre>breasted Rail Railus striatus x 11 Duck Anas poscilorynchs x d-Burton Quail Turnix sylverica x ad Canagrass Harblar Hagalurus paluetria x d-Burton Quail Turnix sylverica x d-Buton Turnah Zyrbw Kulgula x d-Buton Turnah Zyrbw Kulgula x d-Budd Thruah Zyrbw Kulgula x z d-Budd Thruah Zyrbw Kulgula x z d-Budd Thruah Zyrbw Kulgula x z d-Budd Thruah Zyrbw Consessa x z d-Budd Tharbox Dendropyma arousta x z d-Budd Tharbox Dendropyma x d-Budd Tharbox Dendropyma x that posting budd budd Tharbox Dryocopus Sevendie x breated Sulld Turnix vorearbat breated Manual Turnix Phonenicurus x breated Manual Turnix Dendropyma breated Manual Turnix Phonenicurus x breated Manual Turnix Dendropyma breated Manual Turnix Phonenicurus x breated Manual Turnix Phonenicurus x breated Manual Dudul Turnix Phonenicurus x breated Manual Pullul Turnix Phonenicurus x breated Manual Dudul Turnix Phonenicurus x breated Manual Dudul Physica Philippkinensis x breated Manual Philippkinensis x breated Budbul Physica Philibphile Dendropyma Budbul Physica Philibphile Physica Physica Philipphile Physica Physica Physica Philipphile Physica Physica Physica Physica Philipphile Physica Physica Phys</pre>			×
<pre>11 Deck Amae poeciloryncha x d-Burcon Quail Turnix opturria puturria x d-Burcon Quail Turnix opturria y suurria x d-Butcon Quail Turnix opturria y suurria x d-Budd Greeper Rhubdornia systeleaida x d-Budd Thrush Zootherk androesdaa x d-Budd Thrush Dayloonle and thrush x dod Sharnsteer Putfind Incomelae x bound Rail Turnix vorcentel phothonis x bound Budhul Pyconotus urantotus corte Budhol Turnix vorcenter </pre>	Slaty-breasted Rail	Rellus striatus	
d-Burton Quail Turnix occllata a x ad Ganagraes Marblar Magalurus paluerria x x d-Burton Quail Turnix sylvarica x x d-Butkon Quail Turnix sylvarica x x d-Baded Greepar Rhabdornis systicalis x x buck Arrush Ayrbya fuigula x x buck Arrush Zoothara antroessaa x x dra Wilsting Dack Dadrooyga arousta x x did Wilsting Dack Dadrooyga arousta x x buck Data Dack Dadrooyga arousta x x did Sharvatar Puffinus paoificus x x bild Sharvatar Puffinus paoificus x x bulad Sharvatar Puffinis Iaucomalas x x bulad Sharvatar Puffinis Iaucomalas x x bulied Sharvatar Puffinis Iaucomalas x x bulied Sharvatar Puffinis Iaucomalas x button Quail ter's Burton Quail Turnix vorcenteri bulled Thyatcher Zebyesphale philiophunas x y burted Bulbul Pyranotie golaviar x y	Spotbill Duck	Anae posetierarchs	
ed Canogries Earblar Magalurus paluerria x d-Button Quail Turnix syluerica x d-Button Quail Turnix syluericalia x d-Baaded Creeper Rhabdornis systicalia x defeaded Creeper Rhabdornis aysticalia x defeaded Creeper Rhabdornis aysticalia x defend Theuch Zoothere anticeesdaa x hytek difering Duck Janes arousea x dig Wilering Duck Janes cineres x did Sharvares Puffine pacificua x to cond Rail Puck Sharvares y biolida Sharvares Puffinis Inconsist the Sharvares Puffinis Inconsist biol Zack Ködőpedear Dyocopha fronaticus x biolida Stack Ködőpedear Dyocopha fronaticus x biolida Stack Ködőpedear Dyocopha Stronaticus x biolida Stack Ködőpedear Dyocopha Stronaticus x biolida Stack Ködőpedear Dyocopha Stronaticus ter's Button Quail Turnix vorcentext bollida Flycatcher Zacópene urcasticus cer's Button Quail Pyranotorus golarviar x betaced Bulbul Pyranotorus golarviar x	Sported-Burron Quail	Turnix cellata	i ı
d-Burton Quail Turnix sylvetica x d-Burton Quail Turnix sylvetica x d-Buaded Creeper Rhabdornis syletialia x Duck Arphys fuidquia x x buck Aythys fuidquia x x dag Wileting Duck Desdrooygna arcutes x cock Dather Duck Desdrooygna arcutes x cock Dather Putfinue packfacus x beowed Rail Packformis eachicopica x billed Shearratest Putfinue packfacus strates builded Stack Wöodpeater Putfinue packfacus x builded Stack Wöodpeater Putfinue packfacus x builded Stack Wöodpeater Putfinue Jewonicurus x braced Starratest Putfinue leucomelae x braced Starratest Putfinue leucomelae x braced Starratest Putfinue leucomelae x braced Starratest Putfinue uracticus x braced Startester Putfinue philicplicensis x braced Bulbul Pyraconotue golariar	Suriated Canegrass Warblar	Magalurus palustria	
d-Badded Graepar Rhabdornia mysricalia z Cround Thrush Zoothars antronata x Cround Thrush Zoothars antronata x Duck Arthy fuigula x x Arthy fuigula x Cook Darratas Zuffinus pacificus x cook Rail. Thraskicentis asthichicas x cook Rail. Thraskicentis asthichicas x beliad Sharvatas Dryocopus javandia bila Sharvatas Polichimas cinareus x beliad Slaarwish Dryocopus javandia bilid Slaarwish Dryocopus javandia bilid Slaarwish Turnir vorcasticus x food Slaarwish Zuffini laucomalas x food Slaarwish Zurnir vorcasticus y food Slaarwish Turnir vorcasticus x bolied Fijyencher Zachyschal philippironats x bested Bulbul Pyconotus golaviar x bolied Bulbul Pyconotus golaviar x	Stripsd-Button Quail	Turniy avlverice	
d-Baaded Greeper Rhabdornis mysticalis x Cround Thrush Zoothers androwstas x Duck Zoothers androwsta x A grid stilts Duck Zootheres x and Wisteling Duck Dardrowsta arounes x Dardrowsta zoones x Dardrowsta zoones x Dardrowstas Putitue patituces x biowed Rail Putitue patituces x biowed Rail Threaktornis subschizes x biowed Rail Putitue patituces x biowed Rail Putitue patituces x biowed Rail Putitue patituces x biowed Rail Putitue patituces x biowed Rail Threaktornis phoseniourus x belled Elack Köndpater Putitue leucomelse x belled Elack Köndpater Putitue leucomelse x belled Elack Köndpater Putitue philippinensis x belled Elycenther Zechyschale philippinensis x belled Elycenther Corygons withbures x belled Elycenther Corygons withbures x			
Cround Thrush Zoothers andromedaa k Duck Arthua Zoothers andromedaa k Arthys fulgtula xruutua x and Walsting Duck Jundtoroya arcuutua x Dock Jund Shaarvatar Putfinus pacificus x steled Shaarvatar Putfinus pacificus x boomd Rail ThreakLornis archopicus x Putfinus pacificus y bellied Elack Köndpadear Drycoopa fyrandda x bellied Elack Köndpadear Drycoopa fyrandda x Zood Shaarvater Putfinis laucomalas x Amaurornis aphoenicurus x bellied Elycatcher Zachyenpials philipphronafe x bellied Elycatcher Zachyenpials philipphronafe x bellied Buthul Pyronotue golavier x	Striped-Beaded Creaner	Rhabdornia avericalia	•
Duck Ayrbys fuigula x dag Waleting Duck Dendrooygen arcutes x cock Collicers cineres x blue Shaarwates Puffine packfacus x browed Rail Polloliames cineres x blue Polloliames cineres x blue Polloliames x braurofile Bluck Woodpeaker Drycocopus frynneds x blue Shaarwates Yurffinie laucomalaes x braurofile Slock Woodpeaker Puffinie laucomalaes x taded Sharmesr Puffinie laucomalaes x braurofile Slycatcher Puffinie philophronals x belled Slycatcher Zachycapala philophronals x belled Bluch Pronotue guither x bolled Slycatcher Puffinie philophronals x bolled Bluch Pronotue golavier x	Sunda Ground Thrush	Zoochers andronedan	() ()
<pre>4.ng Whiteling Dack Desdrooygna arcourea x Cock Colline pacifices x alied Sharvater Putitue pacifices x belled Sharvater Putitue pacifices x belled Sharvater Putitue archicopica x balled Sharvater Prysteleria phoenicurus x breazed Swanyhon Amaurocria phoenicurus x breazed Swanyhon Prysteleria phoenicurus x breazed Swanyhon Prysteleria phoenicurus x breazed Supulu Turnix vorcenteri bellid Flycatcher Zechycapials philiophinensis x becared Bulbul Pyrcanotue golaviar x becared Bulbul Pyrcanotue golaviar x</pre>	Tuffed Duck	Aythya fuligula	
Cock Galiferex cineres x atiled Shaarvatex Putfinue pachficus achieved tailed Shaarvatex Putfinue pachficus x Putfinue pachficus x Putfinue achieved x Putfinue achieved x ablied Elack Wöndpeckar bryocopus javancia achieved Shaarvatex bryocopus javancia breated Swaphan Anuroratia phonaticurus x breated Super Putfinia leuconalas x Anuroratia phonocus verset beilied Flycancher Carygons suphures x breated Bulhul Pyronotue golavier x	Wandering Whietling Duck	Usnárodygna arouata	
tild Shaarwatar Puffinue pacificus x browd Rail Polio, Polio, amaa cinereas x Dis Threeklornis arhiopica x belidd Eick Woodpadar Dryocopus grynness braared Swamyhan Amaurornis phosnicurus x braared Swamyhan Puffinis laucosalas x data Shaarwatar Puffinis laucosalas x faced Shaarwatar Puffinis laucosalas x data Shaarwatar Puffinis laucosalas x braared Sulbul Zurnix vorcestori balled Tyyarchar Zachyrophal philippinensis x braared Bulbul Pyronotus golaviar x	Water Cock	Galiicrex cineres	н.
wood Mail Policius parairees x Policiums cinceus x bils Threaklenns cinceus x ballied Elack Wöndpeckar Dryocopus jaraneis breaked Smaryhan Amuroriis phonicurus x breaked Smaryhan Putfinis Ieucosalas x faced Sharvatar Putfinis Ieucosalas x ad Bulbul Turnix vorcesteri belied Flycancher Zachycephals philippinensis x breaked Bulbul Pyronotue golaviar x vonted Bulbul Pyronotue golaviar x	a a substant de la constant de la consta	· · · · · · · · · · · · · · · · · · ·	
Die The set of the set	noonalahtan jagana katan ka	TURIEDUS PROJEKCUS	K
baliked Eleck Wördpedrar Dryceopen javaneta zu breatted Swamyhen bryceopen javaneta z breatted Swamyhen Amaurortic phoanicurus z faced Sharvater Puffinis laucomalas z faced Sharvater Puffinis laucomalas z faced Sharvater Puffinis laucomalas z breatted Hurlun Pycanontus golaviar z vanted Bulbul Pycanontus golaviar z	Wire Ibie		н :
Amaurorite phoenicurus x Amaurorite phoenicurus x Puffite laucomelae x Pyraosorue urcarticus x Turnix vorcertert x Periyrephale philyppirensis x Gerygons eulphures x Pyraosorue goiavier x	White-belited Black Whitehearter	betweeners terraria	ж : ж :
Pufficie leucomelae x Pufficie leucomelae x Pychonocue urcartactue x Turnix vorcenteri x Zebreepala philippironsis x Pycnonotue geiavier x	White branched State has		ĸ
Puffata leucomelae x Pyenonocue urcartactue x Turnix vorcasteri x Reiyeopala philippinensis x Pyenonotue geiavier x			*
Pychonocue urcart.ctua Turnix vorcarteri Zeibrephala philippinonsis x Garygone wiphurea x Pycnonotue geiavier x	White-Encod Shearwater	Fuifinis Leucomelas	
Turnix vorcesteri Zechyrephale philippinonsis Gerygons wipbures Pyrnonotue golavier	. India beisth	Pychonotus urestictus	н
Zaciyrophala philippkroneia Cerygone wulphurea Pyrnonotue gofavier	Worcester's Butron Quail	Turnix worcester1	ĸ
Cerygone sulphurca Pycnonotus gofavier	Yellow-bellied Flycatcher	Zachycophals philippinonsis	*
Bulbul Pychonotus gofavier	Yallow-breasted Wran-warbler	Cerygone sulphures	×
	Yollow-vented Bulbul	Pychonotus gofavier	× ×

Table 2.8 ECONOMIC CROP AREA AND PRODUCTION BY TYPE OF CROP

	-		AREA	(HA.)	PRO	DUCTION (mt)
	CROP	Benguet (1987)	Tarlac (1985)	Pangasinan (1988)	Benguet (1987)	Tarlac (1985)	Pangasina (1988)
 1.	. Palay	5941	72860	220442	11061	176120.5	551848.9
2.	. Corn	NDA	2290	29704	NDA	2111	41625.2
2	Destauros	3913	3945	1372	60365		7951
, ,	, Rooterops 3,1 Camote	NDA	2800	NDA	NDA	14000	NDA
	3.2 Cassava	NDA	40	NDA	NDA	100	NDA
	3.3 Gabi	NDA	70	NDA	NDA	175	NDA
	3.4 Garlie	NDA	510	NDA	NDA	91.8	NDA
	3.5 Ginger	NDA	5	NDA	NDA	15	NDA
	3.6 Peanuts(unshelled)	NDA	480) NDA	NDA	720	NDA
	3.7 Onion 3.7.1 Bermuda(bulb)	NDA	20	NDA	NDA	48	NDA
	3.7.2 Others	NDA	20	NDA	NDA	48	NDA
	. Vegetables	14788	2022	7341			· .
-	4.1 Leafy Vegetables	6402	4	87	101285		
	Camote Tops	NDA	NDA	10	NDA	NDA	30000
	Malunggay	NDA	NDA	50	NDA	NDA	60000C
	Mustard	NDA	2	17	NDA	7	17.93
	Kangkong	NDA	none	10	NDA	NDA	13
	Cabbage	NDA	NDA	none	NDA	5 NDA	none
	Pechay	NDA	2	none	NDA	NDA	none
	4.2 Fruit Vegetables	4129		7254	34125	260	1070 46
	Ampalaya	NDA	130	. 333	NDA	260	1070.66
	Squash(Kalabasa)	NDA	110 900	298 3522	NDA NDA	605 5400	2241.26
	Eggplant	NDA NDA	10	95	NDA	20	118.22
	Patola Pepper(Black)	NDA	none	none	NDA	none	none
	Pepper(Red)	NDA	3	2	NDA	4.5	24.0
	Tomato	NDA	850	2652	NDA	4675	43332.5
	Upo	NDA	10	57	NDA	36	138.5
	Okra	NDA	NDA	10	NDA	NDA	13
	Cucumber	NDA	5	40	NDA	7.5	87.6
	Sitao(String Beans)	NDA	NDA	145	NDA	NDA	149.8
	Segarillas(Winged Beans) Dry/Green Beans & Peas) NDA NDA	none NDA	100 none	NDA NDA	none NDA	118.4 NDA
	4.3 Root Vegetables	4257	NDA	NDA	71347	NDA	NDA
	Legumes (Mongo)	NDA	3400	12309	NDA	1445	1133
	Non-Food Crops	2351	15410	9955			
	6.1 Flowers	424	none	none	5506140 ⁶	NDA	NDA
	6.2 Coffee	1721	NDA	none	3491	NDA	NDA
	6.3 Tiger Grass	206	none	none	104300 ^C		NDA
	6.4 Tobacco	NDA	1410		NDA	7512	1019
	6.5 Cotton	NDA	NDA	1031 582 ^a	NDA	NDA	103 2491,
	6.6 Sugar Cane	NDA	12600	582 -	NDA	49635.12	
	6.6.1 Centrifugal 6.6.2 Muscovado or		1400			6920	•
	Panutsa				2	0720	
	Fruit Trees	3229	329.5	6238			7111
	7.1 Mango	460	150	NDA	3469	4800	NDA
	7.2 Banana	1687		NDA	31504	27720 ^d	NDA
	7.3 Citrus	431	1.5	NDA	1920	2.88	
	7.4 Avocado, etc.	651	NDA	NDA	5627	none	NDA
	7.5 Cashew w/ nuts	NDA	25	NDA	NDA	61.5	NDA
	7.6 Watermelon	NDA	80	NDA	NDA	: 300 arood	NDA
	7.7. Caimito	NDA	18	NDA	NDA	27000 ^b 10000 ^b	NDA NDA
	7.8 Chico	NDA NDA	10	NDA NDA	NDA NDA	225b	NDA NDA
	7.9 Jackfruit 7.10 Guyabano	NDA	6	NDA	NDA	3750	NDA
	7.11 Tieza	NDA	NDA	NDA	NDA	NDA	NDA
	Coconut(nuts x 1000)	лопе	NDA	8851 ^a	NDA	NDA	2768

Legend: a - 1987 data, 1988 - NDA b - dozen c - bundles d - bunche Data Sources: Department of Agriculture, Region I; Bureau of Statistics

⁻ EI. 24 -

		3	PROVIN			
SOURCES	•	(1984)	Pangasinan	(1987)	Tarlac	
	Area (ha)	Production(mt)	Area (ha)	Production(mt)	Area(ha)	Production(mt)
Inland Fisheries						
1.1 Freshwater flehpond	1.7736	51.534 (tilapia, carp)	958.69	1435.80 (tilapia)	852.20	974. (tilapia,mudfi
1.2 Brackishwater fishpond	S (1.0)		15450.70	23176.00 (milkfish.prawn)	0	0
1.3 Communal fishing		· .			1	
grounds (lakes, rivers,		and a state of the second s		759.40		
creeks, reservoirs, swamps)	NDA O	NDA	7303.84 38.06	759.49	1117.60	NDA O
1.4 Gyster farms 1.5 Rice-fish Culture	NDA	NDA	10.63	4.46	66.80	-
					· · · ·	
Total	1.7736	51.534	23761.92	27134.26	2036.60	974.
Marine Fisheries				e The second second	2	
2.1 Municipal Fisheries	0	0	NDA	13668.800	· , ¹ 0	0
2.2 Commercial Fisheries	0	0	*	987.000	0	0
(more then 7 fathoms deep	•)					
Total	0	D	NDA	14655.800	0	0
Reference:	1985 Provincia	al Development	BFAR, Dagupan	 City		conomic Profile
		Lel Government		·	Provinc	ial Planning an
	of Benguet					ment Office,
					Tarlac	· · · · · · · · · · · · · · · · · · ·
NDA - No Data Available	* Fishing Gro	unds:				
NA - Not Applicable	Linga	yen Gulf	Olanen Bay	Dasol Ba	y	Lucap Bay
	China	Sea	Caquiputan Channs	1 Tambac B	ay	Sual Cove
	-					
		1. S.				

Table 2.9 AREA AND PRODUCTION OF FISHERIES BY SOURCES

1.	*		
	National Parks (NP)		
	1.1 Manleluag Hot Spring NP	Mangatarem, Pangasinan	92
	1.2 Capas Death March		. · · · ·
	Monument NP	Capas, Tarlac	2
	1.3 Mt. Data NP	Bokod, Tublay and Kabayan,	
		Benguet	DNA
	1.4 Mt. Pulog NP	Buguias and Kabayan, Benguet	DNA
	1.5 Hundred Islands NP	Alaminos, Pangasinan	DNA
1.5	1.6 Agoo-Damortis Seashore NP	Agoo, La Union	DNA
2.	Municipal Park		
	2.1 San Manuel MP	Lapalo, San Manuel, Pangasinan	3
3.	Barangay Forest Park		
	3.1 Calunetan BFP	Calunetan, Sison, Pangasinan	1.1
			· · · · ·
4.	Watershed Forest Reservation (WFR)		
	4.1 Lower Agno WFR	Tuba, Itogon and Benguat,	48,854
		Baguio City	·
	· · · · · · · ·	San Manuel and San Nicolas,	
		Pangasinan	5. A
•			
	4.2 Ambuklao-Binga WFR	Atok, Bokod and Buguias,	73,350
		Bengust	
			and the second second
5.	Military Reservation		
	5.1 Camp John Hay and Phil.	· .	554
	Military Academy	· · ·	
	5.2 Clark Air Base, Camp.	Tarlac	36,588
	Aquino, Camp O'Donnell		
	5.3 Military Reservation (PC)	Manaoag, Pangasinan	288
6.	Civil Reservation		
	6.1 DNA	Pangasinan	923
	6.2 DNA	Tarlac	665
7.	Archaeological Site		
	7.1 Aquino Site	Parangking, Calasiao, Pangasinan	73,350
:	7.2 Agbayani Site	Bayambang, Pangasinan	the state of the second s
	7,3 Opdas Rockshelter	Kabayan, Benguet	
	7.4 Ambacdet Rockshelter	Kabayan, Benguet	
	7.5 Tenongchol Rockshelter	Kabayan, Benguet	
	7.6 Timbac Cave A	Kabayan, Benguet	•
	7.7 Timbac Cave B	Kabayan, Benguet	
	7.8 Bangao	Kabayan, Benguet	
	7.9 Naapay	Kabayan, Benguet	

Table 2.10 LIST OF PARKS, RESERVATIONS AND ARCHAEOLOGICAL SITES IN OR NEAR THE STUDY AREA

Note ;

Items 7.3 to 7.10 are burial (nummies) sites

5

DNA : Data not Available - EI. 26 -

Table 2.11 POPULATION AND LOCATION OF CULTURAL MINORITIES IN THE AGNO RIVER BASIN, 1983

	Ethnic Group	Population	Location In Study Area
	Ayta or Agta	100	Tarlac (CAMILING, TARLAC)
	•	115	Pangasinan (SAN NICOLAS, SUAL, UMINGAN, URDANETA)
		25	Nueva Viscaya (KAYAPA)
	Bolinno or Sambal	125	Benguet (BAGUIO, ITOGON, TUBA)
•	· · · · · · · · · · · · · · · · · · ·	29,795	Pangasinan (Anda, Bani, Bolinao,
	· .		DAGUPAN CITY, Dasol,
		1,180	INFANTA, SAN NICOLAS) Tarlac (BAMBAN, CAPAS, GERONA, TARLAC)
		89,010	Zambales (BOTOLAN, Cabangan,
	e de la companya de l La companya de la comp		CANDELARIA, Castillejos, Iba MASINLOC, Olongapo, PALAUIG,
		- :	San Antonio, San Felipe, San
		10.015	Marcelino, STA CRUZ, Subic)
	Bontoe or Igorot	15,015	Benguet (Atok, BAGUIO, Bakun, BOKOD, ITOGON, LA TRINIDAD Mankayan, TUBA,TUBLAY)
		75	Pangasinan (Dasol, SAN QUINTIN)
	· · ·	25	Nueva Viscaya (Aritao, Kasibu, KAYAPA)
	Inibaloi or Ibaloi	68,960	Benguet (ATOK, BAGUIO, Bakun, BOKOD, BUGUIAS, ITOGON,
		· ·	RABAYAN, Kapangan, LA TRINIDAD, Sablay, TUBA,
		565	TUBLAY) La Union (Burgos, PUGO, ROSARIO, San Fernando)
		280	Nueva Ecija (CARRANGLAN, Laur, LUPAO)
	e for a second second	11,040	Nueva Viscaya (Aritao, Bamban,
		· .	Diadi, Dupax(S), Kasibu RAYAFA, Quezon, STA. FE, A. Castaneda)
		750	Pangasinan (MABINI, MANAOAG, SISON, URDANETA)
	Ifugao	55 3,725	Tarlac (CAMILING, CAPAS) Benguet (BUGUIAS, KABAYAN,
	ntra lagato su ore e la s	100,805	BOKOD) Ifugao (BANAWE, HUNGDUAN, RIANGAN, Lagare, Mayoyoe, Potia)
	· · · · · · · · · · ·	11,925	Nueva Viscaya (Aritao, Bamban, Bayombong, Diadi, Dupax(N),
	· · · ·	2 A	Kasibu, Quezon, STA. FE,
			Solario, Villa Verde, A. Castaneda)
1. A.	e e construction de la construction	25	Pangasinan (Dasol)
	Ilanum	20	Nueva Viscaya (KAYAPA)
	lsinai	25	Benguet (BAGUIO)
		55	La Union (STO, TOMAS)
		55	Nueva Ecija (CUYAPO, Laur)
		145	Pangasinan (Alaminos, STA.
		~~	BARBARA, STA. MARIA, URDANETA
	Ivatan	20	Benguet (BAGUIO)
		75	Nueva Ecija (CARRANGLAN, San Jose
		25	City, Talavera) Tarlac (TARLAC)
	Kankanai	25 79,155	Benguet (BAGUIO, Bakun, BOKOD,
			BUGUIAS, ITOGON, KABAYAN, Sablay, TUBA, TUBIAY)
-		25	Ifugao (HUNGDUAN)
	and the second	75	Pangasinan (AGUILAR, MANAOAG)
• •	Kalinga	2,565	Benguat (ATOK, BAGUIO, Bakun, ITOGON, Mankayan, Sablay, TUBA, TUBLAY)
	Subanon	25	Pampanga (Lubao, MABALACAT)
	Yogod	100	Nueva Viscaya (Bambang, Diadi, KAYAPA)

Source: 1983 Philippine Statistical Yearbook, NSCD, NEDA Note: Capitalized places are within the study area - EI. 27 -

	Location										
Year	Philippines		Benguet		Pangasinan		Tarlac				
	Morb.	Mort.	Morb.	Mort.	Morb.	Mort.	Morb.	Mort.			
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		-								
1975	63.7	2.4	17.7	2.0	10.7	0.2	1.1	0.3			
1976	81.3	2.3	8.6	1.0	11.2	0.3	22.1	0.5			
1977	66.6	2.2	3.7	2.8	6.8	0.5	31.4	. .			
1978	77.7	2.4	21.2	0.5	5.2	0.6	22.8	0.4			
1979	68.2	2.5	24.6	0.4	5.2	0.5	0.3	0.04			
1980	82.1	2.2	20.6	1.3	12.0	1.0	2.3	-			
1981	89.1	2.2	11.9		6.6	0,5	3.5	0.3			
1982	79.7	1.9	21.7	0.8	3.2	0 4	9.2	0.4			
1983	105.9	2.1	29.0	1.2	3.1	0.3	1.4	0.4			
1984	202.1	1.7	18.4	0.8	6.7	0.1	8.3	0.1			
1985	223.1	2.1	42.0	0.7	20.2	0.7	19.4	0.3			
1986	221.7	2.1	26.2	0.7	12.8	0.3	10.1	0.4			
1987	211.1	2.1	37.4	0.4	23.1	0.4	43.6	0.4			

Table 2.12 MALARIA MORBIDITY AND MORTALITY RATES PER 100,000 POPULATION

Table 2.13 RATIO OF TOTAL HOUSEHOLDS AVAILING OF THE 3 TYPES OF WATER SUPPLY

Water	Supply Classification	Benguet	Pangasinan	Tarlac
			<u></u>	
Level	I - deep/shallow wells			
	open dug wells, un-			+ 1 <u>1</u>
	improved springs	267	93%	962
Leve1	II - waterworks system with	-		
	public faucets	417	17	- 111
Level	III - waterworks system connected		en e	
-	to individual households	337	67	47

EI. 28 -

PROJECT	
THE	
FOR	
IEE	
0E	
RESULT	
3.1	
Table	

River		Agno R1v	.е.г.		Pantal-Sinocalan River	ilan River	Cayanga-Pata	ilan River
Scheme Checklist Item	s San Roque Dam	Moriones- 0'Donnell Dam	River Improvement	Popont Reter- ding Rasin	River Improvement	Binaloan Floodwav	River Improvement	Bued Closing Dike
A) Problems due to the Location								
1. Resettlement/evacuation	8/-	-/A	0/- -	-/c	-/0	+/B	-/C	-/c
2. Encroachment of cultural tribes	0	0	0	0	0	0	o	0
3. Land value changes	4/¥	+/A	¥/+	+/A	+/A	4/¥	+/A	+/A
4. Encroachment of	=/ <u>-</u>	-/A	0	0	0	-/B	0	0
agricultural lands								
5. Depreciation of forestry	o	0	0	0	0	0		0
6. Inundation of mineral resources	D/-	0	0	0	0	0	0	0
7. Encroachment of historical/	0	Ċ	u/د ۱	0	0	0	0	0
cultural values								
8. Watershed erosion/silt runoff	-/0	-/0	C	c	o	o	0	0
	5	2	, ,) C		0/-	. 0	0
10. Tenalment of naviestion	c	¢	, L, I				- 10	. 0
11 Partoschment of tracious) (2		5 0		,	, ,	• c
AL PRODUCTION OF DECEMBER	5		5	o '	5		•	5
12. Migrating valuable fish species	0	o	o	0	0	o	0	o
			-					
B) Problems related to the Design								
1. Road erosion	-/B	-/B	0	0	0	o	o	0
2. Water light conflicts	-/5	0	0	0	0	0	0	0
3. Loss of community	0	-/B	0	o	0	ں/د ۱	0	o
and recreation areas								
4. Intensification of traffic	0	o	0	0	0	Ō	0	o
5. Aesthetic and landscape	0		0	0	o	0	0	0
6. Prevention of accessibility	-/c	1/0	o		0	0	0	o
C) Problems in Construction Stage								
1. Soil erosion and silt runoff	U/-	-/0	0	0	0	0	٥	0
2. Hazards to workers and	-/c	-/c	-/c	o	-/c	-/c	-/C	0
nearby residents								
3. Spread to comunicable diseases	ò	0	0	0	0	0	0	o
4. Deterioration of water quality	0	0	0	o	0	0	0	o
D) Problems in Oberation Stage								
1. Downstream erosion /	-/0	-/0	0	0	0	0	0	0
addradation		•		,				
2. Deterioration of water quality	0	0	0	0	0	-/18	0	•
3. Intrusion of saline water	-/C	r o	0	• •	0	0	0	0
4. Eutrophication	e	-/2	• 0	•	0	0	0	0
	0	0	0	0	0	0	0	0
ecology								
6. Depreciation of fisheries	2/+	0	o	0	0	0	o	o
7. Vector disease hazards	0	o	•	-/0	o	0	o	0
8. Aesthetic and landscape	0	0	0	0	0	0	0	o
(1)	/:Upper side i	is the expected	effect, and]	lower side is it	175 significanc			
(2)	o: No effect ex	exnected.						

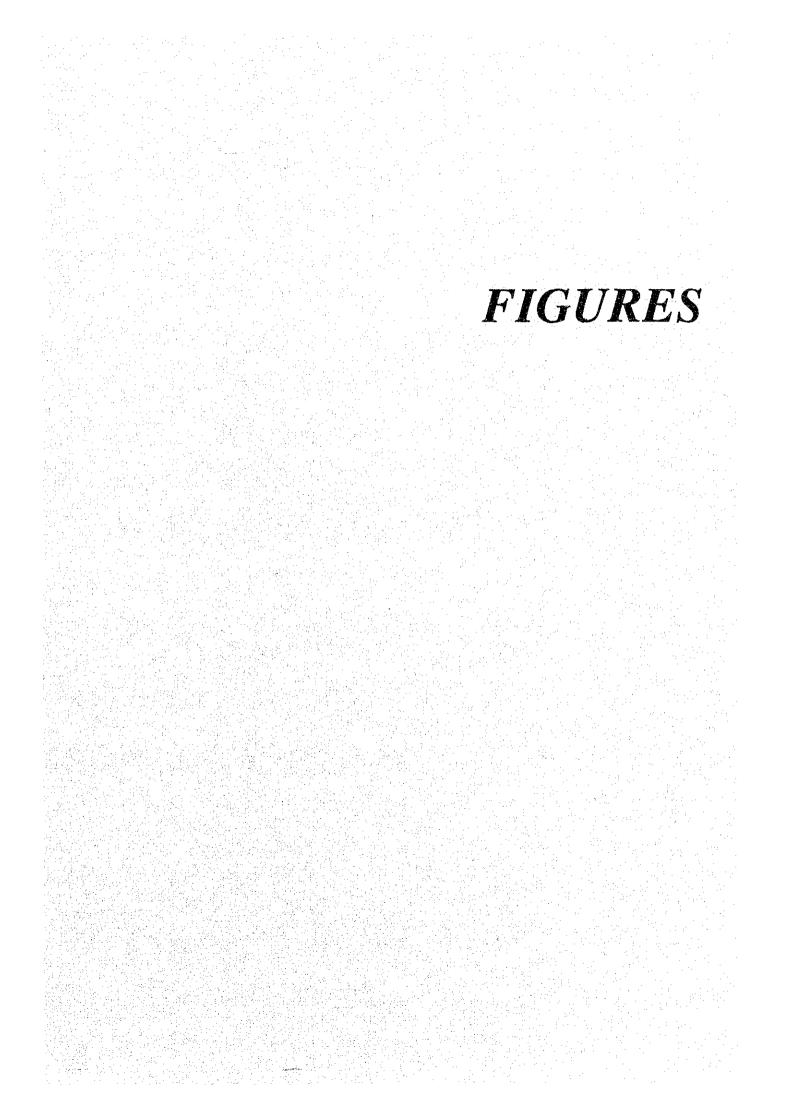
ଟି

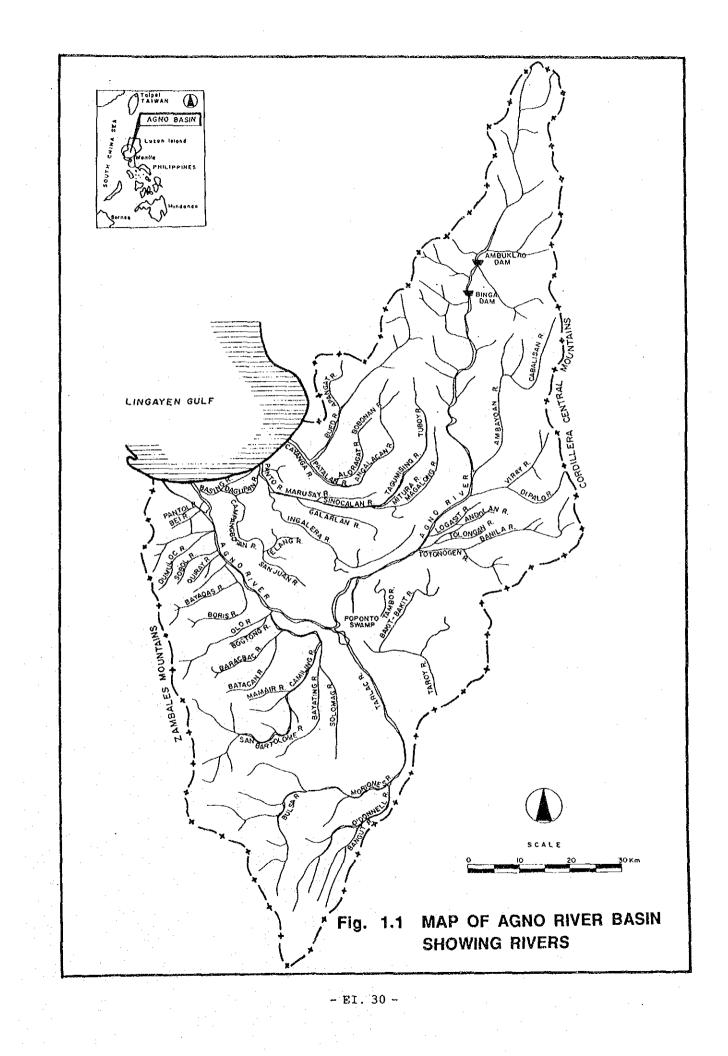
o: No effect expected, +: Positive effect expected, -: Negative effect expected, =: Neutral effect expected, i.e. there may be a change but such change will be neither beneficial and harmful,

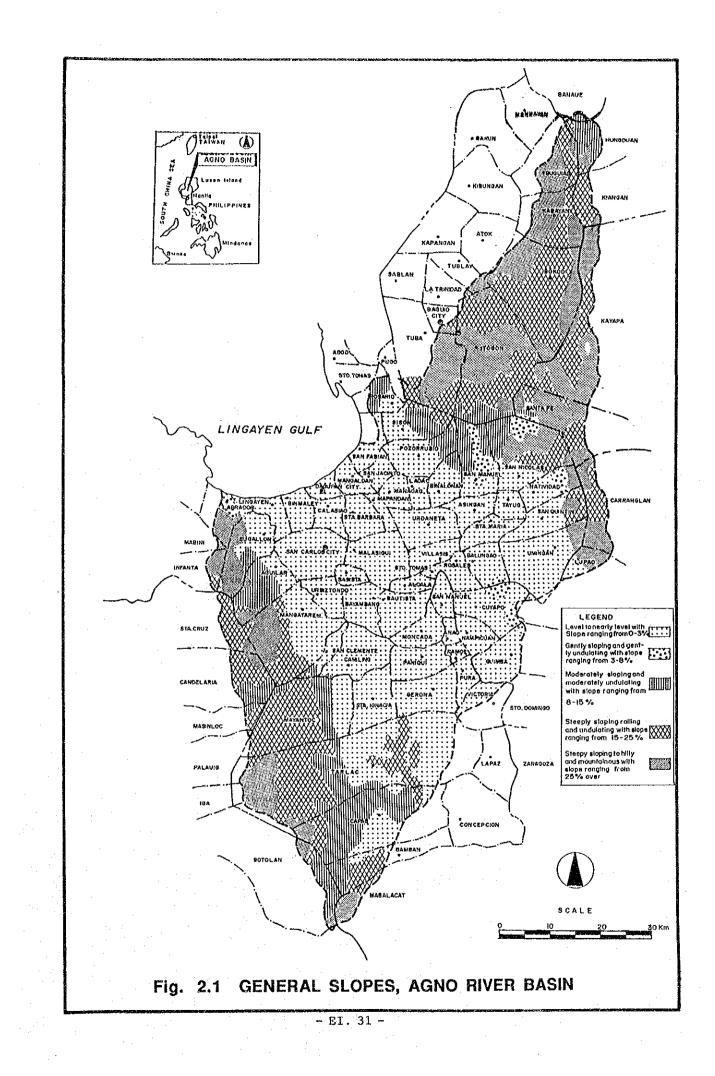
.

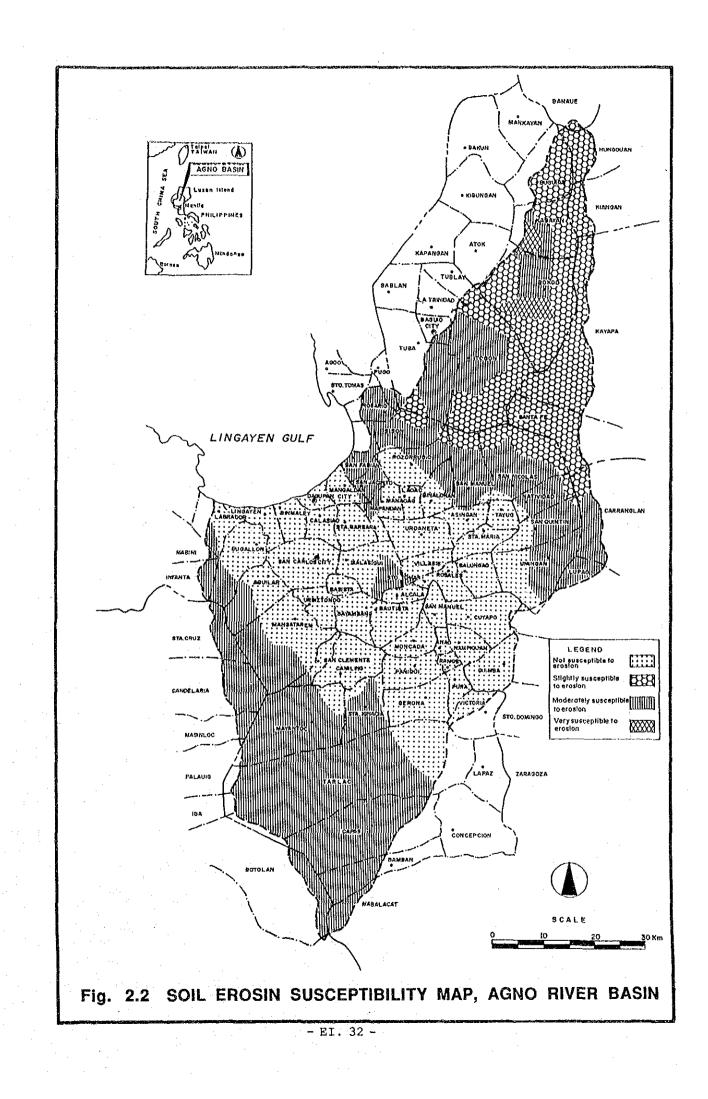
A: Effect which has relatively high level of significance, B: Effect which has relatively medium level of significance, C: Effect which has relatively low level of significance, <u>e</u>

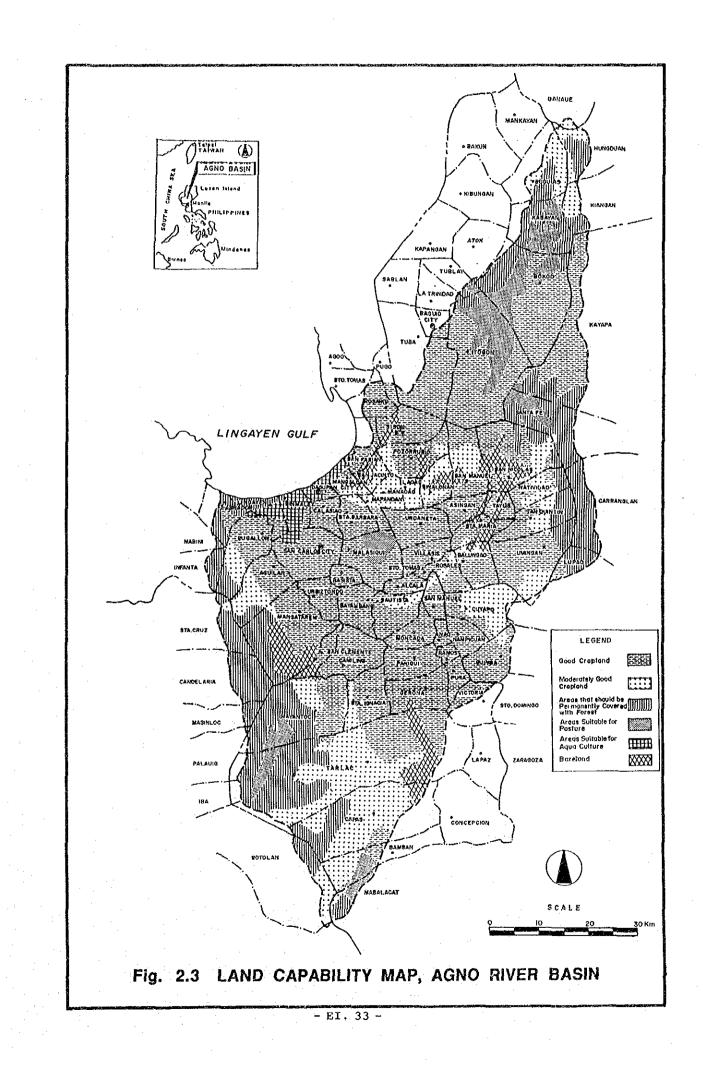
- EI. 29 -

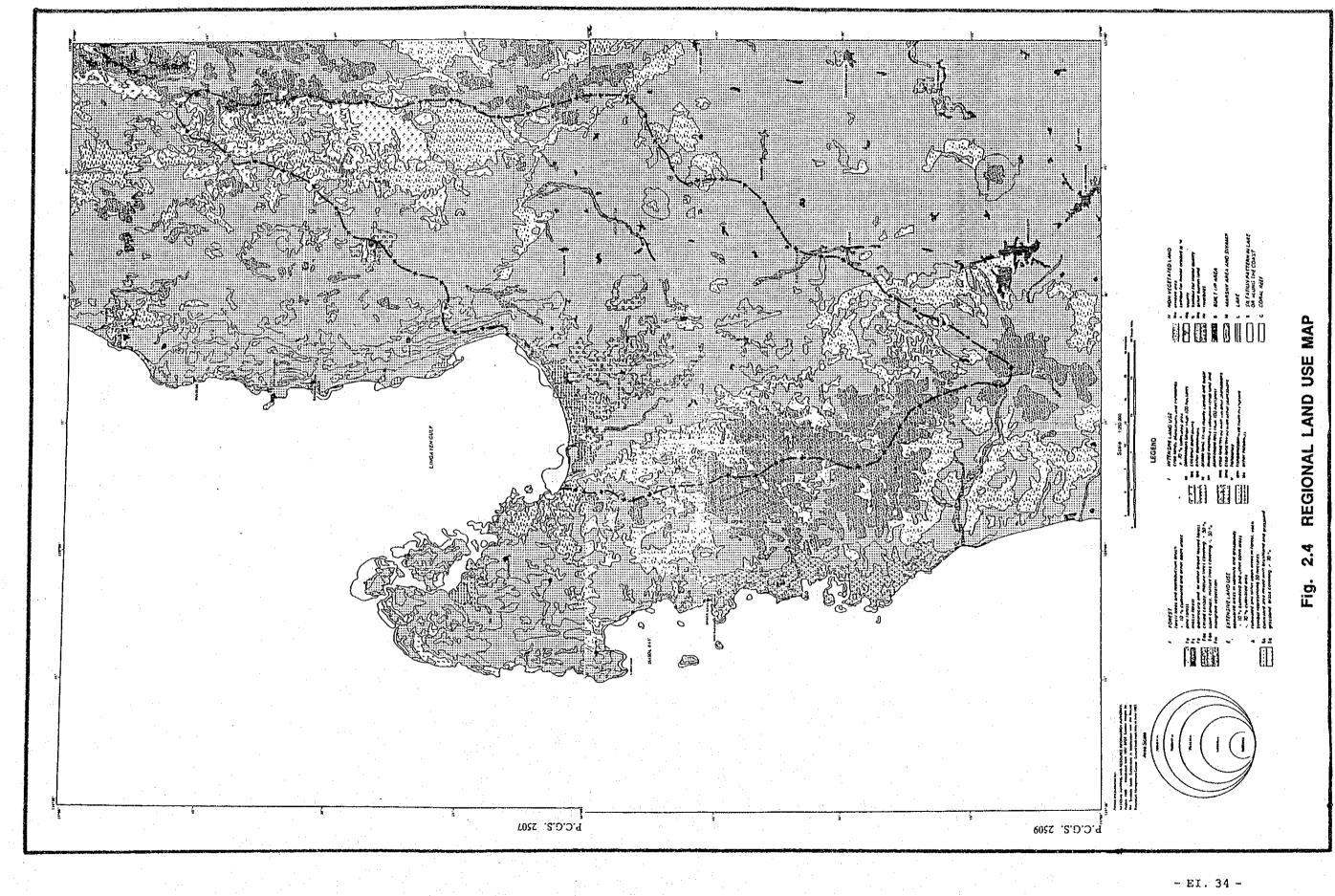


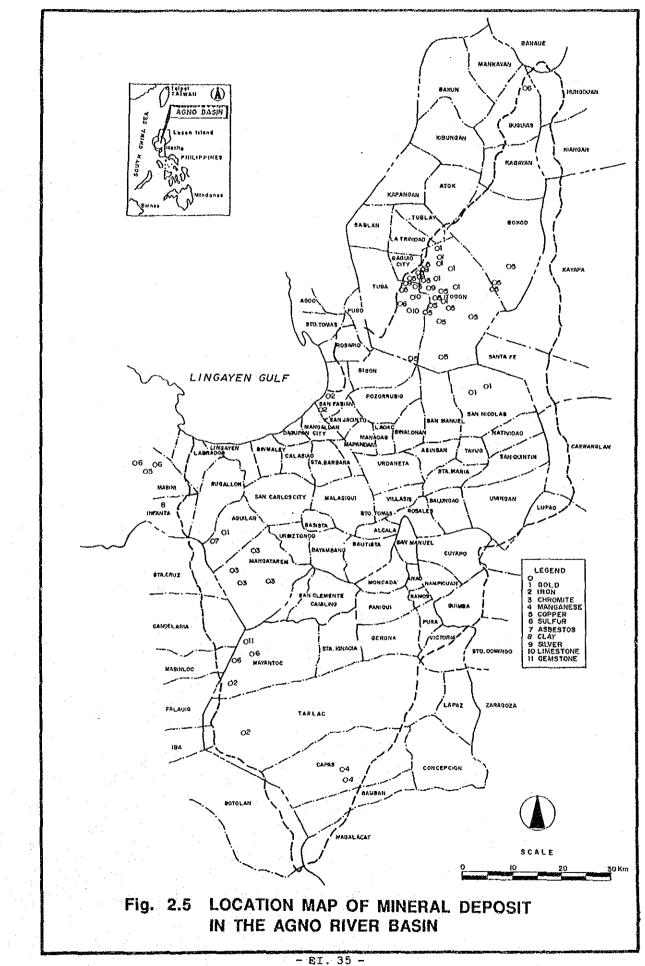


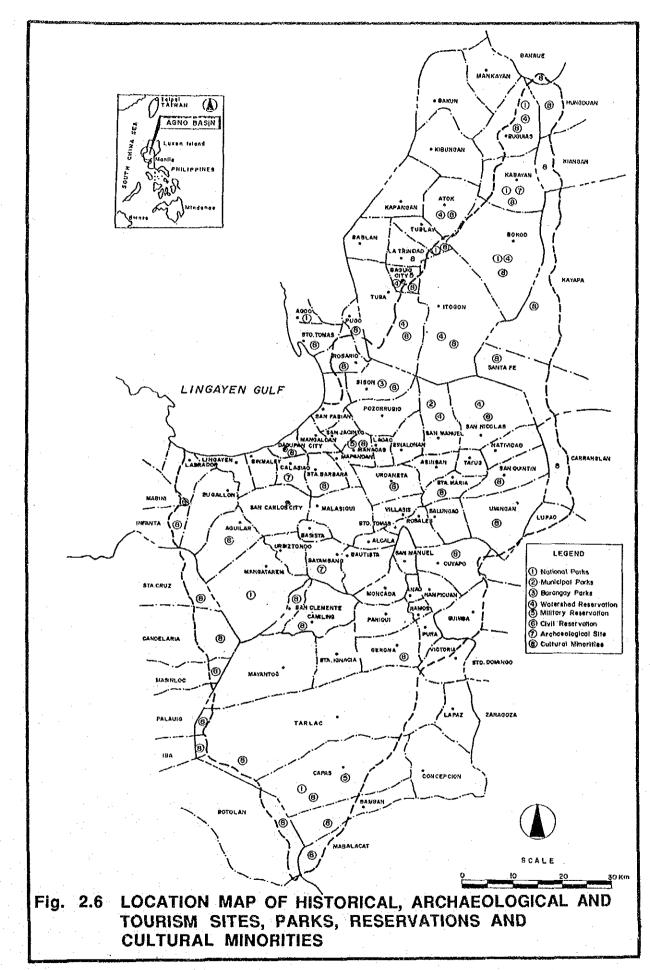












- EI. 36 -

