



Figure G2.1 EIA FRAMEWORK PLAN

Plates

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Plate 1

Junction of Kaliwa and Sapang Bukas rivers in Brgy. Daraitan, Tanay, Rizal. Note the denuded hillside and its natural vegetation already replanted with coconut, fruit trees and corn.

Plate 2

Patches of upland agricultural areas can be observed in steep/hilly areas resulting to soil erosion of the rivers. If no sound soil management practice, siltation will be unabated.



Plate 3

About a kilometer from the barangay center, going upstream of Kaliwa River, forest cover of Kanan watershed is illegally cut and then transported to Brgy. Daraitan.



Plate 4

Log ponding of Kaliwa River where cut logs are stored prior to transport. Illegal cutting of trees in the both Kaliwa and Kanan watersheds if uncontrolled will led to forest denudation.



Plate 5

Bamboo, ipil ipil and other riverine cover have replaced the natural vegetation. Note the water level during summer significantly decreased as manifested by the exposed sandy river bed.



Plate 6

Algal blooms as reflected by the greenish color water experienced only during the months of April and May and being flush out at the onset of rainy season. Algal blooms hasten euthrophication of reservoirs.





Plate 7

Irreversible loss of mineral resource, such as the limestone outcrops in Kaliwa River is one of the issues in project siting.

Plate 8

Limestone outcrops in the riverbed were once quarried using power drills as manifested in the drilled rocks left behind. Quarrying had already been stopped for almost 7 years now.



<u>Plate 9</u> Sitio Tinipak, Brgy. Daraitan situated along Kaliwa River is planned as an eco-tourism area of the Municipality of Tanay. The proposed Kaliwa Low Dam 2 and Agos Dam will eventually submerged this area.



Plate 10

Natural vegetation still covers the slopes of Sitio Tinipak and acts as habitat for some endangered Philippine wildlife species such as the "usa" and birds of prey.



Plate 11 A portion of Kaliwa River where water is wellaerated, hence, an absence of blue-green algae.



<u>Plate 12</u> Thick secondary growth forest found in the mountain slopes of Kaliwa River, downstream of Brgy. Daraitan, serves as filter to eroded soils.



Plate 13 - Tinipak, being actively promoted by the LGU of Tanay as one of its major tourist spots. Its attractions are large limestone outcrops, pristine waters and cool, invigorating climate.



Plate 14 - Tinipak spring is located along Kaliwa River. The spring is a source of drinking water for the residents of Brgy. Daraitan during summer.

Appendices

SCOPE OF THE EIS SYSTEM

The EIS system covers projects and undertakings categorized as Environmentally Critical **Projects (ECPs)** and projects located in Environmentally Critical Areas (ECAs).

An **Environmentally Critical Project** is one that has a high potential for negative environmental impacts. This is listed under Presidential Proclamation 803, Series of 1996. It also includes other projects which the President may proclaim as environmentally critical in accordance with Section 4 of PD 1586.

Under the DAO 96-37, the following projects and undertakings are defined as ECPs:

Environmentally Critical Projects

- a) Heavy Industries
 - 1. Non-ferrous metal industries
 - 2. Iron and steel mills
 - 3. Smelting plants
 - 4. Petroleum and petri-chemical industries, including oil and gas
- b) Resource Extractive Industries
 - 1. Major mining and quarrying projects
 - 2. Forestry projects
 - Logging
 - Forest occupancy
 - Extraction of mangrove products
 - Introduction of fauna (exotic animals) in public/private forests
 - Major wood processing projects
 - Grazing
 - 3. Fishery projects
 - Dikes for/and fishpond development projects
- c) Infrastructure Projects
 - 1. Major dams
 - 2. Major power plants (fossil -fueled, nuclear, coal-fired, hydroelectric, geothermal)
 - 3. Major roads and bridges
 - 4. Major reclamation projects
- d) Golf Course Projects

An **Environmentally Critical Area** is an area that is considered ecologically sensitive. It is also listed under Proclamation Nos. 2146, 803 and other areas which the President may proclaim as environmentally critical in accordance with Section 4 of PD 1586.

An area is environmentally critical if it exhibits any of the following characteristics:

Environmentally Critical Areas

- a) All areas declared by law as national park, watershed reserves, wildlife preserves and sanctuaries
- b) Areas set aside as aesthetic potential tourist spots
- c) Areas which constitute the habitat for any endangered or threatened species of indigenous Philippine wildlife (flora and fauna)
- d) Areas of unique historic archeological or scientific interest
- e) Areas which are traditionally occupied by cultural communities or tribes (indigenous cultural communities)
- f) Areas frequently visited and/ or hard-hit by natural calamities (geologic hazards, floods, typhoons, volcanic activity, etc)
- g) Areas with critical slopes
- h) Areas classified as prime agricultural lands
- i) Recharged areas of aquifers
- j) Water bodies characterized by one or any combination of the following conditions:
 - 1. Tapped for domestic purposes
 - 2. Within the controlled and/or protected areas declared by appropriate authorities
 - 3. Which support wildlife and fishery activities
- k) Mangrove areas characterized by one or any combination of the following conditions:
 - 1. With primary pristine and dense young growth
 - 2. Adjoining mouth of major river systems
 - 3. Near or adjacent to traditional productive fry or fishing grounds
 - 4. which act as natural buffers against shore erosion, strong winds and storm floods
 - 5. on which people are dependent for their livelihood
- 1) Coral reefs characterized by one or any of the following conditions:
 - 1. With fifty percent (50%) and above live coralline cover
 - 2. Spawning and nursery grounds for fish
 - 3. Which act as natural breakwater of coastlines

March 20, 1990

DENR ADMINISTRATIVE ORDER NO. 34 Series of 1990

SUBJECT:REVISEDWATERUSAGEANDCLASSIFICATION/WATERQUALITYCRITERIAAMENDINGSECTIONNOS.68AND69,CHAPTERIII OF THE 1978NPCC RULESAND REGULATIONS

Section 68. <u>Water Usage and Classification.</u> – The quality of the Philippine waters shall be maintained in a safe and satisfactory condition according to their best usages. For this purpose, all waters shall be classified according to the following beneficial usages:

(a) <u>Fresh surface waters (rivers, lakes, reservoirs, etc.)</u>

<u>Classification</u>	<u>Beneficial Use</u>
Class AA	Public Water Supply Class I. This class is intended primarily for waters having watersheds which are uninhabited and otherwise protected and which require only approved disinfection in water to meet the National Standards for Drinking Water (NSDW) of the Philippines.
Class A	Public Water Supply Class II. For sources of water supply that will require complete treatment (coagulation, sedimentation, filtration and disinfection) in order to meet the NSDW.
Class B	Recreational Water Class I. For primary contract recreation such as bathing, swimming, skin diving, etc. (particularly those designated for tourism purposes).
Class C	1) Fishery Water for the propagation and growth of fish and other aquatic resources;
	2) Recreational Water Class II (Boatings, etc)
	3) Industrial Water Supply Class I (For manufacturing processes after treatment)
Class D	1) For agriculture, irrigation, livestock watering, etc.
	2) Industrial Water Supply Class II (e.g. cooling, etc)
	3) Other inland waters, by their quality, belong to this classification.
	—

In general, this refers to current best beneficial use that is expected to last, at least, for the next 10 to 20 years. In special cases when dictated by political, economic, public health, environmental and other considerations, certain waters may be classified according to the intended or future beneficial use (e.g. Pasig River, Tullahan-Tenejeros, etc).

(b) <u>Coastal and Marine Waters</u>

<u>Classification</u>	<u>Beneficial Use</u>
Class SA	 Water suitable for the propagation, survival and harvesting of shellfish for commercial purpose; Tourist zone and national marine parks and reserves established under Presidential Proclamation No. 1801; existing laws and/ or declared as such by appropriate government agency.
	3) Coral reefs parks and reserves designated by law and concerned authorities.
Class SB	1) Recreational Water Class 1 (Areas regularly used by the public for bathing, swimming, skin diving, etc.)
	2) Fishery Water Class 1 (Spawning areas for Chanos chanos or "Bangus" and similar species).
Class SC	1) Recreational Water Class II (e.g. boating, etc.);
	2) Fishery Water Class II (Commercial and sustenance fishing);
	3) Marshy and/or mangrove areas declared as fish and wildlife sanctuaries;
Class SD	1) Industrial Water Supply Class II (e.g. cooling, etc.);
	2) Other coastal and marine waters, by their quality, belong to this classification.

(c) <u>General Provisions on Water Classification</u>

- 1. Classification of a water body according to a particular designated use or uses does not preclude use of the water for other purposes that are lower in classification provided that such use does not prejudice the quality required for such waters.
- 2. Water classifications are arranged in the order of the degree of protection required, with Class AA and SA having generally the most stringent water quality, respectively for fresh surface waters and marine/coastal waters; and class D and SD waters have the least stringent water quality for fresh waters and marine waters, respectively.
- 3. The main objective of the water quality criteria is to maintain the minimum conditions necessary to assure the suitability of water for its designated use or classification.
- 4. Any person regulated under these rules or having substantial interest in this chapter may seek reclassification of waters by filing a petition with the DENR giving all necessary information to support the petition.

- 5. All reclassifications of water shall be adopted, only after public notice and hearing and upon affirmative findings by the DENR Regional Office concerned that:
 - i. The proposed reclassification will establish the present and future most beneficial use of the waters;
 - ii. Such a reclassification is clearly in the public interest, and
 - iii. The proposed designated use is attainable, upon consideration of environmental, technological, social, economic and institutional factors.
- 6. For purposes of classification or reclassification the following minimum water quality parameters are to be considered:
 - i. Dissolved oxygen (DO)
 - ii. pH
 - iii. Biochemical Oxygen Demand (BOD)
 - iv. Total Coliform Organisms

Section 69. Water Quality Criteria.

- (a) <u>Minimum Criteria for Surface Waters.</u> All surface waters of the country shall be free from:
 - 1. Domestic, industrial, agricultural, or other man-induced non-thermal components of discharges which, alone or in combination with other substances or in combination with other components of discharges (whether thermal or non thermal)
 - i. That settle to form putrescent deposits or otherwise create a nuisance; or
 - ii. That float as debris, scum, oil, or other matter in such mounts as to form nuisance; or
 - iii. That produce color, odor, taste, turbidity, or other conditions such degree as to create a nuisance; or
 - iv. That are accurately toxic; or
 - v. That are present in concentrations which are carcinogenic, mutagenic, tetratogenic to human beings or to significant, locally occurring wildlife or aquatic species; or
 - vi. That pose a serious danger to the public health, safety or welfare.
- 2. Thermal components of discharges which alone, or in combination with other discharges or components of discharges (whether thermal or non thermal) :
 - i. That produce conditions so as to create nuisance; or
 - ii. That increase the temperature of the receiving body of water (RBW) so as to cause substantial damage or harm to the aquatic life or vegetation therein or interfere with the beneficial uses assigned to the RBW

(b) Water Quality Criteria for Fresh Waters

- 1. Conventional and Other Pollutants Affecting Aesthetics and Oxygen Demand.
 - Please refer to Table 1 for the parameters and limits or specifications according to classification and use of the receiving body of water (RBW).

PARAMETER	UNIT	CLASS	CLASS	CLASS	CLASS	CLASS
		AA	Α	В	С	D (b)
Color	PCU	15	50	(C)	(C)	(C)
Temperature (d) (max.	°C rise		3	3	3	3
rise in deg. Celcius)						
pH (range)		6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.0-9.0
Dissolved Oxygen (e)	% satn	70	70	70	60	40
(Minimum)						
	mg/L	5.0	5.0	5.0	5.0	3.0
5-Day 20°C BOD	mg/L	1	5	5	7 (10)	10 (15)
Total Suspended Solids	mg/L	25	50	(f)	(g)	(h)
Total Dissolved Solids	mg/L	500 (i)	1000 (i)	-	-	1000 (i)
Surfactants (MBAS)	mg/L	nil	0.2 (0.5)	0.3 (0.5)	0.5	-
Oil/Grease (Petroleum	mg/L	nil	1	1	2	5
Ether Extracts)						
Nitrate as Nitrogen	mg/L	1.0	10	nr	10 (i)	-
Phosphate as	mg/L	nil	0.1 (k)	0.2 (k)	0.4 (k)	-
Phosphorus						
Phenolic Substances as	mg/L	nil	0.002	0.005 (1)	0.02 (1)	-
Phenols						
Total Coliforms	MPN/100mL	50 (m)	1000 (m)	1000 (m)	5000 (m)	_
Or Fecal Coliforms	MPN/100mL	20 (m)	100 (m)	200 (m)	_	-
Chloride as Cl	mg/L	250	250	_	350	-
Copper	mg/L	1.0	1.0	-	0.05 (0)	-

TABLE 1 – WATER QUALITY CRITERIA FOR CONVENTIONAL AND OTHER
POLLUTANTS CONTRIBUTING TO AESTHETICS AND OXYGEN
DEMAND FOR FRESH WATERS (a)

Footnotes for Tables 1, 2, 3, and 4.

- (a) Except as otherwise indicated, the numerical limits in Tables 1 and 3 are yearly average values. Values enclosed in parentheses are maximum values.
- (b) For irrigation purposes, **SAR** should have minimum value of 8 and a maximum value not to exceed 18. **Boron** should not exceed 0.75 mg/L.
- (c) No abnormal discoloration from unnatural causes
- (d) The allowable temperature increase over the average ambient temperature for each month. This rise shall be based on the average of the maximum daily temperature readings recorded at the site but upstream of the mixing zone over a period of one (1) month.
- (e) Sampling taken between 9:00 AM to 4:00 PM
- (f) Not more than 30% increase
- (g) Not more than 30 mg/L increase
- (h) Not more than 60 mg/L increase
- (i) Do not apply if natural background is higher in concentration. The latter will prevail and will be used as baseline.
- (j) Applicable only to lakes or reservoirs, and similarly impounded water.

- (k) When applied to lakes or reservoirs, the **Phosphate as P** concentration should not exceed an average of 0.05 mg/L nor a maximum of 0.1 mg/L
- (1) Not present in concentrations to effect fish flavor/taste
- (m) These values refer to the geometric mean of the most probable number of coliform organism during a 3-month period and that the limit indicated shall not be exceeded in 20 percent of the samples taken during the same period.
- (n) For spawning areas for Chanoschanos and other similar species.
- (o) Limit is in terms of **dissolved copper**.
- nil Extremely low concentration and not detectable by existing equipment
- --- Means the standard of these substances are not considered necessary for the present time, considering the stage of the country's development and DENR capabilities, equipment and resources.
- nr Means No recommendation made
 - 2. Toxic and other Deleterious Substances The maximum limits for these types of pollutants according to classifications or use of the receiving body of water are found in Table 2.

TABLE 2 - WATER QUALITY CRITERIA FOR TOXIC AND OTHER DELETERIOUS SUBSTANCES FOR FRESH WATERS (For the Protection of Public Health)

PARAMETER	UNIT	CLASS AA	CLASS A	CLASS B	CLASS C	CLASS D
Arsenic (i)	mg/L	0.05	0.05	0.05	0.05	0.01
Cadmium (i)	mg/L	0.01	0.01	0.01	0.01	0.05
Chromium	mg/L	0.05	0.05	0.05	0.05	
(hexavalent)						
Cyanide	mg/L	0.05	0.05	0.05	0.05	
Lead (i)	mg/L	0.05	0.05	0.05	0.05	
Total Mercury (i)	mg/L	0.002	0.002	0.002	0.002	0.002
Organophosphate	mg/L	nil	nil	nil	nil	nil
Aldrin	mg/L	0.001	0.001	-	-	-
DDT	mg/L	0.05	0.05	-	-	-
Dieldrin	mg/L	0.001	0.001	-	-	-
Heptachlor	mg/L	nil	nil	-	-	-
Lindane	mg/L	0.004	0.004	-	-	-
Toxaphane	mg/L	0.005	0.005	-	-	-
Methoxychlor	mg/L	0.10	0.10	-	-	-
Chlordane	mg/L	0.003	0.003	-	-	-
Endrin	mg/L	nil	nil	-	-	-
PCB	mg/L	0.001	0.001	-	-	-

- Note: 1. Limiting values of organosphosphates and organochlorines may in the meantime serve as guidelines in the interim period pending the procurement and availability of necessary laboratory equipment. For Barium, Cobalt, Flouride, Iron, Lithium, Manganese, Nickel, Selenium, Silver and Vanadium, the 1978 NPCC Rules and Regulations, Section 69 may be considered.
 - 2. For footnotes please refer to Table 1.

(c) <u>Coastal and Marine Waters Criteria</u>

1. Conventional and Other Pollutants Affecting Aesthetics and Oxygen Demand. The criteria for Class SA, SB, and SD are found in Table 3.

TABLE 3 – WATER QUALITY CRITERIA FOR CONVENTIONAL AND OTHER POLLUTANTSAFFECTING AESTHETICS AND EXERTING OXYGEN DEMAND FOR COASTALAND MARINE WATERS (A)

PARAMETER	UNIT	CLASS SA	CLASS SB	CLASS SC	CLASS SD
Color	PCU	(c)	(c)	(c)	(c)
Temperature (d) (max. rise in deg. Celsius)	°C rise	3	3	3	3
pH (range) Dissolved oxygen (e) (Minimum)	% satn mg/L	6.5-8.5 70 5.0	6.0-8.5 70 5.0	6.0-8.5 70 5.0	6.0-9.0 50 2.0
5-Day 20°C BOD	mg/L	3	5	7(10)	-
Total Suspended Solids	mg/L	(f)	(g)	(g)	(h)
Surfactants (MBAS)	mg/L	0.2	0.3	0.5	-
Oil/Grease (Petroleum Ether Extract)	mg/L	1	2	3	5
Phenolic Substances as Phenols	mg/L	nil	0.01	(1)	-
Total Coliforms	MPN/100 mI	70 (m)	1,000 (m)	5,000 (m)	-
Fecal Coliforms	MPN/100	nil	200 (m)	-	-
Copper	mg/L	-	0.02 (n)(o)	0.05 (0)	-

Note: For footnotes please refer to Table 1.

2. Toxic and Other Deleterious Substances. The maximum limits for toxic and other deleterious substances for waters classified as Class SA, SB, SC and SD waters are found in Table 4.

PARAMETER	UNIT	CLASS SA	CLASS SB	CLASS SC	CLASS SD
Arsenic (i)	mg/L	0.05	0.05	0.05	-
Cadmium (i)	mg/L	0.01	0.01	0.01	-
Chromium (i) (hexavalent)	mg/L	0.05	0.1	0.1	-
Cyanide	mg/L	0.05	0.05	0.05	-
Lead (i)	mg/L	0.05	0.05	0.05	-
Total Mecury (i)	mg/L	0.002	0.002	0.002	-
Organophosphate	mg/L	nil	nil	nil	-
Aldrin	mg/L	0.001	-	-	-
DDT	mg/L	0.05	-	-	-
Dieldrin	mg/L	0.001	-	-	-
Heptachlor	mg/L	nil	-	-	-
Lindane	mg/L	0.004	-	-	-
Toxaphane	mg/L	0.005	-	-	-
Methoxychlor	mg/L	0.10	-	-	-
Chlordane	mg/L	0.003	-	-	-
Endrin	mg/L	nil	-	-	-
РСВ	mg/L	0.001	-	_	_

TABLE 4 – WATER QUALITY CRITERIA FOR TOXIC AND OTHER DELETERIIOUS SUBSTANCES FOR COASTAL AND MARINE WATERS (For the Protection of Public Health)

Note: 1. Limiting the values of organophosphates and organochlorines may in the meantime serve as guidelines in the interim period pending the procurement and availability of necessary laboratory equipment. For Barium, Cobalt, Flouride, Iron, Lithium, Manganese, Nickel, Selenium, Silver and Vanadium, the 1978 NPCC Rules and Regulations, Section 69 may be considered.

2. For footnotes please refer to Table 1.

ADMINISTRATIVE ORDER No. 26-AS. 1994

SUBJECT: Philippine National Standards for Drinking Water 1993 under the provision of Chapter II, section 9 of PD 856, otherwise known as the Code on Sanitation of the Philippines.

To implement the provisions of section 9, otherwise known as the Prescribed Standards Procedures of Chapter II of the Code on Sanitation of the Philippines, PD 856, this Philippine National Standards for Drinking Water 1993 thereby revises and updates the 1978 National standards for Drinking Water.

The Philippine National Standards for Drinking Water 1993 (PNSDW 1993) is designed to guide the Waterworks Officials, Developers and Operators of Water Supply Systems both Government and Private entities, health and sanitation authorities and the general public and all other concerned.

The new standards cover requirements for the acceptable values of the determined parameters in measuring water quality. These parameters include microbiological, physical, chemical and radiological compositions of the water. The standard also delineates values established in conforming with the medical and health implication of the parameters as opposed to values established purely to satisfy aesthetic requirements.

	Source and Mode of Supply	Bacteria	Standard Value (No./100mL)
a)	All drinking water supplies under all circumstances (Level I, II and III, bottled and Emergency Water Supplies)	E. Coli or Thermotolerant (fecal) coliform bacteria	0
b)	Treated water entering the distribution system	E. Coli or Thermotolerant (fecal) coliform bacteria	0
c)	Treated water in the distribution system	E. Coli or Thermotolerant (fecal) coliform bacteria	0
		Total Coliform	Must not be detectable in any 100mL sampler. In case of large supplies where sufficient samples are examined, it must not be present in 95% of samples taken throughout any twelve month period

SECTION 3. STANDARD PARAMETERS AND VALUES FOR DRINKING-WATER QUALITY

Table 3.2 Standard Value for Biological Organisms

Constituents	Permissible Limit
Total count/mL	10

Table 3.3 Standard Values for Physical and Chemical Quality: Health Significance

Constituent	Maximum Level (mg/L)
Antimony	0.005
Arsenic	0.01
Barium	0.7
Boron	0.3
Cadmium	0.003
Chromium	0.05
Cyanide	0.07
Flouride	1.0
Lead	0.01
Mercury (total)	0.001
Nitrate as NO3-	50
Nitrate as NO2-	3
Selenium	0.01

A. Inorganic Constituents

B. Organic Constituents (Pesticide)

Constituents	Maximum Level (mg/L)
Aldrin & Dieldrin	0.03
Chlordane	0.2
DDT	2
Endrin	0.2
Heptachlor an	0.03
Heptachlor epoxide	
Lindane	2
Methoxychlor	20
Petroleum oils & grease	nil
Toxyphane	5
2,4 - D	30
2,4,5 - T	9

Table 3.4 Standard Values for Physical and Chemical Quality: Aesthetic Quality

Constituent or Characteristics	Maximum Level (mg/L)
Taste	Unobjectionable
Odor	Unobjectionable
Color	5 TCU
Turbidity	5 NTU
Aluminum	0.2
Chloride	250
Copper	1
Hardness	300 (as CaCo3) *
Hydrogen Sulfide	0.05
Iron	1
Manganese	0.5
PH	6.5-8.5
Sodium	200*
Sulfate	250
Total Dissolved Solids	500
Zinc	5*

	Constituents	Maximum Level (mg/L)
a.	Disinfectant	
	Chlorine (residual)	0.2-0.5
b.	Disinfectant By-Products	
	Bromate	0.025
	Chlorite	0.2
	2,4,6 trichlorophenol	0.2
	Formaldehyde	0.9
	Phenolic Substances	0.001
	Bromoform	0.1
	Dibromochloromethane	0.1
	Bromodichloromethane	0.06
	Chloroform	0.2

Table 3.5 Standard Values for Disinfectants and Disinfectant By-Products

* - Secondary Standards: compliance with the standard and analysis are not obligatory TCU – True Color Unit

NTU – Nephelometric Turbidity Unit

Table 3.6Chemicals of No Health Significance at Concentrations
Normally Found in Drinking Water

Asbestos -	In consonance with the findings of WHO, the			
	Department of Health does not prescribe any standard values for these compounds since they are not hazardous to human health at concentrations normally found in drinking			
Silver Tin				

Table 3.7	Standard	Values	for	Radiological	Constituents

Constituents	Activity Level (Bq/L)
gross alpha	0.1
gross beta activity	1

COMMON NAME		LOCAL NAME	SCIENTIFIC NAME	CITES
				APPENDIX
А.	FAUNA			
	I. MAMMALIA			
1.	Dugong	Dugong	Dugong dugon	Ι
2.	Tamaraw	Tamaraw	Anoa Mindorensis	Ι
3.	Ant Eater	Pangolin	Manis javanica	II
4.	Philippines Deer **	Usa	Cervus sp.	
5.	Mouse Deer **	Pilandok	Tragulus nigricans	н
6. 7	Philippine Tarsier	Malmag/Mago	larsius philippensis	II I
/. o	Union Deer	Usa	Axis calamiansis	1
ð.	water Bullalo	Cimaron Tali rabbali	Bubalus moellendorii	
0	Mindanao Gymnure	1 all-lall0all		
9. 10	Philippine Monkey	Booey	Podogymura truei	
10.	T imposite Workey	Tsonggo	Macaca fascialensis	П
	II. AVIES	13011550		п
11.	Philippine Eagle	Aguila	Pithecophaga jefferji	Ι
12.	Philippine Falconet	Dumagat	Microhierax e. erythrogon	II
13.	Peregrine Falcon	Dumagat	Falco peregrinus	Ι
14.	Palawan Peacock Peasant	Bartik	Polyplectron emphanuu	Ι
15.	Spotted Green Shank		Tringa guttifera	Ι
16.	Pygmy Curlew	Balangkawitan	Numenius minutus	II
17.	Nicobar Pigeon	Siete Colores	Caloenas nicobarica	l
18.	Mindoro Imperial Pigeon	Balud	Ducula mindorensis	
19.	Calabara	Punalada	Gallicocumba luzonica	
20.	Calabero Philippine Cockatoo	Katala	Cacatua hagaiatura pygia	
$\frac{21}{22}$	Philippine Hanging Parakeet	Kalasisi	Loriculus philippensis	П
22.	Blue headed Parrot	Kolusisi	Loneurus phinippensis	11
24.	Short-tailed parrot	Loro de Paleta	Prioniturus montanus	П
	r		Psittaciformes spp.	
25.	Parrots (All species)	Loro	Balbopsittacus l.	II
26.	Kochs Pitta	Liaco	Pitta kochi	Ι
27.	Owl	Kuwago	Strigiformes spp.	II
28.	Giant Scops Owl	Kuwago	Otus gurneyi	Ι
29.	Scops Owl	Kuwago	Otus scops longicarnis	II
30.	Rufous Scops Owl	Kuwago	Otus rufescens buibidgin	II
31.	Oriental Screet Owl	Kuwago	Otus bakkamoena Megalotis	II
32.	Phil. Hornes Owl	Kuwago	Bubo philippensis	II H
33.	Phil. Boobook Owl	Kuwago	Minox p. philippensis	II H
34.	Phil. Hawk Owl	Kuwago	Minox scutulata randi	
35. 26	Short lared Owl	Kuwago Kuwago	Agia f. flammana	
30.	Rufous Hornhill	Kuwago Kalaw	Asio I. Hammens Buceros hydrocoray	П
37.	Cebu Black Shama **	Silov	Consychus cebuensis	11
39	Ashy Ground Trush *	Silvy	Zoothera cinerea	
40	Eastern Sarus Crane	Tipol	Grus antimone sharphi	I
		·r · -		_
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LIST OF RARE AND ENDANGERED SPECIES OF WILDLIFE (A)

III. REPTILIA			
41. Leatherback Turtle ***	Pawikan	Dermochelys coriacea	Ι
42. Green Sea Turtle ***	Pawikan	Chelonia Mydas	Ι
43. Hawsbill Turtle ***	Pawikan	Fretmochelys imbricata	Ι
44. Olive-backed or Pacific Ridley's	Pawikan	Lepidochelys olivacea	Ι
Turtle ***			
45. Loggerhead Turtle ***	Pawikan		
46. Soft Shelled or Freshwater Turtle	Bao	Trionyx sp.	
***		Crocodylus novaeguineae	
47. Philippine Crocodile	Buwaya	mindorensis	Ι
48. Saltwater or Estuarine Crocodile	Buwaya	Crocodylus porosus	Ι
49. Lizards			
50. Water Monitor Lizard	Bayawak	Varianidae Spp.	II
51. Grains Monitor Lizard	Bayawak	Varanus salvator	II
52. Python	Butaan	Varanus grayi	II
	Sawa/Bitin	Python reticulatus	II
IV. INSECTA			
Mountain Apollo Butterfly			
		Parnassius apollo	II
Birdwing Butterfly		Trigonopcera Spp. Troiden	
		Spp.	II

TABLE I –1 LIST OF RARE AND ENDANGERED SPECIES OF WILDLIFE (B)

	COMMON NAME	LOCAL NAME	SCIENTIFIC NAME	CITES APPENDIX
B.	FLORA			
1.	Sander's Alocasia		Alocasia Sanderana	Ι
2.	Striped Alocasia		Alocasia Sanderana	Ι
3.	Pitcher Plant		Nepenthes rajah	Ι
4.	Orchids		Orchidaceae Spp.	II
5.	Bungang Ipod (Palm)		Arcea Ipod	II
			Phoenix hanceana var.	
6.	Voyavoy		Philippensis	II
7.	Igam		Podocanpus costahis	Ι
8.	Calakab		Sadaceae chamberlainii	II
9.	Tagbak		Pedichium philippensis	Ι
10.	Cycas or Pitogo (All Species)		Cycadeceae Spp.	II
11.	Ferns (All Species)		Cystheaceae Spp.	II
12.	Aloe or sabila		Aloe Spp.	II
13.	Cactus		Caotaceae Spp.	II

Notes:

- * Listed in the EED Data Book, International Union for the Conservation of Nature and Natural Resources (IU)
- ** BFD List of Rare and Endangered Species of Wildlife
- *** Banned Species per MMR Administrative Order No. 12; Series of 1979.

Source: DENR Protected Areas and Wildlife Bureau