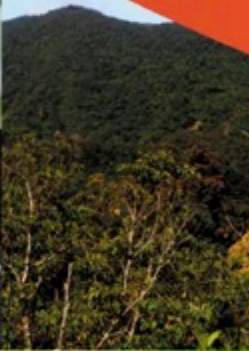




Negros Island Biodiversity Strategy and Action Plan



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Negros Island Biodiversity Strategy and Action Plan





NEGROS ISLAND BIODIVERSITY STRATEGY AND ACTION PLAN

**Published by Biodiversity Management Bureau (BMB)
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For more information on PBCFI and BMB, please contact:

Philippines Biodiversity Conservation Foundation Inc.

c/o Negros Forest Ecological Foundation Inc., South Capitol Road, Bacolod City 6100, Philippines

Tel/Fax: +63 34 435 8209

e-mail: lmjpaguntalan@pbcfi.org.ph or info@pbcfi.org.ph

Website: www.pbcfi.org.ph

Facebook page: Philippines Biodiversity Conservation Foundation Inc.

Biodiversity Management Bureau

Department of Environment and Natural Resources

Ninoy Aquino Parks and Wildlife Center, Diliman, 1100 Quezon City Philippines

Tel: +(63 2) 9246031-35; +(63 2) 9240109

e-mail: bmb@bmb.gov.ph

Website: www.bmb.gov.ph

Facebook page: DENR-Biodiversity Management Bureau

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Definition of terms

Conservation	– means preservation and sustainable utilization of wildlife and/or maintenance, restoration and enhancement of the habitat
Critically endangered	– refers to species or subspecies that is facing extremely high risk of extinction in the wild in the immediate future
Data deficient	– refers to a species or subspecies that has inadequate information to make a direct or indirect assessment of its risk of extinction based on its distribution and/or population status
Endemic	– means species or subspecies which is naturally occurring and found only within specific areas in the contrary
Endemic Bird Areas (EBA)	– Critical regions of the world for the conservation of restricted-range bird species
Endangered	– refers to species or subspecies that is not critically endangered but whose survival in the wild is unlikely if the causal factors continue operating
Exotic	– means species or subspecies which do not naturally occur in the country
Extinct	– species or subspecies that is no longer in existence where all living members have died out
Herpetofauna	– reptiles and amphibians in a particular habitat, area or region
Important Bird Areas (IBA)	– Globally important sites for the conservation of bird species.
Introduction	– Means bringing species into the wild that is outside its natural habitat.
Key Biodiversity Areas (KBA)	– Sites contributing significantly to the global persistence of biodiversity.
Least Concern	– A category on the IUCN Red List of Threatened Species which indicates that a taxon has been evaluated against the Red List criteria and does not qualify for Critically Endangered, Endangered, Vulnerable or Near Threatened. Widespread and abundant taxa are included in this category.
National Park	– refers to a forest reservation essentially of natural wilderness character which has been withdrawn from settlement, occupancy or any form of exploitation except in conformity with approved management plan and set aside as such exclusively to conserve the area or preserve the scenery, the natural and historic objects, wild animals and plants therein and to provide enjoyment of these features.
Protected area	– refers to identified portions of land and water set aside by reason of their unique physical and biological significance, managed to enhance biological diversity and protected against destructive human exploitation.

Definition of terms

Ramsar Sites	– Wetlands protected by national governments to fulfil their obligations under the Convention on Wetlands of International Importance (commonly called the Ramsar Convention).
Restricted-range	– species or subspecies that has a total world distribution range size estimated to be less than 50,000 square kilometers
Threatened species	– a general term to denote species or subspecies considered as critically endangered, endangered, vulnerable or other accepted categories of wildlife whose population is at risk of extinction
Vulnerable	– refers to species or subspecies that is not critically endangered or endangered but is under threat from adverse factors throughout its range and is likely to move to the endangered category in the near future
Watershed	– the land area that drains into a particular watercourse or body of water. Sometimes used to describe the dividing line of high ground between two catchment basins.
Wildlife	– means wild form and varieties of flora and fauna, in all developmental stages, including those which are in captivity or are being bred or propagated

List of Acronyms

AIPLS	Apo Island Protected Landscape and Seascape
BFAR	Bureau of Fisheries and Aquatic Resources
BMB	Biodiversity Management Bureau
BMS	Biodiversity Monitoring System
BTLNP	Balinsasayao Twin Lakes Natural Park
CBD	Convention on Biological Diversity
CEPA	Communication, Education and Public Awareness
CITES	Convention on the International Trade of Endangered Species of Flora and Fauna
CLUP	Comprehensive Land Use Plan
CMS	Convention on Migratory Species
CR	Critically Endangered
DA	Department of Agriculture
DAO	Department Administrative Order
DAR	Department of Agrarian Reform
DBM	Department of Budget Management
DENR	Department of Environment and Natural Resources
DepEd	Department of Education
DFA	Department of Foreign Affairs
EAAF	East Asian-Australasian Flyway
EMB	Environmental Management Bureau
EN	Endangered
ENRO	Environment and Natural Resources Office
ENRD	Environment and Natural Resources Division
FMB	Forest Management Bureau
GEF	Global Environment Facility
HLURB	Housing and Land Use Regulatory Board
IAS	Invasive Alien Species
ICC	Indigenous Cultural Communities
ICCA	Indigenous Community Conserved Area
ICM	Integrated Coastal Management
ICRMP	Integrated Coastal Resources Management Project
IEC	Information, Education and Communication
IHWFR	Ilog-Hilabangan Watershed Forest Reserve
IP	Indigenous Peoples
IRR	Implementing Rules and Regulations
IUCN	International Union for the Conservation of Nature
KBA	Key Biodiversity Area Km Kilometer
LC	Least Concerned
LCA	Local Conservation Area
MPA	Marine Protected Area
MKNP	Mt. Kanla-on Natural park
NAMRIA	National Mapping and Resource Information Authority
NBSAP	National Biodiversity Strategy and Action Plan
NIBSAP	Negros Island Biodiversity Strategy and Action Plan
NCIP	National Commission on Indigenous Peoples

List of Acronyms

NIPAS	National Integrated Protected Areas System
NEDA	National Economic and Development Authority
NGO	Non-government Organization
NGP	National Greening Program
NNNP	Northern Negros Natural Park
NOCWCA	Negros Occidental Coastal Wetlands Conservation Areas
NOCWCAMA	Negros Occidental Coastal Wetlands Conservation Areas Management Alliance
NT	Near Threatened
OTS	Other Threatened Species
OWS	Other Wildlife Species
PA	Protected Area
PACBRMA	Protected Area Community-based Resource Management Agreement
PAMB	Protected Area Management Board
PAWB	Protected Areas and Wildlife Bureau
PBCP	Philippine Biodiversity Conservation Priorities
PBCFI	Philippine Biodiversity Conservation Foundation, Inc.
PBSAP	Philippine Biodiversity Strategy and Action Plan
PD	Presidential Decree
PDC	Provincial Development Council
PDP	Philippine Development Plan
PEMO	Provincial Environment Management Office
PES	Payment for Ecosystem Services
PIA	Philippine Information Agency
PPDO	Provincial Planning and Development Office
PRRCFI	Philippine Reef and Rainforest Conservation Foundation, Inc.
PO	Peoples Organization
RA	Republic Act
RCC	Regional Cave Committee
RDC	Regional Development Council
SEN KBA	Southeastern Negros Key Biodiversity Areas
SMR	Sagay Marine Reserve
SWN KBA	Southwestern Negros Key Biodiversity Areas
TSPS	Tañon Strait Protected Landscape and Seascape
UN	United Nations
UNEP	United Nations Environment Programme
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
VU	Vulnerable



Summary

A total of 150 participants from 34 local government units of Negros Oriental and Negros Occidental, non-government organizations, Peoples Organizations, academic institutions, private sector, civil society, youth and individuals who had interest in biodiversity conservation participated in the first ever Negros Island Biodiversity Strategy and Action Plan held last 4-5 April 2018 in L'Fisher Hotel, Bacolod City. The participants collectively set quantifiable targets to address numerous threats and challenges on biodiversity in the two provinces. Mainstreaming biodiversity conservation in Negros Island development agenda provided an opportunity to the provinces of Negros Occidental and Negros Oriental to address challenges in conservation. More specifically, it promoted biodiversity conservation by harmonizing all plans developed in both provinces and created Negros Island Biodiversity Strategy and Action Plan (NIBSAP).

This also aligned the islands and provincial commitment to Philippines Biodiversity Strategic Action Plan (PBSAP) and associated international conventions Philippines has ratified. NIBSAP is the first island-wide biodiversity related action plan created pursuant to Presidential Memorandum Order No. 289 of 1995 directing the integration of the Philippines Strategy for Biological Diversity Resource Management and Development by virtue of the Executive Order 578 of 2006 Establishing the National Policy on the Biological Diversity.

The development and implementation of NIBSAP was organized by the Department of Environment and Natural Resources, through its United Nations Development Program – Global Environment Facility funded Biodiversity Financing Initiative, Philippines Biodiversity Conservation Foundation Inc., and the provincial governments of Negros Occidental and Negros Oriental. The activity was supported by the United States Agency for International Development (USAID) through the Philippine-American Fund Project.

The outputs of NIBSAP were presented and validated during the 6th National Report and Regional Biodiversity Strategy and Action Planning workshop for the provinces within Regions 6 and 7 last April 26-28, 2018 in Montebello Hotel, Cebu City. In line with this, the outputs of the Negros workshops were presented for validation and comments as well as develop the Negros Biodiversity Strategy and Action Plan into an Operational Plan.

The results of the workshops were presented to the Provincial Boards of Negros Occidental and Negros Oriental; to the League of Environment Officers of Negros Oriental and Occidental; Regional Land Use Committee of Region 6; to the key staff of the Provincial Environment and Management Office of Negros Occidental and Environment and Natural Resources Division of Negros Oriental. E-file copies of the NIBSAP were also circulated to each Local Government in Negros Island as well as the Protected Areas Offices within Negros Island.

Introduction

The Philippines is one of the few countries in the world that is both a mega-diversity nation and a biodiversity hotspot. Over the years, the impact of biodiversity loss has cost billions of pesos lost in the destruction of fisheries, crops, infrastructures, homes and lives of the people. Negros Island is among those areas affected by severe flooding, super typhoons, severe drought, sea level rise and storm surges as well as loss of biodiversity and negative impact on the economy. This is exacerbated with the absence of integrated planning and inadequate capacity and commitment of local government units to integrate biodiversity conservation into local development and land use planning at municipal, city and provincial level.

Mainstreaming biodiversity conservation in Negros Island development agenda will provide opportunity to the provinces of Negros Occidental and Negros Oriental to address challenges in conservation. More specifically, it will promote biodiversity conservation by harmonizing all plans developed in both provinces and create Negros Island Biodiversity Strategy and Action Plan (NIBSAP).

This will also align the island and provincial commitments to Philippines Biodiversity Strategic Action Plan (PBSAP) and associated international conventions Philippines has ratified. NIBSAP will be the first island-wide biodiversity related action plan created pursuant to Presidential Memorandum Order No. 289 of 1995 directing the integration of the Philippines Strategy for Biological Diversity Resource Management and Development by virtue of the Executive Order 578 of 2006 *Establishing the National Policy on the Biological Diversity*. The development of NIBSAP is directed towards fulfilling three overall objectives:

Negros Island Goal 1: Participatory assessment of the accomplishments of Negros stakeholders to contribute to the global Aichi Targets and biodiversity planning to develop the Negros Island Biodiversity Strategic Action Plan in response to the Philippines Biodiversity Strategic Action Plan.

Negros Island Goal 2: Develop provincial biodiversity plans based on the biodiversity importance and value of Negros Island and promoting ecosystem-based approach in conservation.

Negros Island Goal 3: Strengthen Provincial plans for resource mobilization and conservation of biodiversity in the island. This is a golden opportunity for Filipinos to work and contribute to conserving the country's biodiversity and to sustained economic growth.

Global Biodiversity Importance of Negros Island

The central western Philippine Islands made up of Negros, Panay, Guimaras, Cebu, Masbate and Ticao are considered Endemic Bird Area (EBA). The islands were once completely covered with forests with tropical lowland dipterocarp forests at c.400 m. giving way to a more open forest at 650 – 1,000 m and upwards, with mossy forests usually over 1,200 m (Collins *et al* 1991; Dickinson *et al* 1991).

In terms of mammals, Negros shared a number of species with Panay, Cebu, Masbate, Guimaras and Ticao including the Visayan (Philippine) spotted deer *Rusa alfredi* and Visayan warty pig *Sus cebifrons*. Interestingly, Negros and Cebu shares similar species not shared with the rest of the West Visayas islands including Philippine tube-nosed fruit bat *Nyctimene rabori* and Philippine bare-backed fruit bat *Dobsonia chapmani*.

Single-island endemic species also occurs in this faunal region. The Negros shrew *Crocidura negrina* only occurs in Negros while the Panay cloud rat *Crateromys heaneyi* occurs only in Panay. Cebu also has its own share of endemic mammal – the extinct Cebu pygmy buffalo *Bubalus cebuensis*.

The impact of forest loss is well demonstrated in the island of Cebu where extinction of species was already felt. Two of the largest mammals (Visayan or Philippine Spotted deer and Visayan warty pig) in West Visayas faunal region are now extinct on Cebu, Masbate, Guimaras and Ticao. The remaining populations of endemic species exist in fragmented forest patches in Negros and Panay that are widely distributed from each other.

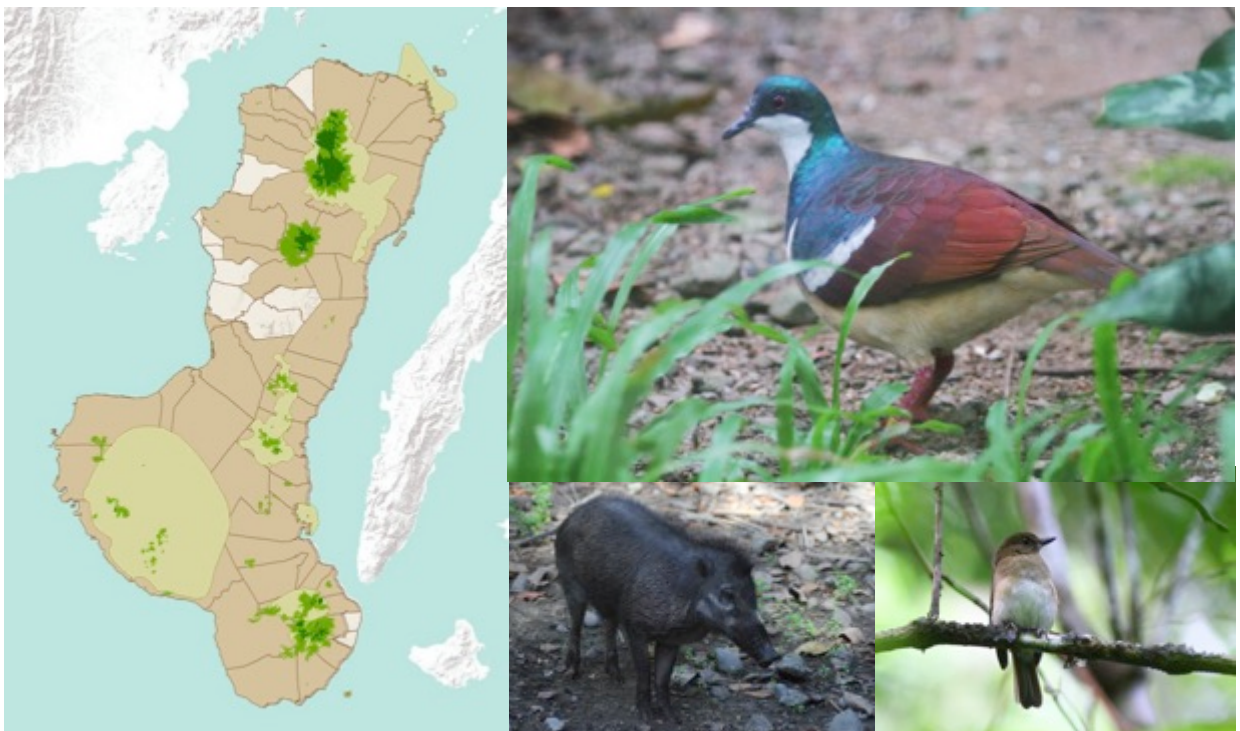


Fig. 1: (left) Map of Negros showing key biodiversity areas (DENR-BMB), protected areas and forest cover. (upper right) Negros Bleeding Heart, (lower left to right) Visayan warty pig and White-throated Jungle-flycatcher. Photos by: Godfrey Jakosalem.

Threatened Species

Table 1. List of threatened endemic mammals recorded in Western Visayas. Information were taken from Heaney *et al* 2010; Paguntalan *et al* 2004; Alcala *et al* 2004). Note: * present, Ex Extinct.

Species	IUCN	DENR	Panay	Negros	Cebu	Guimaras	Masbate	Ticao
Visayan (Philippine) Spotted Deer <i>Rusa alfredi</i>	EN	CR	√	√	Ex	Ex	Ex	
Visayan Warty Pig <i>Sus cebifrons</i>	CR	CR	√	√	Ex	Ex	Ex	
Philippine Leopard Cat <i>Prionailurus bengalensis rabori</i>	VU	CR	√	√	√		√	
Panay Cloud Rat <i>Crateromys heaneyi</i>	EN	CR	√					
Negros Shrew <i>Crocidura negrina</i>	EN	CR		√				
Cebu Pygmy Buffalo <i>Bubalus Cebuensis</i>	EX	CR	√		EX			
Visayan (Philippine) Bare-backed Fruit Bat <i>Dobsonia Chapmani</i>	CR	CR		√	√			
Philippine Tube-nosed Fruit Bat <i>Nyctimene rabori</i>	EN	EN		√	√			
Golden-crowned Flying Fox <i>Acerodon jubatus</i>	EN	CR		√	√			
Little Golden-mantled Flying Fox <i>Pteropus pumilus</i>	NT	VU	√	√	√		√	
Total number of threatened species			6	8	5	?	2	?



Fig. 2: (left) Visayan Warty Pig *S. cebifrons*: Roland Seitre, Philippine Tube-nosed Fruit Bat *N. rabori*: Godfrey Jakosalem, Panay Cloud Rat *C. heaneyi*: PBCFI, Visayan (Philippine) Bare-backed Fruit Bat *D. chapmani*: Marisol dG. Pedregosa.

A number of species of birds known to occur on West Visayas only occurs in Negros and Panay. This includes the two hornbills (Visayan tarictic hornbill *Penelopides panini* and Rufous-headed hornbill *Rhabdotorrhinus waldeni*), Negros bleeding-heart pigeon *Gallicolumba keyi*, Black-belted Flowerpecker *Dicaeum haematostictum*. Flame-templed babbler *Dasycrotapha*

Threatened Species

speciosa. White-winged Cicadabird *Edolisoma ostenta* and White-throated jungle flycatcher *Rhinomyias albigularis* (table 2).

Table 2. Distribution patterns of restricted-range, threatened and endemic species of birds Note: * means present in the area while X means extinct on the island.

Species	IUCN	Propose DENR	Panay	Negros	Cebu	Guimaras	Masbate	Ticao
Philippine Megapode <i>Megapodius cumingii</i>	LC	VU	√	√	√	√	√	√
Philippine duck <i>Anas luzonica</i>	VU	EN	√	√	√	√	√	
Eurasian Wigeon <i>Mareca penelope</i>	LC	VU		√				
Philippine Collared Dove <i>Streptopelia dussumieri</i>	VU	EN	√	√	√	√	√	√
Negros bleeding-heart pigeon <i>Gallicolumba keayi</i>	CR	CR	√	√				
Nicobar Pigeon <i>Caloenas nicobarica</i>	NT	VU		√				
Grey-breasted Brown Dove <i>Phapitreron maculipectus</i>	NT	VU	√	√				
Cebu brown dove <i>Phapitreron frontalis</i>	CR	CR			√			
Philippine Green Pigeon <i>Treron axillaris</i>	LC	VU	√	√	√			
Pink-bellied Imperial Pigeon <i>Ducula poliocephala</i>	NT	VU	√	√	√			
Spotted Imperial Pigeon <i>Ducula carola</i>	VU	VU		√				
Negros Fruit Dove <i>Ptilinopus arcanus</i>	CR	CR		√?				
Philippine Spinetail <i>Mearnsia picina</i>	NT	VU	√	√	√			
Hawaiian Petrel <i>Pterodroma sandwichensis</i>	VU	OVS		√				
Asian Woollyneck <i>Ciconia episcopus</i>	VU	OTS		√				
Black-faced Spoonbill <i>Platalea minor</i>	EN	EN			√			
Japanese Night-heron <i>Gorsachius goisagi</i>	EN	EN		√				
Chinese Egret <i>Egretta eulophotes</i>	VU	VU	√	√	√	√	√	
Christmas Frigatebird <i>Fregata andrewsi</i>	CR	CR	√					
Oriental Darter <i>Anhinga melanogaster</i>	NT	VU	√	√				
Beach Thick-knee <i>Esacus magnirostris</i>	NT	EN		√				
Malay Plover <i>Charadrius peronii</i>	NT	VU	√	√	√			
Far Eastern Curlew <i>Numenius madagascariensis</i>	EN	EN	√	√	√	√		
Bar-tailed Godwit <i>Limosa lapponica</i>	NT	VU	√	√	√	√		
Great Knot <i>Calidris tenuirostris</i>	EN	EN	√	√	√	√		
Spoon-billed Sandpiper <i>Calidris pygmaea</i>	CR	CR		√				
Asian Dowitcher <i>Limnodromus semipalmatus</i>	NT	VU	√	√	√			
Spotted Redshank <i>Tringa erythropus</i>	LC	EN		√	√			
Brown Noddy <i>Anous stolidus</i>	LC	VU	√	√	√			
Black Noddy <i>Anous minutus</i>	LC	EN	√	√	√			
Sooty Tern <i>Onychoprion fuscatus</i>	LC	VU		√	√			
Negros Scops Owl <i>Otus nigrorum</i>	VU	VU	√	√				
Chocolate Boobook <i>Ninox randi</i>	NT	VU	√	√	√	√		

Threatened Species

Table 2. Distribution patterns of restricted-range, threatened and endemic species of birds Note: * means present in the area while X means extinct on the island.

Species	IUCN	Propose DENR	Panay	Negros	Cebu	Guimaras	Masbate	Ticao
Cebu hawk owl <i>Ninox rumseyi</i>	EN	EN			√			
Southern Philippine Hawk Eagle <i>Nizaetus pinskeri</i>	EN	EN	√	√				
Grey-headed Fish Eagle <i>Haliaeetus ichthyaetus</i>	NT	VU		√				
Rufous-headed hornbill <i>Rhabdotorrinus waldeni</i>	CR	CR	√	√				
Visayan tarictic hornbill <i>Penelopides panini</i>	EN	EN	√	√				
Visayan tarictic hornbill <i>Penelopides panini ticaoensis</i>	EN	EN					√?	X
Southern Indigo-banded Kingfisher <i>Ceyx nigrirostris</i>	LC	CR	√	√	√			
Rufous-lored kingfisher <i>Todiramphus winchelli</i>	VU	VU	√	√	√			
Yellow-faced flameback <i>Chrysocolaptes xanthocephalus</i>	EN	EN	√	√			√	
Blue-naped Parrot <i>Tanygnathus lucionensis</i>	LC	CR	√	√				
White-winged Cicadabird <i>Edolisoma ostenta</i>	VU	VU	√	√				
Celestial monarch <i>Hypothymis coelestis</i>	VU	CR		√				
Cebu Streak-breasted Bulbul <i>Hypsipetes monticola</i>	EN	CR			√			
Panay striped babbler <i>Zosterornis latistriata</i>	NT	VU	√					
Negros striped babbler <i>Zosterornis nigrorum</i>	EN	EN		√				
Flame-templed babbler <i>Dasycrotapha speciosa</i>	EN	EN	√	√				
Visayan Shama <i>Kittacincla superciliaris</i>	LC	VU	√	√				
Black Shama <i>Kittacincla cebuensis</i>	EN	EN			√			
Ashy-breasted flycatcher <i>Muscicapa randi</i>	VU	EN		√				
White-throated Jungle flycatcher <i>Rhinomyias albigularis</i>	EN	EN	√	√		?		
Philippine Leafbird <i>Chloropsis flavipennis</i>	VU	CR			x			
Black-belted Flowerpecker <i>Dicaeum haematostictum</i>	VU	VU	√	√				
Cebu flowerpecker <i>Dicaeum quadricolor</i>	CR	CR			√			
Green-faced parrotfinch <i>Erythrura viridifacies</i>	VU	VU		√	√			
Total number of threatened species			33	47	27	8	6	3

All of the restricted-range species (occurs only in one or a few islands) have been recorded from degraded to secondary forests occurring below 1,200 m except for Panay striped babbler *Zosterornis panayensis* and Negros striped babbler *Zosterornis nigrorum* that occur above 1000 m. The restricted-range species show a variety of distribution patterns between the islands with Panay striped-babbler *Z. panayensis* present only on Panay and Negros fruit dove *Ptilinopus arcanus* and Negros Striped Babbler *Z. nigrorum* present only in Negros.

Of the West Visayas islands, Negros also holds the most number of threatened endemic birds with a total of 23 species followed by Panay with 18 and Cebu Island with 12 species.

Threatened Species

Combining all three islands makes West Visayas number one in terms of numbers of Critically Endangered and Endangered species that is endemic to the region.

There is also a remarkable diversity of amphibians, reptiles, invertebrates that are unique to Negros Island. The Negros limbless skink is the only other known skink with uneven number of limbs (two in forelimbs and three in hindlimbs). The Hazel's wrinkled ground frog is also a complex of species that until now still baffles the taxonomists in understanding differences in species.

Table 3. Comparison of number of threatened and endemic species of amphibians and reptiles in Western Visayas. Note that * means present on the island.

Species	IUCN	Propose DENR	Panay	Negros	Cebu	Guimaras	Masbate	Ticao
Negros Cave Frog <i>Platymantis speleaus</i>	EN	EN		√				
Hazel's Wrinkled Ground frog <i>Platymantis hazelae</i>	VU	EN		√				
Negros Sphenomorphus <i>Sphenomorphus arborens</i>	DD			√				
Gigante Wrinkled Ground Frog <i>Platymantis insulatus</i>	CR	CR	√					
Negros Forest Frog <i>Platymantis negrosensis</i>	EN	EN		√				
Panay Forest Frog <i>Platymantis panayensis</i>	EN	EN	√					
Giant Visayan Frog <i>Limnonectes visayanus</i>	VU	VU	√	√		√		
Philippine Sailfin lizard <i>Hydrosaurus pustulatus</i>	VU	VU	√	√	√	√		
Small Broad-tailed Smooth-scaled Gecko <i>Luperosaurus corfieldi</i>	DD		√	√				
Black Slender Tree Skink <i>Lipinia rabori</i>	DD			√				
Madja-as Snake <i>Pseudorabdion talonuran</i>	VU		√					
Madja-as Skink <i>Parvosцинus sisoni</i>	VU		√					
Negros forest dragon <i>Gonocephalus sophiae</i>	DD		√	√		√		
Panay Monitor Lizard <i>Varanus mabitang</i>	EN	EN	√					
Rough-necked Monitor <i>Varanus nuchalis</i>	VU		√	√	√	√	√	√
Spotted-bellied Short-headed Snake <i>Oligodon modestum</i>	VU		√	√				
Canlaon's Blind Snake <i>Typhlops canlaonensis</i>	DD			√				
Negros Spotted Water Snake <i>Tropidonophis negrosensis</i>	VU			√				
Total number of threatened species			11	13	2	4	1	1

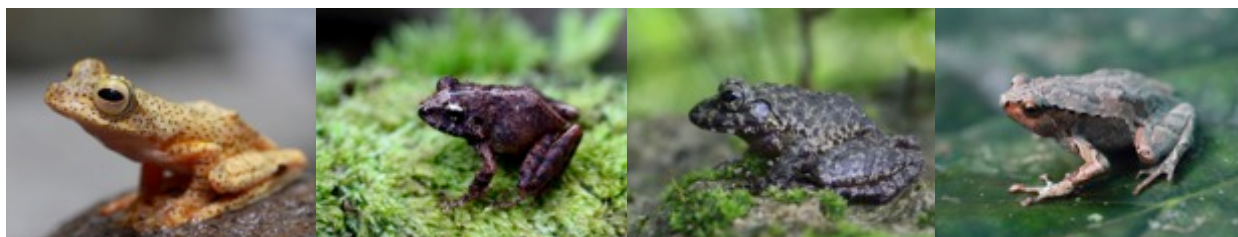


Fig. 1: (left) Panther Flying Frog *Rhacophorus pardalis*, Dumeril's Wrinkled Ground Frog *Platymantis dorsalis*, Negros Cave Frog *Platymantis speleaus* and Philippine Narrowmouth Toad *Kaloula conjuncta*. Photos by Godfrey Jakosalem.



Protected Areas

Protected Areas



View of the eastern side of the island

Jose Alberto C. Señagan

Apo Island Protected Landscape and Seascape

Key biodiversity Area: 163

Region: VII

Island: Apo

Province: Negros Oriental

Municipality: Dauin

Area 691.4 ha

Location 9°4'N 123°16'E

Altitude 200m

PROTECTED AREA STATUS: Apo Island located within the Municipality of Dauin. The marine sanctuary was formally established through a municipal ordinance in 1986 as Apo Island Marine Reserve and given national protection in 9 August 1994 through Presidential Proclamation 438 signed by President Fidel V. Ramos as Apo Island Protected Landscape and Seascape. AIPLS is co-managed by DENR and Municipal Government of Dauin and the local community members of Apo Island. AIPLS was included in the recently declared protected areas under the Expanded National Integrated Protected Areas System Republic Act 11038 of 2018 signed by President Rodrigo Roa Duterte.

Protected Areas



Green Sea Turtle *Chelonia mydas*

Kaila Ledesma Trebol

CONSERVATION IMPORTANCE: Apo Island is one of the first community-managed marine reserve in the Philippines. Fishermen used to be involved in destructive and illegal fishing are now the ones leading the protection and conservation of the marine ecosystem. Through the initiative of Silliman University's Marine Lab, several coral reef conservation projects in 1976 including Apo Island were established. The marine conservation programs introduced by Silliman University through Marine Conservation and Development Program (MCDP) (White and Savina 1986; Alcala 2001) led to a sustainable marine conservation program that allowed non-destructive fishing within the reserve. The program introduces the "no-take" policy within the 0.45 km stretch of coral reef designated as a core zone by the local communities.

The AIPS is home to at least four species of marine turtles e.g. Critically Endangered Hawksbill Sea Turtle *Eretmochelys imbricata*, Endangered Green Sea Turtle *Chelonia mydas*, Vulnerable Olive Ridley Sea Turtle *Lepidochelys olivacea* and Leatherback Sea Turtle *Dermochelys coriacea*). It is also a roosting site of at least two species of flying foxes Large flying fox *Pteropus vampyrus* and Island flying fox *Pteropus hypomelanus* as well as that of Pied Imperial pigeon *Ducula bicolor*.

Protected Areas



View showing the forest and twin lakes of Balinsasayao

Gerrie Mae Flores

Balinsasayao Twin Lakes Natural Park

Key biodiversity Area: 155

Important Bird Area Code: PH063

Endemic Bird Area: 152

Region: VII

Island: Negros

Province: Negros Oriental

Municipalities: Sibulan, San Jose and Valencia

Area: 24,557 ha

Coordinates: 10⁰25'N 123⁰08' E

Altitude: 306-2,465 m

PROTECTED AREA STATUS: Declared under Presidential Proclamation No. 414 on November 23, 2000 signed by President Joseph Ejercito Estrada. Currently BTLNP is included in the Republic Act 11038 of 2018 or the Expanded National Integrated Protected Areas System (E-NIPAS) signed by President Rodrigo Roa Duterte. The park has an estimated 5-4,000 ha of primary and secondary forest.

Protected Areas



Magnificent Sunbird *Aethopyga magnifica*

Philip Godfrey Jakosalem

CONSERVATION IMPORTANCE: Balinsasayao Twin lakes is one of the important forest in Southern Negros hosting several threatened endemic species including: Negros Bleeding-heart *Gallicolumba keayi* (Cr), Rufous-headed Hornbill *R. waldeni* (Cr), Visayan Warty Pig *S. cebifrons* (Cr), Yellow-faced Flameback *C. xanthocephalus* (En), Visayan Hornbill *P. panini* (En), White-throated Jungle Flycatcher *V. albigularis* (En), Southern Philippine Hawk Eagle *N. pinskeri* (En), Flame-templed babbler *Dasyrotapha speciosa* (En), Japanese night heron *G. goisagi* (En), Visayan (Philippine) Spotted Deer *Rusa alfredi* (En), Golden-crowned Flying Fox *A. jubatus* (En), Philippine Tube-nosed Fruit Bat *N. rabori* (En), Negros Shrew *C. negrina* (En), Negros Forest Frog, *Platymantis negrosensis* (En), Mountain Burrowing Snake *Pseudorabdion montanum* (En), Spotted Imperial-pigeon *D. carola* (Vu), White-winged Cicadabird *E. ostentum* (Vu), Black-belted Flowerpecker *Di. haematostictum* (Vu), Visayan Scops-owl *O. nigrorum* (Vu), Pink-bellied Imperial Pigeon *Ducula poliocephala* (Vu), Negros Spotted Water Snake *T. negrosensis* (Vu), Hazel's Forest Frog *P. hazelae* (Vu), Spotted-bellied Short-headed Snake *O. modestum* (Vu), and other threatened species. A new species of mistletoe *Amyema lisae* was discovered in 2017.

Protected Areas



Mt. Kanlaon peak

Philip Godfrey Jakosalem

Mt. Kanlaon Natural Park

Key biodiversity Area: 155

Important Bird Area Code: PH063

Endemic Bird Area: 152

Region: VI

Island: Negros

Province: Negros Occidental and Oriental

Cities/Municipalities: Negros Occidental: San Carlos City, Bago City, La Carlota City;
Municipalities of Murcia and La Castellana; Negros Oriental: Canlaon
City and Vallehermoso

Area: 24,557 ha

Coordinates: 10⁰25'N 123⁰08' E

Elevation: up to 2,465 m

PROTECTED AREA STATUS: Declared as National Park by Presidential Proclamation No. 721 on August 8, 1934 and revised by Proclamation No.1005 On May 8, 1997 signed by President Fidel V. Ramos. On August 11, 2001 it was enacted as a law under Republic Act No. 9154 President Gloria Macapagal-Arroyo. Remaining forests in the park is estimated at 11,475 ha or 46.7% of its total area.

Protected Areas



Flame-templed babbler *Dasyrotapha speciosa*

S. Kieron M. Tan

CONSERVATION IMPORTANCE: Most of the remaining forests are montane including mossy forests from about 1,700 m to the bare peaks of the active volcanoes reaching 2,435 m with several volcanic craters. Lowland forests are observed in Murcia, Bago and sections of San Carlos City.

The park supports populations of threatened endemic species e.g. Negros Fruit Dove *P. arcanus* (Cr), Negros Bleeding-heart *G. keayi* (Cr), Visayan Warty Pig *S. cebifrons* (Cr), Yellow-faced Flameback *C. xanthocephalus* (En), Visayan Hornbill *P. panini* (En), Negros Striped Babbler *Z. nigrorum* (En), White-throated Jungle Flycatcher *V. albigularis* (En), Southern Philippine Hawk eagle *N. pinskeri* (En), Flame-templed babbler *D. speciosa* (En), Japanese Night Heron *G. goisagi* (En), Philippine Tube-nosed fruit bat *N. rabori* (En), White-winged Cicadabird *E. ostentum* (Vu), Black-belted Flowerpecker *D. haematostictum* (Vu), Visayan Scops-owl *O. nigrorum* (Vu), Pink-bellied Imperial Pigeon *D. poliocephala* (Vu), Hazel's Forest Frog *P. hazelae* (Vu), and Spotted-bellied Short-headed Snake *O. modestum* (Vu). A number of threatened flora including Endangered *Dendrobium bullenianum*, *Rafflesia speciosa*, *Cyathea apoensis*, *Dicksonia mollis*, and *Selaginella cf. apoensis*.

Protected Areas



Mass flowering of forest dipterocarp trees in NNNP

Philip Godfrey Jakosalem

Northern Negros Natural Park

Key biodiversity Area: 154

Important Bird Area Code: PH062

Endemic Bird Area: 152

Region: VI

Island: Negros

Province: Negros Occidental

Cities/Municipalities: Cities of San Carlos, Talisay, Silay, Victorias, Cadiz, Sagay, Escalante;
Municipalities of Don Salvador Benedicto, Murcia, EB Magalona, Toboso
and Calatrava.

Area: 70,826.16 ha

Coordinates: 10^o38'N 123^o13'E

Altitude: 400-1,885m

PROTECTED AREA STATUS: Declared by an Administrative Act No. 789 on 28 April 1935 as North Negros Forest Reserve with an original area of 107, 727 ha and reduced to 80,454.50 ha in 1946. It was proclaimed as an initial component of the National Integrated Protected Areas System (NIPAS) in the Philippines in 2004 by President Gloria Macapagal-Arroyo and later proclaimed as Republic Act 11038 of 2018 signed by President Rodrigo Roa Duterte under the Expanded National Integrated Protected Areas System covering 70,826.16 ha. An estimated 20,000 ha of forest remains.

Protected Areas



Visayan Spotted Deer *Rusa alfredi*

Philip Godfrey Jakosalem

CONSERVATION IMPORTANCE: The NNNP forms part of the largest watershed of the province being the main source of water for 17 municipalities and cities. Two extensive mountain range (Mt. Silay and Mt. Mandalagan) comprise the whole Protected Area. It is the stronghold for populations of threatened endemic species including the Negros Bleeding-heart *G. keayi* (Cr), Rufous-headed Hornbill *R. waldeni* (Cr), Visayan Warty Pig *S. cebifrons* (Cr), Yellow-faced Flameback *C. xanthocephalus* (En), Visayan Hornbill *P. panini* (En), White-throated Jungle Flycatcher *V. albigularis* (En), Southern Philippine Hawk eagle *N. pinskeri* (En), Flame-templed babbler *D. speciosa* (En), Japanese Night Heron *G. goisagi* (En), Visayan (Philippine) Spotted Deer *C. alfredi* (En), Golden-crowned Flying Fox *A. jubatus* (En), Philippine Tube-nosed Fruit Bat *N. rabori* (En), Negros Shrew *C. negrina* (En), Negros Forest Frog, *P. negrosensis* (En), Green-faced Parrotfinch *E. viridifacies* (Vu), Visayan Scops-owl *O. nigrorum* (Vu), Pink-bellied Imperial Pigeon *D. poliocephala* (Vu), White-winged Cicadabird *E. ostentum* (Vu), Black-belted Flowerpecker *D. haematostictum* (Vu), Hazel's Forest Frog *P. hazelae* (Vu), Spotted-bellied Short-headed Snake *O. modestum* (Vu), and a number of other species unique to the island.

Protected Areas



Long-snouted spinner dolphin *Stenella longirostris*

Philip Godfrey Jakosalem

Tañon Strait Protected Seascape

Key biodiversity Area: 158 (Bais Bay); KBA 159 (Moalboal)

Regions: VII and VI Islands

Negros and Cebu Provinces: Cebu, Negros Occidental and Oriental.

Cities/Municipalities: 42 surrounding municipalities and cities in the three provinces of Cebu, Negros Oriental and Negros Occidental

Area: 518,221 ha

PROTECTED AREA STATUS: The largest protected area in the country. Tañon Strait Protected Seascape spans two regions and three Provinces in Cebu, Negros Oriental and Negros Occidental was declared pursuant to Presidential Proclamation No. 1234 by then President Fidel V. Ramos in 1998. Tañon Strait is one of the world's important marine KBA and one of the rich fishing grounds in the Visayas region. It is 160 km long, extending up to the Visayan Sea in the north and to the Bohol Sea/Sulu Sea in the south. Distance between islands ranges from five to 27 km with the narrowest point in the south between Liloan in Santander, Cebu and Sibulan in Negros Oriental. Just recently TSPS was included in the Expanded National Integrated Protected Areas System Republic Act 11038 of 2018 signed by President Rodrigo Roa Duterte.

Protected Areas



Paul Matriano

CONSERVATION IMPORTANCE: About 2.1 million people (NSO 2010) from the 42 surrounding municipalities and cities in the three provinces of Cebu, Negros Oriental and Negros Occidental depend on the abundant resources of Tañon Strait as a source of food and livelihood. It is one of the region's major fishing grounds and supports at least 26,850 fishers operating in the area (Green, et al 2004). The surrounding coastal areas and rich marine biodiversity in the strait has made it a popular tourist destination and area of research.

It is a distinct habitat of the Chambered Nautilus *pompilius* (Hayasaka et al., 1983). Based on Dolar and t al. 2006 TSPS recorded the highest density of Dwarf Sperm Whales *Kogia sima* in the Philippines and the Melon-headed Whale *Peponocephala electra*. TSPS is also host to Omura's Whale *Balaenoptera*, Pygmy Killer Whale *Feresa attenuate*, Short-finned Pilot Whale *Globicepha macrorhynchus*, Long-snouted Spinner Dolphin *Stenella longirostris* and Indo-Pacific Bottlenose Dolphin *Tursiops aduncus*. The seascape host numbers of threatened species including Hawksbill Sea Turtle *Eretmochelys imbricata* (Cr), Green Sea Turtle *Chelonia mydas* (En), Far Eastern Curlew *Numenius madagascariensis* (En), Loggerhead Sea Turtle *Caretta caretta* (Vu), Giant Sperm Whale *Physeter macrocephalus* (Vu), Philippine Duck *Anas luzonica* (Vu), Chinese Egret *Egretta eulophotes* (Vu), and Whale Shark *Rhincodon typus* (Vu).

Protected Areas



Carbin Reef Sandbar

Philip Godfrey Jakosalem

Sagay Marine Reserve

Key biodiversity Area: 153

Region: VI

Island: Negros

Province: Negros Occidental

Cities: Sagay

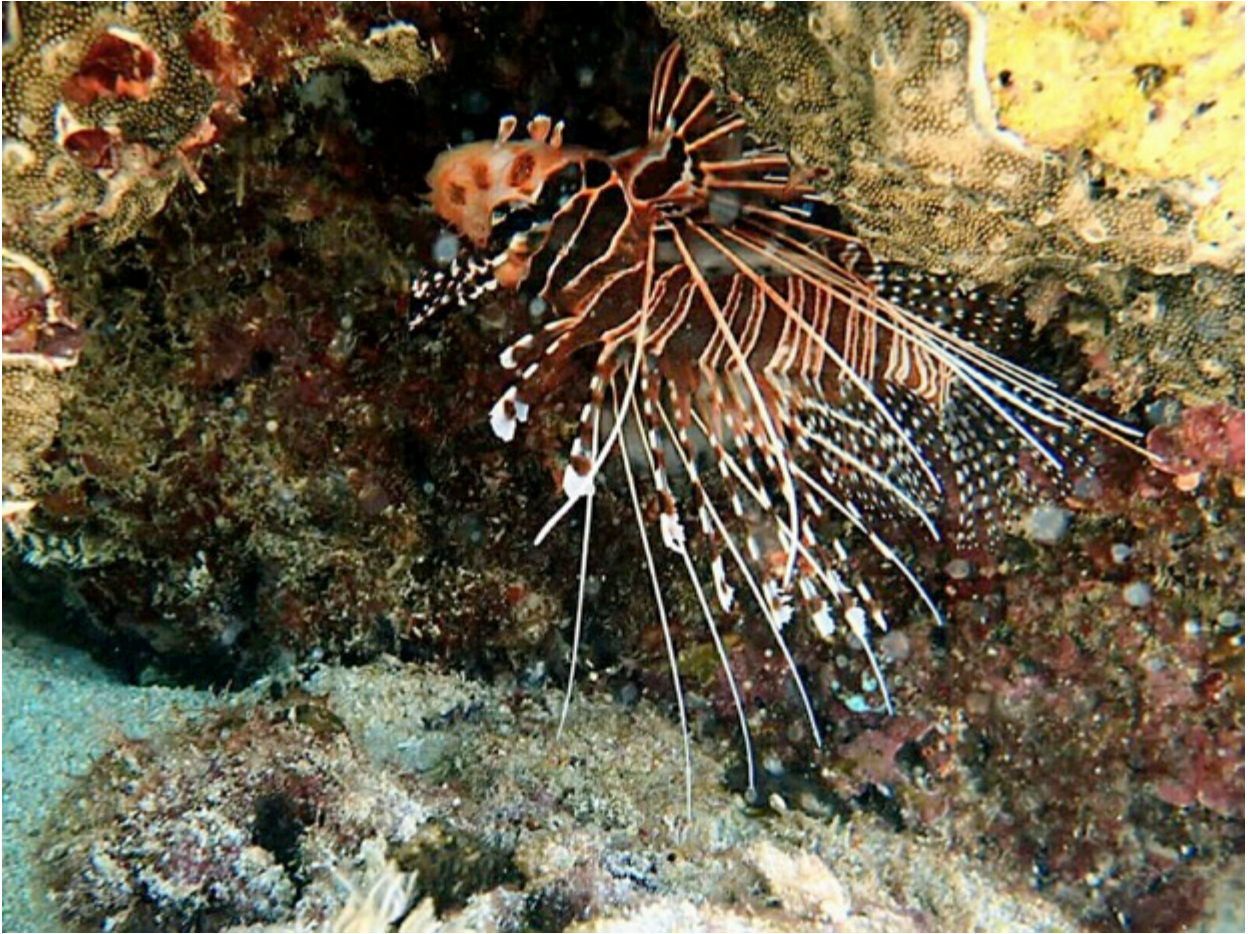
Area: 32,000 ha

Coordinates: 10.9785⁰N 123.4643⁰ E

Altitude: 3 m

PROTECTED AREA STATUS: Established as Carbin Reef Fish Sanctuary in 1983 through a municipal ordinance by then Municipal Mayor Alfredo G. Marañon Jr. The ordinance covered Panal, Macahulom and the fringing reefs of Molocaboc Islands. In 1995, the passage of the Presidential Proclamation 592 declared approximately 32,000 hectares of Sagay's territorial water as an initial component under the National Integrated Protected Areas System. In 4 April 2001, Sagay Marine Reserve was legislated into law through Republic Act 9106 "An act for the establishment and management of Sagay Marine Reserve, defining its scope, coverage and for other purposes.

Protected Areas



Paul Matriano

CONSERVATION IMPORTANCE Sagay Marine Reserve has a Protected Area Management Board (PAMB) who sets the conservation direction of the reserve. On January 31, 2003 SMR was awarded as Best Aquatic Resources Management in the Philippines by the Department of Science and Technology- PCAMRD. They were also selected as one of the one of the best tourism destinations in the Visayas in December 2007. The reserved also won 2nd place for best MPA out of 170 entries in whole Philippines by Marine Support Network in December 7, 2007. And in 1997 the Gawad Galing Pook Award the Sagay Marine Reserve won for innovation and replicability of the project in the country.

The island hosts breeding population of the threatened endemic Philippine duck *A. luzonica* (Vu), two species of flying foxes Island flying fox *P. hypomelanus* and Large flying fox *P. vampyrus*. The SMR is also home to at least four species of marine turtles e.g. Hawksbill Sea Turtle *Eretmochelys imbricata* (Cr), Green Sea Turtle *C. mydas* (En), Olive Ridley Sea Turtle *Lepidochelys olivacea* (Vu) and Leatherback Sea Turtle *Dermochelys coriacea*(Vu).

Protected Areas



Philippine sailfin lizard *Hydrosaurus pustulatus*

Ignacio S. Santillana

Ilog-Hilabangan Watershed Forest Reserve

Region: VI

Island: Negros

Province: Negros Occidental

Cities: Himamaylan (Buenavista) and Kabankalan (Tan-awan and Carol-an)

Area: 10,400.06 ha

Location: 9°38'N 122°32'E

Altitude: 600-1000 meters

PROTECTED AREA STATUS: Considered as initial component of NIPAS following Presidential Proclamation 602. It is managed by the IHWFR Watershed Council composed of representatives from the local government units of Kabankalan and Himamaylan, Community Environment and Natural Resource Office – Kabankalan, Peoples Organization, Non-government organizations and private sector. IHWFR is also a key river basin within the island.

Protected Areas

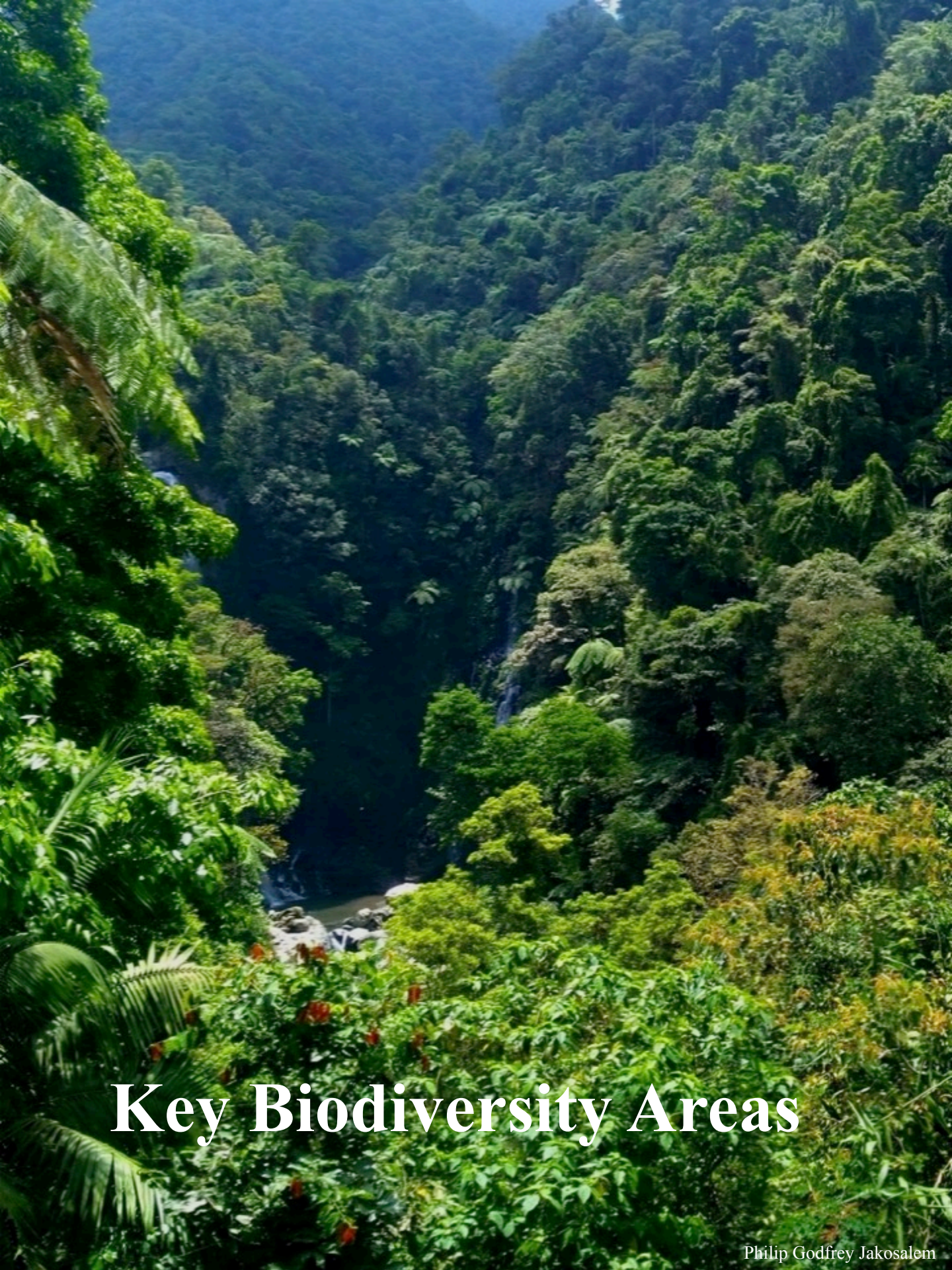


Negros Spotted Kingfisher *Actenoides lindsayi moseleyi*

Philip Godfrey Jakosalem

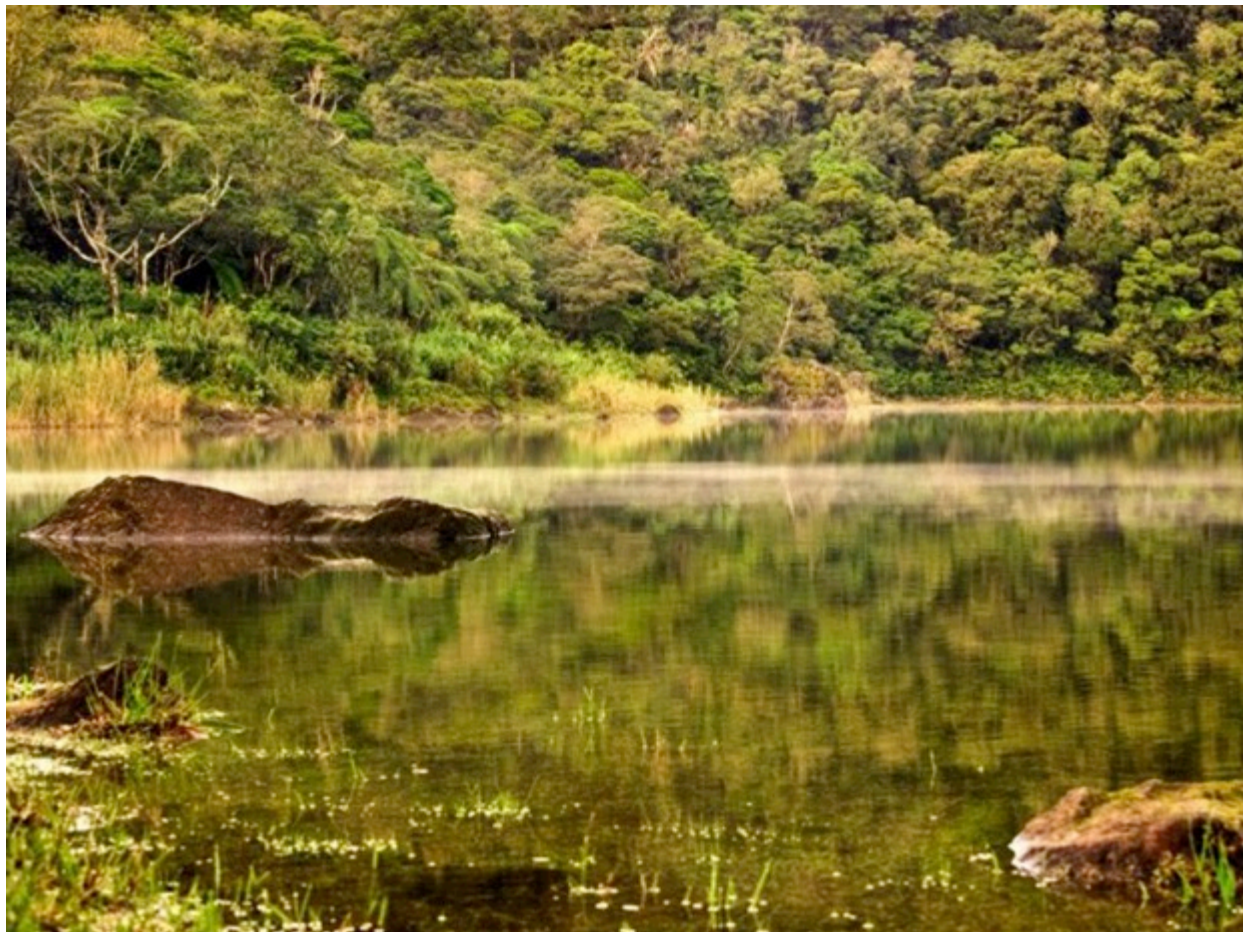
CONSERVATION IMPORTANCE: The area still contains patches of lowland forests, the largest of which is about 300 ha located in Buenavista, Himamaylan (Tababa *et al* 2011). There were a total of 108 trees identified including Critically Endangered Almon *Shorea almon*, Critically Endangered Tanguile *Shorea polysperma*, Critically Endangered Red Lauan *Shorea negrosensis*, Critically Endangered White Lauan *Shorea contorta*, and Critically Endangered Bagtikan *Parashorea malaanonan*. Among the 65 species of birds recorded in the reserve were the Southern Philippine Hawk Eagle *Nisaetus pinskeri* (En), Yellow-faced Flameback *Chrysocolaptes xanthocephalus* (En), Visayan Hornbill *Penelopides panini* (En), White-winged Cicadabird *Edolisoma ostentum* (Vu), Rufous-lore kingfisher *Todiramphus winchelli* (Vu), as well as the Visayan Scops-owl *Otus nigrorum* (Vu), and Pink-bellied Imperial Pigeon *Ducula poliocephala* (Vu).

The Critically Endangered Visayan Warty Pig *S. cebifrons*, Visayan (Philippine) Spotted Deer *C. alfredi* (En) were historically recorded in the area. The Philippine sailfin lizard *H. pustulatus* (Vu) and Giant Visayan Frog *L. visayanus* (Vu) was also recorded in the reserve. The site is also the main watersheds of the cities of Himamaylan, Kabankalan and the municipality of Ilog.



Key Biodiversity Areas

Key biodiversity Areas



Lake Nailig

Cebu Outdoors Adventure Team

Cuernos De Negros

Key biodiversity Area: 162

Important Bird Area Code: PH066

Endemic Bird Area: 152

Region: VII

Island: Negros

Province: Negros Oriental

Cities/Municipalities: City of Dumaguete; Municipalities of Valencia, Bacong, Dauin, Zamboanguita, Siaton and Sta. Catalina

Area: Not estimated

Coordinates: 9^o16'N 123^o08'E

Altitude: 300-1,864 m

PROTECTED AREA STATUS: The Cuernos de Negros is not officially protected. However the mountain range is identified as a Negros Geothermal Reservation under the jurisdiction of the Philippine National Oil Corporation (PNOC), which covers 133,000 ha, of which an area of 4,096 ha was reported to be forested in 1987. Mt Talinis forests is the largest watershed in southern Negros Island.

Key biodiversity Areas



Hazel's Forest Frog *Platymantis hazelae*

Philip Godfrey Jakosalem

CONSERVATION IMPORTANCE: Habitat of the Endangered single-island endemic Negros Striped babbler *Z. nigrorum* as well as the Critically Endangered Negros Bleeding-heart *G. keayi*, Critically Endangered Rufous-headed Hornbill *R. waldeni*, Critically Endangered Visayan Warty Pig *S. cebifrons* Endangered Yellow-faced Flameback *C. xanthocephalus*, Endangered Visayan Hornbill *P. panini*, Endangered White-throated Jungle Flycatcher *V. albigularis*, Endangered Southern Philippine Hawk eagle *N. pinskeri*, Endangered Flame-templed babbler *D. speciosa*, Endangered Japanese night heron *G. goisagi*, Endangered Visayan (Philippine) Spotted Deer *R. alfredi*, Endangered Philippine Tube-nosed Fruit Bat *N. rabori*, Endangered Negros Shrew *Crocidura negrina*, Endangered Negros Forest Frog, *P. negrosensis*, Vulnerable White-winged Cicadabird *E. ostentum*, Vulnerable Celestial Monarch *H. coelestis*, Vulnerable Black-belted Flowerpecker *D. haematostictum*, Vulnerable Visayan Scops-owl *O. nigrorum*, Vulnerable Pink-bellied Imperial Pigeon *D. poliocephala*, Vulnerable Hazel's Forest Frog *P. hazelae*, Vulnerable Spotted-bellied Short-headed Snake *O. modestum*, and other threatened species.

Key biodiversity Areas



Ban-ban Forest

Philip Godfrey Jakosalem

Propose New Name: Southeastern Negros KBA

Key biodiversity Area: 156 Ban-ban

Important Bird Area Code: PH065

Endemic Bird Area: 152

Region: VII

Island: Negros

Province: Negros Oriental

Municipality: Ayungon, Tayasan, Manjuyod, Bindoy, Guihulngan and La Libertad

Area: 500 ha

Coordinates: 9°51'N 123°02'E

Altitude: 300-900 m

PROTECTED AREA STATUS: The proposed Southeastern KBA is not officially protected. Majority of the forest is classified as timberland. Some sections of the area had been awarded as community based forest management agreement (CBFMA) by DENR to the people organization in the areas.

Key biodiversity Areas



Rufous-lored kingfisher *T. winchelli*

Tateo Osawa

CONSERVATION IMPORTANCE: Southeastern Negros KBA is an important habitat of the endemic Ashy-breasted Flycatcher *Muscicapa randi* (Vu). The species was last recorded in 2012 in Ban-ban Forest.

The site also host several population of Critically Endangered Rufous-headed Hornbill *R. waldeni*, Critically Endangered Visayan Warty Pig *S. cebifrons*, Endangered Visayan Hornbill *P. panini*, Endangered White-throated Jungle Flycatcher *V. albigularis*, Endangered Southern Philippine Hawk eagle *N. pinskeri*, Endangered Flame-templed babbler *D. speciosa* Endangered Visayan (Philippine) Spotted Deer *R. alfredi*, Endangered Philippine Tube-nosed Fruit Bat *N. rabori*, Vulnerable White-winged Cicadabird *E. ostentum*, Vulnerable Rufous-lored Kingfisher *T. winchelli*, Vulnerable Black-belted Flowerpecker *D. haematostictum*, Vulnerable Visayan Scops-owl *O. nigrorum*, Vulnerable Philippine Sailfin Lizard *H. pustulatus*, Vulnerable Giant Visayan Frog *L. visayanus* and other threatened species.

Key biodiversity Areas



Calatong Forest

Philip Godfrey Jakosalem

Propose New Name: Southwestern Negros KBA

Key biodiversity Area: 157 Hinoba-an

Important Bird Area Code: PH065

Endemic Bird Area: 152

Region: VI

Island: Negros

Province: Negros Occidental

Cities/municipalities: Sipalay City, Municipalities of Cauayan, Hinoba-an and Candoni

Area: 1000 hectares

Coordinates: 9^o16'N 123^o08'E

Altitude: 300-1,864 m

PROTECTED AREA STATUS: The Southwestern Negros KBA is not officially protected. However the Local Government Units (LGU) of the Municipality of Hinoba-an is declaring Damutan Valley as a wildlife Sanctuary. The city of Sipalay declared the last remaining forest within the city as Local Conservation Areas (LCA) and lastly the forest of Cauayan was declared the last remaining forest of the municipality as local conservation area under Southern Cauayan Municipal Reserve declaration.

Key biodiversity Areas



Cave Wrinkled Ground Frog *Platymantis spelaeus*

Philip Godfrey Jakosalem

CONSERVATION IMPORTANCE: Southwestern Negros KBA is an important site of the Critically Endangered Visayan (Philippine) Bare-backed Fruit Bat *D. chapmani* and the Endangered Cave Wrinkled Ground Frog *P. spelaeus*. The KBA is also home to threatened endemics like Critically Endangered Negros Bleeding-heart *G. keayi*, Critically Endangered Visayan Warty Pig *S. cebifrons*, Endangered Visayan Hornbill *P. panini*, Endangered White-throated Jungle Flycatcher *V. albigularis*, Endangered Southern Philippine Hawk eagle *N. pinskeri*, Endangered Flame-templed babbler *D. speciosa*, Endangered Visayan (Philippine) Spotted Deer *R. alfredi*, Endangered Philippine Tube-nosed Fruit Bat *N. rabori*, Vulnerable White-winged Cicadabird *E. ostentum*, Vulnerable Rufous-lore kingfisher *T. winchelli*, Vulnerable Black-belted Flowerpecker *D. haematostictum*, Vulnerable Visayan Scops-owl *O. nigrorum*, Vulnerable Philippine Sailfin Lizard *H. pustulatus*, Vulnerable Giant Visayan Frog *L. visayanus* and other threatened species.



Proposed New KBA

Proposed New KBA



Percula clownfish *Amphiprion percula*

Kaila Ledesma Trebol

Propose New: Danjungan Island Marine Reserve and Sanctuaries

Region: VI

Island: Negros

Province: Negros Occidental

Municipality: Cauayan

Area: 43 ha

Coordinates: 9.8721⁰N 122.3781⁰E

PROTECTED AREA STATUS: Declared as Danjungan Island Marine Reserve And Sanctuaries through Cauayan Municipal Ordinance 99-52 in year 2000. The island is managed By Philippine Reef And Rainforest Conservation Foundation Inc. (PRRCFI).

Proposed New KBA



Ornate Pipefish *Corythoichthys haematopterus*

Kaila Ledesma Trebol

CONSERVATION IMPORTANCE: The island is a nesting ground for the Endangered Green Sea Turtle *Chelonia mydas* and is host to 244 species of hard corals, 579 fish, 72 species of birds, 17 mangroves, eight seagrasses and 10 species of bats. Among the important terrestrial fauna includes the rare Beach thick-knee *Esacus magnirostris*, Philippine Megapode *Megapodius cuminigi*, Luzon hawk-owls *Ninox luzonica*, populations of the endemic Little Golden-mantled flying fox *Pteropus pumilus* as well as a large colony of cave-dwelling bats.

Proposed New KBA



Tibsoc-San Juan Wetlands

Philip Godfrey Jakosalem

Propose Name: Negros Occidental Coastal Wetlands Conservation Area

Ramsar Site No: 2271

East Asian-Australasian Flyway Site Network: EAAF135

Region: VI

Island: Negros

Province: Negros Occidental

Cities/Municipalities: Bago City, Himamaylan City, Kabankalan City; Municipalities of
Pulupandan, San Enrique, Pontevedra, Hinigaran, Binalbagan and Ilog

Area: 230,000 ha

Coordinates: 10°15'48"N 122°46'22"E

PROTECTED AREA STATUS: The Negros Occidental Coastal Wetlands Conservation Area is comprise of a network of Local Conservation Area (LCA) within the ten cities and municipalities of Southern Negros Occidental.

Proposed New KBA



Philippine Duck *Anas luzonica*

Philip Godfrey Jakosalem

CONSERVATION IMPORTANCE: It is the 7th Ramsar Site and the 4th AAFNS in the Philippines because of the presence of threatened species Endangered Spotted Greenshank *Tringa guttifer*, Far Eastern Curlew *Numenius madagascariensis* and Great Knot *Calidris tenuirostris*; Vulnerable: Chinese Egret *E. eulophotes* and Philippine Duck *A. luzonica* sharing more than 1% of the global population of Great Knot *C. tenuirostris* and Black-tailed Godwit *Limosa limosa*. Other important water birds are Red Knot *Calidris canutus*, Red-necked Stint *Calidris ruficollis*, Grey-tailed Tattler *Heteroscelus brevipes*, Broad-billed Sandpiper *Calidris falcinellus*, Asian Dowitcher *Limnodromus semipalmatus*, Caspian Tern *Sterna caspia*, Black Noddy *Anous minutus* and Eurasian Oystercatcher *Haematopus ostralegus*.

The wetlands also supports population of other threatened marine species e.g. Endangered Irrawaddy dolphin *Orcaella brevirostris*, Critically Endangered Hawksbill Sea Turtle *Eretmochelys imbricata*, Endangered Green Sea Turtle *C. mydas*, Vulnerable Olive Ridley Sea Turtle *L.s. olivacea* and Leatherback Sea Turtle *Dermochelys coriacea*). The Site is also known for its rich coastal resources, particularly shellfishes including economically important species such as oysters, green mussels *Perna viridis*, nylon shell *Paphia undulata*, angel wing shell *Pholas orientalis*, shrimps and crabs.

Proposed New KBA



Visayan hornbill *Penelopides panini*

Tateo Osawa

Proposed New: Sta. Catalina Forest

Region: VII

Island: Negros

Province: Negros Oriental

Barangays: Talalak, Buenavista, San Miguel, Nagbinlod, Nagbalaye, San Francisco, Mansagumayon, Kabulakan, Cawitan

Area: 500 hectares

PROTECTED AREA STATUS: No legal protection on the remaining lowland forests. Separated but lies adjacent to Mt. Guinsayawan of Balinsasayo Twin Lakes Natural Park. Currently classified as Timberland. The area is also the main watershed of the towns of Pamplona, Sta. Catalina and Bayawan City.

Proposed New KBA



Endangered Golden-crowned Flying Fox *Acerodon jubatus*

Philip Godfrey Jakosalem

CONSERVATION IMPORTANCE: At least two Critically Endangered birds (Negros Bleeding-heart Pigeon *G. keayi* and Rufous-headed hornbill *R. waldeni*); five Endangered Southern Philippine Hawk Eagle *N. pinskeri* , Yellow-faced Flameback *C. xanthocephalus*; Flame-templed babbler and Endangered Visayan Hornbill *P. panini*, Flame-templed babbler *D. speciosa*, White-throated Jungle Flycatcher *V. albigularis*, four Vulnerable species White-winged Cicadabird *E. ostentum*, Rufous-lored kingfisher *T. winchelli*, Visayan Scops-owl *O. nigrorum*, Black-belted Flowerpecker *D. haematostictum* had been recorded in the area.

The forest once host the largest colony of flying foxes in the island including the Endangered Golden-crowned Flying Fox *A. jubatus*. The forest also host populations of the Critically Endangered Visayan Warty Pig *S. cebifrons*, Endangered Visayan (Philippine) Spotted Deer *C. alfredi*. Several threatened reptiles and amphibian like the Vulnerable Philippine sailfin lizard and *H. pustulatus*, Vulnerable Giant Visayan Frog *L. visayanus* and Vulnerable Spotted-bellied Short-headed Snake *O. modestum* were also recorded in Sta. Catalina Forest.



**Negros Island
Biodiversity
Strategy and
Action Plan**

NEGROS FIRST

Development Agenda of Negros Occidental

The Province of Negros Occidental has a land area of 792, 607 ha or 7,900 square kilometers of land. Of this, 31.65% (250,485.87 ha) is classified forestland and 0.18% (1,411 ha) is unclassified public land. With 98% of the alienable and disposable land dedicated to agriculture and 2% for inland fishery/fish pond, this first class province promotes sustainable agricultural practices as well as protection of its main watersheds.

The Province has six major rivers (Ilog, Binalbagan, Bago, Malogo, Himogaan and Danao) all emanating from the two Protected Areas e.g. Northern Negros Natural Park and Mt. Kanlaon Natural Park. The rivers empty into the coastal areas of which three were designated as Protected Areas: Sagay Marine Reserve, Tañon Strait Protected Landscape and Seascape and Danjungan Island Marine Reserve and Sanctuaries and the Negros Occidental Coastal Wetlands Conservation Area (NOCWCA) – a declared wetland of international importance (Ramsar site) and an East Asian Australasian Flyway (EAAF) Network Site.

To address the needs of the province to develop its peoples potential by meeting their needs but without compromising the ability of future generations to meet their own needs. In 2010, the NEGROS FIRST strategy was developed. NEGROS FIRST stands for:

N – Natural Resources Management
E – Economic Development
G – Good Governance
R – Reduction of Poverty
O – Optimum Health Care
S – Strong Support for Education
F – Food Security
I – ICT Utilization
R – Roads and other Infrastructures
S – Social Services
T – Tourism Promotion



The NEGROS FIRST Natural Resources Management program identified the following targets:

- Sustain Programs for conservation, rehabilitation and protection of the environment
- Strengthen linkage with public/private sectors for protection of coasts/forests/major rivers
- Support coastal resource management to enhance production of marine resources
- Promote judicious use of abundant water resources (esp. for irrigation and hydro-electric projects)
- Strengthen climate change response and solid waste management advocacies
- Strict adherence to zoning laws

It is the agenda of the province to sustain existing programs by both government and private sector partners in the aspects of biodiversity conservation, rehabilitation and protection of the environment particularly along coastal areas, forest reserves and major bodies of water. Environmental advocacy and networking to create environmental awareness and education is also a cross-cutting issue that is supported in NEGROS FIRST Program.

NEGROS FIRST

Development Agenda of Negros Occidental

Providing alternative or complimentary livelihood to people dependent on the forests for their sustenance will also be provided. This will be coupled with appropriate technologies either traditional or sustainable methods as long as it ensures the continued supply of resources without endangering the delicate natural balance of the ecosystem.

NEGROS FIRST also looks into advocating with LGUs strict adherence to zoning laws as land classification and distribution is among the factors that led to forest loss. Added to this, preparations for appropriate response to the effect of a rapidly changing climate would also be included down to the household level.



Maroon-naped Sunbird *Aethopyga guimarasensis*

Philip Godfrey Jakosalem

Negros Oriental Development Agenda

NEGROS ORIENTAL DEVELOPMENT AGENDA

Environmental governance in Negros Oriental is expressed in different activities. Negros Oriental strongly promotes organic agricultural farming practices for farmers in the uplands. The province also supports forest protection activities by creating the Joint Task Force Leon Kilat (JTFLK) – a composite team from the Provincial Government, DENR and Philippine Armed Forces. Most recently following the support for the 12th Provincial Wildlife Month celebration and 11th Philippine Bird Festival, the Provincial Government led by Governor Roel Degamo is into establishing Local Conservation Areas in Sta. Catalina, Ayungon, Bindoy, Tayasan, Manjuyod, Jimalalud and La Libertad. The Environment and Natural Resources Division with the Provincial Tourism Office of Negros Oriental and Joint Task Force Leon Kilat were instructed to pursue the development of the Local Conservation Areas.



View of the twin lakes

Gerrie Mae Flores

Methodology

Negros Island Biodiversity Strategy and Action Plan

Following the updating of the Philippines Biodiversity Strategy and Action Plan in 2016, discussions on creating a localized Negros Island Biodiversity Strategy and Action Plan was also initiated by Philippines Biodiversity Conservation Foundation Inc. with Provincial Environment and Management Office (PEMO) Negros Occidental and then DENR Region 18 or Negros Island Region. The following activities were conducted leading towards the development of this book.

- A. Strategic meetings were conducted with key offices and institutions in Negros Oriental, Negros Occidental, DENR Regions 6 and Region 7 as well as with Protected Areas Management Boards of the three terrestrial Protected Areas in Negros.
- B. Negros Island Biodiversity Strategy and Action Planning Workshop

The Provincial Governments of Negros Occidental and Negros Oriental together with the Biodiversity Management Bureau of DENR through Biodiversity Financing Initiative Project (BioFin) and Philippines Biodiversity Conservation Foundation Inc. organized the 1st Negros Island Biodiversity Strategy and Action Planning Workshop last 4-5 April 2018 in L'Fisher Hotel, Bacolod City, Negros Occidental.

A total of 150 participants from 34 local government units of Negros Oriental and Negros Occidental, non-government organizations, Peoples Organizations, academic institutions, private sector, civil society, youth and individuals who had interest in biodiversity conservation participated in the event.

After the presentations of the overview of PBSAP and Global Aichi biodiversity targets, the participants were asked to share and align local accomplishments to the national and global Aichi biodiversity targets using the table shown below (table 1).



Negros Island Biodiversity Strategy and Action Plan

Table 1. Aligning local accomplishments to the national and global Aichi biodiversity targets.

PBSAP Target	Indicators	Accomplishments	Progress Towards PBSAP target	Effectiveness	Level of Confidence	Adequacy of monitoring	Lessons learned	Identification of Technical, Scientific and Capacity Needs; Needs for Implementation Support	References (relevant weblinks, websites and files)

After the accomplishments were presented in plenary, participants then formulated the Negros Island Biodiversity Strategy and Action Plan following the PBSAP format (Table 2) and using the information from the accomplishments. After this, participants presented NIBSAP matrix, priority targets and indicators pre thematic area/ecosystem (please see attached matrix)

Table 2. Formulating the Negros Island Biodiversity Strategy and Action Plan.

PBSP Target	Indicator	Provincial Target	2019-2028	Major Activity	Responsible Group	Resources needed	Fund Source
	Adopt the indicators to local conditions	NIBSAP Provincial Targets	Indicative timeframe	Specify 2-3 major activities to achieve the provincial target	Who will implement	Needed e.g. Technical/ Financial/ material/ equipment/ facility	Who do you expect to provide the resource

During the consultation, participants were all encouraged to share their experiences and ideas in their respective workshop groups. An open forum followed after each session and questions, suggestions and clarifications were accommodated. Individual consultations with officials of key agencies and related organizations were sought in cases where sensitive issues were raised.

The outputs of the workshop were presented and validated during the Regional Consultation workshop on the 6th National Report and Regional Biodiversity Strategy and Action Planning workshop for the provinces within Regions 6 and 7 last April 26-28, 2018 in Montebello Hotel, Cebu City. In line with this, the outputs of the Negros workshops were presented for validation and comments as well as develop the Negros Biodiversity Strategy and Action Plan into an Operational Plan.

Stakeholder Engagement

The results of the workshops were presented to the Provincial Boards of Negros Occidental and Negros Oriental; to the League of Environment Officers of Negros Oriental and Occidental; Regional Land Use Committee of Region 6; to the key staff of the Provincial Environment and Management Office of Negros Occidental and Environment and Natural Resources Division of Negros Oriental. E-file copies of the NIBSAP were also circulated to each Local Government in Negros Island as well as the Protected Areas Offices within Negros Island. Furthermore, a copy of the plan is posted in the PBCFI webpage (www.pbcfi.org.ph).

Negros Island Biodiversity Strategy and Action Plan





Provincial Biodiversity Targets And Actions

(Summarized Version)

Provincial Biodiversity Targets and Actions

Negros Occidental

No.	National Target	Provincial Target	Actions
1	By 2028, the conservation status of nationally and globally threatened species in the country from 2016 levels is maintained and improved	By 2028, there will be no increase in the number of threatened species or species upgraded to a higher risk category	<p>By 2020, biodiversity assessment has been conducted in Ilog-Hilabangan Watershed Forest Reserve (IHWFR)</p> <p>By 2021, biological profiles in Northern Negros Natural Park has been updated.</p> <p>By 2022, the biological profile of Mt. Kanlaon Natural Park has been updated.</p> <p>By 2028, bio-monitoring system has been regularly conducted at least bi-annually in Mt. Kanlaon Natural Park and Northern Negros Natural Park.</p> <p>By 2020, database on biodiversity is established, centralized with updated checklists of species.</p> <p>By 2028, community-based habitat protection are strengthened and sustainably managed.</p> <p>By 2028, enforcement of environmental laws are more effective and strengthened.</p> <p>By 2028, ex-situ conservation of Negros-Panay threatened endemic species are maintained.</p> <p>By 2022, sites for re-introduction of threatened species has been identified, evaluated and assessed.</p> <p>By 2028, botanical gardens showcasing native, endemic and threatened plants is established following research and effective ex-situ propagation.</p> <p>By 2028, the populations of Negros Cave frog and Philippine Bare-backed are determined, monitored and protected.</p>
			By 2020, the Negros Occidental Coastal Wetlands Management Alliance (NOCWMA) board is actively managing the Negros Occidental Coastal Wetlands Conservation Area

Provincial Biodiversity Targets And Actions

Negros Occidental

No.	National Target	Provincial Target	Actions
	By 2028, the conservation status of nationally and globally threatened species in the country from 2016 levels is maintained and improved	By 2028, there will be no increase in the number of threatened species or species upgraded to a higher risk category	<p>By 2022, a technical cave assessment team for Negros Island is created.</p> <p>By 2022, the manual of operations for the implementation of local ordinances in the different local conservation areas in NOCWCA has been approved and implemented.</p> <p>By 2022, the habitats of migratory birds in coastal wetlands have been assessed.</p>
2	By 2028, there will be no net loss in natural forest cover	By 2028, there will be no net loss in natural forest cover based on 2010 NAMRIA records	<p>By 2028, forest protection including community-based forest patrolling and monitoring is regularly conducted in Protected Areas and Key Biodiversity Areas</p> <p>By 2028, forest protection including community-based forest patrolling and monitoring is regularly conducted in Protected Areas and Key Biodiversity Areas</p> <p>By 2028, effective implementation of environmental laws are in place.</p> <p>By 2028, at least five Local Conservation Areas have been declared through Municipal Ordinances.</p> <p>By 2028, at least 50% of the Integrated Social Forestry beneficiaries in Northern Negros Natural Park will avail of Protected Areas Community-based Resource Management Agreement (PACBRMA)</p>
3	By 2028, there will be no net loss in presence and area distribution of live coral cover, mangrove cover, and seagrasses	By 2028, the mangrove forest cover data in Negros Occidental in all agencies are harmonized.	<p>By 2022, field validation on the extent of mangrove, seagrass beds have been conducted.</p> <p>By 2022, data of old growth mangroves, existing plantation and areas of expansion in DENR and LGU have been harmonized.</p>

Provincial Biodiversity Targets And Actions

Negros Occidental

No.	National Target	Provincial Target	Actions
4	By 2028, over 50% of genetic diversity of cultivated plants and farmed, domesticated animals and wild relatives will be conserved or maintained	By 2022, inventory/ assessment and profiling of farmed and cultivated , domesticated and native flora and fauna had been conducted.	By 2022, inventory, assessment and profiling of farmed, cultivated, domesticated native, endemic and exotic flora and fauna have been conducted.
			By 2028, native mother trees have been geo-tagged and at least one seed bank have been established.
			By 2028, native mother trees have been geo-tagged and at least one seed bank have been established.
			By 2022, LGUs have identified and validated Key Biodiversity Area at their level.
			By 2028, at least an 80% increase in awareness and protection of identified wild, threatened, native, endemic flora and fauna.
			By 2028, enabling ordinances, policies and related national laws have been implemented and enforced.
			By 2028, all local government units have institutionalized Environment Offices
			By 2028, IEC campaign have been conducted.
5	By 2028 the population of migratory bird species identified in selected inland and coastal wetlands along the East Asian-Australasian Flyway (EAAF) will be maintained	By 2022, population of migratory bird species recorded and analyzed during population counts in key inland and coastal wetland sites along the EAAF (NOCWCA)	By 2022, training for capacity enhancements for local experts have been conducted.
			By 2022, information on migratory birds on wetlands had been harmonized (DENR, LGUs)
			By 2022, conduct of bird counting activities in wetlands had been integrated in the LGU activities.
			By 2019, reports have been prepared and distributed of to all stakeholders.

Provincial Biodiversity Targets And Actions

Negros Occidental

No.	National Target	Provincial Target	Actions
6	By 2028, there will be 5% increase in the proportion of green spaces in the five largest cities	By 2028, new developments in cities in Negros Occidental will require setting up green spaces.	By 2028, urban greening using native and endemic species have been conducted in all major cities in Negros Occidental.
			By 2028, planting strips in National roads – Negros Island Green highway had been created.
			By 2028, incentives for private sector development, schools and industries who adopts Green Spaces or Corridors had been provided.
		By 2028, 100% of the city LGUs have adopted City Biodiversity Index.	By 2022, assessment of Biodiversity Index of urban areas had been conducted in Negros Occidental.
7	By 2028, as a result of improved conservation, ecosystem services provided by key biodiversity areas will be enhanced	By 2028, at least one LGU has enhanced waste water treatment.	By 2028, at least each major industry has established a functional waste water treatment facilities.
			By 2028, communal septage from household septic tanks have been established.
		By 2028, industrial water effluents in Negros Occidental are within mandated standards.	By 2025, strict implementation of the three-chambered septic tanks at the household level have been implemented.
			By 2022, quarterly monitoring of water quality has been established and regularly implemented in each major river system in Negros Occidental.
By 2028, at least a 10% increase based on 2018 figures in the number of Eco/Agri tourism sites is established in Negros Occidental	By 2022, monitoring of industrial waste water effluents as defined in the Environmental Compliance Certificate of each industry should be strictly implemented.		
	By 2028, Eco/Agri tourism sites in each LGU has been established and promoted.		
			By 2022, the provincial tourism plan is adopted and integrated in all alliances program.

Provincial Biodiversity Targets And Actions

Negros Occidental

No.	National Target	Provincial Target	Actions
		By 2022, the ecotourism program, alliances and plans of NOCWMA is streamlined in the Local Government tourism plans in the area.	By 2028, at least one ecotourism program from NOCWCA has been developed and the alliances and plans of NOCWCA has been streamlined in the local government tourism plan.
8	By 2028, fish stocks of economically important species will be maintained		By 2025, LGUs have direct access to NIBSAP reports or processed data.
			By 2028, promotion/awareness on sustainable fishing activities have been conducted.
			By 2028, SUCs have provided study reports on fish stocks estimates in the surrounding waters of the island.
9	By 2028, there will be an annual increase of at least 5% in biodiversity conservation-related jobs (ecotourism, sustainable agriculture, ecosystem restoration)	By 2028, at least 2% per annum increase in the number of people employed in biodiversity conservation related jobs.	By 2028, jobs from organic farms, urban greening, eco/agri-tourism have been generated.
			By 2028, scholarships with contracts to serve the agro-tourism industry have been awarded to qualified Negrosanon.
			By 2028, Eco/Agri tourism sites with private sector participation have been promoted and marketed.
10	By 2028, the key threats to biodiversity will be reduced, controlled or managed	By 2028, populations of IAS (trees, plants, fish, frogs, soft-shelled turtles) in PAs and KBAs have been controlled, managed or eradicated.	By 2020, strategies on gradual cutting of invasive trees in PAs and Key Biodiversity Areas including removal of seed and seedlings are in place.
			By 2020, no further planting of invasive trees in PAs and KBAs are conducted.

Provincial Biodiversity Targets And Actions

Negros Occidental

No.	National Target	Provincial Target	Actions
		By 2022, no further issuance of energy and mining license/ permit within Key Biodiversity Areas and PAs.	By 2020, advocacy on the continued implementation of Provincial Ordinance on no further issuance of energy and mining license/permit within Key Biodiversity Areas and PAs will be regularly conducted.
		By 2022, no further issuance of energy and mining license/ permit within Key Biodiversity Areas and PAs.	By 2020, advocacy on the continued implementation of Provincial Ordinance on no further issuance of energy and mining license/permit within Key Biodiversity Areas and PAs will be regularly conducted.
		By 2028, at least 80% fuelwood collection hotspots have been controlled, managed or eradicated.	By 2028, at least 50% of the Peoples Organization who have been recipient of the Integrated Social Forestry program have been awarded with Protected Areas Community-based Resource Management Agreement.
		By 2028, at least 80% of illegal collection and poaching of cave resources have been reduced with corresponding increase in law enforcement activities.	Conduct of information, awareness and education campaigns on the importance of caves have been conducted in all key cave sites in Negros Occidental
			By 2022, signages on relevant information for the conservation of caves have been installed in strategic locations in all major cave systems in Negros Occidental.
			By 2028, all local government units with major cave ecosystems have deputized Cave Protection and Enforcement Officers (CPEO) and Wildlife Enforcement Officer (WEO) and supported Community-based cave protection groups.
		By 2028, at least 80% of the illegal fishing practices have been eradicated and controlled.	By 2022, hotspots for major gleaning areas in Negros Occidental has been identified e.g. CENRO Cadiz and SMR in particular.

Provincial Biodiversity Targets And Actions

Negros Occidental

No.	National Target	Provincial Target	Actions
			<p>By 2022, awareness campaign on illegal fishing and prohibited species (FAO 233-2010-208; CITES) has been downloaded at the Local Government Level in Negros Occidental.</p> <p>By 2022, the inventory of illegal structures in all Key Biodiversity Areas in Negros Occidental have been conducted.</p>
11	By 2028, there will be a 10% increase in agricultural areas devoted to all types of biodiversity-friendly agriculture	By 2028, an increase of 5,000 ha in the area of biodiversity-friendly farms have been implemented.	By 2020, promotion of biodiversity-friendly farm practices have been conducted.
12	By 2028, capacity for biodiversity conservation of public and private sector groups in terrestrial and marine PAs/KBAs will be strengthened	By 2028, at least 5% of the private sectors in Negros Occidental supported biodiversity conservation activities.	<p>By 2028, partnership agreements with private sectors to contribute to biodiversity conservation have been strengthened through a renewed MOA and increase support and participation.</p> <p>By 2022, LCA/MPA monitoring following MEAT, METT, NEAT and SEAT have been conducted.</p> <p>By 2022, the addendum of MOA of NOCWAMA should include Provincial Tourism Office, BFAR and DENR-EMB.</p>
13	By 2028, 50% of LGUs will have formulated and adopted the enhanced CLUP using the revised HLURB framework	By 2028, all LGUs in Negros Occidental have adopted the enhanced CLUPs based on the revised HLURB framework.	By 2028, all LGUs in Negros Occidental have adopted the enhanced CLUPs based on the revised HLURB framework.

Provincial Biodiversity Targets And Actions

Negros Occidental

No.	National Target	Provincial Target	Actions
14	By 2028, 1 million ha of degraded ecosystems will be restored and/or will be under various stages of restoration	Mangrove planting in areas suitable for mangroves and beach forest rehabilitation	By 2028, seedling production, mangrove planting and maintenance have been conducted in at least 50% of the local governments. By 2028, regular updating and monitoring of planted trees had been conducted in at least 50% of all Local Governments in Negros Occidental.
15	By 2028, there will be at least 10 nationally recognized agricultural heritage systems.	No Provincial Targets	
16	By 2028, there will be improved conservation management of caves	By 2028, at least 15 officially classified caves have a functional conservation management partnerships or engagements	By 2028, all caves classified as Class I will be declared as to Local Conservation Areas (LCA). By 2025, all cave management planning workshops have been conducted. By 2025, Memorandum of Agreements between DENR, LGU and Private or Peoples Organizations have been signed and implemented.
17	By 2020, relevant biodiversity conservation policies to address existing gaps are in place.	By 2028, national laws and revision of local ordinances to fit urban/agro biodiversity targets have been in place.	By 2025, Ordinances adopting the implementation of national laws have been passed. By 2025, public consultation and awareness campaign have been conducted through barangay assembly, pulong-pulong and social media. By 2028, ordinances have been passed and is implemented.

Provincial Biodiversity Targets And Actions

Negros Occidental

No.	National Target	Provincial Target	Actions
		By 2028, at least 4 local ordinances for the adoption of LCA to cave classified as Class I have been passed.	By 2025, all public consultations have been conducted. By 2028, advocacy for the passing of local ordinances declaring local conservation areas have been elevated to the local Chief Executive.
18	By 2028, there will be a 10% annual increase from the 2015 baseline in the number of schools, POs, media organizations, LGU, private companies, policy makers, government offices that are aware and supportive of biodiversity, its importance, threats, and benefits of protecting it.	By 2028, there will be a 10% annual increase from the 2015 baseline in the number of schools, POs, media organizations, LGU, private companies, policy makers, government offices that are aware and supportive of biodiversity, its importance, threats, and benefits of protecting it.	By 2028, communications, education and public awareness (CEPA) has been regularly conducted at the provincial level. By 2028, Local/ Provincial Cave Council has been created and functional within Negros Island. By 2028, Negros Island has hosted Provincial and National Cave Congress. By 2028, the conduct of environmental thematic activities has been initiated by LGUs and academe By 2019, the revival of Dalaw-turo and assignment of focal person on CEPA activities had been integrated at the LGU and academe. By 2028, incentives and awards (Malinis at Masaganang Karagatan; Seal of Good Environmental Governance (inclusion of individual awards); Gawad Saka – OPA; Eco-friendly School with DENR; local environment –related contests) have been given to institutions, organizations and stakeholders in recognition of their contributions.
19	By 2028, there will be a 10% increase in total area from 2015 levels of terrestrial	By 2028, at least 10 Local Conservation Areas have been established.	By 2019, letter of Intents from the Local Government Units (LGUs) have been forwarded to PGNO.

Provincial Biodiversity Targets And Actions

Negros Occidental

No.	National Target	Provincial Target	Actions
19	including inland wetlands, PAs managed through NIPAs, and other conservation measures (indigenous community conserve areas, local conservation areas, critical habitats) that overlap with KBAs	By 2028, at least 10 Local Conservation Areas have been established.	By 2019, community mapping and wetlands characterization has been initiated and completed by 2022.
			Starting 2019, Local Conservation Areas management planning workshops are conducted until 2022.
20	By 2028, there will be a 20% increase from 2015 levels in the coverage of established MPAs/ Sanctuaries across various aquatic habitats.	By 2028, at least 10 Marine Protected Areas have been established	By 2019, letter of Intents from the Local Government Units (LGUs) have been forwarded to PGNO.
			By 2019, community mapping and wetlands characterization has been initiated and completed by 2022
			Starting 2019, Local Conservation Areas management planning workshops are conducted until 2022.

Provincial Biodiversity Targets And Actions

Negros Oriental

No.	National Target	Provincial Target	Actions
1	By 2028, the conservation status of nationally and globally threatened species in the country from 2016 levels is maintained and improved	(Negros Bleeding Heart Pigeon-Sta. Catalina & MKNP), 2 Hornbill , Warty Pig, Spotted Deer, Philippine Bare Back Fruit Bat previous record are in Cebu and Negros specifically in Bais City (Cauayan/ Sipalay), Golden Crown Flying Fox, White-throated Jungle Flycatcher	<p>By 2028, the Negros bleeding-heart, two Visayan hornbills, Visayan Warty Pig & Visayan (Philippine) Spotted Deer Bio-monitoring has been in placed and regularly conducted.</p> <p>By 2028, LAWIN enforcement activities incorporates Warty Pig and Spotted Deer monitoring system;</p> <p>By 2028, camera traps had been established in Balinsasayao Twin Lakes Natural Park and Cuernos de Negros KBA with data analyzed and presented regularly to stakeholders.</p> <p>By 2028, population surveys threatened mammals of Negros has been conducted in the KBAs.</p> <p>By 2028, studies identifying food sources for threatened species had been conducted.</p> <p>By 2028, bat surveys in Bais City had been conducted.</p> <p>By 2028, at least 15 Barangay Ordinances for wildlife protection (Bais - 1, Balinsasayao 7, Sta. Catalina 3, Guihulngan - 4) had been approved with budget allocation.</p> <p>By 2028, at least 15 Barangay Ordinances for wildlife protection (Bais - 1, Balinsasayao 7, Sta. Catalina 3, Guihulngan - 4) had been approved with budget allocation.</p> <p>By 2028, inventory and assessment of caves in Negros Oriental have been conducted.</p> <p>By 2028, monitoring and evaluation have been regularly conducted in known Dobsonia sites.</p>
		By 2028, Negros Cave Frog and Bareback Fruit Bat determined and monitored	

Provincial Biodiversity Targets And Actions

Negros Oriental

No.	National Target	Provincial Target	Actions
			<p>By 2028, communications, education and public awareness on the importance of the Philippine Bare-backed fruit bat had been conducted at the provincial and local level.</p> <p>By 2028, the technical cave assessment team of Negros has been created and fully functional.</p>
2	By 2028, there will be no net loss in natural forest cover	Maintain Forest Cover in PAs	<p>By 2028, the community based enforcement teams in Protected Areas are in place and capacitated to conduct regular monitoring in PAs.</p> <p>By 2028, biodiversity-friendly livelihoods has been provided to key community partners in Key Biodiversity Areas and Protected Areas in Negros Oriental.</p> <p>By 2028, Management Structure for Mt. Talinis or Cuernos de Negros Key Biodiversity Area has been created through Inter-LGU Alliance (LGU led conservation program).</p>
3	By 2028, there will be no net loss in presence and area distribution of live coral cover, mangrove and seagrasses	Mapping of Coral, Seagrass and Mangrove Cover	By 2021, list of MPAs, maps and corresponding data have been gathered and analyzed.
4	By 2028, over 50% of genetic diversity of cultivated plants and farmed, domesticated animals and wild relatives will be conserved or maintained	Genetic diversity of cultivated plants and farmed and domesticated animals and wild relatives	By 2021, available secondary data from various sources have been gathered and analyzed.

Provincial Biodiversity Targets And Actions

Negros Oriental

No.	National Target	Provincial Target	Actions
5	By 2028 the population of migratory bird species identified in selected inland and coastal wetlands along the East Asian-Australasian Flyway (EAAF) will be maintained	Continuation of AWC and Other Important Sites	The conduct of AWC in additional important sites in Negros Oriental is done annually up to 2028.
			By 2028, the conduct of annual Asian Waterbird Count (AWC) has been integrated at the local government with wetlands.
6	By 2028, there will be 5% increase in the proportion of green spaces in the five largest cities	Proportion of green spaces in Negros Oriental	By 2021, gathering of available secondary data from various sources on available green spaces in the six cities in Negros Oriental have been conducted.
		Proportion of cities what have adopted the City Biodiversity Index	By 2028. The City Biodiversity Index has been cascaded, localized and adopted by the province and 6 cities.
		Number of irrigation systems and water system for domestic use sources from KBAs and volume and quality of water from these sources	By 2022, valuation studies that reflect Return of Investments to KBAs on ecosystem services of KBAs have been completed and accessible to stakeholders.
			By 2021, systematic and comprehensive data on investments and revenues to and from KBAs are available and accessible to stakeholders.
			Starting 2019, audit of LGU-run water supply systems in the province had been conducted.
7	By 2028, as a result of improved conservation, ecosystem services provided	Mt. Talinis KBA establish as ecotourism site with in-place management structure.	By 2028, an Inter-LGU alliance is created and regularly meets to discuss and share knowledge.

Provincial Biodiversity Targets And Actions

Negros Oriental

No.	National Target	Provincial Target	Actions
7	biodiversity areas will be enhanced		By 2028, resource and biophysical assessment re status of the area (waste, water, occupants, users) had been conducted and used as basis in developing the tourism development plans.
			By 2028, the Collective Agreement for Sustainable Watershed Management is functional and is harmonized with the development plans of Mt. Talinis KBA.
		Census of other Ecotourism Destination outside KBA (Balanan, Baslay, Monkey Sanctuary in Sta. Catalina)	By 2021, the list of potential Ecotourism Area, outside the Key Biodiversity Areas are accessible to Local Government Units, DENR, stakeholders and used as basis in developing and implementing Ecotourism destinations.
			By 2028, resource and biophysical assessment re status of the area (waste, water, occupants, users) had been conducted and used as basis in developing the tourism development plans for these potential sites.
8	By 2028, fish stocks of economically important species will be maintained.	Reduced number of illegal fishing hotspots and Maintain provincial biomass and abundance targets	By 2028, the management of Marine Protected Areas and Municipal Waters have been sustained with effective and functional management bodies.
			Starting 2021, annual review of fish stocks in the province have been regularly conducted and information used in management.
			By 2028, the management of Marine Protected Areas (MPAs) and Municipal waters have been sustained and integrated at the Local Government level.
			By 2028, annual review of fish stocks in the province is regularly conducted and made available to relevant stakeholders.

Provincial Biodiversity Targets And Actions

Negros Oriental

No.	National Target	Provincial Target	Actions
9	By 2028, there will be an annual increase of at least 5% in biodiversity conservation-related jobs (ecotourism, sustainable agriculture, ecosystem restoration)	At least 2 to 3% per annum increase of people employed in biodiversity conservation related jobs	<p>By 2021, the support from DOT for technical support has been accessed by local partners.</p> <p>By 2021, assessment of potential ecotourism product has been coordinated with NOCCI.</p> <p>By 2028, at least one potential ecotourism product has been developed and implemented.</p>
10	By 2028, the key threats to biodiversity will be reduced, controlled or managed	<p>To eradicate IAS (trees, plants)</p> <p>No further issuance of energy and mining license/permit w/in KBAs</p> <p>At least 80% fuelwood collection hotpots controlled/eradicate</p>	<p>By 2028, the gradual cutting of mahogany trees in PAS and removal of seed and seedlings and no further planting had been implemented.</p> <p>By 2028, the Provincial Mining Regulatory Board (PMRB) has been activated and functional.</p> <p>By 2028, Provincial Ordinance prohibiting large/small scale mining/quarry within KBAS has been passed and approved by the Provincial Government.</p> <p>By 2021, listing of Key Biodiversity Areas in the Province has been provided to the Provincial Government.</p> <p>By 2028, the Community Based Enforcement teams in Key Biodiversity Areas and Protected Areas have been capacitated and conducting regular monitoring.</p> <p>By 2028, the Multi-Sectoral Task Force at the LGU level is institutionalized with annual budget allocation and functioning in wildlife and environment protection.</p> <p>By 2028, land allocated for timber production area for fuelwood has been planted and managed by awarded Peoples Organizations.</p>

Provincial Biodiversity Targets And Actions

Negros Oriental

No.	National Target	Provincial Target	Actions
		Number of agriculture, including fisheries, expansion hotspots in KBAs	By 2021, surveys of existence and/or expansion of sugarcane and coffee plantation/ production in KBAs have been conducted and information used in management.
11	By 2028, there will be a 10% increase in agricultural areas devoted to all types of biodiversity-friendly agriculture		By 2028, monitoring of compliance of ordinances on Anti-GMO, organic agriculture and small scale mining and quarrying have been regularly conducted. By 2028, issuance of E.O. or Provincial Ordinance creating the Neg. Or. Biodiversity Council has been passed and approved.
12	By 2028, capacity for biodiversity conservation of public and private sector groups in terrestrial and marine PAs/ KBAs will be strengthened	No provincial targets identified by the group because of lack of time.	
13	By 2028, 50% of LGUs will have formulated and adopted the enhanced CLUP using the revised HLURB framework	No provincial targets identified by the group because of lack of time.	
14	By 2028, 1 million ha of degraded ecosystems will be No provincial targets identified by the group	No provincial targets identified by the group because of lack of time.	

Provincial Biodiversity Targets And Actions

Negros Oriental

No.	National Target	Provincial Target	Actions
	because of lack of time. restored and/or will be under various stages of restoration		
15	By 2028, there will be at least 10 nationally recognized agricultural heritage systems	No provincial targets identified.	
16	By 2028, there will be improved conservation management of caves	<p>By 2028 at least 15 officially classified caves have a functional conservation/management partnerships or engagements</p> <p>By 2028, at least 80% of illegal collection and poaching of cave resources reduced and increased Law Enforcement activities.</p>	<p>By 2028, all caves classified as class I in the province has been adopted as Local Conservation Area (LCA).</p> <p>By 2028, at least 50% of the known caves in Negros Oriental based on DENR list has been classified.</p> <p>By 2028, cave management planning workshops have been conducted to LGUs and stakeholders who has involvement in caves in Negros.</p> <p>By 2028, Memorandum of Agreement by and between DENR, LGU and Private Property owner or organized People's Organization have been signed and agreed for at least three major caves in the Province.</p> <p>By 2028 signages have been installed in strategic locations close to major caves in the province</p> <p>By 2028, signages have been installed in strategic locations close to major caves in the province.</p> <p>By 2028, conduct of Conservation Education and Public Awareness (CEPA).</p> <p>By 2028, deputation of CPEO & Wildlife Enforcement Officer (WEO) have been conducted.</p>

Provincial Biodiversity Targets And Actions

Negros Oriental

No.	National Target	Provincial Target	Actions
		By 2028 at least 15 officially classified caves have a functional conservation/management	By 2028, all caves classified as class I in the province has been adopted as Local Conservation Area (LCA). By 2028, at least 50% of the known caves in Negros Oriental based on DENR list has been classified.
17	By 2020, relevant biodiversity conservation policies to address existing gaps are in place	By 2028, at least 4 local ordinances passed for the adoption of LCA to cave classified as Class I	Starting 2019, advocacy to the local chief executive for the passing of ordinances protecting caves have been conducted. Starting 2019, public consultation and education and awareness activities have been conducted. By 2028, the Provincial or Local Cave Council has been created and functional. By 2028, the province has hosted the Provincial and National Cave Congress.
18	By 2028, there will be a 10% annual increase from the 2015 baseline in the number of schools, POs, media organizations, LGU, private companies, policy makers, government offices that are aware and supportive of biodiversity, its importance, threats, and benefits of protecting it.	By 2028, there will be a 10% annual increase from the 2015 baseline in the number of schools, POs, media organizations, LGU, private companies, policy makers, government offices that are aware and supportive of biodiversity, its importance, threats and benefits of protecting it	By 2028, communications, education and public awareness (CEPA) has been regularly conducted at the provincial level. By 2028, at least 50% of the public schools in the province have participated or are involved in biodiversity related activities.

Provincial Biodiversity Targets And Actions

Negros Oriental

No.	National Target	Provincial Target	Actions
19	By 2028, there will be a 10% increase in total area from 2015 levels of terrestrial including inland wetlands, PAs managed through NIPAs, and other conservation measures (indigenous community conserve areas, local conservation areas, critical habitats) that overlap with KBAs	Proportion of total area of terrestrial PAs in relation to KBAs	<p>By 2022, community mapping and wetlands characterization have been conducted.</p> <p>By 2028, the Local Conservation Area Management Planning Workshop has been developed, adopted and implemented.</p>
20	By 2028, there will be a 20% increase from 2015 levels in the coverage of established MPAs/ Sanctuaries across various aquatic habitats.	By 2028, increase proportion of area established MPAs/ Sanctuaries against total area of aquatic habitats by 20%.	Assessment of Existing MPAs



Provincial Biodiversity Strategy and Action Plan

(Complete Version)

Provincial Target FOREST (Negros Occidental)

Provincial Targets	TIMEFRAME												Source		
	19	20	21	22	23	24	25	26	27	28					
No increase in the number of threatened species or species being upgraded to a higher risk category														Equipment (spotting scope(1/PA(11 LGUs National (BMB), within NNNP), 1/LGU-NOCWCA), camera (PENO), Province traps (30 for NNNP, 20 for MKNP), tents (PENO), concerned LGUs, CSOs, Private sectors, GOCCs, NNNP PAMB (IPAF), instruments (5 GPS for MKNP, 3 GPS for Northern part of NNNP, headlamps (10 each for MKNP, CENRO Bago and CENRO PBCFI, CENRO Cadiz), 3 for MKNP, 3 for Cadiz), handheld radio (5 for MKNP, 3 for CENRO Cadiz), first-aid kits with anti-venom (5/PA), 2-stove burner (2 for MKNP, 1 for CENRO Cadiz and 1 for CENRO Bago), gasul (3/PA), Logistics (c/o LGUs), Personnel (12-15 guides), Technical trainings on GIS and biodiversity identification, Satellite images, Communication	International (RSPB), National (BMB), DENR, Province, LGUs, NGOs, Private sectors, GOCC, PBCFI, EDC DENR, PEMO, NGOs, Academe
		X	X	X										Equipment - binoculars (6 for MKNP, 5 for NNNP), field guides (Birds of the Philippines-1/PA and 1/CENRO), Personnel to do the BMS (MKNP), 2 trainings on BMS (Himamaylan and Kabankalan), 5 binoculars for Ilog-Hilabangan WFR Personnel, Information	DENR, PEMO, NGOs, Academe
														Equipment (radios, raincoats (300 for NNNP, 200 for MKNP, 30 for IHWFR), boots (300 for NNNP, 200 for MKNP, 30 for IHWFR)), Logistics, Capacity, Training, Consultation workshop on incentives, IHWFR	DENR, Province, LGUs, Forest wardens, NGOs, PNP
														Equipment, 4x4 vehicle, Personnel, Logistics, Enforcement training (MKNP and NNNP, BBBs, KGBs), field handbooks on relevant environmental laws, IHWFR Technical (Vet & etc.)	DENR, Province, LGUs, Forest wardens, NGOs, PNP
														Establishing a database (Checklist/ centralized database)	DENR & PEMO, NGOs, Academe
														Continuing and strengthen Habitat Protection	DENR, PEMO, LGUs, GOCCs, Local communities
														Strengthen law Enforcement	DENR, Province, LGUs, Forest wardens, NGOs, PNP
														Continuing Ex-situ conservation program	Talarak, NTEFI, Province, LGUs

Provincial Target FOREST (Negros Occidental)

Provincial Targets	TIMEFRAME												Major Activities	Responsible Entities	Resources Needed	Source
	19	20	21	22	23	24	25	26	27	28						
No increase in the number of threatened species or species being upgraded to a higher risk category													Identifying sites for re-introduction Establish botanical gardens targeted for threatened endemic species (research & propagation)	DENR, PBCFI, Talarak Province, PEMO, Talarak, DENR, NGOs,	Site, Technical capacity	Province, DENR, Talarak
	X	X	X	X	X	X	X	X	X	X	X	X	Continue and strengthen awareness/IEC, (1 activity is Awareness perception survey) Implementation of legal procedures in regard to CDOs	DENR, LGUs, GOCCs, NGOs, Province, Academe, Youth	Funds, Technical information, Materials, Communication plan	National (BMB) Province, DENR, NGOs, Academe, LGUs
Prevent encroachment of residential and commercial areas within KBA													Implementation of legal procedures in regard to CDOs	DENR, Province, LGUs concerned	Legal technical	DENR, Province, LGUs concerned
	X												Conduct of inventory of illegal structures in other KBAs	DENR, Province, LGUs concerned, PAMB	Mobilization Funds and logistical support	DENR, Province, LGUs concerned, PAMB

Provincial Target

COASTAL (Negros Occidental)

Provincial Targets	Timeframe								Major Activities	Responsible Entities	Resources Needed	Sources
	19	20	21	22	23	24	25	26				
-Establishment and Maintenance of Coastal Wetlands									Activation of NOCWMA Management Board;	-LGUs in collaboration with the NGA's-BFAR,DENR, DILG, alliances	-Software for habitat assessment, guide book(for marine mammals, mangroves, sea turtles, water birds, fishes, seagrasses, marine invertebrates, corals), diving gears, trainings on identification and habitat, equipment (spotting scope and binoculars)	DENR, BFAR, Oceansa, PBCFI, PEMO, LGUs and other cooperation
Local Conservation Areas; 10- NOCWCA, Cauayan, Silay City, EB Magalona, Manapla, Cadiz City, Sagay City; Inland (Hinigaran, Kabankalan) and network of MPAs								Drafting of the manual operation for the implementation of the Local Ordinances; IEC to the community, Implementation of the Management Plan; Habitat assessment; Continuing assessment				
Monitoring of NOCWCA (birds, Irrawaddy dolphins and turtle); SNCDMC (dugong); NNARMAC/Vesayan Sea/Tanon Strait (Salmon, sea horse); CENECORD (Diwal, angel wings) LCA, Inlands (Lakes, rivers, etc.)												
Harmonization of mangrove forest cover data in Negros Occ.								1. Conduct harmonization meeting academe (CHMISC-Binalbagan, NONESCOST) 2. Field Validation 3. Finalization of data (old growth, existing plantation and area for expansion)	LGUs, PEMO, DENR, BFAR, academe (CHMISC-Binalbagan, NONESCOST)	Funds, maps, data, GPS, software, technical person to do GIS	PEMO, LGUs, staff from LGU, vehicle	
Population of migratory bird species recorded and analyzed during Population of migratory bird								Capacity enhancements for local experts; harmonization meeting Capacity enhancements for local	DENR, PBCFI, CPSU, PEMO, LGUs, USLS, CHMISC	Trainings, gears, guide book, equipment, experts	DENR, KAHIL-ICAMC, PEMO, LGUs	

Provincial Target

COASTAL (Negros Occidental)

Provincial Targets	Timeframe										Major Activities	Responsible Entities	Resources Needed	Sources		
	19	20	21	22	23	24	25	26	27	28						
species recorded and analyzed during												experts; harmonization meeting;				
population counts in key inland and coastal wetland sites in the Philippines along the EAAF (NOCWCA)												Conduct of bird counting; Preparation and distribution of reports to all stakeholders	DENR, PBCFI, CFSU, PEMO, LGUs, USLS, CHMISC	Trainings, gears, guide book, equipment, experts	DENR, KAHIL-ICAMC, PEMO, LGUs	
Streamline ecotourism program to LGUs and alliances plan and activities (NOCWAMA, SNCDMC and newly established LCAs)	x	x	x	x	x	x	x	x	x	x	x	Adoption of provincial tourism program to all alliances; Establishment of Environmental Protection Fee System (thru local ordinance); Formulate business plans	Provincial and local tourism office, alliances, LGUs	Guiding Trainings, IEC materials (brochures, posters, billboards, Ramasar market)	DENR, PGNO, LGUs	
LGUs should have their own monitoring												1. Access of LGUs on NSAP reports or processed data 2. Promotion awareness on sustainable fishing activities 3. Stock estimates to be conducted by SUCs	NFRDI-NSAP, BFAR, LGU, Academe		NONESCOST, CHMISC, CFSU	
To be consulted																
Strengthening of partnership (MOA between NGOs, LGUs and POs) Increase of private sectors' involvement)												Addendum of MOA of NOCWAMA (include Provincial Tourism Office, BFAR, DENR-EMB); MOA with NGOs (oceana, etc); Conduct of LCA/MPA Monitoring (MEAT, METT, NEAT and SEAT)	NOCWAMA, LGUs, PEMO, DENR, BFAR, Tourism Office	MOA, Venue, Logistical support	Alliances and NGOs	

Provincial Target

COASTAL (Negros Occidental)

Provincial Targets	Timeframe										Major Activities	Responsible Entities	Resources Needed	Sources
	19	20	21	22	23	24	25	26	27	28				
Mangrove and beach forest rehabilitation (BFAR, DENR, PCNO, LGUs) (Mangrove planting in areas suitable for mangroves)											Seeding production; Planting; Survival counting and maintenance	BFAR, DENR, PEMO, LGUs, Academe (JBLCF, PNU, CHMISC, USLS, CPSU, NONESCOST) and NGOs (PRRCFI, etc.) and People's Organization	Polyethylene bags, planting materials, technical personnel, GPS	BFAR, DENR, PEMO, LGUs, Academe (JBLCF, PNU, CHMISC, USLS, CPSU, NONESCOST) and NGOs (PRRCFI, etc.) and People's Organization
Enactment of LCA Ordinance and LCA Management Plan Formulation											Drafting of ordinances; Community consultation; Formulation and implementation of plan	LGUs, DENR, BFAR, Academe, NGOs, community	Technical and legal support	LGUs, DENR, BFAR, Academe, NGOs, community
Intensify IECs											Conduct of environmental thematic activities initiated by LGUs and academe; Revival of Dalaw-buro and assignment of focal person on IEC per LGU and academe; Production of IEC materials (modules); Provision of Awards and Incentives (Malinis at Masaganang Karagatan-BFAR, Seal of Good Environmental Governance-PEMO (inclusion of individual awards), Gawad Saka-OPA, Eco-friendly School-DENR, Local environment related-contest)	DENR, BFAR, DepEd, CHED, DOST, media, PEMO, LGUs, business and private sectors, NGOs	Fund for IEC materials, equipment (camera)	DENR, BFAR, DepEd, CHED, DOST, media, PEMO, LGUs, business and private sectors, NGOs

Provincial Target

COASTAL (Negros Occidental)

Provincial Targets	Timeframe								Major Activities	Responsible Entities	Resources Needed	Sources
	19	20	21	22	23	24	25	26				
Establishment of new MPA's/LCAs									Letter of Intent from the LGU to PGNO 2. Community mapping and wetlands characterization 3. LCA Management planning workshop	LGUs, PGNO, NGAs, NGOs, Academe, community	Logistical support, technical and legal support	LGUs and PGNO
Establishment of new MPA's/LCAs									Letter of Intent from the LGU to PGNO 2. Community mapping and wetlands characterization 3. LCA Management planning workshop	LGUs, PGNO, NGAs, NGOs, Academe, community	Logistical support, technical and legal support	LGUs and PGNO

The Entities	Resources
DA, TESDA, D, Alter Trade, rate Sectors, n Office	LGU, SRA, Dole, DA, TE NISSARD, Alter Trade, A Private Sectors, ANP, Pro

The Entities	Resources Not
<p>DA, TESDA, D, Alter Trade, rate Sectors, n Office</p>	<p>LGU, SRA, Dole, DA, TE NISSARD, Alter Trade, A Private Sectors, ANP, Pro</p>

Provincial Target

URBAN (Negros Occidental)

Provincial targets	Timeline								Major Activities	Responsible Entities	Resources Needed	Sources
	19	20	21	22	23	24	25	26				
Ensure the industrial water effluents are within mandated standards									Monitoring water quality	DENREMB, LGU, MMIT, Academe		
Increase by 10% based on 2018 figures the number of ECO/AGRI tourism sites									Monitoring industrial water waste effluents (ECC)	DENREMB, LGU, MMIT, Academe		
Increase the area of Biodiversity-friendly farms by 5,000 hectares									Establishment and promotion of ECO/AGRI-Tourism sites in each LGU;	DOT, LGU, OPA, DENR, DA, PEMO, PBCFI, Academe, Media	Technical, Financial Support	DOT, LGU, OPA, DENR, DA, PEMO,
Adoption of National Laws and Revision of Local Ordinances to fit Urban/ Agro-biodiversity targets									1.Promotion of Biodiversity-friendly farm practices;	OPA, NISSARD, NICERT, ANP, PEMO, LGU-MAO/CAO, Private Sector, SRA, DAR, Pos	Technical, Financial, Policy Support, Promotion & marketing support,	OPA, NISSARD, NICERT, ANP, PEMO, LGU-MAO/CAO, Private Sector, SRA, DAR, POs
									1.Passage of Ordinances to complement implementation of National Laws;	LGU-Legal, DENR, PEMO, SB/SP environment, ENRO, Community	Technical, material, Financial Support	LGU-Legal, DENR, PEMO, SB/SP environment, ENRO, Community
									2.Public consultation & Publication (Pulong-pulong, Bigy. Assembly, social media, etc)			
									3.Implementation of Ordinances			

Provincial Target URBAN (Negros Occidental)

Provincial Targets	Timeline										Major Activities	Responsible entities	Resources Needed	Source	
	19	20	21	22	23	24	25	26	27	28					
By 2028, Negros Cave Frog and Bareback Fruit Bat determined and monitored	X	X	X	X	X	X	X	X	X	X	X	Inventory and Assessment, Monitoring and Evaluation and IEC, PEMP with DENR R6	DENR-PAWB, EMB, PLGU, Academia, PO, NGO's and other key institution.	Financial Support of LGU's and National Government Offices and NGO's, Training on species Identification with conservation status and assessment	LGU, DENR, NGO's and other funding institution
By 2028, at least 80% of illegal collection and poaching of cave resources reduced and increased Law Enforcement activities.	X	X	X	X	X	X	X	X	X	X	X	conduct of IEC, installation of signages in strategic location, deputization of CPEO & WEO	DENR, LGU, Academia, People's Organization, PNP, AFP	Budget, IEC materials, trainings on CPEO & WEO	LGU, DENR, NGO's and other funding institution
By 2028 at least 15 officially classified caves have a functional conservation/management partnerships or engagements												Awareness campaign on illegal fishing and prohibited species (FAO 233-2010, 208, CITES) Over gleaming (Data to be acquired from CENRO Cadiz and SMR)	BFAR, LGU, DENR, NONESCOST, DENR, PLGU and LGU were the cave is located, RCC, NCC	trainings (tour guiding, cave rescue) Hand hat, headlamp, other equipment use in caving and rescue, construction of visitors' center, water system, viewing deck and installation of signages	DOT-TIEZA, Caving Association, DENR, PLGU, DILG

Provincial Target

URBAN (Negros Occidental)

Provincial Targets	Timeline								Major Activities	Responsible entities	Resources Needed	Source
	19	20	21	22	23	24	25	26				
By 2028 at least 15 officially classified caves have a functional conservation management partnerships or engagements		3	3	3	3	3			Adoption as LCA to all cave classified as class I cave management planning workshops, execution of MOA by and between DENR, LGU and Private Property owner or organized People's Organization. Adoption as LCA to all cave classified as class I	DENR, PLGU and LGU were the cave is located, RCC, NCC	trainings (tour guiding, cave rescue) Hard hat, headlamp, other equipment use in caving and rescue, construction of visitors' center, water system, viewing deck and installation of signages	DOT-TIEZA, Caving Association, DENR, PLGU, DILG
By 2028, at least 4 local ordinances passed for the adoption of LCA to cave classified as Class I			1	1	1	1			Lobbying to the local chief executive for the passing of ordinances, Public consultation,	SB/SP, Local Chief Executive,	MONEY,	LGU, DENR
By 2028, there will be a 10% annual increase from the 2015 baseline in the number of schools, POs, media organizations, LGU, private companies, policy makers, government offices that are aware and supportive of biodiversity, its importance, threats and benefits of protecting it									IEC, Creation of Local Cave Council and Hosting of Provincial and National Cave Congress,	DENR, PLGU and LGU were the cave is located, PCAT, RCC, NCC, Media	MONEY, IEC materials	DENR, LGU

Provincial Target FOREST (Negros Oriental)

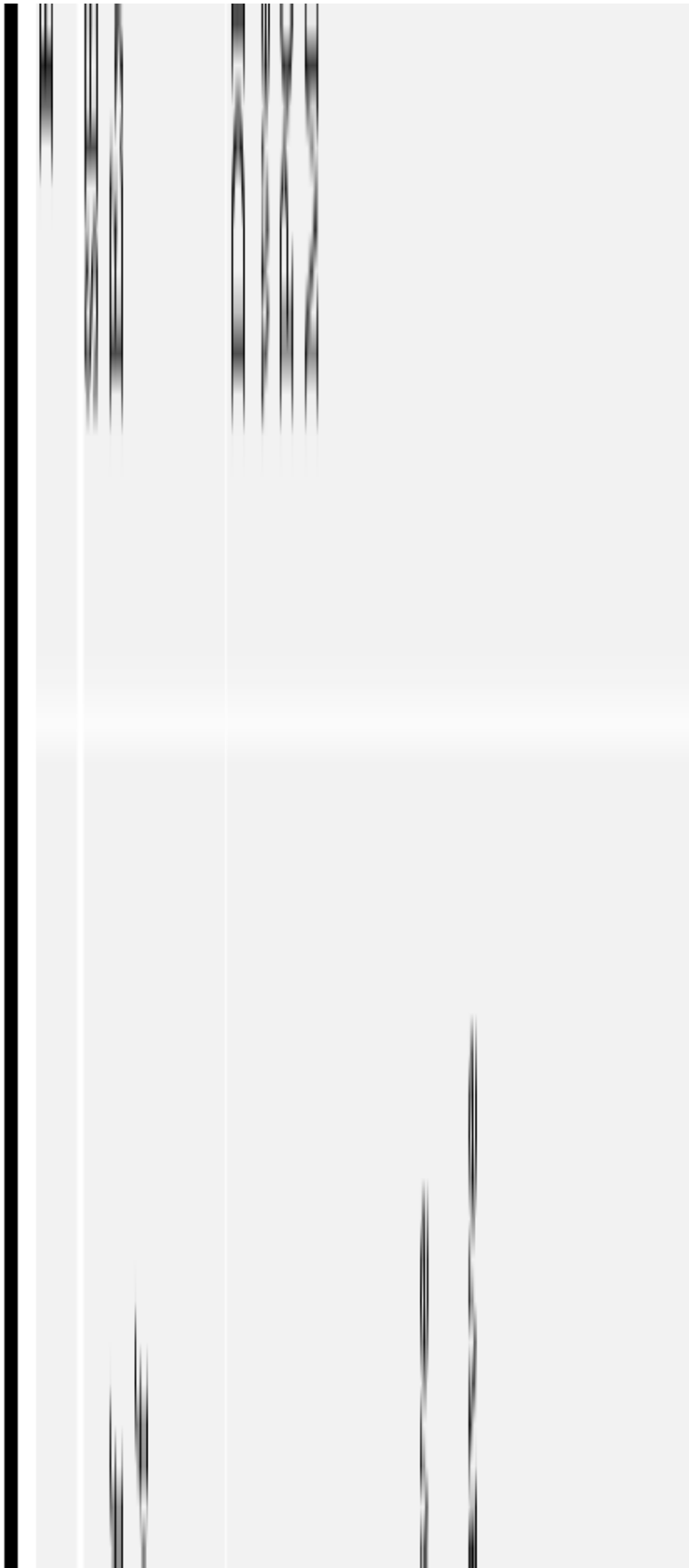
Provincial Targets	Timeline										Major Activities	Responsible entities	Resources Needed	Source	
	19	20	21	22	23	24	25	26	27	28					
(Negros Bleeding Heart Pigeon-Sta. Catalina & MKNP), 2 Hornbill, Warty Pig, Spotted Deer, Philippine Bare Back Fruit Bat	X	X	X	X	X	X	X	X	X	X	X	1. Warty Pig & Spotted Deer - continue BMS monitoring & LAWIN; set-up camera traps in all Pas (MKNP, Balinasayao, Cuernos de Negros (KBA));	LGU of Bais City, Balinasayao, Guitjongan, Sta. Catalina, DENR-PENRO, CENRO Dumaguete	20 Camera Traps for every PAs, Financial and Technical Support (flora and fauna)	FPE, DENR, EDC, PBCFI, LGU, USAID, \$U
previous record are in Cebu and Negros specifically in Bais City												2. Specific survey for KBAs			
(Caayan/Sipalay), Golden Crown Flying Fox, White Throated Jungle Fly Catcher												3. Identify food sources for identified species;			
												4. Bats - survey for Bais City			
												5. 15 Barangay Ordinances for wildlife protection (Bais - 1, Balinasayao 7, Sta. Catalina 3, Guitjongan -4)			
Maintain Forest Cover in Pas	X	X	X	X	X	X	X	X	X	X	X	1. Community Based Enforcement; Livelihood; 2. Creation of Management Structure in Mt. Talinis (Creation of Inter-LGU Alliance (LGU led conservation program);	Concerned LGUs, DENR, Provincial LGU (ENRD, Tourism)	Financial & Technical Support, Manpower additional - community enforcement group equiso with radio (NTC), LAWIN, logistical support for patrolling/ surveillance; surveillance camera in a strategic location (solar operated); paralegal, biodiversity training/wildlife identification, training re installation of camera traps, Lawin and data processing for community based enforcement group, transport for patrolling;	Counterparting scheme Province, Municipality City, DENR & FPE

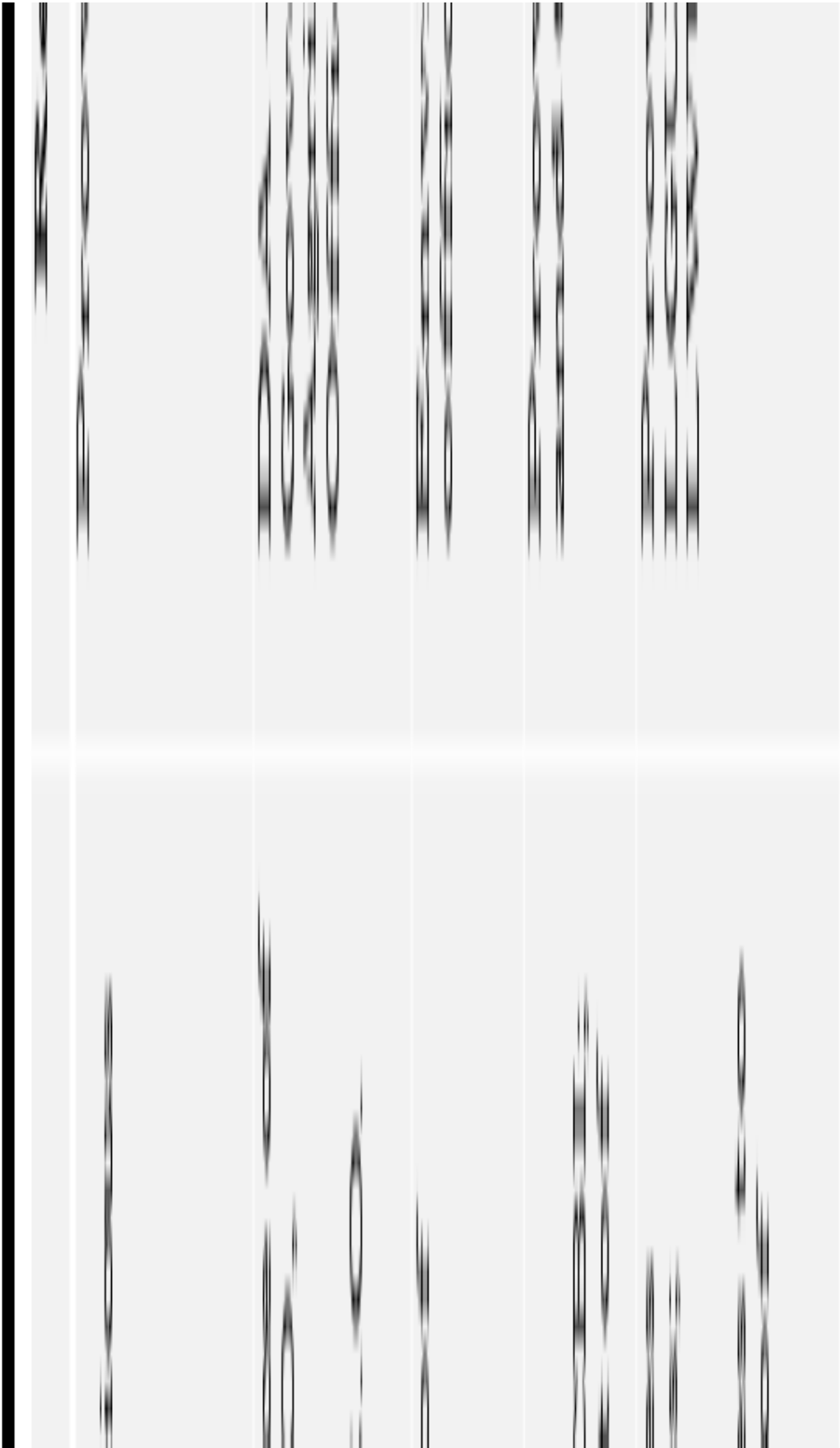
Provincial Target FOREST (Negros Oriental)

Provincial Targets	Timeline												Major Activities	Responsible entities	Resources Needed	Source
	19	20	21	22	23	24	25	26	27	28						
(Mt. Talinis)KBA establish as ecotourism site with in-place management structure.	X	X	X	X	X	X	X	X	X	X	X	X	1. Creation of an Inter-LGU alliance thru conduct of meeting/discussion, knowledge forum	DENR and Provincial Government-ENRD; LGU Bacong to write a letter addressed to Provincial Governor and PENRO regarding water issue	Financial Support (LGU Hosting); First Meeting to be hosted by LGU Bacong;	FPE Visayas, DENR (PENRO-CENRO), Provincial Government-ENRD, PBCFI
													2. Resource and biophysical Assessment re status of the area (waste, water, occupants, users)			
													3. Collective Agreement for Sustainable watershed management.			
At least 2 to 3% per annum increase of people employed in biodiversity conservation related jobs	X	X	X	X	X	X	X	X	X	X	X	X	1. Link with DOT for technical support; 2. Coordinate with NOCCI for assessment of potential ecotourism product 3. At least 1 potential ecotourism product develop	Provincial Tourism, DENR, LGU	Financial and technical support (assessment of potential ecotourism product/ development of at least 1 potential ecotourism product)	NOCCI, Provincial Tourism, DOT Region 7,
To eradicate IAS (trees, plants)	X	X	X	X	X	X	X	X	X	X	X	X	Gradual cutting of mahogany trees in PAS and removal of seed and seedlings. And no further planting.	PAMB, LGU, POs, BTLFAI		PO

Provincial Target COASTAL (Negros Oriental)

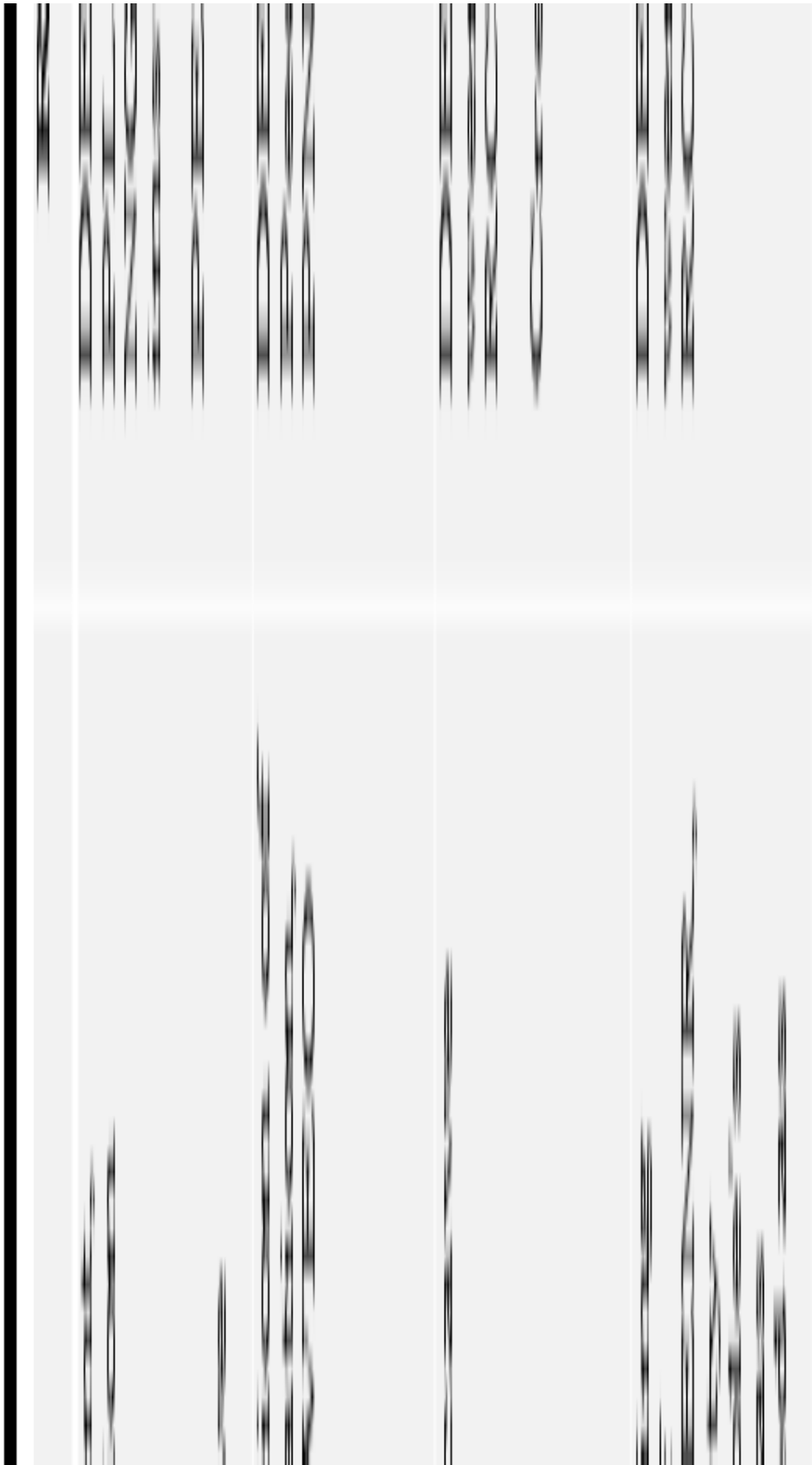
Provincial Targets	Timeline										Major Activities	Responsible entities	Resources Needed	Source	
	19	20	21	22	23	24	25	26	27	28					
Mapping of Coral, Seagrass and Mangrove Cover	X	X										1. Gather List of MPAs and Maps and corresponding data	ENRD, BFAR, DENR (CMEMP) and SUIEMS	Material and Financial Need	LGUs, DENR and Province
1. Continuation of AWC and Other Important Sites	X	X	X	X	X	X	X	X	X	X		1. Conduct of Asian Waterbird Census (AWC)	DENR & PBCFI	Need of AWC Related Equipment (Spotting Scope & Binoculars)	DENR
2. Additional AWC Potential Sites															
Census of other Ecotourism Destination outside KBA (Balamán, Baslay, Monkey Sanctuary in Sta. Catalina)	X											1. List of Potential Ecotourism Area outside the KBA.	Negros Oriental Provincial Tourism Office	Technical Resources	Negros Oriental Provincial Tourism Office
Provincial Biomass and Abundance Targets	X											1. Sustain the Management of MPAs and Municipal Waters 2. Annual Review of Fish Stocks	BFAR, Municipal and Provincial LGUs	Technical and Logistical Support	BFAR, Municipal and Provincial LGUs
Standardize the septic tanks of all commercial and residential establishments	X	X	X	X	X	X	X	X	X	X		1. Information, Education, Campaign (IEC) 2. LGU Septic Tank Assessment 3. Build or Replace Standard Septic Tanks	Municipal and Provincial LGUs	Technical Support from Planning Office and Engineering Office	Municipal and Provincial LGUs







ivities	Responsible
ice and/or arcane and / production	BTILNP PAMM concerned LGU (MIPDO)





List of Participants

List of Participants

Forest- Negros Occidental

Acaling, Leo

Environment and Natural Resources Officer
Silay City
458-4137

Balana, Richard

Sagay Marine Reserve
Environment and Natural Resources Office
Sagay City
09075370716

Buaron Jr, Anacleto

Park Maintenance Foreman
DENR/ Mt. Kanlaon Natural Park
09283085153

Cardinal, Melodina

Community Affairs Officer I
National Commission on Indigenous People
Negros Occidental
09993523920

Chua, Leo

Environment and Natural Resources Officer
LGU- Sipalay City
09173096865

Dano, Dexter

Teacher
Carlos Hilado Memorial State College
Talisay City
495-4657

Dela Rama, Arlene

Instructor
Carlos Hilado Memorial State College
Talisay City
09421941346

Del Rosario, Othello

Senior Environment Management Specialist III
CGN. La Carlota
09089016578

Desphy, Keith

Environment Committee
Youth Empowering Youth Initiative
09368900889

Durano, Warren

Environment and Natural Resources Officer
Talisay City
09198747555

Gemora, Jenelyn

Assistant General Manager for Operation
BACIWA
9088165430

Jose, Bernardo

Project Development Officer I
Environment and Natural Resources Office
Cadiz City
0959796681

Macatimpag, Leah

Teacher
Carlos Hilado Memorial State College
Talisay City
0942191346

Maraguinot, Joelito

Watershed In-charge
Environment and Natural Resources Office
Hinigaran
09193893726

Masculino, Japhet

Provincial Agriculture Office
Office of the Provincial Agriculture
09177237006

Martyr, Clinton John

Secretary
Doctors Hospital
09177928362

Miden, Jolly

Executive Director
Dr. Pablo O. Torres Foundation Inc.
09993063445

Moleta, Ernesto

Senior Environment Management Specialist- III
LGU- Isabela
09108473308

List of Participants

Forest- Negros Occidental

Nunez, Anastacio

Municipal Environment and Natural Resources
Officer
LGU- Calatrava
09983439023

Ocampo Jr., Roselo

Instructor I
NONECOST
09480895067

Oate, Vicente

Section Head Soplaning
LGU- Sipalay City
09778563056

Panaguiton, Peace John

Forest Technical II
DENR Community Enro and Natural Resources
Office- Bago City
09171088733

Rojo, Raudy James

Coordinator
Green Alert
09098316822

Sabio, Charmaine

Instructor I
Carlos Hilado Memorial State College
Talisay City
09238195939

Caves- Negros Occidental

Aguilos, Novie

Forest Technician I
DENR CENRO Kabankalan
471-2750

Carlos, Raymond

Forest Ranger Geographic Information System
Provincial Environment Management Office
09074574970

Tayo, Alvohn

Forester I
City Environment and Natural Resources Office-
Cadiz City
09198306251

Yulo, Ericson Vince Ray

Technical Staff
Provincial Environment and Natural Resources
Office
09327912550

Zamora, Rulan Acero

Municipal Environment and Natural Resources
Officer
LGU- Don Salvador Benedicto
09156446310

Caves- Negros Oriental

Aragon, Mario

Conservation Development Division
Region VII
09173041158

Bueno, Reginaldo

Development Management Officer II
DENR Region VII
09175843142

List of Participants

Forest- Negros Oriental

Alviola, Lenin

Vice Mayor
LGU Bacong
09175439637

Bangaysiso, Aubrey

Watershed Management Officer
Energy Development Conservation
09361045655

Baracias, Daryl

Municipal Environment and Natural
Resources Officer
LGU Ayungon
09054728507

Buquiran, Meljon

Environment and Natural Resources Officer
LGU- Bais
09368430301

Castro, Glynwar

City Environment and Natural Resources Officer
LGU- Bais
09154965256

Cawas, Jovencio

Agro Forestry Head Staff
LGU- Canlaon
09124945003

Debuayan, Raymunda

Regional Unit Manager
Foundation for the Philippines Environment
0324141718

Jaggi, Shiela

Municipal Environment and Natural Resources
Officer
LGU- Sibulan
09173262868

Lacson, Antoinette

Board of Trustee
Negros Forest & Ecological Foundation Inc.
9171088733

Mamigo, Esteban

Municipal Environment and Natural Resources
Officer
LGU- Sta. Catalina
09177000671

Mari, Vicky

Population Program Officer I
Province of Negros Oriental/ Environment and
Natural Resources Division
09951329261

Miraflor, Bimbo

Executive Director
Join Task Force on Security Region VII
09279829619

Nacar, Esteven Theodore

Silliman University- Biology
Dumaguete City
09566877539

Rumbaoa, Efren

OIC City Environment and Natural Resources
Officer
CENRO Dumaguete
09985546029

Silorio, Matthew

Wildlife Enforcer
LGU- Amlan
09063419426

Trebol, Kaila

Board of Members
Negros Forest & Ecological Foundation Inc.
433-9234

List of Participants

Urban- Negros Occidental

Altura, Gilbert

Assistant Regional Director
National Economic Development Agency Region 6
09165545425

Casalem, Susana

City Planning Development Coordinator
LGU- Kabankalan
09484025828

Castor, David

Project Manager & Biodiversity Conservation
Center Curator
Negros Forest & Ecological Foundation Inc./
Talarak Foundation
09082907364

Cruz, Philip

President, HERBANEXT LAB
09173001419

Gorre, Russell

Teacher, DepEd NOHS
09284973752

Lozada, Freddie

Biodiversity Staff, LGU- Victorias City
0933287207

Marinas, Janice

Information Education Communication Specialist
Genes San Carlos
09177069215

Ronquillo, Ramonita

Municipal Environment and Natural Resources
Officer, LGU- Moises Padilla
09193811767

Sanchez, Loreto

OIC- City Environment and Management Officer
LGU-San Carlos
09229482196

San Jose, Pierre Francis

Environmental Management Specialist II
Provincial Environment Management Office
09212523332

Sombito, Rusil

Science Coordinator teacher
Division of Negros Occidental DepEd
09469583442

Tayson, Raffy

Development Management Officer II
Provincial Economic Development and Investment
Center
09088640400

Tutor, Luisa

Senior Environment Management Specialist
Provincial Environment Management Office
09399274254

Zaragoza, Franz Thomas

Housing and Home site Regulation Officer II
Housing and Land Use Regulatory Board- Western
Visayas Region
09053685882

Urban- Negros Occidental

Alpuerto, Judith

Planning Officer IV
Provincial Planning Development Office
09202376985

Bendijo, Generoso

Municipal Planning and Development Office
LGU- Bacong
09959610717

Gutierrez, Fernando

President, Talarak Foundation
433-9234

Javier, Lea

Planning Officer
Provincial Planning Development Office
09087334210

Sy, Felix

Mayor
LGU- Manjuyod
09173140061

List of Participants

Coastal/Island Wetland- Negros

Occidental

Albao, Dave

Executive Director
Philippines Reefs and Rainforest Foundation Inc.
0916424040

Amen, Elenita

Municipal Environment and Natural Resources
Officer
LGU San Enrique
09494288935

Barriga, Elmar

Agricultural Technologies
LGU Ilog
09126867481

Cari-an, Zerxis

Municipal Environment and Natural Resources
Officer
LGU-Binalbagan
09328503628

Casipe, Kimberly

Officer
Philippines Reefs and Rainforest Foundation Inc.
9457253174

Dacles, Terrence

Senior Research Advisor
Geographic Information System
09178318792

Dela Paz, Manuel Eduardo

Researcher Associate
La Salle College
09175962929

Dela Pena, Edmono

City Environment and Natural Resources Officer
Sagay City
09434033485

Desabella Jr, Romeo

Instructor
Carlos Hilado Memorial State College- Talisay
City
094322455386

Galve, Joemil

Community Extension Services Officer
John B Lacson College Foundation
09296358885

Gerangaya, Ma. Gina

Supervising Ecosystem Management Specialist
DENR
09173111756

Gersaniva Jr, Rafael

Executive Assistant
LGU- Isabela City
09307968563

Guzman, Rocky

Legal and Policy Officer
Oceana
09176595634

Federico, Infante, Jr.

Environment and Natural Resources Officer
Finance & Admin
LGU- Pulupandan
09996688844

Juvalib, Vermont Khan

City Environment and Natural Resources Officer
LGU- Escalante City
09159796080

Mercurio, Dominic

Teacher
Carlos Hilado Memorial State College- Talisay
City
094322455386

List of Participants

Coastal/Island Wetland- Negros

Occidental

Morales, Ma. Elena

Instructor
Carlos Hilado Memorial State College- Talisay
City
09497813669

Motin, Caundelaria

Agriculture/Environment and Natural Resources
Officer
LGU- Villadolid
09086930388

Namu, Ciew

Municipal Environment and Natural Resources
Officer
LGU- Hinigaran
09258006384

Quitco, Jose

Consultant
LGU-San Enrique
09994652741

San Jose, Maria Elena

Senior Environmental Management Specialist/
Coastal Ecosystem Management Coordinator
Provincial Environment Management Office
09212523332

Santillana, Anna Lisa

Director CEGTE
PNU Visayas
09102773020

Sayson, Teody

Municipal Environment and Natural Resources
Officer
LGU-Pontevedra
09193654961

Servano, Paul

Land Management Officer
DENR/ City Enro and Natural Resources Office
Kabankalan
09273926700

Tabujara, Roberto

Environment Management Specialist II
LGU- Cauayan
09187192132

Yanson, Essa Kathleen

Aquaculturist I
City Enro and Natural Resources Office-Bago City
09285034337

Coastal/Island Wetland- Negros

Oriental

Bano, Ernesto

Municipal Environment and Natural Resources
Officer
LGU Mabinay
09052728498

Mamicpic, Leo

Friends of the Environment in Negros Oriental
FENOr- Dumaguete
09177001766

Mepana, Florencia

OIC- Provincial Fishery Office
Bureau of Fisher and Aquatic Resources Region 7
09173113143

Saycon, Ray

Municipal Environment and Natural Resources
Officer
City Environment and Natural Resources Office
Ayungon
09193654961

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- Jakosalem, P.G.C., Doble, K.J., Reintar, A.R., Warguez, D.A. Tanaman, J. & Paguntalan, L.J. (2014). A Rapid Biodiversity Assessment of the Northern Negros Natural Park, Negros Occidental. Biodiversity Partnership Project. Department of Environment and Natural Resources Protected Areas and Wildlife Bureau.
- Jakosalem, P.G.C., Doble, K.J., Reintar, A.R., Warguez, D.A. Tanaman, J. & Paguntalan, L.J. (2015). A Rapid Biodiversity Assessment of the Mt. Kanlaon Natural Park, Negros Occidental. Biodiversity Partnership Project. Department of Environment and Natural Resources.
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