



# Ramsar Information Sheet

Published on 19 October 2016

## Philippines

### Negros Occidental Coastal Wetlands Conservation Area (NOCWCA)



Designation date	20 October 2016
Site number	2271
Coordinates	10°15'48"N 122°46'22"E
Area	89 607,81 ha

## Color codes

Fields back-shaded in light blue relate to data and information required only for RIS updates.

Note that some fields concerning aspects of Part 3, the Ecological Character Description of the RIS (tinted in purple), are not expected to be completed as part of a standard RIS, but are included for completeness so as to provide the requested consistency between the RIS and the format of a 'full' Ecological Character Description, as adopted in Resolution X.15 (2008). If a Contracting Party does have information available that is relevant to these fields (for example from a national format Ecological Character Description) it may, if it wishes to, include information in these additional fields.

## 1 - Summary

### Summary

The Negros Occidental Coastal Wetlands Conservation Area (NOCWCA) lies along 109.52 kilometers of contiguous coastline covering 52 coastal districts (barangays) within three cities namely Bago City, Himamaylan City and Kabankalan City and seven municipalities namely Pulupandan, Valladolid, San Enrique, Pontevedra, Hinigaran, Binalbagan and Ilog.

The Site is known for its rich and diverse coastal resources, particularly, mangroves, shellfishes including economically important species such as oysters, green mussels, nylon shells, angel wings shells, shrimps and crabs. It is also home to three species of globally threatened marine turtles namely the critically endangered Hawksbill turtle, endangered green turtle and the vulnerable Olive Ridley turtle. The vulnerable Irrawaddy dolphin also inhabit the coastal areas.

In 2014, there were 72 species of waterbirds were recorded in the NOCWCA, including three globally threatened species such as Great knot (*Calidris tenuirostris*), Far Eastern curlew (*Numenius madagascariensis*) and Nordmann's greenshank or Spotted greenshank (*Tringa guttifer*). There are three other vulnerable species, namely the Philippine duck (*Anas luzonica*) which is endemic to the Philippines, Chinese egret (*Egretta eulophotes*) and Java Sparrow (*Lonchura oryzivora*).

The Site serves as an important source of livelihood for many coastal residents and fishermen who depend on the daily catch of shellfishes. At least 62.50 metric tons of oyster shells are harvested monthly in the areas of Ilog and Himamaylan City which is among the many marine and coastal resources harvested from the wetlands. Himamaylan City is the only known locality where nylon shells are produced and exported. In 2012 a total of 614,000 kilograms of nylon shells harvested which generated PhP 4,298,000.00 (approximately USD 104,000) in tax revenues. On the other hand, Binalbagan, Hinigaran, Pontevedra, San Enrique, Valladolid and Pulupandan are also known producers of angel wings shells where at least 22,701 kilograms were produced in 2010.

## 2 - Data & location

### 2.1 - Formal data

#### 2.1.1 - Name and address of the compiler of this RIS

##### Compiler 1

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##### Compiler 2

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Fax	+63 034 4357411

#### 2.1.2 - Period of collection of data and information used to compile the RIS

From year	2012
To year	2015

#### 2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Negros Occidental Coastal Wetlands Conservation Area (NOCWCA)
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## 2.2 - Site location

### 2.2.1 - Defining the Site boundaries

#### b) Digital map/image

<1 file(s) uploaded>

#### Boundaries description (optional)

Negros Occidental Coastal Wetlands Conservation Area (NOCWCA) is located in the western portion of Negros island along from the coastal localities of Bago City to Kabankalan City. NOCWCA waters is bounded in the north by Guimaras Strait and Panay Gulf in the south.

### 2.2.2 - General location

a) In which large administrative region does the site lie?	Negros Occidental, Negros Island Region
b) What is the nearest town or population centre?	Bacolod City, Negros Occidental, Negros Island Region

### 2.2.3 - For wetlands on national boundaries only

- a) Does the wetland extend onto the territory of one or more other countries? Yes  No
- b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party? Yes  No

### 2.2.4 - Area of the Site

Official area, in hectares (ha):	89607.81
Area, in hectares (ha) as calculated from GIS boundaries	89607.81

## 2.2.5 - Biogeography

### Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
Marine Ecoregions of the World (MEOW)	Indo-Malayan

### Other biogeographic regionalisation scheme

Philippine biogeographic region within Negros-Panay Faunal region.

### 3 - Why is the Site important?

#### 3.1 - Ramsar Criteria and their justification

<no data available>

Criterion 2 : Rare species and threatened ecological communities

Criterion 3 : Biological diversity

Justification














































The Negros Occidental Coastal Wetlands Conservation Area (NOCWCA) support a total of seventy-three (73) species of water birds including five globally threatened species and two globally near-threatened species. One of the seven threatened species of water bird is the endemic Philippine duck (*Anas luzonica*) with the highest population count of 2,800 individuals in 2014. The seventy-three (73) species of water birds represents 43% of the 177 birds recorded on the Negros Island. The NOCWCA also support three (3) out of the five (5) marine turtles species recorded in the Philippines. All three (3) species recorded at NOCWCA are recognized as globally threatened. The critically endangered Irrawaddy dolphin (*Orcaella brevirostris*) is also found in the coastal waters of Bago City and Pulupandan, which are part of the wetland areas. The Irrawaddy dolphin population is small, with the latest estimate between 18-23 individuals. Aside from this, other marine mammals such as spotted dolphins (*Stenella attenuata*), dwarf sperm whale (*Kogia sima*) and bottlenose dolphins (*Tursiops* sp.) have been recorded in these waters. A total of 23 species of mangroves and mangrove-associated plants were recorded within the area belonging to 10 families. One species of mangrove (*Avicennia marina rumphiana*) is listed as vulnerable and two other species are categorized as near threatened by the IUCN.

Criterion 5 : >20,000 waterbirds

Overall waterbird numbers	2012 (15,963; 40% of the area covered): 2013 (28,361; 60% of the area covered): 2014 (55,307; 80% of the area covered)
Start year	2012
Source of data:	Asian Waterbird Census

Criterion 6 : >1% waterbird population





#### 3.2 - Plant species whose presence relates to the international importance of the site

Scientific name	Common name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
<i>Acrostichum aureum</i> 	Lagolo/palaypay	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>		
<i>Avicennia marina</i> 	Bungalon	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>		
<i>Avicennia marina marina</i> 	Bungalon puti	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
<i>Avicennia marina rumphiana</i> 	Bungalon	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	VU 	<input type="checkbox"/>		
<i>Bruguiera cylindrica</i> 	Lapis lapis	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>		
<i>Bruguiera gymnorhiza</i> 	Busain	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>		
<i>Bruguiera parviflora</i> 	Langarai	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>		
<i>Ceriops decandra</i> 	malatangal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NT 	<input type="checkbox"/>		
<i>Ceriops tagal</i> 	Tangal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>		
<i>Excoecaria agallocha</i> 	Alipata	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>		
<i>Heritiera littoralis</i> 	Dungon	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>		
<i>Lumnitzera littorea</i> 	tabao	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>		
<i>Lumnitzera racemosa</i> 	culasi	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>		
<i>Nypa fruticans</i> 	Nipa	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>		
<i>Pemphis acidula</i> 	Bantigue	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>		
<i>Rhizophora apiculata</i> 	Bakauanlalaki	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>		
<i>Rhizophora mucronata</i> 	Bakauanbabaye	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>		
<i>Rhizophora stylosa</i> 	BakuanBato	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>		
<i>Sonneratia alba</i> 	Pagatpat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>		
<i>Sonneratia caseolaris</i> 	Pagatpat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>		
<i>Sonneratia ovata</i> 	Pagatpat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NT 	<input type="checkbox"/>		
<i>Xylocarpus granatum</i> 	Tabigi	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>		
<i>Xylocarpus moluccensis</i> 	Piagao	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>		

### 3.3 - Animal species whose presence relates to the international importance of the site

RIS for Site no. 2271, Negros Occidental Coastal Wetlands Conservation Area (NOCWCA), Philippines

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
CHORDATA / AVES	<i>Anas luzonica</i>	Philippine Duck	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>	Endemic to the Philippines	
CHORDATA / AVES	<i>Calidris canutus</i>	Red Knot	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA / AVES	<i>Calidris ferruginea</i>	Curlew Sandpiper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA / AVES	<i>Calidris ruficollis</i>	Red-necked Stint	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA / AVES	<i>Calidris tenuirostris</i>	Great Knot	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6955	2014	90	EN	<input type="checkbox"/>	<input type="checkbox"/>	SE Asia, Australia (non-bre); Migrating and wintering	
CHORDATA / AVES	<i>Charadrius peronii</i>	Malaysian Plover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA / REPTILIA	<i>Chelonia mydas</i>	Green Turtle	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				EN	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
CHORDATA / AVES	<i>Egretta eulophotes</i>	Chinese Egret	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
CHORDATA / REPTILIA	<i>Eretmochelys imbricata</i>	Hawksbill sea turtle	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				CR	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
CHORDATA / MAMMALIA	<i>Kogia sima</i>	Dwarf Sperm Whale	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA / REPTILIA	<i>Lepidochelys olivacea</i>	Olive Ridley	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
CHORDATA / AVES	<i>Limnodromus semipalmatus</i>	Asian Dowitcher	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA / AVES	<i>Limosa lapponica</i>	Bar-tailed Godwit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA / AVES	<i>Limosa limosa</i>	Black-tailed Godwit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4041	2014	90	NT	<input type="checkbox"/>	<input type="checkbox"/>	Limosa limosa (Black-tailed Godwit) - melanuroides; Migrating and wintering	
CHORDATA / AVES	<i>Lonchura oryzivora</i>	Java Sparrow	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>	Introduced	
CHORDATA / AVES	<i>Numenius arquata</i>	Eurasian Curlew	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	83			NT	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA / AVES	<i>Numenius madagascariensis</i>	Eastern Curlew; Far Eastern Curlew	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				EN	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
CHORDATA / MAMMALIA	<i>Orcaella brevirostris</i>	Irrawaddy Dolphin; Irrawaddy Dolphin	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
CHORDATA / MAMMALIA	<i>Stenella attenuata</i>	Pantropical Spotted Dolphin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
CHORDATA / AVES	<i>Tringa brevipes</i> 	Gray-tailed Tattler; Grey-tailed Tattler	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input type="checkbox"/>	<input type="checkbox"/>			
CHORDATA / AVES	<i>Tringa guttifer</i> 	Nordmann's Greenshank	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				EN 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			

There is a total of 59,093 waterbirds population counted representing 72 species of waterbirds in 2014. There are three endangered water birds, three vulnerable including one introduced species and nine near threatened species based on IUCN. The Great knot (*Calidris tenuirostris*) count in 2014 totaled to 6,955 individuals representing 1.5% of the global population (160,000 individuals estimated for the East Asian - Australasian Flyway). The black-tailed godwit (*Limosa limosa*) numbered to 4,041 in 2014 representing 2.1% of the global population of the subspecies of the subspecies *L. m. melanuroides*. Both species were concentrated within the coastal wetlands of Negros Occidental particularly in San Enrique – Pontevedra areas. This also happens to be the highest population count of both species in the country (Paguntalan et al 2014).

### 3.4 - Ecological communities whose presence relates to the international importance of the site

<no data available>



## 4 - What is the Site like? (Ecological character description)

### 4.1 - Ecological character

At least three major watersheds drains into the wetlands including the Northern Negros Natural Park (NPNP), Mt. Kanla-on Natural Park (MKNP) and the Ilog-Hilabangan Watershed Forest Reserve (IHWFR). All the river systems from these watershed drains into the coastal wetlands including three major river systems namely Ilog River, Bago River and Binalbagan River. From the highlands, agricultural waste feed into the river systems. As this passes through the lowlands, human and industrial effluents are also drained into the river systems before this is deposited into the sea.

No formal studies have been conducted on nutrient and water cycling in the coastal wetlands in the NOCWCA and information is limited to specific studies conducted on water quality, coliform tests in rivers and water sources and to some extent on soil analysis. With this, information on the ecological components, processes as well as services on the coastal wetlands is needed to understand the extent and role of wetlands in ecological processes.

Along the coastal areas and sections of the estuarine of major river systems are patches of old-growth and planted species of mangroves that serves as protection from soil erosion, storm surges, typhoon and flooding. Towards inland areas are also patches of Nipa (*Nypa fruticans*) that also serves both as sources of raw materials for roofing as well as protection against flooding, soil erosion and storm surges. Also important is that the Site serves as an important habitat for globally threatened species such as turtles and waterbirds, and is also a major food source for the local population.

### 4.2 - What wetland type(s) are in the site?

Marine or coastal wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
F: Estuarine waters	Bocana	3		
G: Intertidal mud, sand or salt flats	Hunasan	1		Representative
I: Intertidal forested wetlands	Katunggan	2		

### 4.3 - Biological components

#### 4.3.1 - Plant species

<no data available>

#### 4.3.2 - Animal species

<no data available>

### 4.4 - Physical components

#### 4.4.1 - Climate

Climatic region	Subregion
A: Tropical humid climate	Am: Tropical monsoonal (Short dry season; heavy monsoonal rains in other months)

The climate of the Province of Negros Occidental is divided into two distinct seasons: the wet and the dry seasons. The wet season starts from May to October with the southwest monsoon (Habagat) winds and ends when the northeast monsoon (Amihan) winds begin. The months of April and May are the hottest months of the year in the Province of Negros Occidental with mean temperature of 26°C. (Negros Occidental Tourism Center, 2010)

#### 4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres)

a) Maximum elevation above sea level (in metres)

Lower part of river basin

More than one river basin

Coastal

Please name the river basin or basins. If the site lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or ocean.

The Negros Occidental Coastal Wetlands Conservation Area (NOCWCA) is within the Bago City River Basin and Ilog Hilabanga River Basins. These are the two largest water basins within the island of Negros. The NOCWCA is also within the Guimaras Strait which separates Negros and Panay Islands.

4.4.3 - Soil

Mneral

Organic

Are soil types subject to change as a result of changing hydrological conditions (e.g., increased salinity or acidification)? Yes  No

Please provide further information on the soil (optional)

Hydrosol soil largely covers the entire coastal land area (chemistry range shall be determined during the conduct of coastal wetlands characterization)

4.4.4 - Water regime

Water permanence

Presence?
Usually seasonal, ephemeral or intermittent water present

Source of water that maintains character of the site

Presence?	Predominant water source
Marine water	<input checked="" type="checkbox"/>

Water destination

Presence?
Marine

Stability of water regime

Presence?
Water levels largely stable

Please add any comments on the water regime and its determinants (if relevant). Use this box to explain sites with complex hydrology.

The Negros Occidental Coastal Wetlands Conservation Area (NOCWCA) water regime is largely dependent on marine water. Although there are fresh water coming for several major river systems. During wet season water coming from the mountains causes flood within the lower basin.

4.4.5 - Sediment regime

Sediment regime unknown

4.4.6 - Water pH

Unknown

4.4.7 - Water salinity

Fresh (<0.5 g/l)

Please provide further information on salinity (optional):

The mean salinity values ranged between 0‰ during the wet season and 0.6±0.78‰ during the dry season (USLS, et al. 2012)

4.4.8 - Dissolved or suspended nutrients in water

Unknown

4.4.9 - Features of the surrounding area which may affect the Site

Please describe whether, and if so how, the landscape and ecological characteristics in the area surrounding the Ramsar Site differ from the site itself: i) broadly similar  ii) significantly different

Surrounding area has greater urbanisation or development

Surrounding area has higher human population density

Surrounding area has more intensive agricultural use

Surrounding area has significantly different land cover or habitat types

Please describe other ways in which the surrounding area is different:

The surrounding areas of the Negros Occidental Coastal Wetlands Conservation Area (NOCWCA) are within the residential areas along the coastal communities. Some of these area are aquaculture ponds, agricultural lands and lands used by sugar cane milling companies.

## 4.5 - Ecosystem services

### 4.5.1 - Ecosystem services/benefits

#### Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Food for humans	Sustenance for humans (e.g., fish, molluscs, grains)	High
Wetland non-food products	Other	Medium

#### Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Groundwater recharge and discharge	High
Hazard reduction	Coastal shoreline and river bank stabilization and storm protection	High

#### Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Nature observation and nature-based tourism	High
Scientific and educational	Educational activities and opportunities	High

#### Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Biodiversity	Supports a variety of all life forms including plants, animals and microorganisms, the genes they contain, and the ecosystems of which they form a part	High
Nutrient cycling	Storage, recycling, processing and acquisition of nutrients	High

Within the site:

Outside the site:

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site? Yes  No  Unknown

### 4.5.2 - Social and cultural values

- i) the site provides a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland

#### Description if applicable

The Negros Occidental Coastal Wetlands Conservation Area (NOCWCA) the only site in the Philippines where the local government units are leading the implementation and management of coastal wetlands in collaboration with the Department of Environment and Natural Resources (DENR) and other stakeholders.

## 4.6 - Ecological processes

<no data available>

## 5 - How is the Site managed? (Conservation and management)

### 5.1 - Land tenure and responsibilities (Managers)

#### 5.1.1 - Land tenure/ownership

##### Public ownership

Category	Within the Ramsar Site	In the surrounding area
Provincial/region/state government	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Local authority, municipality, (sub)district, etc.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

##### Private ownership

Category	Within the Ramsar Site	In the surrounding area
Other types of private/individual owner(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

##### Other

Category	Within the Ramsar Site	In the surrounding area
Commoners/customary rights	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Provide further information on the land tenure / ownership regime (optional):

The Negros Occidental Coastal Wetlands Conservation Area is under the jurisdiction and management of the Local Government Units (Local Government Code of 1991) and the Department of Environment and Natural Resources (Presidential Decree 705 & Republic Act 9147), Department of Agriculture-Bureau of Fisheries and Aquatic Resources (Republic Act 8550); Negros Occidental Coastal Wetland Area Management Alliance (NOCWAMA) (Memorandum of Agreement 2014); Kabankalan Himamaylan Ilog Integrated Coastal Area Management Council (KAHIL-ICAMC) (Memorandum of Agreement 2009); Central Negros Council for Coastal Resources Development (CENECCORD) (Memorandum of Agreement and Republic Act 9147).

#### 5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site:

Department of Environment and Natural Resources (DENR), Provincial Environment and Natural Resources Office, Negros Occidental (PENRO), Provincial Environment Management Office (PEMO), Local Government Units (Municipalities of Ilog, Binalbagan, Hinigaran, Pontevedra, San Enrique, Valladolid, Pulupandan and Cities of Kabankalan, Himamaylan, Bago), Philippines Biodiversity Conservation Foundation, Inc. (PBCFI).

Provide the name and title of the person or people with responsibility for the wetland:

Dr. Al O. Orolfo, CESE, Regional Director, DENR-NIR; For. Andres T. Untal, PENR Officer-Negros Occidental; Lisa Marie J. Paguntalan, Executive Director-PBCFI; Atty. Wilfred Ramon M. Peñalosa, Provincial Environment Management Officer, Negros Occidental

Postal address:

Department of Environment and Natural Resources - 7C Bldg., San Antonio Abad Park, Lacson Extension, Brgy. 39, Bacolod City, Negros Occidental, Philippines 6100

E-mail address:

cdd\_nir@hotmail.com

## 5.2 - Ecological character threats and responses (Management)

### 5.2.1 - Factors (actual or likely) adversely affecting the Site's ecological character

#### Human settlements (non agricultural)

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Housing and urban areas	Low impact	Low impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Commercial and industrial areas	Low impact	Low impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Drainage	Low impact	Low impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Water releases	Low impact	Low impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Canalisation and river regulation	Low impact	Low impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Marine and freshwater aquaculture	Low impact	Low impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### Energy production and mining

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Unspecified	Low impact	Low impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Transportation and service corridors

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Unspecified	Low impact	Low impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Vegetation clearance/ land conversion	Low impact	Low impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Invasive and other problematic species and genes

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Unspecified	Low impact	Low impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Geological events

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Unspecified	unknown impact	unknown impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Climate change and severe weather

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Storms and flooding	Low impact	Low impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Please describe any other threats (optional):

One of the pressing threats surrounding the site is the conversion of wetlands and mangrove forests into commercial areas, aquaculture areas (fish and shell farming), fishponds and residential areas. The growing population also poses threat of pollution, toxic and non-toxic pollutants from industrial waste (sugar cane mills) and coliform contamination along the estuaries and wetlands.

Overfishing also exists in the municipal waters along NOCWCA which threatens biodiversity and livelihood of local communities.

5.2.2 - Legal conservation status

<no data available>

5.2.3 - IUCN protected areas categories (2008)

Ia Strict Nature Reserve

IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention

V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation

VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems

5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	Implemented

Habitat

Measures	Status
Improvement of water quality	Implemented
Re-vegetation	Implemented
Land conversion controls	Implemented
Faunal corridors/passage	Implemented

Species

Measures	Status
Threatened/rare species management programmes	Proposed

Human Activities

Measures	Status
Fisheries management/regulation	Implemented
Harvest controls/poaching enforcement	Implemented
Communication, education, and participation and awareness activities	Implemented
Research	Implemented

### 5.2.5 - Management planning

Is there a site-specific management plan for the site? Yes

Has a management effectiveness assessment been undertaken for the site? Yes  No

If the site is a formal transboundary site as indicated in section Data and location > Site location, are there shared management planning processes with another Contracting Party? Yes  No

### 5.2.6 - Planning for restoration

Is there a site-specific restoration plan? No, but a plan is being prepared

### 5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Plant community	Implemented
Animal species (please specify)	Implemented
Birds	Implemented

The Asian Water Waterbird Census is conducted annually by Department of Environment and Natural Resources, Philippines Biodiversity Conservation Foundation, Inc. and local government units within the Negros Occidental Coastal Wetlands Conservation Area (NOCWCA).

The Provincial Government in collaboration with the concerned Local Government Unit and DENR had conducts mangrove assessment and inventory as well as the Coastal Vulnerability Assessment in the respective coastal barangays.

The University of St. La Salle conducts a regular surveys and counts of Irrawaddy dolphin population thru their project, Conservation and Management Enhancement of Irrawaddy Dolphin Habitats in Bago – Pulupandan area of NOCWCA.

NOCWCA also serves as a major research site for organizations, universities and colleges with the following studies, to wit: Identifying key habitat requirements of waterbirds for management. Philippines Biodiversity Conservation Foundation, Inc. and Department of Environment and Natural Resources (on-going); Shorebird and Passerine Abundance and Habitat Use in Negros Occidental Wetlands. Philippines Biodiversity Conservation Foundation, Inc. and Department of Environment and Natural Resources (on-going); The assembly of local communities: Waterbirds, shells and invertebrates in Negros Occidental Wetlands and Department of Environment and Natural Resources (on-going); The Characterization of the Ilog-Hilabangan River System: A Multi-Disciplinary Study by the University of St. La Salle, Central Philippines State University, West Negros University, Carlos Hilado Memorial State College and Kabankalan Catholic College; Hydrological and Ecological Study of Bago River by the La Consolacion College; Angel Wings by the University of the Philippines in the Visayas; and various undergraduate research studies on mangroves, oysters and nylon shells by different institutions.

## 6 - Additional material

### 6.1 - Additional reports and documents

#### 6.1.1 - Bibliographical references

Bhushan, B., Sonobe, K., & Usui, S. (1993). A Field Guide to the Waterbirds of Asia. Tokyo: Kodansha International.

BirdLife International (2001). Threatened birds of Asia: the BirdLife International Red Data Book. BirdLife International, Cambridge, U.K.

Christidis, L.; Boles, W. E. (2008). Systematics and taxonomy of Australian birds. CSIRO Publishing, Collingwood, Australia.

Collar, N. J., Mallari, N. A. D. and Tabaranza Jr, B. R. (1999). Threatened birds of the Philippines: the Haribon Foundation/BirdLife International Red Data Book. Makati City: Bookmark Inc.

del Hoyo, J.; Collar, N. J.; Christie, D. A.; Elliott, A.; Fishpool, L. D. C. (2014). HBW and BirdLife International Illustrated Checklist of the Birds of the World. Barcelona, Spain and Cambridge UK: Lynx Edicions and BirdLife International.

DENR and UNEP (1997). Philippine Biodiversity: An Assessment and Action Plan. Makati City: Bookmark Inc.

Dickinson, E.C., Kennedy, R. S. and Parkes, K. C. (1991). The birds of the Philippines: an annotated check-list, Tring, U.K.: British Ornithologists' Union (Check-list no. 12).

Heads, M. (2013). Biogeography of Australasia: A Molecular Analysis. Chapter 10 Biogeography of the Philippines. Cambridge University Press: pp. 356-401

Kennedy, R. S., Gonzales, P. C., Dickinson, E. C., Miranda Jr., H. C. and Fisher, T. H. (2000). A Guide to the Birds of the Philippines. New York: Oxford University Press.

MacKinnon, J., Verkuil, Y.I. & Murray, N. (2012). IUCN situation Analysis on East and Southeast Asian Intertidal Habitats, with particular reference to the Yellow Sea (including the Bohai Sea). Occasional Paper of the IUCN Species Survival Commission No. 47. Gland, Switzerland and Cambridge, UK: IUCN. 72 pp. www.iucn.org/asiancoastalwetlands.

Paguntalan, L.J., Jakosalem, P.G.C., Salazar, L., Jonahsson, L. (2013). Wetlands birds along the coast of Negros Island, Philippines: with notes on new records and threatened species.

#### 6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)

<1 file(s) uploaded>

ii. a detailed Ecological Character Description (ECD) (in a national format)

<no file available>

iii. a description of the site in a national or regional wetland inventory

<no file available>

iv. relevant Article 3.2 reports

<no file available>

v. site management plan

<no file available>

vi. other published literature

<no file available>

#### 6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



Negros Occidental Coastal Wetlands and waterbirds within the Municipality of Ilog. ( Godfrey Jakosalem, 26-01-2012 )



Negros Occidental Coastal Wetlands and waterbirds within the Municipality of Ilog. ( Godfrey Jakosalem 28-10-2013 )

#### 6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation 2016-10-20