



# REPORT

## ASSISTED VILLAGE DUGONG AND SEAGRASS CONSERVATION KOTAWARINGIN BARAT DISTRICT, CENTRAL KALIMANTAN PROVINCE 2017

This Project is executed by the Mohamed bin Zayed Species Conservation Fund, with financing from the GEF, implementation support by UNEP and technical support from the CMS Dugong MoU Secretariat.



## **FOREWORD**

Praise the Lord for all of His grace this report about “Assisted Village of Dugong and Seagrass Conservation, Kotawaringin Barat District, Central Kalimantan Province” could be finalized well.

This report is actually part of reporting series from Dugong and Seagrass Conservation activity in Kotawaringin Barat. We do hope it could give an overview of the villages which became part of pilot project in dugong and seagrass conservation in Indonesia.

Kotawaringin Barat, December 2017

Author

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# 1. INTRODUCTION

## 1.1. Background

Dugong (*Dugong dugon*) is one of the marine mammals that spend its life at the sea. Low population growth rates and the pressure on these species are so large, causing dugong populations to be threatened. Based on IUCN criteria, dugongs are one of species that is in vulnerable to extinction category. While based on CITES, dugongs are classified into Appendix 1 which means it should not be traded. Dugongs are relatively long-lived but it have low population growth rates, so the Indonesian government includes it into the category of protected animals based on PP. No. 7 of 1999.

In terms of the efforts to conserve dugong and its habitat in Indonesia, the Ministry of Marine Affairs and Fisheries (KKP) in collaboration with the Indonesian Institute of Sciences (LIPI), Bogor Agricultural Intitution (IPB) and WWF-Indonesia supported by United Nation Environment Program-Conservation Migratory Species (UNEP-CMS) and Muhammed bin Zayed Consevation (MbZ) in a Dugong and Seagrass Conservation Project (DSCP). The program runs in Indonesia (DSCP-Indonesia) since 2016 and is planned to be finished by the end of 2018, consisting of three main activities, as follows:

1. Proposal 1 (ID1) *Strengthen and Operationalize National Policy Strategy and Action Plan for Dugongs and Seagrass Conservation,*
2. Proposal 2 (ID2) *Improving National Awareness and Research of Dugong and Seagrass in Indonesia, dan*
3. Proposal 3 (ID3) *Community Based Conservation and Management of Dugong and Seagrass Habitat in Bintan, Kotawaringin Barat, Alor and Tolitoli.*

One of the activities in DSCP-Indonesia which becomes the responsibility of WWF-Indonesia is the implementation of ID3 proposal in Kotawaringin Barat-Central Kalimantan, which is the community-based management and conservation of dugong and seagrass. The ID3 program consists of enhancing the capacity of local communities as an effort to suppress the threats to dugongs and seagrasses, as well as increased active participation of local communities in safeguarding and conserving dugongs and seagrasses.

## 2. GENERAL CONDITION OF ASSISTED VILLAGE

### 2.1. Kubu Village

Kubu is one of the coastal villages located in Kumai District, West Kotawaringin Regency, Central Kalimantan Province. Kubu Village consists of 3 RWs and 11 RTs with a population of 3,403 people or 873 HHs. With the details of 1.776 male and 1627 female population. The distance from the village to the capital regency is more or less 32 Km to the south. Kubu village has an area of 23,099.6 Ha (Profile of Kubu Village, 2016). With the zone limits as follows:

Northern	: Sungai Kapitan Village dan Pasir Panjang Village
Southern	: Java sea
Eastern	: Downstream Kumai
Western	: Sungai Bakau Village

The Kubu village is well-known for its marine tourism objects on the south coast. There are many visits to this beach because of the beauty of beaches and other tours those are quite interesting, because it is where the history of the event of kumai territorial seizure. In this area formed a very solid defense of the Dutch until the full independence was obtained, it became the reason why it called Kubu Village which means "The defense". Towards the south to the sea there is keluang headland, which means out and coming. Because at that time the invaders came and passed keluang headland and discharge also passes the headland.

With the rainfall of 200-2,500 mm, the average temperature of 28-32°C, and the ground height of 0.57 m from sea level. In the field of agriculture and plantations, Kubu village has the potential in rice plants with the land area of 263 Ha. The yield that can be obtained each year is an average of 0.83 tons/ha. The second potential of agriculture is corn crops, with an area of 2 ha, it can produces 5.7 tons/ha (Profile of Kubu Village, 2016).

In the field of livestock, Kubu Village has a cattle, kampong chicken, laying hens, and ducks rancher. The biggest potential of the livestock is broiler breeders (laying hens), which has 49 farmers with 51,000 chickens (Profile of Kubu Village, 2016).

In the field of fishery, Kubu Village has the potential in fishermen who target many types of shrimp catches. The average of yield production is about 250 tons/year. The second is aquaculture, with a land area of 6 Ha yielded 60 tons/year (Profile of Kubu Village, 2016).

In the field of tourism, Kubu beach is one of tourism objects that is often visited by domestic tourists, in addition there is also Natural Park Tanjung Keluang which is maintained by Natural Resources Conservation Center (BKSDA) of Pangkalan Bun.

## 2.2. Sungai Bakau Village

Sungai Bakau Village is located in the west coast of kumai which the territory is directly facing the Java sea and also located in the south of Pangkalan Bun City. Kubu Village consists of 2 RWs and 11 RTs with a population of 1616 or 438 HHs. With the details of 823 people of male and 793 people of female. The village distance to the capital regency is about 52 km. The total area of Sungai Bakau Village is 10,730.2 Ha (Profile of Sungai Bakau village, 2015). With the zone limits as follows:

Northern	: Pasir Panjang Village
Southern	: Java sea
Eastern	: Kubu Village
Western	: Desa Teluk Bogam

Bakau River based on information from the oldest community, comes from Datuk H. Abdullah Banjarmasin residents who migrated to the Kingdom of Kotawaringin with his brother H. Hanafi. The siblings is separated looking for their own settlements and the story of the brother of hanafi also settled in Banjar Village of Ketapang area, West Kalimantan. While H. Hanafi also settled in Pangkalan Bun and married Mendawai people, so the people of Sungai Bakau Village may be called "Coastal Mendawai" because in general the people of Sungai Bakau memorize the language of Mendawai and almost ninety percent are the relatives of H. The Hanafi.

With 1,203 mm of rainfall, 6 months of rainy month, average temperature of 30-32 °C, and the ground height of 1-5 m from sea level. The field of agriculture is dominated by rice plants

with an area of 160 Ha and the yield of 1.65 tons/year. Then followed by other commodities such as watermelon, rattan, coconut and palm (Profile of Sungai Bakau Village, 2015).

In the field of livestock, Sungai Bakau Village has a breeder of kampong chicken as many as 130 people with a population of 1,750 chickens. Then there are 40 duck breeders and 15 cattle owners (Profile of Sungai Bakau Village, 2015).

In the field of fishery, Sungai Bakau Village produces more of stingrays type with 30 tons/year, then squid about 10 tons/year, whereas pomfret and snapper type reach 5 tons/year, the rest is 3 tons/year and tenggiri offspring only 2 tons/year (Profile of Sungai Bakau Village, 2015).

### 2.3. Teluk Bogam Village

Teluk Bogam Village is a village on the west coast of Kumai. Teluk Bogam Village consists of 8 RTs, the population is 1,249 inhabitants with 604 households (KK). With the details of 631 people of male and 618 people of female. The village distance to the capital regency is about 60 km. The total area of Teluk Bogam Village is 12,065.5 Ha (Profil of Teluk Bogam Village, 2016). With the zone limits as follows:

Northern	: Pasir Panjang Village
Southern	: Java sea
Eastern	: Sungai Bakau Village
Western	: Keraya Village

Teluk Bogam village in earlier time before became a defenitif village, has been occupied by the inhabitants since about 1934. The people of this region are the Bugis which was come from Bone. The name of Teluk Bogam is taken from the state and shape of the region that is in the bay with the headland which is named pengjujam headland, while in the bay area it is overgrown by Bogam stems. The tree is one type of mangroves (*Sonneratia alba*), by the circumstances so the village was named by Teluk Bogam.

With 1,000 mm rainfall, 4 months of rainy months, daily average temperature of 32 °C and the ground level of 2 m from sea level. The potential in the field of agriculture is a chili with an area of 4 Ha yielded an average production of 1 ton/year. In the field of livestock there

are 80 people who have a cattle with a total of 103 and laying hens with a production amount of 267 kg/year. While the field of fishery is dominated by the yield of crabs with a production of 28.5 tons/year (Profil of Teluk Bogam Village, 2016).

In the field of tourism, there is Tanjung Penghujan Beach as a beach of tourism object, moreover tourists can visit Gosong Beras Basah by using ships from fishermen to enjoy the clearer sea water and clean white sand.

## 2.4. Keraya Village

Keraya village is a coastal village directly facing the Java Sea and in the Southern of Pangkalan Bun City. Keraya Village consists of 5 RTs, 601 residents consisting of 311 male and 290 female inhabitants. The position lies on 02° 59 '41 " of South Latitude and 03° 22' 12" of East Longitude. The distance of the village to the capital regency is about 65 km (Profile of Keraya Village, 2016). The total area of Keraya Village is 78 Km<sup>3</sup>. With the zone limits as follows:

Northern	: Pasir Panjang Village
Southern	: Java Sea
Eastern	: Teluk Bogam Village
Western	: Sabuai Village

Keraya village in the earlier time before becoming a definitive village has been occupied by inhabitants since around 1963, which is incorporated with Sabuai Village Kumai District. The name of the village is taken from a banyan tree (Kariwaya) that grows strong and towering above the hill that grows around 1942 used as an identifier for people/fishermen who sailed into this village. From the word kariwaya simplified into Keraya, in accordance with the development then on April 26, 1966 it was formed into the extension village of the village of Sabuai.

Keraya village has not maximized the potential of agriculture and livestock, the community is more attempting in the field of fishery which is more focused on crab catching. The results of crab paring in the average can produce 2.5 tons/month. In the field of tourism, Keraya village has a good beach to visit, but it also has Natural Tourism of Patih Mambang Waterfall (Profile of Keraya Village, 2016).



### 3. FISHERMEN COMMUNITY CONDITION

Coastal fishermen community of kumia are the fisherman who still use traditional/manual fishing gear. Since the entry of fishermen from neighboring countries using trawling tools, create the desire of residents in the village of Sungai Bakau, Teluk Bogam, Keraya and Sabuai to conduct a group to ambush the fishermen from the outside. Likewise the fishermen from outside West Kotawaringin who tried to catch the fish in the waters of Kumai with the fishing equipment that is prohibited (trawling) which are not too different from the fate of fishermen from neighboring countries. This shows the concern of coastal communities to the condition of fisheries sustainability in their waters.

After the fishermen from outside West Kotawaringin do not dare anymore to operate in waters of kumai, it begin to appear where the local fishermen from Kubu Village and Sungai Bakau try to practice the destructive fishing gear technology in the waters of kumai. This has been a problem until now, because the communities know each other and also there are relatives, so in the implementation of stoping the trawl operation becomes a dilemma for the citizens themselves.

Many fishermen complain with the activities of fishermen who use trawl. Users of the fishing gear are considered to have damaged the ecosystem because all types and sizes of fish can be netted, so that in the cycle of fish life becomes disturbed. Then on the other hand is also detrimental to users of the gillnet net, because there are many cases of fishing nets also be netted in trawling.

Communities often report on the activities of fishing equipment that is banned (trawling), since the incoming of fishermen from the outside until now. But the response was very poor, so the community carried out their own actions without the escort from the apparatus, although the catch was still handed over to the legal apparatus. In the present time, there are indications of informers giving information to the fishermen who use trawling to not to operate if there are patrol routines that are conducted from the monitoring apparatus.

Along with the lack of efforts of the law enforcement officers over the activities of fishing equipment that is prohibited (trawling), so there are some citizens who have the courage to make arrests to the user of fishing gear by themself. The result is that they will be intercepted

by the people who ever get arrested. This often happens, so people do not dare anymore to take action to capture the trawling activity for local residents.

#### **4. CONNECTIONS OF COMMUNITIES TO DUGONG**

Dugong is very possible to live in the waters of kumai especially in Gosong Beras Basah because of the potential of pioneer seagrass that stretched wide at the southern tip of the gosong. According to former hunters, the condition of the dugong population at that time could reach tens to hundreds. It is based on when they were doing the hunt they chose the biggest to be caught. If you want to hunt more easily, the first thing to do is hunt down the dugong child. The captured dugong boy can be used as a bait to lure the flock to the boat.

Dugong hunting based on the results of interviews with residents began around 1946. Early hunting began with the use of a spear. Spear used was made of iron which ends tied with more or less 100 meters string. After a while, it appeared a special net with a length of about 700 meters. The results obtained were more and more with the use of the net, which was 3-7 dugongs per one operation. After the Department of Marine Affairs and Fisheries of West Kotawaringin Regency socializes protected organisms, there has been a decline in the number of dugong hunters until 2015.

Another threat is the use of permanent gill net. The last case identified in Keraya on June 29, 2017 which was stranded dead in fishing nets. Then the use of trawl fishing equipment that can damage the seagrass ecosystem as a source of dugong feed.

Dugong obtained is utilized ranging from meat, fangs, bones and also the eyes. The interest of the people in dugong hunting is first based on; the deliciousness of dugong's meat different from any kind of meat on the ground, second; the economic value of meat, fangs, and bones sold can equal the yield of 3 months of other seafood caught for one dugong, third; the magical value of the tears that is believed to be the best-selling maker or the spell.