



Preserving the Existence of Sea Turtles: The Government Policies and Roles on Conservations

Gwendolyn Ingrid Utama^{1*}, Shinta Pangesti^{1**}, Laura Cindy Vatesia^{1***}

¹ Faculty of Law, Universitas Pelita Harapan, Indonesia

* gwendolyn.utama@uph.edu

** shinta.pangesti@lecturer.uph.edu

*** 01051200132@student.uph.edu

Abstract

Sea turtles are reptiles that live in the sea which have long been threatened, both from nature and human activities. Internationally, sea turtles are included in the 'red list' in the International Union for Conservation of Nature's (IUCN) and Appendix I of the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES), which means that their existence in nature is threatened with extinction so that all the form of utilization and distribution must receive serious attention. Therefore, sea turtle conservation efforts are an important program to protect and save the populations, especially in Indonesia because there are 6 out of 7 sea turtles species still exist today in Indonesia. In order to support sea turtle conservation efforts in Indonesia, government roles are needed, both at the central and regional levels. This research focuses on the preserving sea turtles based in Indonesia through government policies and roles regarding conservations at Serangan Island and Tanjung Benoa, especially local government. The purpose of this research was to analyze government policies and their roles on sea turtle conservation efforts at Serangan Island and Tanjung Benoa. The research method used is normative using secondary data supported by primary data in the form of interviews with the management of the conservation centers. The research result shows that central government regulations are not always passed down to the regional level, but the government's awareness to protect the existence of turtles has been carried out together with the society even without regional regulations.

Keywords: Turtle Existence; Conservation; Government Policies and Roles

A. Introduction

Sea turtles (hereinafter referred to as "turtles") are found in all oceans in the world and include ancient animals that are still alive today. According to data from scientists, turtles have existed since the end of the Jurassic period (145–208 million years ago) or are the same age as

the dinosaurs.¹ Turtles are iconic organisms living in sea waters, this is because there are only 7 (seven) turtle species in the world.² Six out of seven species of turtles in the world are found in Indonesian waters as a habitat for food and breeding, or simply migrating from the Pacific Ocean to the Indian Ocean and *vice versa*.³ Turtles that can be found in Indonesia include:

1. Olive Ridley (*Lepidochelys olivacea*)
2. Green (*Chelonia mydas*)
3. Leatherback (*Dermochelis coriacea*)
4. Flatback (*Natator depressus*)
5. Loggerhead (*Caretta caretta*)
6. Hawksbill (*Eretmochelys imbricata*)

while there is Kemp's Ridley (*Lepidochelys kempii*) never found in Indonesia.

In 1999, the Indonesian government has designated turtles as a protected biota species, this means that the extractive use of these species is no longer permitted, except for research and development purposes. In addition, most of the coastal areas which are turtle nesting areas have also been designated as conservation areas. Turtles are spread almost throughout Indonesia, both on the west or east coast of Sumatra and its Small Islands, the south coast of Java Island and Small Islands in the northern part of Java Island, the Coasts of Kalimantan, Sulawesi, Papua, Bali, Lombok, Nusa Tenggara Timur, Nusa Tenggara Barat, Maluku and other small sandy islands.⁴

Currently, the threat to the sustainability of turtles is still quite high, both by natural and anthropogenic (human) factors. Natural factors include coastal abrasion, climate change, and the threat of predators. Anthropogenic factors include degradation of nesting habitats, marine pollution, accidental capture of turtles by fishing gear (by-catch)⁵, and use of turtle-derived materials such as meat, eggs, and carapace. The main threats faced by turtles include poaching and trading of eggs and body parts, damage to nesting habitats due to development in coastal areas, and threats at sea from fishing activities.⁶

¹ "Penyu," KKP, accessed April 22, 2022, <https://kkp.go.id/djprl/bpsplpadang/page/313-penyu>.

² "Penyu," KKP, accessed April 18, 2022, <https://kkp.go.id/djprl/lpsplsorong/page/1915-penyu#:~:text=Penyu%20merupakan%20organisme%20ikonik%20hidup,penyu%20yang%20ada%20di%20dunia>.

³ "Overview," WWF, accessed April 18, 2022, <https://www.wwf.id/spesies/penyu>.

⁴ *Rencana Aksi Nasional Konservasi Penyu Periode 2016-2020* (Jakarta: Direktorat Konservasi dan Keanekaragaman Hayati Laut Kementerian Kelautan dan Perikanan, 2015), 32.

⁵ *Rencana Aksi*, 53.

⁶ "Penyu," WWF, accessed April 18, 2022, <https://www.wwf.id/spesies/penyu>.

There are also many problems in the field of sea space management that need to be raised and corrected for the sake of realizing the Indonesian nation as the world's maritime axis. One problem that still needs improvement and development is related to efforts to conserve turtles in Indonesian territory even though Law Number 5 of 1990 concerning the Conservation of Living Natural Resources and their Ecosystems (UU 5/1990) has been promulgated, which includes the prohibition of trading turtles (including turtle eggs) with the threat of imprisonment for 5 years and a fine of one hundred million rupiahs.⁷ Conservation of living natural resources and their ecosystems is the responsibility and obligation of the Government and the society. In general, conservation can be defined as an effort or activity to care for, protect and develop conservation objects that have value to be preserved. Pontoh stated that the initial concept of conservation was conservation, namely efforts to preserve and protect while utilizing the resources of a place by adapting to new functions, without eliminating the meaning of life.⁸

The large number of turtle nesting areas has motivated the community and government to establish conservation centers around nesting areas, so that conservation areas in Indonesia are also widely spread. The conservation areas on Serangan Island and Tanjung Benoa are 2 (two) of many turtle conservation areas in Indonesia.

Serangan is a small island located 5 km south of Denpasar, Bali. Administratively, this island, which has a maximum length of 2.9 km and a width of 1 km, belongs to the area of Denpasar City, Bali.⁹ Tanjung Benoa is located to the south of Nusa Dua, namely in the Tanjung Benoa Traditional Village, South Kuta District, Badung Regency, Bali. Geographically, Tanjung Benoa is flanked by two seas, which makes this place unique. This area has an area of around 173.75 hectares and consists of 6 hamlets or neighborhoods namely Banjar Kertha Pascima, Banjar Anyar, Banjar Tengah, Banjar Purwa Santi, Banjar Panca Bhineka, and Banjar Tengkulung. According to history, in the past, Tanjung Benoa was a fishing village because many of the residents worked as fishermen. However, as time went on, the tourism potential of Tanjung Benoa water began to be seen by many people so that the changes were significant. What was previously a fishing village has now become the largest

⁷ "Sejarah Upaya Konservasi Penyu di Indonesia," Yayasan Penyu, accessed April 20, 2022, <http://yayasanpenyu.org/sejarah-konservasi-penyu/>.

⁸ Juliono, M. Ridhwan, "Penyu dan Usaha Pelestariannya," *Serambi Saintia* 5, No. 1 (2017): 46, <https://doi.org/10.32672/jss.v5i1.277>.

⁹ "Pulau Serangan," Denpasar Kota, February 8, 2012, <https://www.denpasarkota.go.id/wisata/pulau-serangan>.

watersport center on the Island of the Gods.¹⁰ This research was conducted on turtle conservation in Serangan named The Turtle Conservation and Education Center (TCEC) and Tanjung Bena named Moon Cot Sari.

The establishment of the TCEC, functions as a turtle conservation site, a semi-natural hatching place for turtle eggs taken from their natural nests on the beach so that the eggs can hatch safely without having to be disturbed by predators or humans. This step was taken as a solution so that people do not take turtles directly from the sea to preserve the turtle's habitat.¹¹

On the other area in Bali, Turtle Island is in the village of Tanjung Bena. The location of the Tanjung Bena in Bali is used by local residents as a turtle breeding place. The origins of the story in 1990s to 1999s, green turtle had almost reached its extinction in Bali because this it's used as foods for consumption besides being a media of Ritual Ceremonies at temples in Bali which makes turtle one of the obligatory sacrificial animals. Turtle, for the people in Bali in those years, is a favorite food because it tastes good and the meat is tender. It can be grilled or made into satay and lawar (Balinese food). As a result, the turtle population experienced a very drastic decline, even almost extinct. The government then made a ban on catching, buying and selling turtles for any reason. If it's for rituals at the temple, it's only allowed for big temples and large religious rituals, and only a small turtle.

Tanjung Bena is a breeding and rehabilitation place for turtles that are entangled in Tanjung Bena fishing nets. The Regional Government of Bali through Perhutani Bali's land then manages a small island in Tanjung Bena. The goal, of course, is to protect the turtle, which is decreasing in population and is one of the endangered marine animals that is protected. The turtle breeding site, which is located in Nusa Corner, Tanjung Bena Bali tourist attraction, is managed independently by the Tanjung Bena community on Perhutani land. Long before the regulations, the people of Tanjung Bena had taken the initiative themselves to conserve turtles.

¹⁰ "Sejarah Tanjung Bena Terlengkap," Suara, October 1, 2020, <https://www.suara.com/lifestyle/2020/10/01/074337/sejarah-tanjung-bena-terlengkap#:~:text=Secara%20Geografis%2C%20Tanjung%20Bena%20diapit,Panca%20Bhineka%2C%20dan%20Banjar%20Tengkulung>.

¹¹ Raden Ario, Edi Wibowo, Ibnu Pratikto, and Surya Fajar, "Pelestarian Habitat Penyu dari Ancaman Kepunahan di Turtle Conservation and Education Center (TCEC), Bali," *Jurnal Kelautan Tropis* 19, No. 1 (2016): 63, <https://doi.org/10.14710/jkt.v19i1.602>.

Turtle conservation in Bali is carried out because the Balinese people have a culture of consuming turtles.¹² Incidentally, in their area, there is raised land in the form of a stretch of sand surrounded by swamps. During high tide, this land is covered by sea water. This place is also the choice of suitable breeding location, because turtles absolutely need sea water for their habitat. Thus, this place is now a Tanjung Bena Turtle Island tourist attraction in Bali. Currently, the green turtle population in this location is increasing. During the breeding season, the eggs are rescued by residents and hatched. The hatchlings (name, baby turtles) which are still 1 month and a half old from the findings of the local people have been released into the open sea, while the rest are kept being raised again. Because if the hatchlings are released, all of them will die because they become prey for other predators in the wild there. Later, when they are 1 year old, half of the remaining survivors will be released back into the sea. There is much that a traveler will be able to see while in the tourist area of this turtle island. Apart from green turtles and baby turtles, you can also see other protected wildlife such as Pythons, Bats, Javanese Eagles, Crocodiles, and other animals.¹³

The extinction of turtles in the world has caused the ecosystem (especially) of the sea to become unbalanced, thus turtles need to be maintained at least by humans because humans are the most perfect and intelligent creatures. Although humans are also the ones who can destroy, humans are also the ones who can act and try to maintain the turtle's existence. Policies that can be implemented in sustainable turtle conservation efforts are increasing coordination between stakeholders, synchronizing laws and regulations, setting minimum sanctions, and increasing the role of stakeholders.¹⁴

This research focuses on the regulations and local government roles of maintaining turtle's existence through conservation efforts in TCEC, Serangan Island and Moon Cot Sari, Tanjung Bena. The aim of this research is to analyze the regulations and the role of local government towards turtle conservation efforts in these two conservations which needs support from the community and local government. The research method used is normative that

¹² Cokorde Istri Dian Laksmi Dewi, "The Legal Framework for the Protection of Turtles as Protected Animals from Culinary Business Production," *Substantive Justice* 5, no. 1 (2022): 22, <http://dx.doi.org/10.56087/substantivejustice.v5i1.163>.

¹³ "Pulau Penyu Tanjung Bena Bali," *Gotravela Indonesia*, accessed December 20, 2022, <https://www.gotravelaindonesia.com/pulau-penyu-tanjung-bena-bali/>.

¹⁴ M. Apuk Ismane, "Kebijakan Pengelolaan Kawasan Konservasi Penyu Pantai Pangumbahan Sukabumi untuk Pengembangan Ekowisata Berkelanjutan" (PhD diss., IPB University, Bogor, 2018), <https://repository.ipb.ac.id/handle/123456789/91600>.

examines positive laws regarding turtle conservation, with secondary data (books, journals, laws, etc) supported by primary data (interview with conservations management) which analyzed by qualitative method.

B. Discussion

B. 1. Protected Animals Under Indonesian Positive Law

Elements of living natural resources and their ecosystems are basically interdependent with one another and influence each other so that damage and extinction of one of the elements will result in disruption of the ecosystem. Wild animals are all animals that live on land, and/or in the water, and/or in the air that still have wild characteristics, both free-living and kept by humans.

Article 20 paragraph (1) of Law 5/1990 classifies plants and animals into protected plant and animal species; as well as plants and animals that are not protected. Furthermore, paragraph (2) classifies protected plant and animal species in plants and animals in danger of extinction; and plants and animals whose populations are rare. Paragraph (3) of the same article, confirms that further provisions as referred to in paragraph (2) are regulated by a Government Regulation.

The prohibition against protected animals is contained in Article 21 paragraph (2) of Law 5/1990, namely:

- a. catch, injure, kill, store, own, maintain, transport, and trade protected animals alive;
- b. keep, own, maintain, transport, and trade protected animals in dead condition;
- c. take-out protected animals from a place in Indonesia to another place inside or outside Indonesia;
- d. trade, store or possess skin, body or other parts of protected animals or goods made from parts of said animals or export them from one place in Indonesia to another place inside or outside Indonesia;
- e. take, destroy, destroy, trade, store or possess eggs and/or nests of protected animals.

Exceptions to the prohibition referred to in Article 21 are contained in Article 22, which can only be carried out for the purposes of research, science, and/or saving the plant and animal species in question. Included in rescue as is giving or exchanging plant and animal species to other parties abroad with the permission of the Government. Exceptions to the prohibition on catching, injuring and killing protected animals may also be made in cases where for some

reason the protected animal endangers human life. If there is a violation of the prohibition referred to in Article 21, then Article 24 confirms that the plants and animals are confiscated for the state. Species of plants and animals that are protected or their parts confiscated for the state are returned to their habitat or handed over to institutions engaged in the conservation of plants and animals, except when their condition is no longer possible to be utilized so it is considered that it is better to destroy them.

B. 2. Turtles as Protected Animals

Plants and animals protections are regulated in Article 20 paragraph (1) of Law 5/1990, confirming that plants and animals are classified into 2 (two) types, namely those that are protected; and unprotected. The rise of hunting for endangered species has made an international organization known as the IUCN issue a list of the conservation status of living things, both plants and animals, which are classified based on population size, distribution, and risk of extinction, known as IUCN. Red List Book. This is also the rationale for IUCN to make an agreement between countries which is then called CITES.

On March 3, 1973, IUCN held an international meeting in Washington DC along with 80 other countries with an agenda to agree on the CITES text. As threatened reptiles that live in the sea, turtles –internationally–, are included in the 'red list' at the IUCN and CITES Appendix I which means that its existence in nature are endangered.¹⁵ Turtle conservation efforts are a very important and urgent program to protect and save turtle populations, especially in Indonesia because there are 6 out of 7 species of turtles that still exist in the world.¹⁶

Indonesia is the 48th country that has signed CITES. In 1978 Indonesia ratified the results of the convention through Presidential Decree No. 43 of 1978 concerning Ratification of the Convention on International Trade in Endangered Species of Wild Flora and Fauna. With the ratification of the convention, the protection of turtles has become a legal obligation in

¹⁵ Irma Minarti Harahap, Achmad Fahrudin, and Yusli Wardiatno, "Pengelolaan Kolaboratif Kawasan Konservasi Penyu Pangumbahan Kabupaten Sukabumi," *Jurnal Ilmu Pertanian Indonesia* 20, no. 1 (2015): 40, <https://journal.ipb.ac.id/index.php/JIPI/article/view/9285>.

¹⁶ Wahyu Prihanta, Amir Syarifuddin, and Ach. Muhib Zainuri, "Upaya Konservasi dan Pengelolaan Habitat Penyu Laut melalui Pengembangan Ekowisata Berbasis Masyarakat" (Seminar Nasional dan Gelar Produk 2016: Inovasi-Hilirisasi Produk Riset dan Pengabdian Masyarakat Menuju Indonesia Berkemajuan dan Berdaya Saing Buku II, Universitas Muhammadiyah Malang, Malang, October 17-18, 2016), 78, Proceeding, <http://research-report.umm.ac.id/index.php/research-report/article/view/745/931>.

Indonesia. This means that the Indonesian nation also participates in protecting the existence of turtles and prohibits the commercialization of turtles. However, from 1973 to 1990, the government had not issued operational regulations or a strong legal basis regarding efforts to protect turtles in Indonesia. There is an impression that President Soeharto ratified CITES in 1973 as a form of international politics and has not been supported by a further commitment to maintain the existence of turtles in Indonesian waters.¹⁷ Thus, legal protection for the existence of sea turtles in Indonesia has received the attention of the government. Then in the Basic Law on Forestry No. 5/1967 included Areas, Nature Reserve Areas, Wildlife Reserves and Wiata Forests in the regulations. After that, in 1990, the Conservation Law No. 5/1990.

At the international level, besides CITES, there is another agreement in the field of biodiversity, namely the Convention on Biological Diversity (CBD) which was carried out in 1993. This convention focuses on the sustainable use of biodiversity so that it can provide space and mechanisms for habitat planning and protection at national and regional levels. This convention was later ratified by Indonesia through Law 5/1994 concerning the ratification of the United Nations Convention on Biological Diversity. Another agreement is regarding the Conservation of Migratory Species of Wild Animals (CMS) or known as the Bonn Convention which was carried out in 1979. Then CMS issued a memorandum of understanding (MoU) for countries that did not sign the CMS, namely the MoU on Siberian Cranes of Asia, MoU on Marine Turtle of the Atlantic Coast of Africa and MoU-IOSEA (Indian Ocean Southeast Asia Marine Turtle). Indonesia is one of the countries that agreed on the MoU-IOSEA since 2005. Indonesia is also involved in several cooperation frameworks, namely:

1. BSSE (Bismarck – Salomon Seas Ecoregion) between Indonesia and PNG, Salomon Island.
2. SSME (Sulu Sulawesi Marine Ecoregion) between Indonesia and Malaysia and the Philippines
3. CTI (Coral Triangle Initiative) between 6 countries namely Indonesia, Malaysia, Philippines, Solomon, Papua New Guinea, Timor Leste.
4. MoU of ASEAN Sea Turtle Conservation and Protection agreed upon by 10 countries and signed in Bangkok on 17 September 1997.

¹⁷ Wihelms Jemarut, Kornelia Webliana, and Diah Permata Sari, “Kajian Yuridis Perlindungan Penyu,” *Jurnal Ilmiah Dunia Hukum* 6, no. 1 (2021): 5, <http://dx.doi.org/10.56444/jidh.v6i1.2613>.

All types of turtles have been included in the CITES Appendix I list, which means that international trade in turtles for commercial purposes is also prohibited. The IUCN World Conservation Agency lists the hawksbill turtle as critically endangered, while the green, olive ridley and loggerhead turtles are classified as endangered. All types of turtles in Indonesia have been protected under Government Regulation Number 7 of 1999 concerning Preservation of Plant and Animal Types. This means that all forms of trade in turtles, whether alive or dead, or their body parts are prohibited. The substance of protection for animals is all parts of the body including their derivatives and derivative products, so turtle eggs are also included as protected parts.

Regulation of the Minister of Environment and Forestry Number P.20/MENLHK/SETJEN/KUM.1/6/2018 concerning Types of Plants and Animals that are Protected (Permen LHK 20/2018) as Amended by Regulation of the Minister of Environment and Forestry Number P.92/MENLHK/SETJEN/KUM.1/8/2018 concerning Amendments to the Minister of Environment and Forestry Regulation Number P.20/MENLHK/SETJEN/KUM.1/6/2018 concerning Protected Plants and Animals (Permen LHK 92/2018) and the Regulation of Minister of Environment and Forestry Regulation Forestry Number P.106/MENLHK/SETJEN/KUM.1/12/2018 concerning the Second Amendment to the Regulation of the Minister of Environment and Forestry Number P.20/MENLHK/SETJEN/KUM.1/6/2018 concerning Protected Plant and Animal Species (Permen LHK 106/2018) states that 6 (six) types of turtles are protected animals, namely the bromo turtle , green turtles, hawksbill turtles, olive ridley turtles, flatback turtles, and leatherback turtles.

Specifically for turtles, as protected animals both internationally and nationally in Indonesia, there are conservation efforts as a form of activity to maintain the existence of turtles. The definition of conservation according to the Big Indonesian Dictionary/Kamus Besar Bahasa Indonesia (KBBI) is the regular maintenance and protection of something to prevent damage and destruction by preserving it; preservation. KBBI gives the meaning of conservation as an effort aimed at preserving and protecting the existence of something.¹⁸ The existence of turtles is maintained and protected through turtle conservation efforts.

¹⁸ “Konservasi”, accessed January 3, 2023, <https://kbbi.kemdikbud.go.id/entri/konservasi>.

Turtle conservation is one of the activities that is expected to prevent the extinction of turtle habitat, prevent the use of turtles for commercial purposes such as selling eggs, meat, and shells and can be a means of sharing knowledge or educating the public at large about the importance of turtle conservation to protect turtle habitat in Indonesia so that it does not become extinct. To help and support turtle conservation efforts, captive breeding is carried out, namely by increasing the chances of turtle survival before being released into nature. Therefore, once the turtle eggs hatch, the hatchlings must be immediately stocked and released into the sea. Apart from supporting turtle conservation efforts, turtle breeding activities can also be held for special purposes such as education, research, and tourism, so that several semi-natural hatchlings can be set aside for rearing. Technically, captive breeding activities include hatching eggs (in semi-natural habitats or incubation), rearing hatchlings and releasing hatchlings into the sea.

Unlike birds, which always guard and incubate their eggs, sea turtles do not have this habit. Female sea turtles will immediately leave their eggs shortly after being laid, and completely leave the fate of their egg nests to nature. For millions of years, nature has worked perfectly to protect these eggs so that thousands to millions of hatchlings can hatch and return to the oceans in Indonesia to continue their lives, so that the turtle population remains sustainable. However, in the last few decades, things have fundamentally changed. Apart from taking their meat and shells, hunting for turtles is also known to meet the demand for turtle plastron, which is allegedly used as a medicinal ingredient. In addition to catching turtles, their eggs have not been spared.

B. 3. Regulations and Local Government Roles of Turtles Conservation in TCEC and Moon Cot Sari

In the past, the biggest turtle trading places in Bali were in Serangan and Tanjung Bena, the turtles were not only used for ceremonies but also mostly for consumption. Therefore, the international world sees Bali as the largest turtle trading place and criticized Bali tourism if Bali still uses turtles for consumption, in other words Bali tourism will be boycotted. This reason makes the Balinese people aware that turtles can have an impact on the economy, either positive or negative. The positive impact is, if they protect the turtle habitat, the local community's economy can grow. On the other hand, if turtles continue to be traded and consumed, Bali will potentially become an enemy of world tourism.

Serangan and Tanjung Benoa are located in Bali, therefore, the same regulations (central and regional) are applied to both areas, including turtles regulations. As mentioned earlier, Article 21 paragraph (2) of Law 5/1990 prohibits some acts against protected animals, including turtles, with exceptions mentioned in Article 22. All the prohibitions in Article 21, are not applicable if it's carried out for the purposes of research, science, and/or saving the plant and animal species in question.

Turtles conservations normally will do things prohibited in Article 21, such as maintain the life of turtles (point a prohibition) and possess the eggs of turtles (point e prohibition), but the conservation centers are allowed to do those acts because its purpose is to save the animal species. According to Article 22, it is no longer prohibited because of the purpose's acts. Therefore, TCEC and Moon Cot Sari have a strong legal basis to do some acts regarding turtles and its eggs.

B.3.1. Turtles Conservation in TCEC, Serangan

Traditionally, turtles in Serangan Traditional Village are for trade, tourism, customs, and Hindu religious ceremonies.¹⁹ It is prohibited based on Articles 21 paragraph (2) of Law 5/1990. Efforts to protect turtles are described in the Awig-awig Serangan Traditional Village. Awig-awig is seen as a legal rule that regulates people's lives traditional villages so that tranquility, order and peace can be created.²⁰ Pawos 29, which reads “penyu lan binatang laut lianan tur seluring paksi” (the turtles and other sea animals and all birds). Palet 1: “Utsaha desa sane kesangkreb antuk desa wantah pasar desa, LPD, TCEC, dermaga lan parkir, sane kaayomin olih badan usaha milik desa” (the efforts approved by the village are the village market, LPD, TCEC, harbour, and parking area protected by village-owned enterprises).

This conservation was inaugurated by Governor of Bali, Mr. Dewa Barata, on January 20, 2006, on Serangan Island. It was found from the first Bali Bombing in 2002, the process took place in 2002 through an IMF (International Monetary Funding) program assisted by WWF (World Wide Fund for Nature), and that incident caused the economic crisis for Bali.

¹⁹ I Wayan Kusuma Giri Nampipulu and Edward Thomas Lamury Hadjon, “Peranan Desa Adat Serangan dalam Melakukan Perlindungan dan Pelestarian Satwa Penyu,” *Kertha Desa* 8, No. 3 (2019): 1, <https://ojs.unud.ac.id/index.php/kerthadesa/article/view/54670>.

²⁰ Ni Komang Winarti, Nurlela, and Mubarak Dahlan, “Fungsi Awig-Awig dalam Mempertahankan Kebudayaan Suku Bali di Desa Pepuro Barat Kecamatan Wotu Kabupaten Luwu Timur,” *Alliri: Journal of Anthropology* 3, No. 2 (2021): 103, <https://ojs.unm.ac.id/JSB/article/view/25957/13141>.

During that time, the impact of the issue of the turtle trade in Bali was extraordinary. Turtles are bought and sold, so TCEC is the solution to the policy of getting turtles for ceremonial purposes.

TCEC was developed as part of a strategy to tackle the turtle trade, built in an area of 2.4 hectares. It tries to help the local people of Serangan make other alternatives. This was taken as a solution so that people do not take turtles directly from the sea in order to preserve the turtle's habitat.²¹ In addition to the turtle trading business, the captive breeding center has the potential to be useful as an educational center, tourist area, conservation and research center. TCEC is supported by WWF, the Governor of Bali, the Bali Natural Resources Conservation Body (BKSDA Bali), and the local community of Serangan Island. The aims of TCEC are to stop turtles trade, provide general information about turtles, educating society not to consume all types of sea turtle products, and widely supporting turtle conservation. This includes using turtles in rituals without having to kill the turtles, and monitoring the size and number of turtles, making strict controls, providing jobs for local people of Serangan, and ultimately making part of the action to monitor trade in Serangan Island and Bali in general. TCEC also directly saves turtles in nature; sick conditions, saving turtle eggs in beach areas that are crowded with visitors, and buying turtle eggs from the local community (which they prepare for consumption). Turtle eggs will later be hatched at the captive center, baby turtles (hatchlings) are cared for about 1-3 month to be released into nature.²² All the reasons for turtle activity in extinction due to human activities, not only hunting and consuming turtle eggs and marine pollution and development of nesting areas and a very drastic population decline.²³

As well as the existing regulations in legislation, there is a formulation from traditional leaders in Bali, called Bli Same. Bli Same is the term for gathering traditional leaders from all over Bali to formulate a solution, because turtles are used in traditional ceremonies and at the same time turtle is a protected animal by the country. It is stipulated in the same regulation that turtles may be used, but in ceremonies, must receive recommendations from the Indonesian Hindu Darma Tourism (PHDI) and the local BKSDA. BKSDA Bali is the Technical Implementation Unit (UPT) of the Directorate General of Forest Protection and Nature

²¹ Taurus Zeno Adi Eti Harnino, I Nyoman Yoga Parawangsa, Luthfiana Aprilianita Sari, and Sulastri Arsad, "Efektifitas Pengelolaan Konservasi Penyu di Turtle Conservation and Education Center Serangan, Denpasar Bali," *Journal of Marine and Coastal Science* 10, no. 1 (2021): 32, <https://doi.org/10.20473/jmcs.v10i1.25604>.

²² Raden Ario, Edi Wibowo, Ibnu Pratikto, and Surya Fajar, "Pelestarian," 63.

²³ "Tentang TCEC", TCEC Serangan, accessed April 22, 2022, <https://tcecserangan.jimdofree.com/indonesia/>.

Conservation (PHKA), Ministry of Forestry. The letter will be addressed to TCEC, then TCEC will provide ceremonial turtles from rearing, not from nature.

TCEC is the biggest turtle conservation in Bali for now, it provides turtles for ceremonies, facilities for turtle health and are supported by Udayana University veterinary students who deal with health issues. TCEC's mission is conservation, ecology, which means how to encourage children from an early age to carry out ecological activities, for example planting turtle eggs and releasing hatchlings. It is hoped that from this activity, humans will be touched and remember it, then will care for it. Another mission is in the socio-cultural field, namely for traditional ceremonial and economic activities. The plus value of TCEC is tourism, guests who come will do tourism by carrying out conservation activities by helping with donations or buying souvenirs/gifts that are sold at TCEC. Visitors who came to this conservation in normal conditions before Covid, 60-70% were predominantly foreigners rather than Indonesian citizens, then 20% were school and university students, 10% were regular or general visitors.²⁴

Community figures on Serangan Island were involved in the establishment, management and capital. I Made Sukante, as the chairman of the management, is the second generation, previously led by Wayan Rie. The Bali government, BKSDA Bali and WWF Indonesia are the main sponsors to help with costs for conservation activities for 1-2 years, for example to provide incentives to employees. For further cost, comes from donations from several parties, state-owned companies and several private companies in Indonesia. During Covid, TCEC had a minus in financing because there was no one to support it, but it was able to survive because it was helped by friends with donations. BKSDA Bali helps with turtle feed costs, which cost 40-50 million a year.

The roles of the Bali government and the Bali BKSDA are the same, namely providing permits and supporting conservation activities for both internal TCEC interests (such as management) and external interests (such as providing education to the community).

The regulations used by TCEC are regulations that apply nationally. This is because there are no regional regulations governing the conservation of turtles as protected animals. For the implementation of activities, it is adjusted to the SOP that has been made in accordance with statutory regulations. TCEC's obligations are also bound by law in every aspect, the simple

²⁴ Interview with I Made Sukante, Head of TCEC Management, December 3, 2022.

thing for example, to look after the sick and the healthy turtle because the activities carried out at TCEC are for rescue as well.

The government also mandates activities in accordance with the basic budget, so that turtles must provide food, either seaweed or fish, according to the type of turtle available. Then you also have to carry out monitoring activities in Denpasar or Bali, even outside Denpasar such as Gianyar and Canggu. There are also rescues available, not only turtles but also sometimes dolphins. So, the conservation activities that TCEC carries out are not just turtle conservation efforts in the Serangan Island area, but also have a rescue mission and even make it possible to get to other types of animals outside the island if needed. TCEC does this as part of its government assistance function, because conservation is not just about one turtle, but we also help other stranded mammals. The police, as a part of governmental body, also help in socializing about the knowledge of turtle conservation. As the party with the authority to take action or make arrests, the police department provides education for community.

Apart from the management and government, the community around TCEC also has a role. The community's role is to participate in monitoring turtle nesting and socialize it to their acquaintances outside of Serangan Island. TCEC often carries out outreach activities to coastal communities, because the coast is the front line. People on the coast will see it first.

Regarding the current turtle trade, if it is a black market, it cannot be avoided. The black market cannot be known which party is selling it, because it is done behind closed doors and the use could be for food or whatever. The law regarding turtles is still not ready and not strict enough. Those who played an important role in this matter were the barons/peeps. Collectors are the people who gain the most from collecting turtles by having people look for turtles and then selling them. People sell turtles, even if only 1 or 2, but someone orders them. People do have fear, but demand makes this happen, especially economic factors or conditions. To prevent this, the government must carry out frequent outreach. In fact, conservation center in Bali or Indonesia plays a very important role in helping the government. Suppose the government has a team to hold authority in several areas, but without the community it will not run smoothly. Specifically, a conservation center can handle/help with this matter with the assistance of team of experts. Now the way to use turtles is that they only need to take the meat, not like before when they were taken whole because there was a case like that in Bali. If turtles are still used by humans, such as consuming turtle meat, this is tantamount to helping trade, so humans needs to avoid things like that. If don't save it now, the turtle will become extinct.

The government's response to the establishment of TCEC was overwhelmingly positive. Without government support it is impossible because these are animals that are protected by the government and protected by law. BKSDA Bali and the tourism office also support by providing facilities such as wash basins. Because the positive value lies in the tourism sector, the tourism department supports it. So whatever activities are related to the environment, TCEC will be contacted by the government. The government is also promoting TCEC with the tourism ministry program with the "we love Bali" program which is here to improve Bali's economy due to Covid-19, so the government recommends TCEC to be visited. The government helps to restore the situation.

B.3.2. Turtles Conservation in Moon Cot Sari, Tanjung Bena

Moon Cot Sari Turtle Farm is a conservation and educational tour for various types of animals, especially Turtles. Apart from being used for conservation, it is also a place to rescue turtles because in ancient times this place was discovered by a group of fishermen and because turtles were almost extinct, they were consumed so this place was built with capital from donations.

The government's role in Moon Cot Sari is to provide operational permits in accordance with statutory regulations. Apart from that, a management permit is also required, but the permit to manage protected animal areas is obtained from the BKSDA. Later, when it has been approved and signed by the center, permission will be obtained from the Regional Government.

The local community supports and plays a helpful role such as working together because here there are lots of activities that can be carried out such as planting mangroves and their support is also important. Mangrove planting is related to turtles because this place is surrounded by mangroves. Mangroves are provided by the government and people plant them to reduce abrasion. If abrasion continues it will also affect turtle habitat and turtle eggs. They lay their eggs on the beach, if the beach is abrasion, then they haven't hatched and they've been washed away. That is the role of the community who work together to help. Without permission from the community, it cannot run smoothly.

Funds come from donations and visitors. There is no financial assistance from the government, but the government provides assistance in permits. Moon Cot Sari is also supported by WWF. In contrast to TCEC, funds are also obtained from visitors for educational

purposes, for example research guests, ministry guests, while Moon Cot Sari for tourism and a bit of education.²⁵

The role of government which focuses on permits, is also supplemented by supervision. The government takes seriously everything that will affect the survival of turtles and acts as deemed necessary. If necessary, the government can close the island access for tourist visits if it has a negative impact on turtles. The government provides non-material support for turtle conservation here.

C. Conclusion

It is clear that based on international law and Indonesian law, turtles are protected animals. Government policies have been expressed in the form of laws, government regulations, presidential decree, and regulations at the ministerial level. All the regulations stated that turtles are protected animals and there are some prohibitions against turtles. Several areas of Indonesia are places where turtles stop and lay their eggs, such as on Serangan Island and Tanjung Bena, Bali. Efforts to preserve the existence of turtles are carried out by the people of both regions through conservation. Conservation efforts called TCEC in Serangan Island and Moon Cot Sari in Tanjung Bena receive support from the government in terms of permits and supervision. This is the role of the Bali government, as the local government, to help the conservation centers in preserving the existence of turtles. Even though the Bali government does not make regional policies regarding the implementation of turtle conservation, if necessary, the Bali government is willing to take any action if there are conditions that has (or potentially has) negative impact on turtles in the area. TCEC and Moon Cot Sari are the real embodiment of turtle protection regulations because they're not only save and return hatchlings to their habitat so that turtles continue to exist, but also serve as educational platforms. The conservation centers also plays a role in preventing people from trading or using turtles illegally. This research shows that special regulations for turtle conservation is not needed to be written down in the form of regulations because the most important is voluntary public awareness which helps the government to enforce turtle protection.

²⁵ Interview with Wayan, Moon Cot Sari Management Staff, December 4, 2022.

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