



Some Legal Conflicts on the Protection of Algal Reef in Taiwan

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Background

The CPC Corporation, Taiwan (CPC) owns a land for industrial use in the coastline area of Da-Tan, Tao-Yuan County and plans to develop that area as liquefied nature gas (LNG) receiving terminal and tanks, including the receiving port construction. The construction site of building the LNG receiving port is located on the algal reef area. The port building project will definitely eradicate and bury the algal reef on that site. The algal reefs occur on the Da-Tan area which were indicated the date from 7,500 BP¹ and also provide habitat for an endangered coral reef *Polycyathus chaisanensis* and other various marine species. During the evaluation process of the difference assessment on environment impact, the local environmentalist and marine biologists urged the government to cancel this construction project but preserve this algal reef as habitat for the endangered coral species and other marine wildlife. However, the government and CPC are trying to finish this LNG receiving project for the needs of electricity generation and greenhouse gas emission reduction. The arguments lead the reviewing of the current wildlife conservation regulations and existing *in situ* mechanisms adopted by Taiwan laws. It also brought out several legal issues on the implementation of the wildlife protections.

Regulations for preservation of wildlife habitats

In situ is the major method to protect wildlife habitat and preserve biological diversity. The current legal system in Taiwan adapted *in situ* conservation approaches and classified the habitats in five categories. These are National Park, National Nature Park, Nature Reserve, Nature Protection Zone, wildlife protection zone and wildlife essential habitat. These five categories of wildlife habitats conservation methods are also granted and integrated by different specific legislative bills. The National Park Law has the most restrictive regulations for protecting the nation's unique natural scenery and wildlife sites. The Article 8 of the National Park Law also divided the national park into two types of National Park and National Natural Park. The National Park is designed to conserve unique national landscape and ecosystem, preservation of biological and culture diversity. The place with less

¹ Chin-Yu Liou, Sung-Yin Yang & Chaolun Allen Chen, Unprecedented calcarous algal reef in northern Taiwan merit high conservation priority, 36 *Coal* 1253, 1253 (2017). Available at <https://link.springer.com/content/pdf/10.1007%2Fs00338-017-1619-0.pdf> (2019/4/27)

biological diversity and smaller landscape is designed and is now called the National Nature Park. Based on the Articles 13 and 14 of the National Park Law, the development and usage on the land within the scope of the National Park is prohibited unless they were authorized by the National Park Management Headquarter.

The Culture Heritage Preservation Act (hereinafter mentioned as CHPA) also provides site protection on natural zones, unique land formations, geological phenomena and valuable and rare plants. It could be used to protect habitats of valuable and rare plants in Taiwan. The Act indicated that the central competent authorized agency to preserve natural landscape is the Council of Agriculture. The valuable and rare plant itself can be identified as Natural Monument, and the lands growing valuable and rare plants could be described as Natural Landscape. The CHPA also classifies the Nature Landscape into two categories of Natural Reserve and Geological Park by its natural characteristics.² Within the Natural Reserve, it could be further classified into three types – the national, municipal, county and city Nature Landscape by the decision of their competent authorized agency.³ Article 86 further states that any alternation of damage to the natural status of the Natural Reserve is prohibited. In order to provide better protection of the Natural Reserve, no one is allowed to enter the designed zone or land area without prior permission from the competent authorized agency or other laws. No major construction project contemplated by any government agency may obstruct the preservation or conservation of any nature landscape. Before the commencement of construction project, investigation shall be made to ascertain whether any site of designed Nature Reserve is located at the site of the construction project according to Article 87. The algal reef is accumulated by crustose coralline algal and located on the northeast coastline of Taiwan. The algal reef itself could be assigned as Natural Monument, however, the reef provides habitat to many marine species and wildlife. It shall be designated as Natural Reserve for the preservation of marine biological diversity and habitat of these marine species, including the endemic species.

Based on the Article 17-1 of the Forestry Act, the establishment of Nature Protection Zone was granted for the purpose of maintaining forest ecology and preservation of biodiversity within the forest area. The number of visitors and the amount of traffic allowed to go into the Nature Protection Zone shall be regulated in accordance with the unique characteristics of the resources within the Nature Protection Zone. The central competent authorized agency to establish Nature Protection Zone is the Council of Agriculture. Based on this authorization, the Council of Agriculture announced the Management Regulations on Establishing Nature Protection Zone. Those areas within the forest containing the following conditions or characteristics are qualified as Nature Protection Zone: (1) the primitive forest that contains value of ecology and conservation; (2) the landscape or forest type that contains ecological representative; (3) the area of special natural lakes, streams, swamps, coasts or beaches, etc., ; (4) habitat of conservative wildlife and valuable and rare plants; and (5) other areas that are considered as necessary needs for special protection by competent authorized agency. Once the scope and location are announced proclaiming as Nature Protection Zone, the forest land owner or managing operation institution shall prepare the Nature Protection Zone Operation and Management Plan for public review, and reported to central competent authorized agency for approval (Article 5). The Article 9 of the Management Regulations also describes specific prohibited behaviors engaged within the Nature Protection Zone, including (1) folding flowers and trees, or adding text or graphics on trees, rocks, signs, instruction boards, or other fixtures on land; (2) operating mobile vendors; (3) spitting, dumping fruits, paper scraps or other waste; (3) polluting the ground, walls,

² Article 78, Culture Heritage Preservation Act (1984).

³ *Id.*, Article 81.

beams, water, air or making noises; (4)harassing or destroying wildlife nests; (5)entering the Nature Protection Zone without prior authorization. The Nature Protection Zone can only be established within the forest area and its land cannot be used for construction purpose.

The Wildlife Conservation Act is produced to preserve wildlife and protect species diversities. The Article 8 states the habitat of protected species, including endangered, rare and valuable species and other wildlife deserving to be protected, can be announced as wildlife essential habitat by both local and central competent authorized agencies. However, the land of wildlife essential habitat can be utilized and used for construction but should not harm the original ecological function and environment of the essential habitats. If the local government recognizes and considers that the special preservation of these essential wildlife habitat is needed, they could announce the essential habitat as Wildlife Conservation Zone with a conservation plan. Within the land boundary of the Wildlife Conservation Zone, the competent authority can announce and adopt the restricted measures in the conservation plan to limit the behaviors in the Wildlife Conservation Zone, including (1) disturbance, abuse, hunting or killing of general wildlife; (2) collecting or cutting of plants; (3) polluting or destructing the environment; and (4) other prohibited or approved behaviors. The construction and development are not prohibited within the wildlife conservation zone.

If wildlife essential habitat conservation status becomes urgent or necessary, the central competent authorized agency (Council of Agriculture) can appoint the essential wildlife habitat as Wildlife Conservation Zone and then acquire the approval from Wildlife Conservation Advisory Committee later. Although both agencies have the power to preserve habitats for wildlife, the local government owns the prior obligation to use the lands and nature resources within their jurisdiction and the central government shall respect their given power.

Lacking of ecology and science standards on habitat conservation

Within the Wildlife Conservation Act and its Enforcement Rules, the wildlife habitats contain the following conditions which can be defined as wildlife essential habitat: (1) habitat environment of protected species; (2) habitat environment with diverse species and rich quantity of wildlife; (3) habitat environment with less human interference and difficult to recover if damaged; (4) other wildlife habitat environment with specific ecology characteristics. Based on this definition, it does not define the number or standard to decide what number could be qualified as the “quantity” of the rich amount and the investigation method for the “specific ecology characteristics.” The above definition does not regulate the process to decide whether the habitat is essential for wildlife. Taiwan has abundant natural resources and rich biological diversities, their relationship with 23 million populations is tight. Without these scientific or biological research data for reference, the residents and non-governmental groups will challenge the project developers and government’s approval decisions on the construction projects.

Taking the Da-Tan LNG receiving project as example, the developers suggested the location of the algal reefs were highly polluted by the nearby industry waste water and the marine biodiversity is too few to fulfill the requirement of biological characteristic. On the contrary, the marine biologist and local residents hold relatively controversial opinions and strongly suggest the governments to reject the development project. They also urged the government shall announce the algal reef area as wildlife conservation zone or Natural Reserve under the CHPA. If these regulations could provide a clear definition about “biological characteristic” or standard of

biological environment, both sides can share the same standards to proceed environment investigations and reduce the arguments effectively.

Land usage issue on wildlife habitat

Comparing the protection methods on the wildlife habitats, the National Park Law provides most restrictive limitations on the land development and utilization. Although both Forest Act and CHPA provide regulations on habitat conservation, the lands of Natural Protection Zone and Natural Reserve cannot be used for development and construction. On the country, the lands of wildlife essential habitat and National Wildlife Conservation Zone can be used for construction. Based on Article 10, even when the wildlife habitat was upgraded to Wildlife Conservation Zone, the land scope of the Conservation Zone could be used or developed because of the needs of essential construction after the Nation Wildlife Conservation Advisory Committee recognized the Council's decision. According to the statements in Article 8 and 10, it shows the most controversial arrangement because both the lands of wildlife essential habitat and wildlife conservation zone are available for utilization and construction. However, Article 1 states that the main purpose of Wildlife Conservation Act is wildlife conservation, the statements of Articles 8 and 10 violate the legislative purpose since both of them all agree to the utilization of the land prior to the wildlife habitat conservation. The regulations make the protection of wildlife and their habitat less important than land utilization.

The algal reefs located at Da-Tan area are not announced as Wildlife Conservation Zone or Natural Reserve by the local government. Even when an endangered coral species *Polycyathus chaisanensis* was discovered, it can only be classified as wildlife essential habitat since the local government (Tao-Yuan County) has not reviewed and announced it as Wildlife Conservation Zone. The local government neither adopts CHPA nor assigns the algal reef area as Natural Reserve. Since the wildlife essential habitat is allowed for construction and development, the LNG receiving port construction project cannot be rejected or prohibited by laws. The central government did not consider the LNG development project above the algal reef an urgent threat to the endemic specie of *Polycyathus chaisanensis* and did not consider the announcement of wildlife conservation zone a necessary treatment.⁴

Institutional misplace on wildlife habitat protection

Based on the Article 10 of the Wildlife Preservation Act, the Wildlife Conservation Zone provides better protection than wildlife essential habitat because it establishes several prohibited behaviors and prevents the zone from being disturbed by people. However, the competent authorized agency to provide wildlife conservation zone is local government, and the competent authorities of wildlife essential habitat are both local government and central government. Since the protection burdens on wildlife conservation zone is more restrictive than wildlife essential habitat, it is quite an interesting design to have local government with less government resources to take more responsibilities on wildlife conservation. The central government only can announce the wildlife essential habitat as Wildlife Conservation Zone when they accept the conditions of "emergency or necessary." It means the central government does not have superior privilege to assign Wildlife Conservation Zone but it needs to respect local government. When both the local and central government do not plan to protect the essential habitat with

⁴ Chin-Yu Liou, Sung-Yin Yang & Chaolun Allen Chen, Unprecedented calcarous algal reef in northern Taiwan merit high conservation priority, 36 *Coal* 1253, 1253 (2017). Available at <https://link.springer.com/content/pdf/10.1007%2Fs00338-017-1619-0.pdf> (2019/4/27)

stronger and restrictive enforcement method, there is no other wildlife regulations that can be used to preserve the habitats of wildlife.

The other alternative method to preserve wildlife habitats is through the Culture Heritage Preservation Act. The decision power to assign and recognize the local Natural Landscape as Natural Reserve belongs to the local competent authorized agency.⁵ The Natural Reserve is graded as three types depending on the level of their competent authorized agency. These competent authorities do not have subordinate relationship and the competent authorized agency can assign the Natural Reserve by its own decision. However, if none of any levels of the government would like to take further action to assign the wildlife habitat as Natural Reserve, the superior or central competent authority does not have authorization to force the lower level government to grade the Natural Reserve within its jurisdiction. The government institution matters for better protection of wildlife habitat because they not only can decide the regulations but also can decide the police development in economy or wildlife conservation.

The algal reef in Da-Tan area is not protected as wildlife conservation zone by the local government even though the biologist found rare and valuable animal, which is listed as first degree of endangered species and granted by the Wildlife Conservation Advisory Committee, living in the algal reef area of Da-Tan. From the legal point of view, the area only qualified as wildlife essential habitat. Both the Council of Agriculture and the Tao-Yuan County government neither grade the Da-Tan area as Wildlife Conservation Zone nor follow the Culture Heritage Preservation Act to assign that area as Natural Reserve. Based on the Wildlife Conservation Act, the construction and development on the land of Da-Tan algal reef area is allowed and legally approved activities.

CONCLUSION

The current Wildlife Conservation Act protects the endangered and rare species but does not preserve their habitat because the law remains the concept of utilization on lands and the natural resources on the lands. The main purpose of the Forest Act also focuses on the utilization of the forest resources, the establishment of Natural Protection Zone protects the health of forest and remain its functions in forest productions. The CHPA mainly focuses on the protection of assets created by human beings but not wildlife. Even this Act provides more restrictive regulations on land usage, protecting the wildlife is not its major function. The Wildlife Conservation Act is the major legal resource we can adopt to protect wildlife itself but not their lands for living and hunting. It is hard to reach the goal of increasing biodiversity by only protecting their individual specie. Therefore, the Article 8 of the Wildlife Conservation Act shall be modified to protect wildlife habitat and individual specie. The terms of usage and development on the wildlife habitats shall be removed and prevent the wildlife lands from being taken for construction purpose. Furthermore, the central competent authorized agency shall have more responsibility to protect Wildlife Conservation Zone and the local government shall be responsible for finding and preserving the wildlife essential habitats. The local government knows the movement of the local wildlife and their living environment. They are more capable to identify the wildlife habitats. With these arrangements it could provide more efficient method to protect wildlife and their habitats.

⁵ Article 81, Culture Heritage Preservation Act (1984).