

Terrestrial Biodiversity Conservation Law in Thailand: A Preliminary Illustration of Applicable Laws and Their Limitations

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Abstract

In early 2019, the House of Parliament of Thailand passed several pieces of legislation which have brought about a significant step of a biodiversity conservation legal regime. The coming into effect of such new laws gives rise the question whether the established legal measures concerning the conservation of land biodiversity can help Thailand reach a desirable point for the fulfilment of the Convention on Biological Diversity (CBD) obligations or not. As a response to such doubt, this article explores two questions. First, ‘what are the existing legal measures that can be used for conserving terrestrial biodiversity in Thailand?’ Second, ‘what are the limitations of those legal measures?’ This article proposes that although there are a number of legal measures that can be used to conserve the components of terrestrial biodiversity under the existing regime, some limitations exist. These include the downsides of the reliance on command-and-control-based measures, failure in conserving the components of biodiversity on private land, lack of the incorporation of an ecosystem approach into the law, as well as the overlap of the land notified as reserved areas.

Keywords: Terrestrial Biodiversity Conservation Law, Nature Conservation Law, Thailand, Environmental Law

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1. Introduction

In early 2019, the House of Parliament of Thailand passed several pieces of legislation which brought about a significant step towards the development of biodiversity conservation law, which is closely linked to the law of nature conservation.² In the past, this area of law commonly involved the use of legal coercion to protect the natural environment, particularly wildlife.³ Many domestic laws focused legal protection on threatened species or protected wildlife habitats. However, the stress of biodiversity⁴ loss has highlighted common concern among countries worldwide,⁵ and this has led to the advent of the Convention on Biological Diversity (CBD)⁶ in 1992 at the Earth Summit. The CBD has brought various changes to the international nature conservation regime. First, it shifted the paradigm of nature conservation from the use of a simple approach emphasising the protection of individual species or areas towards the conservation of biodiversity and ecosystems.⁷ Second, it raised the agenda of biodiversity conservation as a global common concern at the international level⁸ as well as recognised the existence of an intrinsic value of biodiversity.⁹ Although the Convention does not require its contracting States to introduce new domestic law as long as their domestic laws are sufficient to conserve biodiversity, many States have developed legal frameworks in attempting to ensure that they successfully conserve biodiversity.¹⁰

² Christopher P. Rodgers, *Law of Nature Conservation* (Oxford, UK: Oxford University, 2013), 8.

³ Colin T. Reid, *Nature Conservation Law*, 3rd ed. (London: W. Green, 2009), para 1.1.1.

⁴ The word 'biodiversity' is a shortened and changeable form of the term 'biological diversity.'

⁵ This concern can be observed from the affirmation under the preamble of the Convention on Biological Diversity (the CBD).

⁶ Convention on Biological Diversity (adopted June 5, 1992, entered into force December 29, 1993).

⁷ Colin T. Reid, "Towards a Biodiversity Law: The Changing Nature of Wildlife Law in Scotland," *Journal of International Wildlife Law & Policy* 15, no. 3-4 (2012): 202.

⁸ See also David M. Ong, "International Environmental Law Governing Threats to Biological Diversity," in *Research Handbook on International Environmental Law*, eds. Malgosia Fitzmaurice, M. Ong, and Panos Merkouris (Cheltenham, UK: Edward Elgar, 2010), 533.

⁹ Lyle Glowga et al., *A Guide to the Convention on Biological Diversity* (Gland: IUCN, 1994), 9.

¹⁰ For instance, in 1999 the Commonwealth Government of Australia enacted the Environmental Protection and Biodiversity Act 1999, which provides a statutory framework for biodiversity conservation.

Thailand officially became a Party to the CBD on 29th January 2004.¹¹ This gave rise many changes, including the incorporation of the concept of biodiversity conservation, into the Thai legal system. Although biodiversity conservation measures are prevalent in several laws, it is doubtful whether or not the existing legal measures could help Thailand to fully implement the CBD obligations with respect to the conservation of biodiversity components. For this reason, this article aims to investigate two questions. The first one is ‘what are the existing legal measures that can be used for conserving biodiversity on land in Thailand?’ In answering this question, this article will examine key legal measures representing the regulatory techniques of terrestrial biodiversity laws. The second question ‘what are the limitations of those legal measures?’ helps to understand the common limitations of the applicable laws in Thailand. The merit of this examination can be justified as follows: first, it helps to understand existing terrestrial biodiversity conservation laws. Second, it can help guide which matters should be considered if Thailand seeks to develop specific law for conserving terrestrial biodiversity.

It is to be noted that this article is not the comprehensive examination of the legal regime of biodiversity conservation but rather seeks to examine key measures and their common features. This article does not investigate the laws relating to marine biodiversity conservation due to the difference in governing regimes.¹²

¹¹ Convention on Biological Diversity, “List of Parties,” accessed February 16, 2019, <https://www.cbd.int/information/parties.shtml>.

¹² This includes the difference in the legal statuses of natural resources found in those areas. Thai laws consider terrestrial wild animals as ownerless property (*res nullius*) and view the land as property belonging to the State or individuals. This is unlike the legal regime dealing with marine resources which the legal statuses of living and non-living resources remain ambiguous or undefined. This distinction gives rise the complexity of the rules governing the components of biodiversity in such different areas. See other difficulties in regulating marine biodiversity in Lynda M. Warren, “Law and Policy for Marine Protected Areas,” in *Nature Conservation and Countryside Law*, ed. Christopher P. Rodgers (Cardiff: University of Wales Press, 1996), 65–71.



2. Substantive content of biodiversity conservation law

It should be started at the outset what the term ‘biodiversity conservation law,’ in this article, means. Although there is no standard accepted definition, this article attempts to develop a definition to frame the scope of this article by drawing its meaning from how the terms ‘biodiversity’ and ‘conservation’ have been interpreted.

For the first one, many domestic biodiversity-related laws, including the Thai law,¹³ commonly define the meaning of biodiversity similar to that of the words ‘biological diversity’ as enunciated under Article 2 of the CBD.¹⁴ Nonetheless, the term ‘biodiversity’ employed by environmental lawyers seems to be varied and many use this term to encompass a variety of broad meanings. Some use it in reference to the total number of species in a certain area,¹⁵ and many use this term in reference to ‘nature’¹⁶ or ‘the environment.’¹⁷ This means that, in a broad sense, biodiversity might be used loosely to refer to nature.¹⁸

Regarding the meaning of the word ‘conservation,’ although the definition of biodiversity conservation is absent from the convention text of the CBD,¹⁹ the term

¹³ See the definition of ‘biodiversity’ enunciated under the Community Forest Act 2562 B.E. (2019) explained in the Part 3.2.3 below.

¹⁴ This can be observed from the state-level biodiversity conservation legislation of New South Wales and Western Australia enacted in 2016. They employ similar definitions of that enunciated under the CBD.

The CBD Article 2 states that “biological diversity means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.”

¹⁵ Michael Bowman, Peter Davies and Catherine Redgwell, *Lyster’s International Wildlife Law*, 2nd ed. (Cambridge, UK: Cambridge University Press, 2011), 587.

¹⁶ Colin T. Reid and Walters Nsoh, *The privatisation of biodiversity?* (n.p.: Edward, Elgar, 2016), 5.

¹⁷ Brian J. Preston, “Biodiversity Offsets: Adequacy and Efficacy in Theory and Practice” (paper presented at the IUCN Academy of Environmental Law 13th Annual Colloquium ‘Forest and Marine Biodiversity,’ Indonesia, September 2, 2015).

¹⁸ The word ‘nature’ is defined by the Oxford Dictionary as ‘*the phenomena of the physical world collectively, including plants, animals, the landscape, and other features and products of the earth, as opposed to humans or human creations.*’

¹⁹ See the disagreement during a drafting process of CBD regarding drafting the terms ‘conservation’ and ‘sustainable utilisation’ in Lyle Glowga et al, *A Guide to the Convention on Biological Diversity* (Gland and Cambridge: IUCN, 1994), 4.

‘conservation’ is exhaustively identified under the World Conservation Strategy, introduced by the International Union for Conservation of Nature (IUCN) in 1987. This non-binding instrument defines ‘conservation’ as activities ranging from the preservation, maintenance, sustainable utilisation, restoration and enhancement of the natural environment.²⁰ Apart from that, some commentators maintain that the term ‘conservation’ in the context of biodiversity is not only about preventing harm or protecting the natural environment from degradation resulting from human activities, but might also be relevant to taking positive steps to improve the quality of the natural environment (enhancement).²¹ Such a broad interpretation of the term conservation as explained in the World Conservation Strategy and by Reid and Preston mentioned above is advantageous for several reasons. One important reason is that it embraces many environmental-friendly activities under the umbrella of biodiversity conservation practices, and this helps ensure that the components of biodiversity will be conserved with different means by different person and institutions.

Although it is an uneasy task to find well-accepted definitions of the terms ‘biodiversity’ and ‘conservation’ to formulate the meaning of biodiversity conservation law, it is argued here that this type of law is closely linked to nature conservation law in the sense that the former is a subset of the latter. Both nature and biodiversity conservation laws share the same ideas in certain respects. First, they commonly impose legal measures to maintain or take positive steps to enhance or restore the quality of the natural environment. Second, they deal with the same purpose in conserving the population and density of biological resources or the ecological functions of ecosystems. This means that the law relating to the establishment of a protected area with the restrictions of carrying out activities harming living and non-living resources in that area can be concurrently considered as the measure under either nature conservation or biodiversity conservation law. However, the conservation of biodiversity is considered as a newer concept than that of nature. The notion of biodiversity conservation (instead of nature conservation) recently emerged as attaining consensus within the global community, and has become a fashionable term that has been implemented as national law and policy.²² This change

²⁰ IUCN, *World Conservation Strategy: Living Resource Conservation for Sustainable Development* (Gland: IUCN, 1980), 1.

²¹ Reid, “Towards a Biodiversity Law: The Changing Nature of Wildlife Law in Scotland,” 212.

²² Reid, *Nature Conservation Law*, 1.2.1-1.2.2.



makes the term biodiversity conservation predominant and leads to the invention of innovative mechanisms to accommodate the fulfillment of this type of conservation. This includes the implementation of an ecosystem approach as an integral part of biodiversity conservation. The importance of this concept will be discussed in part 4.3.

It is important to note that as the components of biodiversity may fall under the meaning of the ‘environment;’ the measures introduced to protect the environment may interrelate with those enacted for conserving biodiversity. Thus, the outer scope of biodiversity conservation law may be blurred and overlap with other areas of environmental law. For example, some countries consider the duty to carry out environmental impact assessment as a part of biodiversity conservation law.²³ This broad interpretation might engender the problem of identifying the exact scope of biodiversity conservation law. This article, therefore, narrows the boundary of biodiversity conservation laws in the context of Thailand down to those directly enacted to conserve the components of biodiversity. However, it is not an easy task to explore all biodiversity-related legal measures within the limited space of this article. Thus, this writing will exclusively examine legal matters directly provided to conserve the components of terrestrial biodiversity.

3. Existing legal regime of biodiversity conservation in Thailand

This part involves the examination whether biodiversity conservation-related legal measures exist in Thailand, and if any, what are the examples of this type of measure? It will examine the legal issues relating to the conservation of biodiversity on land in two aspects. The first one deals with the biodiversity related-matters under the Thai constitutions, and the second one focuses the examination on biodiversity conservation-related measures under specific legislation respectively.

²³ For instance, the Biodiversity Law No. 20/2008 of Vietnam Article 32 (3) imposes the duty to conduct an environmental impact assessment on an owner of investment projects seeking to launch a development project in a buffer zone of a conservation area. This provision implies that some countries view an environmental impact assessment as part of a biodiversity conservation legal regime.

3.1 Biodiversity related-matters under the Thai constitutions

Before the constitutional reform in 1997, there was no provision in the Thai constitutions recognising the existence of the term ‘biodiversity.’ The components of biodiversity, for instance, wildlife and forests, were recognised under the Thai law as a part of natural resources. The word “biodiversity” was introduced and appeared in the 1997 Constitution, as a natural feature that the Thai people are entitled to maintain and utilise.²⁴ Although the 1997 Constitution was repealed in 2006,²⁵ the latter Constitutions, including the 2017 Constitution, endorsed the rights and duties in relation to environmental matters. They include the participatory rights of individuals and communities to manage, maintain and utilise natural resources and biodiversity,²⁶ the duty of Thai citizens in conserving natural resources and biodiversity,²⁷ the obligations of governmental agencies to encourage and support their citizens to conserve, benefit, as well as take responsibility in conserving natural resources and biodiversity.²⁸ This development gives rise to the question of whether biodiversity conservation already had a legal foundation in the Thai legal system due to the constitution’s recognition of such issues. It is true that these recognitions have created the foundations in relation to biodiversity conservation and sustainable utilisation as well as having provided the direction for the development of biodiversity-related legislation. However, the 2017 Constitution does not provide guidance on how to recognise and implement those principles; it merely stipulates that the details of such recognition and implementation are subject to the procedures as provided by specific legislation. This means that without the enactment of a specific biodiversity conservation-related law, the notion of biodiversity conservation will not be fully recognised under the Thai legal system.²⁹ The next part will involve the examination of whether and to what extent the Thai laws provide legal measures for conserving biodiversity.

²⁴ The 1997 Constitution, articles 56 para 1, and 79.

²⁵ Since the country’s revolution in 1932, Thailand has experienced a number of political changes due to military coups. Following the proclamation of the 1997 Constitution, the Thai government has been overthrown by army coups in 2006 and 2014. These coups superseded constitutions and promulgated new ones in 2007 and 2017, respectively.

²⁶ The 2017 Constitution, article 43 (3).

²⁷ The 2017 Constitution, article 50.

²⁸ The 2017 Constitution, article 57 (2).

²⁹ In 2018 there was an attempt to draft a biodiversity bill by the Thai government, and this bill is in the development process. The details of this bill can be observed in Jiraprapa Maglin, “Analysis of the Biodiversity Draft Act B.E. Of Thailand,” *Naresuan University Law Journal* 11, no. 2 (2018): 149. [In Thai]



3.2 Biodiversity conservation-related legal measures

Although to date, there is no legislation specifically enacted for the conservation or utilisation of biodiversity, it appears that many laws provide legal measures that can be applied for conserving the components of biodiversity. Some explicitly provide measures for conserving biodiversity,³⁰ whereas many do not. The legal measures that can use to conserve biodiversity under existing legislation are varied. They range from those concerning the stipulation of duties directly enacted for the conservation of natural resources, ecosystems and biodiversity; the prohibitions to carry out activities harming those values; the requirements of conducting environmental impact assessments in the development of projects resulting in the degradation of environmental quality; liability rules for environmental loss; and the duties of governmental bodies in protecting the environment. However, this paper will exclusively focus on examining legal matters directly provided to conserve the components of terrestrial biodiversity.

3.2.1 Species-based conservation

It is widely accepted that the protection of living resources, which is one of the components of biodiversity, is a crucial legal technique for biodiversity conservation.³¹ Creating offences of prohibiting the killing, taking or harming of endangered species have been used as a conventional approach. This part provides an overview of the common characteristics of legal measures for conserving native wild animals and plants under Thai laws.

1) Conservation of wild animals

As wild animals are a crucial biological resource,³² the law conserving this type of creature is a biodiversity conservation-related law accordingly. The Wild Animal Preservation and Protection Act 2562 B.E. (2019)³³ is the recent legislation providing measures for the conservation of wild animals. This new legislation has brought about many changes

³⁰ See also the legal measures under the National Park Act 2562 B.E. (2019), the Community Forest Act 2562 B.E. (2019), the Wildlife Preservation and Protection Act 2562 B.E. (2019), and the Traditional Thai Medical Knowledge Enhancement and Protection Act 2542 B.E. (1999) examined in 3.2.3 below.

³¹ Rosemary Rayfuse, "Biological Resources," in *The Oxford Handbook of International Environmental Law*, eds. Danniell Bodansky et al. (Oxford, UK: Oxford University Press, 2007), 365.

³² Ibid.

³³ Hereafter called "WAPPA 2019."

to a wild animal conservation regime. However, before the key features of this law are examined, it is noteworthy to overview how the laws on wild animal conservation in Thailand has been developed.

In 1960, the Thai government introduced the Wild Animal Preservation and Protection Act 2503 B.E. (1960),³⁴ which was later repealed by the Wild Animal Preservation and Protection Act 2535 B.E. (1992).³⁵ These two laws share various points, including the use of a listing approach to regulating endangered wild animals. WAPPA 1960 and WAPPA 1992 authorised a competent governmental agency to declare lists of species subject to the legal control. The lists were divided into a preserved species list and the protected one. The species under these lists were protected by several prohibitions and restrictions. They include the prohibitions of taking those species from the wild and the control of the possession of those species. In brief, the preserved list imposed stricter legal controls. For instance, WAPPA 1992 did not allow any person to breed and possess preserved wild animals subject to the conditions under the law,³⁶ but such activities were allowed for some certain protected species.³⁷ WAPPA 1992 also prohibited any person from ‘taking, possessing, breeding, trading, import and export’ both preserved and protected species unless holding a permit for such activities³⁸ or such prohibited conduct was done to avoid reasonable harm.³⁹ This legislation also regulated the import and export of preserved and protected wild animals as well as those listed under Appendices I and

³⁴ Hereafter called “WAPPA 1960.”

³⁵ Hereafter called “WAPPA 1992.”

WAPPA 1960 was repealed by WAPPA 1992 because, in 1991, Thailand suffered from a banning trade measure under the CITES regime. This tension arose because Thailand ratified CITES in 1983 but failed to comply with the obligations under this Convention. This includes the failure to revise WAPPA 1960 and other laws to be consistent to the obligations under the CITES regime. See also Rosalind Reeve, *Policing International Trade in Endangered Species: The CITES Treaty and Compliance* (n.p.: Earthscan from Routledge, 2002), 110-111.

³⁶ Examples of preserved species under WAPPA 1992 include a dugong (*Dugong dugon*) and wild water buffalo (*Bubalus bubalis*).

³⁷ WAPPA 1992, section 18.

The examples of protected species that can be bred under WAPPA 1992 include a wild deer (*Cervus unicolor*) and jungle fowl (*Gallus gallus*).

³⁸ WAPPA 1992, sections 16, 18, 19, 20, 23, and 24.

³⁹ WAPPA 1992, section 7.



II of CITES.⁴⁰ *Ex-situ* conservation is also recognised under this Act with the provision regulating the establishment of a public zoo.⁴¹ Apart from that, they authorised a competent body to notify public land as a wild animal sanctuary. The detail of this legal technique will be further explained in section 3.2.3 below.

WAPPA 2019, as mentioned, is the latest development of the wildlife conservation regime. It replaces WAPPA 1992 and comes along with several new legal measures. It protects many species under a preserved wild animal list, including a Bryde's whale (*Balaenoptera edeni*) and whale shark (*Rhincodon typus*). Furthermore, it creates additional lists of regulated species in addition to the preserved and protected species. Wild animals under the Appendices of CITES and others which need to be protected with appropriate measures can be listed under a controlled species list; and those which may cause harm or poison to humans, wildlife or ecosystems can be regulated under a dangerous wild animal list. The possession of the species under these new lists is prohibited unless a person seeking to hold them has a licence.⁴² WAPPA 2019 also prohibits releasing those species⁴³ as they could escape into the wild and this could cause negative impacts on native wildlife or ecosystems.

2) Conservation of plants

Despite the fact that plants and wild animals are the components of biodiversity fundamental to the existence and balance of ecosystems, the conservation of native plants in Thailand is less emphasised compared to that of wild animals. In the past, a traditional regime for protecting plants paid attention to high economic value species rather than to conserve them due to the realisation of their ecological value. The Forest Act 2484 B.E. (1941)⁴⁴ is an example of this outlook. FA 1941 was introduced to regulate, among the other things, the exploitation of wood and natural resources found in forestland. Some types of wood growing on forestland⁴⁵ can be listed as prohibited wood. This law requires

⁴⁰ WAPPA 1992, sections 23 and 24.

⁴¹ WAPPA 1992, section 29.

⁴² WAPPA 2019, sections 19 and 32.

⁴³ WAPPA 2019, sections 15 and 32.

⁴⁴ Hereafter called "FA 1941."

⁴⁵ The term forestland under this Act is the land where no one has legally claimed title thereon; and according to the land code, this type of land is state-owned land regardless of whether it is covered by trees or any vegetation or not.

a person seeking to log prohibited wood to ask for permission from a competent agency and pay a royalty. Failure to ask for such permission is a criminal offence.

Apart from that, the protection and control of plant species⁴⁶ are legislated under the Plant Variety Act 2518 B.E. (1975).⁴⁷ This Act provides legal control of plants by employing a listing approach for categorising the varieties of plants into preserved, prohibited and conserved plant species, respectively.⁴⁸ This Act has played a vital role in implementing the CITES obligations in relation to the control of the international trade⁴⁹ of endangered native plants. Hence, the key features of the regulation under PVA 1975 primarily involve the control of import, export and transit of those plants. This Act requires a person seeking to import, export and transit conserved plants to apply for a permit before they carry out such activity.⁵⁰ Plants declared as preserved species are prohibited from export unless the relevant exporter has a license.⁵¹ Those declared as prohibited species, in contrast, are prohibited without any exception.⁵² It should be noted that PVA 1975 does not impose any prohibitions of taking or harming native plants in the same vein as those of wild animals stipulated under WAPPA 1992. This indicates the notion that the Thai law protects native wild animals in the higher level than that of native plants. However, it does not mean that the Thai law authorises people to harm flora without any restrictions. Rather the restrictions are stated in a combination of the protection of a natural reserved area. This will be explained in part 3.2.3 below.

3.2.3 Area-based conservation

This type of conservation regards the protection of places where an organism or population exists. Some scholars maintain that wildlife protection exclusively focusing on the protection of the individual or multiple species is useless without protecting where they live because wildlife needs shelter and food.⁵³ If people harm their habitats, such

⁴⁶ This article will use the term 'plant variety' to refer to species of plant.

⁴⁷ Hereafter called "PVA 1975."

⁴⁸ PVA 1975 Part 4.

⁴⁹ The term 'trade' under Article I of CITES refers to the export, re-export, import and introduction from the sea.

⁵⁰ PVA 1975, section 29 *tri*.

⁵¹ PVA 1975, section 30.

⁵² PVA 1975, section 33.

⁵³ Reid, *Nature Conservation Law*, para 5.1.1.



organisms or populations may have no or insufficient food and thus may be unable to survive properly.⁵⁴ An example of a harmful factor for wild animals is a wildfire, which could arise naturally or by the result of human-action. This threat not only imposes a risk on the survival of wild animals but also destroys their shelter thereof. The law that provides measures for protecting a habitat may also help maintain the balance or the function of ecosystems.

Similar to legal techniques implemented elsewhere,⁵⁵ the key features of habitat and ecosystem protection-based measures under Thai law commonly establish two legal requirements. The first one is the authorisation of a competent body or institution to determine certain protected areas. The latter one is the stipulation of restrictions on undertaking activities on those reserved areas. The common sanctions for violation mostly rely on criminal offences. To date, reserved areas can be notified, determined or declared under several Acts, covering both terrestrial and maritime areas. However, a crucial condition for the establishment of a reserved area under current laws is that the proposed area must be public land. The reserved areas explained below provide examples of area-based protection under Thai law.

1) National parks, forest parks, arboretum and botanical gardens

National parks, forest parks, arboretum and botanical gardens are the reserved areas established under the National Park Act 2562 B.E. (2019).⁵⁶ Prior to the enactment of this new Act, a national park was the only reserved area notified under the now repealed National Park Act 2504 B.E. (1961). At least two significant changes came along with the new NPA 2019. First, as mentioned, the NPA 2019 empowers the government to establish four types of reserved areas with different conditions and levels of protection. Second, biodiversity conservation becomes a crucial matter for the establishment of those reserved areas.⁵⁷

⁵⁴ Ibid.

⁵⁵ See also Cyrille de Klemm and Clare Shine, *Biological Diversity Conservation and the Law: Legal Mechanisms for Conserving Species and Ecosystems: Environmental Policy and Law Paper No. 29* (Gland: IUCN, 1993), 164.

⁵⁶ Hereafter called "NPA 2019."

⁵⁷ It is stated in the reasons for the enactment of NPA 2019 that this Act was legislated for the purposes of, *inter alia*, conserving natural resources, ecosystems and biodiversity.

The determination of public land as national parks, forest parks, arboretum and botanical gardens plays a vital role in biodiversity conservation because many activities are prohibited or restricted in these reserved areas. They include the prohibitions of hunting wild animals, gathering living and non-living resources, burning forests, possessing the land, causing any damage to water-ways, and the firing of any guns and making a noisy disturbance.⁵⁸ Apart from that, NPA 2019 also sets a new liability rule for natural resource damage resulting from unlawful activities carried out on those reserved areas.⁵⁹ This new provision requires a liable person to pay compensation for the loss of natural resources damaged from such activities. It can be considered that such compensation can be used to restore or enhance natural features in these reserved areas.

2) Wild animal sanctuaries

As mentioned, a wild animal sanctuary is the reserved areas established under WAPPA 2019. Before the proclamation of this new legislation, the designation of wild animal sanctuaries could be made for setting aside a wild animal habitat. The new WAPPA 2019 made an additional purpose of the designation for biodiversity conservation.⁶⁰ This reflects that the notion of biodiversity conservation is already established as the aim of the designation of a wild animal sanctuary as similar to a national park established under NPA 2019. The prohibitions and restrictions imposed for this reserved area are similar to those under national parks, but WAPPA 2019 prohibits any person from entering into wildlife sanctuaries unless a competent official permits them.⁶¹ This type of reserved area plays a similar role in conserving biodiversity *in situ* as that of a national park based upon the notion that where a national park and wildlife sanctuary are notified, no one cannot operate activities harming those areas and the living resources therein. It is assumed that where no one is breaking the law, the components of biodiversity will be protected accordingly.

⁵⁸ NPA 2019, sections 19 and 27.

⁵⁹ NPA 2019, section 40.

⁶⁰ WAPPA 2019, section 47.

⁶¹ WAPPA 2019, section 53.



3) National reserved forests

As mentioned previously, this type of reserved area can be established under the National Reserved Forest Act 2507 B.E. (1964).⁶² National reserved forests are the largest terrestrial reserved areas of the country, accounting for nearly 33 per cent of the land in the country.⁶³ The concept of protection of this type of reserved area is based on a similar notion of that of national parks under NPA 2019. The key measures in conserving natural habitats are the prohibitions of possessing, residing, and burning the forest; carrying out activities causing the degradation of such a reserved area; and collecting and taking out of specified natural resources from this type of reserved area.⁶⁴ However, such prohibitions are not highly restrictive as a competent body may grant permission to carry out such activities under the conditions specified under this Act.⁶⁵ It is important to be aware that the term ‘national reserved forests’ may be misleading by implying that this type of reserved area excludes humans from the forest through very strict prohibitions. This is not the case as NRFA 1964 enables people to carry out a broad range of activities in national reserved forests. It is a reserved forest in the sense that the right to reserve and manage is vested in the public authority. The Act confers powers to the relevant authority in permitting certain people to live in a national reserved forest as well as to carry out mining exploration and exploitation in such a reserved area.⁶⁶

4) Herbal protection areas

The legal measure to protect the variety of herbs under the Traditional Thai Medical Knowledge Enhancement and Protection Act 2542 B.E. (1999) represents the legal measure for the conservation of the biodiversity of plants on public land. Although this Act is not a nature conservation legislation *per se*, it entitles a competent authority to notify any public land that is not declared a reserved area as an herbal protection area. This notification can be done if the land meets these following conditions.⁶⁷ First, such

⁶² Hereafter called “NRFA 1964.”

⁶³ See also Department of Royal Forest (Thailand), “Table Illustrating the Proportion of the Forestland in Thailand,” accessed October 27, 2018, <http://forestinfo.forest.go.th/Content.aspx?id=10064>.

⁶⁴ NRFA 1964, section 14.

⁶⁵ NRFA 1964, section 14.

⁶⁶ NRFA 1964, sections 16 and 16 *bis*.

⁶⁷ Traditional Thai Medical Knowledge Enhancement and Protection Act 2542 B.E. (1999), section 61.

land is the natural habitat of a certain species of herb or has a high value of biodiversity. Second, the herbs found on that land are under threat from humans; or the access to exploit such herb might engender the distinction or deterioration of its genetic variety. The herbal protection area is important for the conservation of biodiversity as a competent authority may impose certain protective measures, including the restriction or prohibition of any activities harming or giving rise to a significant change in the ecosystem of a notified area.⁶⁸

5) Community forests

Community forests are the reserved areas that can be established under the Community Forest Act 2562 B.E. (2019).⁶⁹ Before the proclamation of this Act, the role of the individuals and communities about the conservation and utilisation of biodiversity remain uncertain because there is no detailed legislation recognising the rights to conserve natural resources and biodiversity endorsed under the constitutions. Such uncertainty gave rise the ambiguity on whether people living nearby national reserved forests are entitled to take positive actions to conserve such areas.⁷⁰ This characteristic also hinders individuals and local communities to take part in benefitting from the components of biodiversity, as they must comply with the prohibitions of taking under NRFA 1964. This problem has caused conflicts between a competent state agency and locals, and there has been an attempt to pass a new law that allows locals to conserve and benefits from renewable natural resources in a reserved area nearby. The advent of CFA 2019 brought about many positive changes to the Thai terrestrial biodiversity legal regime. First, it enunciates the definition of the term ‘biodiversity’ by adopting a similar notion defined under Article 2 of the CBD.⁷¹ Second, CFA 2019 recognises the community rights to, *inter alia*, the conservation of biodiversity.⁷² This Act acknowledges the right of a community adjacent to a certain forestland to establish a community forest under the conditions prescribed

⁶⁸ Traditional Thai Medical Knowledge Enhancement and Protection Act 2542 B.E. (1999), section 62.

⁶⁹ Hereafter called CFA 2019.

⁷⁰ The example of positive actions includes the clearing the land for planting new native vegetation.

⁷¹ Biodiversity means the variability among living organisms. It includes the diversity of genes, species and ecosystems where those species emerged (CFA 2019, section 4).

⁷² CFA 2019, section 6.



under this Act.⁷³ However, the eligible forestland must not be some specified prohibited areas, including a national park and wild animal sanctuary. Once a community forest is successfully established in a certain area, a community establishing such a community forest has an exclusive right to conserve and benefit from such an established community forest subject to the conditions under this Act.⁷⁴ At the same time, such an established community forest is protected by several measures as similar to other types of reserved areas.⁷⁵

4. What are the limits of the existing measures?

The legal measures examined in the previous part demonstrates that the coming into effect of various biodiversity conservation-related laws in early 2019 offered various legal measures that could foster the conservation of terrestrial biodiversity, and this is a positive sign for the country. Undoubtedly, they affirm that Thailand has several legal measures for biodiversity conservation. However, some of their common features should be considered on how they could hamper the full conservation of biodiversity. It is convinced here that although those legal controls can be used for restricting human activities, they may have some common characteristics that might impede the success of biodiversity conservation, and this should be eliminated.⁷⁶ The following issues are examples of their limitations and should be considered for the improvement of the existing regime.

⁷³ CFA 2019, sections 6 and 31.

⁷⁴ CFA 2019, sections 32, 44, 45, 50, 51 and 53.

⁷⁵ CFA 2019, section 63.

⁷⁶ One of the possible explanations why the existing legal measures have some limitations in conserving biodiversity on land is that because they were created before the emergence of the concept of biodiversity at the international level. Hence, some of the relevant legal measures might have the aim to serve other natural values, e.g. natural resources, rather than to conserve biodiversity. The legal measures under FA 1941 examined in 3.2.1, which has a primary objective in regulating the exploitation of lucrative wood from forests, is an example of this type of Thai law.

4.1 Downsides of the reliance on command-and-control-based measures

It appears that the legal measures discussed in the previous part involve setting prohibitions for the restriction of carrying out activities causing the degradation of biodiversity components. Similar to a common characteristic of other areas of laws in Thailand, this type of legal control is totally based upon command-and-control regulation, which criminal sanctions can be imposed for the failure to comply with legal requirements.⁷⁷ On the one hand, this regulatory style enables public authorities to enforce the law for directing persons who are regulated in the direction the law provides. Hence, it is a straightforward style of legal control.⁷⁸ On the other hand, this seems flawed because it gives rise to the duty to monitor human behaviour which might be costly⁷⁹ and it is difficult to monitor environmental damages which often involve difficulty in proving who caused the harm for such damage. This includes the limitation in dealing with deforestation, desertification, and causing water pollution.⁸⁰ There should be further consideration whether the legal approach for biodiversity conservation should provide other means that can be used as a subsidiary approach of command-and-control regulation. This includes the use of a co-regulation legal approach coupled with some economic incentives to encourage practices beyond the minimum requirement of such a top-down approach.

4.2 The existing laws focus on the control of activities done on public land

As illustrated in 3.2.3, the notification of reserved areas can exclusively be done on public land; meanwhile, land under the rightful occupation of individuals (private land), which accounts for approximately 40 per cent of the country's land area,⁸¹ is not fully protected. This means that, currently, biodiversity found on private land are merely conserved by species-based measures examined in 3.2.2, but not by the area-based

⁷⁷ Anthony Ogus, *Regulation: Legal Form and Economic Theory* (Oxford, UK: Oxford University, 1994), 79.

⁷⁸ Neil Gunningham, Peter Grabosky and Darren Sinclair, *Smart Regulation: Designing Environmental Policy* (Oxford, UK: Oxford University, 1998), 41.

⁷⁹ Bruce Ackermann, *The Uncertain Search for Environmental Quality* (Pennsylvania: University of Pennsylvania, 1974), 165-207.

⁸⁰ Alvin L. Alm, "A need for New Approach: Command-and-Control is No Longer a Cure-all," *EPA Journal* 18, no. 2 (1992): 6.

⁸¹ The Secretariat of the House of Representatives, *The Eleventh Agenda for the Reform: The Reform of Land and Land Management* (n.p.: The Secretariat of the House of Representatives, 2015), 9.



ones.⁸² Hence, there is room to discuss whether private land should be notified as reserved areas similar to some other jurisdictions.⁸³ Also, this limitation raises the question “should Thailand introduce some innovative measures for biodiversity conservation on private land?”⁸⁴ However, there should be further study whether and how those solutions are viable for the implementation in Thailand or not.

4.3 An ecosystem approach has not been fully integrated into Thai law

An ecosystem approach is recognised as a crucial means of biodiversity conservation.⁸⁵ However, the legal measures acquiring this approach in Thai law has not been put in place. It appears that if Thailand seeks to increase the level of nature conservation towards biodiversity conservation, the legal control approach should shift from a mere species-based or area-based conservation to that employing an ecosystem approach.⁸⁶ This management based upon an ecosystem approach is recognised as a key tool for reaching the objectives of the CBD. It mainly involves the integrated management of land, water and living resources with the aim of promoting conservation and sustainable use.⁸⁷ The fifth Conference of the Parties (COP) endorsed this management approach to the CBD in 2000. This COP articulated many principles underpinning an ecosystem approach.⁸⁸ This included, but was not limited to, the management of land, water and living resources (Principle 1); the decentralisation of management the lowest appropriate level (Principle 2); and the promotion of the use of economic incentives for biodiversity conservation (Principle 4).

⁸² The assertion that the law seeking to conserve biodiversity should consider the whole terrestrial areas regardless of whether the lands belong to the state or individuals is consistent with the view of Professor Colin T. Reid as discussed in his paper. See also Reid, “Towards a Biodiversity Law: The Changing Nature of Wildlife Law in Scotland,” 207.

⁸³ The reserved areas in the UK can be notified both in public and private land. See also Rodgers, *Law of Nature Conservation*, 295.

⁸⁴ The examples of innovative measures for private land biodiversity conservation is a conservation agreement and payments for ecosystem services, which are implemented in many countries. See also Reid and Nsoh, *The privatisation of biodiversity?*

⁸⁵ Bowman, Davies and Redgwell, *Lyster’s International Wildlife Law*, 62.

⁸⁶ Rodgers, *Law of Nature Conservation*, 295.

⁸⁷ Secretariat of the Convention on Biological Diversity, *The Ecosystem Approach-CBD Guidelines* (Montreal: Secretariat of the Convention on Biological Diversity, 2004), para. 1-2.

⁸⁸ Adopted by The Conference of the Parties to the Convention On Biological Diversity at its Fifth Meeting, Nairobi, 15-26 May 2000. Decision V/6, Annex 1. CBD COP-5 Decision 6 UNEP/CBD/COP/5/23.

4.4 The overlap of the land notified as reserved areas

It is evident that, to date, there are overlaps in some reserved areas and the governing laws therein. This may constitute the difficulty in interpreting and enforcing the law among relevant conservation agencies. The overlap between the sites notified as wild animal sanctuaries and national reserved forests is an example of this problem. In many cases, forestland was initially declared as a national reserved forest and subsequently notified as a wildlife sanctuary due to the need of introducing stronger legal protection. This gave rise to the duplication of applicable laws in a certain area whether it should be governed by WAPPA 2019 or NRFA 1964. Some may convince that both of them can be applicable laws, but another may view that the predominant law is the law governing a reserved area where it is latest notified. In this case, a wild animal sanctuary was notified in the former area of a national reserved forest. Hence, the legal measures under WAPPA 2019 are predominant. The problem is that the rate of punishment of the offence of taking out natural resources from a national reserved forest under NRFA 1964 is higher than that under WAPPA 2019.⁸⁹ This looks unusual as the applicable law for this overlapping area should be WAPPA 2019, which is under the administration of the Department of National Parks and Wildlife, but the applicable law in this case is NRFA 1964, which is under the administration of the Department of Royal Forests.

5. Conclusion

This article concludes that Thailand has the laws relating to the conservation of biodiversity on land, and it shares a common notion of nature conservation law. The constitutional reform in 1997 came along with the recognition of biodiversity conservation and utilisation under the Thai constitutions. Many pieces of legislation adopted the conservation of this natural feature afterwards. Again, the coming of various pieces of

⁸⁹ The imprisonment rates for this offence under NRFA 1964, sections 14 and 31 is from one year; meanwhile the rate under WAPPA 2019 is up to five years. The punishable rule under the Criminal Code provides that where one act violates several provisions of the law with having different rates of punishment, the most serious offence is an applicable provision. Hence, the offence under NRFA 1964 will be applied to an offender in this situation.



legislation in early 2019 made tremendous changes as they offered various legal measures that can be applied to fulfil this task. Undeniably, some flaws remain unsolved. They include the reliance on command-and-control based measures, failure in conserving the components of biodiversity on private land, lack of the incorporation of an ecosystem approach into the law, as well the overlap of the land notified as reserved areas. This article suggests that these limitations should be considered if Thailand seeks to develop a further step towards the full conservation of biodiversity nationwide.

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