

Biodiversity Conservation Work in KON KA KINH National Park

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Summary: Kon Ka Kinh National Park has high biodiversity, is one of the National Parks with an important role in the biodiversity system of the Central Highlands in particular and Vietnam in general. The conservation and development of biodiversity in Kon Ka Kinh not only contributes to maintaining ecological balance but also contributes to scientific research, environmental education and sustainable ecotourism development. This study was conducted by 3 methods: analysis, synthesis of documents; sociological investigation and field survey. The research results show that: Kon Ka Kinh National Park has 7 types of natural forest and planted forest ecosystems, of which natural forests account for over 90%, Kon Ka Kinh National Park has 1,754 species of tracheophyta, 91 species of thallophyta and 876 species of animals, including many rare species with conservation value. The management and conservation of biodiversity in Kon Ka Kinh National Park has achieved many results. Forest ecosystems and flora and fauna are well protected; the number of violations of forest protection laws is low; there are no forest fires within the Park; the lives of people in the buffer zone are gradually improving; degraded areas are restored.

Keywords: Biodiversity, Kon Ka Kinh National Park, Biodiversity conservation, ecosystem, rare species

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I. Introduction

Vietnam is located in the tropical monsoon climate zone and has a strong topographic differentiation with 3/4 of the area being mountainous. Stretching over 15 latitudes, with many high mountain ranges, Vietnam's climate is subject to affected by both zonal and non-zonal laws. Therefore, in addition to the typical humid tropical monsoon climate, Vietnam also has temperate and sub-temperate climates. In addition, Vietnam has a coastline of more than 3,260km from North to South. These are favorable conditions for the development of many different types of ecosystems.

Vietnam is recognized as one of the world's biodiversity centers with many types of natural ecosystems and many rare and endemic wildlife species, many valuable genetic resources. As one of the three Southeast Asian countries highly appreciated for its biodiversity, in 2024, Vietnam ranked 14th in the list of 20 countries with the highest biodiversity in the world with a biodiversity index of 221.77 [1].

Vietnam's biological resources are diverse, with characteristics of both tropical and temperate climates. To date, according to data from the Ministry of Natural Resources and Environment, Vietnam has approximately 62,600 identified species of wildlife. In particular, many species are of global importance and conservation value such as *Panthera tigris corbetti*, *Pseudoryx nghetinhensis*, Turtles, etc.; the number of endemic species in Vietnam accounts for a fairly high structure (Figure 1).

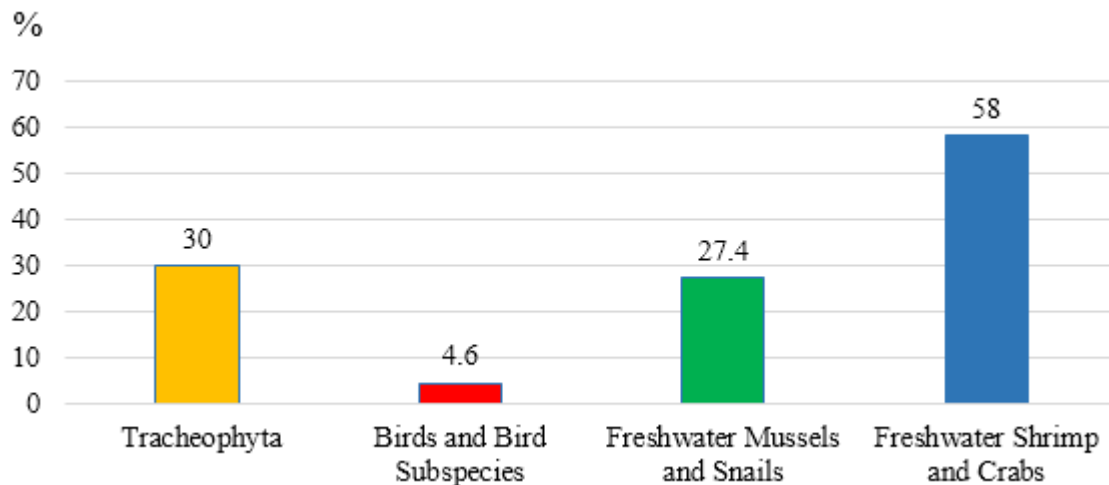


Figure 1. Structure of endemic species in Vietnam

Currently, Vietnam has 178 nature reserves, including: 34 national parks, 59 nature reserves, 23 species and habitat conservation areas, and 62 landscape protection areas [3]. In particular, by 2023, Vietnam will have 84% of the world's biological populations (21/25 populations). Over the years, the international community has recognized 9 Ramsar sites [4], 11 world biosphere reserves [5], 12 ASEAN Heritage Parks [6] and 1 important migratory waterbird area named Red River Delta Biosphere Reserve in Vietnam.

The national strategic goal of biodiversity protection by 2030 with a vision to 2050 is that Vietnam will have 70% of nature reserves and natural heritages assessed as effectively managed; internationally recognized natural areas: 15 wetlands of international importance (Ramsar sites), 14 biosphere reserves, 15 ASEAN heritage parks; the national forest coverage rate remains stable from 42% to 43%; at least 20% of degraded natural ecosystems are restored [7]. This shows that Vietnam pays great attention to planning, biodiversity conservation, forest protection and development, towards the goal of sustainable development.

Located in the Northeast of Gia Lai province, 50 km from Pleiku city, Kon Ka Kinh National Park has geographical coordinates from 14°09' to 14°30' North latitude, from 108°16' to 108°28' East longitude; distributed within the administrative boundaries of 7 communes in 3 districts: KBang, Mang Yang and Dak Doa district, Gia Lai province [8]. Kon Ka Kinh National Park was established in 1986 under Decision No. 194/CT dated August 9, 1986 of the Chairman of the Council of Ministers establishing a list of 73 Forbidden Forests nationwide. At this time, the Park was called Kon Ka Kinh Forbidden Forest, under the management of Kon Ha Nung Forestry-Industry Union (under the Ministry of Forestry). Kon Ka Kinh forbidden forest was upgraded to Kon Ka Kinh Nature Reserve in 1999 according to Decision No. 19/1999/QD-UB dated March 8, 1999 of Gia Lai Provincial People's Committee. Kon Ka Kinh Nature Reserve Management Board operates under Gia Lai Provincial Forest Protection Department. By 2022, Kon Ka Kinh National Park was officially upgraded to National Park in 2022 according to Decision No. 167/2002/QD-TTg dated November 25, 2002 of the Prime Minister of the Socialist Republic of Vietnam. Since 2003, Kon Ka Kinh National Park has been directly managed by Gia Lai Provincial People's Committee according to Decision No. 63/2003/QD-UB dated June 4, 2003.

Kon Ka Kinh National Park has high biodiversity and is one of the National Parks that plays an important role in the biodiversity system of the Central Highlands in particular and Vietnam in general. On December 18, 2003, Kon Ka Kinh National Park was recognized as one of 27 ASEAN Heritage Parks in Southeast Asia at the meeting of Ministers of Natural Resources and Environment held in Myanmar [9]. On September 15, 2021, UNESCO recognized Kon Ha Nung Plateau (Gia Lai province) as a world biosphere reserve with the core zone being Kon Ka Kinh National Park and Kon Chu Rang Nature Reserve [10].

The total natural area of Kon Ka Kinh National Park is 41,913.78 ha, of which 41,445.25 ha are special-use forests and 468.53 ha are outside the special-use forest planning; distributed in 45 sub-zones, including 3 functional sub-zones: Strictly protected sub-zone, ecological restoration sub-zone, service - administrative sub-zone and buffer zone area [11].

Currently, there are no people living in the core zone of Kon Ka Kinh National Park, but the influence of the people in the communes in the buffer zone on forest resources and biodiversity is very large. The buffer zone of the National Park has an area of 141,012 hectares, located in 71 villages of 7 communes, in 3 districts of K'Bang, Mang Yang and Dak Doa. The population of the buffer zone is about 32,088 people. Of which, more than 80% of the buffer zone population are ethnic minorities, mainly Ba Na people living in 2 districts of K'Bang and Dak Doa. The Kinh ethnic group mainly lives in the communes of Mang Yang district, accounting for 30 - 40% of the district's population.

The total number of workers in the buffer zone of the Park is 15,387, accounting for 49.7% of the total population of the area. The income of people in the area mainly depends on agriculture with the labor structure by economic sector as shown in Figure 2.

The rate of poor and near-poor households in the buffer zone of Kon Ka Kinh National Park is quite high, especially in K'Bang and Dak Doa districts. In K'Bang district, Dak Roong, Krong and Kon Pne communes have the rate of poor and near-poor households ranging from 89% to 96%; Krong commune has the lowest rate of poor households (5%) but the near-poor households are very high (83%). Ha Dong commune is a newly established commune of Dak Doa district with 100% of Ba Na people with the rate of poor and near-poor households reaching 67%. This leads to a situation where people depend on the forest for their livelihood by collecting secondary forest products, even logging; at the same time, they depend on the support of the State [12].

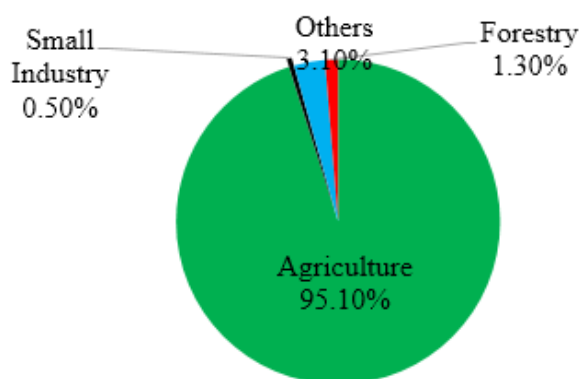


Figure 2. Labor structure in the buffer zone of Kon Ka Kinh National Park by economic sector

Difficult socio-economic conditions in the buffer zone are one of the factors that significantly affect biodiversity management and protection in Kon Ka Kinh National Park.

II. Data and research methods

To complete this study, the authors used data sources from Reports of non-governmental organizations, the Ministry of Natural Resources and Environment and related agencies, Gia Lai Provincial People's Committee, Kon Ka Kinh National Park... These are reliable, valuable, recognized and publicly available data sources.

The methods used include document analysis and synthesis; sociological investigation method and field survey method. The field survey method was conducted to collect information on the socio-economic situation of the buffer zone, the current status of biodiversity as well as a survey on biodiversity conservation work in Kon Ka Kinh National Park. The document analysis and synthesis method was used to process information collected from the field and from secondary sources such as scientific reports, books and previous research works on biodiversity in Vietnam and in Kon Ka Kinh National Park. The sociological investigation method was carried out through in-depth interviews with the Kon Ka Kinh National Park Management Board, to collect more information on the status and challenges in biodiversity conservation work here.

III. Research results and discussion

3.1. Current status of biodiversity in Kon Ka Kinh National Park

3.1.1. Ecosystem diversity

Kon Ka Kinh National Park has 13 types of ecosystems. Of which, Medium evergreen broadleaf mountain natural forest is the most common ecosystem in Kon Ka Kinh National Park, accounting for the largest Structure (60.62%). Land planted with forests on the mountain and agricultural ecosystems have small areas (Table 1).

Table 1. Area of ecosystem types in Kon Ka Kinh National Park

STT	Ecosystem type	Area (ha)	Structure (%)
1	Rich evergreen broadleaf mountain natural forest	7,157.98	17.83
2	Medium evergreen broadleaf mountain natural forest	24,328.1	60.62
3	Poor evergreen broadleaf mountain natural forest	826.68	2.06
4	Evergreen broadleaf mountain natural forest restoration	4,661.39	11.61
5	Bamboo forest is different from natural mountain land	201.07	0.50
6	Mixed forest of bamboo and natural wood on the mountain soil	370.34	0.92
7	Timber plantation	151.8	0.38
8	Land planted with forests on the mountain	44.5	0.11
9	Land with regenerated trees and mountains of soil	242.77	0.60
10	Bare land mountain land	652.24	1.63
11	Mountainous agricultural land	1,382.26	3.44
12	Land and water	101.68	0.25
13	Other land	14.51	0.04

(Source: [13])

3.1.2. Genetic and species diversity

Regarding genetic diversity : Kon Ka Kinh National Park has 138 important plant genetic resources and 86 rare, precious and endangered animal genetic resources.

Regarding forest flora : Kon Ka Kinh National Park has 1,754 species of tracheophyta belonging to 753 genera and 181 families, accounting for about 14% of the country's flora. In addition, there are 91 species of thallophyta belonging to 39 genera and 26 families (Table 2).

Table 2. Number of plant species in Kon Ka Kinh National Park

STT	Industry Group	Number of family	Number of expenses	Number of species
I	Tracheophyta	181	753	1,754
1	Angiosperm	151	689	1,629
2	Gymnosperm	6	10	16
3	Lycophytes	24	54	109
II	Thallophyta	26	39	91

(Source: Compiled from [9], [10], [11])

Kon Ka Kinh National Park has many important plant species. These are truly threatened plant species, or endemic species of the region or Vietnam. Of these, 28 species are truly threatened at the global scale (IUCN, 2016), 62 species are threatened at the national scale (Vietnam Red Book 2007) and 19 species are endangered, precious and rare according to Decree 32/2006 of the Prime Minister. In particular, Kon Ka Kinh National Park has 47 endemic plant species, including 9 species endemic to Kon Ka Kinh National Park, 7 species endemic to the Central Highlands, and 31 species endemic to Vietnam.

Table 3. Number of plant species of conservation value in Kon Ka Kinh National Park

Rating	CR	EN	VU	IA	IIA
IUCN Red List	5	8	15	-	-
Vietnam Red Book	4	26	32	-	-
Decree 32/2006	-	-	-	7	12

(Source: Compiled from [9], [10], [11])

VU: Vulnerable; EN: Endangered; CR: Critically Endangered; IA = Species of wild plants prohibited from exploitation and use for commercial purposes, including species of wild plants of special scientific and environmental value or high economic value, with very small populations in the wild or at high risk of extinction; IIA = Species of wild plants restricted from exploitation and use for commercial purposes, including species of wild plants with scientific or environmental value or high economic value, with small populations in the wild or at risk of extinction.

Regarding wild animals : Kon Ka Kinh National Park has a very diverse and rich fauna with a total of 876 species, belonging to 91 families and 31 orders. Of which, vertebrates account for 64.01% with 555 species; invertebrates account for 35.99% with 231 species (Table 4, Figure 3).

Table 4. Fauna composition in Kon Ka Kinh National Park

TT	Fauna	Set	Surname	Number of species
I	Vertebrates	30	81	555
1	Mammalia	8	26	88
2	Aves	17	54	326
3	Reptilia	2	12	77
4	Amphibia	1	6	58
5	Actinopterygii	2	3	6
II	Invertebrates	1	10	321
1	Insecta	1	10	321

(Source: Compiled from [9], [10], [11])

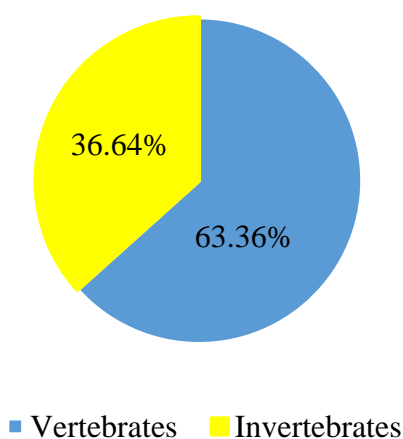


Figure 3. Structure of Fauna composition in Kon Ka Kinh National Park

The fauna of Kon Ka Kinh National Park has high conservation value. There are 57 rare species recorded in the Vietnam Red Book, 68 rare species recorded in the Decree 32/ND-CP/2006 and 53 rare species recorded in the IUCN Red List 2016. Detailed information on the number of animal species with conservation value in Kon Ka Kinh National Park is shown in Table 5.

Table 5. Number of animal species of conservation value in Kon Ka Kinh National Park

TT	Fauna	CR	EN	VU	NT	DD	LC	IB	IIB	Total
A. IUCN Red List		53								
1	Mammalia	1	7	12	5	4	-	-	-	29
2	Aves	-	1	3	7	-	1	-	-	12
3	Reptilia	-	-	1	-	1	-	-	-	2
4	Amphibia	-	-	5	1	4	-	-	-	10
B. Vietnam Red Book		57								
1	Mammalia	3	13	15	-	2	1	-	-	34
2	Aves	-	1	7	4	-	-	-	-	12
3	Reptilia	1	5	2	-	-	-	-	-	8
4	Amphibia	-	-	1	-	-	-	-	-	1
5	Insecta	-	-	2	-	-	-	-	-	2
C. Decree 32/2006		68								
1	Mammalia	-	-	-	-	-	-	21	9	30
2	Aves	-	-	-	-	-	-	5	14	19
3	Reptilia	-	-	-	-	-	-	9	9	18
4	Insecta	-	-	-	-	-	-	-	1	1

(Source: Compiled from [9], [10], [11])

DD = Data Deficient; LC = Least Concern; NT = Near Threatened; VU = Vulnerable; EN = Endangered; CR = Critically Endangered; IB = Species of wild animals prohibited from exploitation and use for commercial purposes, including species of wild animals of special scientific and environmental value or high economic value, with very small populations in the wild or at high risk of extinction; IIB = Species of wild animals restricted from exploitation and use for commercial purposes, including species of wild animals with scientific or environmental value or high economic value, with small populations in the wild or at risk of extinction.

Not only having high conservation value, many species of animals and plants in Kon Ka Kinh National Park have high economic value. Among them, many species that produce good timber belong to the Dipterocarpaceae family (*Dipterocarpus alatus*, *Dipterocarpus obtusifolius*, *Hopea odorata*, *Shorea roxburghii*), the Magnoliaceae family (*Magnolia baillonii*, *Magnolia braianensis*)... Many species of plants provide non-timber forest products, which are important sources of materials in the life of local communities such as rattan for handicrafts, and plants that produce essential oils and resins. In particular, *Aquilaria crassna* Pierre ex Lecomte is ranked EN for essential oils and resins and is on the list of rare species. This is a group of trees that can bring important income to local people and can be exploited sustainably if there is a suitable management and sharing mechanism. In addition, Kon Ka Kinh National Park has about 313 species of medicinal plants, 100 species of plants used as food, more than 100 species of orchids and other plants with high aesthetic value, which can be used as ornamental plants. The fauna of the Park has many species of wild animals that are valuable sources of food, medicine and ornamental creatures for the local community.

Kon Ka Kinh National Park has rich biodiversity, with many rare species of animals and plants. This is an important center for biodiversity research and conservation in Vietnam. The conservation and development of biodiversity in Kon Ka Kinh not only contributes to maintaining ecological balance but also contributes to scientific research, environmental education and sustainable ecotourism development.

3.2. Biodiversity management and conservation at Kon Ka Kinh National Park

Possessing many endemic and rare animal and plant genetic resources, Kon Ka Kinh National Park has been identified by domestic and international scientists as a priority area for biodiversity conservation in Vietnam. In recent years, with the promulgation of Decree No. 117/2010/ND-CP dated December 24, 2010 of the Government on the organization and management of the special-use forest system; Decision No. 24/2012/QĐ-TTg dated June 1, 2012 of the Prime Minister on investment policy for the development of special-use forests in the period 2011-2020; the system of special-use forests in Vietnam has been unified in terms of management

organization and investment and development policy. Biodiversity conservation has been increasingly focused on. The Gia Lai Provincial People's Committee has approved the Kon Ka Kinh National Park Investment and Development Project for the 2011-2020 period, with special attention paid to biodiversity conservation research. Along with efforts to effectively carry out the task of sustainable forest management and development, and support people in the buffer zone to improve their livelihoods, Kon Ka Kinh National Park has implemented many biodiversity conservation programs.

Climate change is creating many challenges for biodiversity management and conservation in Kon Ka Kinh National Park. In response to the negative impacts of climate change, conservation strategies and measures have been adjusted and strengthened to effectively protect ecosystems and rare species of flora and fauna. The main activities in biodiversity management and conservation of the Park include protection, conservation and restoration of natural ecosystems; scientific research and international cooperation, regional connectivity; community development and environmental education.

The work of protecting, conserving and restoring natural ecosystems aims at (1) Protecting intact, conserving and sustainably developing forest ecosystems, rare animal and plant genetic resources; preventing and fighting forest fires; preventing and controlling pests and alien organisms that harm forests; preserving and embellishing historical and cultural relics and natural landscapes in Kon Ka Kinh National Park; (2) Restoring natural ecosystems, endangered animal and plant species to preserve biodiversity; (3) Increasing income and improving people's livelihoods associated with the activities of the Management Board; organizing measures to attract buffer zone communities and households to participate in forest management and protection.

The protection, conservation and restoration of natural ecosystems are effectively implemented through forest patrolling, monitoring, forest fire control and restoration of depleted forest areas. Forest rangers regularly patrol and monitor to detect and prevent illegal hunting, logging and other harmful activities. Forest fire prevention and fighting measures such as creating fire-proof belts, placing signs and raising community awareness are being implemented. In particular, to improve the effectiveness and role of the community in forest management and protection, Kon Ka Kinh National Park also maintains a forest area of more than 18,990 hectares (of which more than 1,040 hectares of new forest are allocated in 2023) for 29 household groups, belonging to 17 hamlet communities and buffer zones of Mang Yang, Kbang and Dak Doa districts [14].

Kon Ka Kinh National Park cooperates with domestic and international organizations and scientists to implement activities and projects on conservation and biodiversity in the core zone of the Kon Ha Nung Plateau World Biosphere Reserve. Notably, the Park cooperates with the Frankfurt Zoological Society in Vietnam to implement the project "Supporting nature conservation in Kon Ka Kinh National Park" from 2018 to 2023 on monitoring endangered and rare animals and plants; signed a project to implement technical support and nature conservation for the period 2022-2026 with the Frankfurt Zoological Society (Germany) in Vietnam. In coordination with the Institute of Natural Resources and Environment (Hue University), the Park has implemented small and micro-funding packages for people living in the buffer zone. In addition, the Park has coordinated research activities on topics and projects to investigate, compile statistics, and conserve medicinal plant genetic resources; and restore rosewood species in Kon Ka Kinh National Park. The park also cooperates with neighboring reserves and national parks to create inter-regional conservation networks, enhancing resilience and protecting biodiversity.

The Kon Ka Kinh National Park ecotourism development project is being submitted to the competent authority for approval. This activity contributes to increasing income for local people when participating in the tourism chain. In 2023, the Park welcomed and guided 1,396 visitors (18 foreign visitors; 1,378 domestic visitors) to experience and learn. Tourism activities in Kon Ka Kinh National Park are gradually being shaped and developed in the direction of ecotourism based on natural values and landscapes with destinations such as: ancient banyan tree complex, White Stone peak, Hngoi stream. In addition, in the sponsorship program for ASEAN heritage parks (SGPII), the ASEAN Center for Biodiversity (ACB) has worked with Kon Ka Kinh National Park and agreed to select and implement a number of proposals to support units and buffer zones. Currently, these proposals have implemented small and micro-funding packages for people living in the buffer zone. The project organized the first call for small package proposals (from November 2022 to June 2023) and 6 small packages were approved; in addition, the second call for micro package proposals in 2023, through which 13 proposed packages are under the selection process of the National Advisory Council.

Environmental education and propaganda work to raise awareness of nature conservation and ecological environment for tourists and local communities; carry out promotional and marketing activities to attract tourists with constantly renewed content and forms of propaganda; develop plans to patrol, sweep, prevent violations of the law in the managed forest area, combined with removing traps, and mobilize people not to hunt or keep rare and precious wild animals, helping to protect the biodiversity of the Park.

The above measures not only help Kon Ka Kinh National Park better respond to climate change but also contribute to protecting and maintaining valuable biodiversity, ensuring sustainable development of the entire region.

** General assessment:*

Although Kon Ka Kinh National Park and domestic and foreign organizations have conducted many studies on biodiversity, natural resource management and community livelihood development, biodiversity conservation is still facing many difficulties and challenges, especially in the context of current climate change. Biodiversity resources are still being encroached upon, many species are in a state of critical danger (CR), endangered (EN), Vulnerable (VU) and near-threatened (NT). The causes of biodiversity loss in Kon Ka Kinh National Park are identified as including 05 direct groups of causes: Climate change, illegal and excessive exploitation of timber and non-timber forest products, deforestation for slash-and-burn agriculture, and indiscriminate livestock grazing. The indirect causes of the problem are the poverty of people in the buffer zone, limited law enforcement against violations, low public awareness, community living habits, the impact of the market economy and the lack of land for production.

With many difficulties and challenges in biodiversity management and protection, especially in the current context of global climate change, Kon Ka Kinh National Park Management Board has implemented many activities and achieved many results. The forest area is well protected, rare animals and plants have been protected and their numbers have increased. The number of violations of forest protection laws is low, with only 6 violations in 2022. Notably, in 2022, there were no forest fires within the Park. The lives of people in the buffer zone have gradually improved through support activities of the Park and domestic and foreign organizations in sustainable livelihood transformation. In particular, degraded areas have been restored through planting native trees and creating suitable habitats for animals.

Overall, biodiversity conservation in Kon Ka Kinh National Park has achieved certain achievements, but continued efforts are needed to cope with challenges from climate change and human activities. Coordinated measures between state management, local communities and international cooperation are key to maintaining and developing biodiversity in this area.

IV. Conclusion

Kon Ka Kinh National Park has a high level of biodiversity, is one of the National Parks with an important role in the biodiversity system of the Central Highlands in particular and Vietnam in general, has been recognized as an ASEAN Heritage Park and is the core area of the Kon Ha Nung Plateau World Biosphere Reserve. With 7 types of natural forest and planted forest ecosystems, of which natural forests account for over 90%, Kon Ka Kinh National Park has 1,754 species of tracheophyta, 91 species of thallophyta and 876 species of animals.

The Park Management Board and the Gia Lai Provincial People's Committee pay great attention to biodiversity conservation. The main activities implemented include: Conservation and sustainable development of forest ecosystems, rare animal and plant genetic resources; forest fire prevention and control; prevention of pests and invasive alien species; conservation and restoration of historical and cultural relics, natural landscapes in Kon Ka Kinh National Park; Restoration of natural ecosystems, endangered animal and plant species to conserve biodiversity; Increasing income, improving people's livelihoods associated with the activities of the Management Board; organizing measures to attract buffer zone communities and households to participate in forest management and protection; Environmental propaganda and education to raise awareness of nature conservation, ecological environment for tourists and communities.

The management and conservation of biodiversity in Kon Ka Kinh National Park has achieved many results. Forest ecosystems and animal and plant species are well protected; the number of violations of forest protection laws is low; there are no forest fires within the Park; the lives of people in the buffer zone have gradually improved; and degraded areas have been restored.

REFERENCES

- [1]. World Population Review (2024), Most Biodiverse Country 2024, <https://worldpopulationreview.com/country-rankings/most-biodiverse-country> , accessed June 13, 2024.
- [2]. Ministry of Natural Resources and Environment (2023), National Biodiversity Report 2022.
- [3]. Ministry of Natural Resources and Environment (Institute of Strategy and Policy on Natural Resources and Environment), Vietnam Union of Science and Technology Associations (Center for Biodiversity Conservation) (2021), National ecosystem assessment report.
- [4]. The Convention on Wetlands (RAMSAR), Countries, Viet Nam, <https://www.ramsar.org/countries> , accessed 31/5/2024.
- [5]. UNESCO (2021), World Network of Biosphere Reserves , Biosphere reserves - Vietnam, https://www.unesco.org/en/mab/list?f%5B0%5D=countries%3A9f95daed-dcc6-523a-b99e-2126d2ae97d5&f%5B1%5D=dataset_filters%3A6c254c17-2986-4f89-aa10-17d38a33454c&hub=66369#toggle-facets, date accessed June 13, 2024.
- [6]. ASEAN center for biodiversity, ASEAN Heritage Parks, Vietnam, The ASEAN Heritage Parks Program - ASEAN Center for Biodiversity (aseanbiodiversity.org) , accessed June 10, 2024.
- [7]. Ministry of Natural Resources and Environment (2019), National Strategy on Biodiversity to 2020, vision to 2030.
- [8]. Kon Ka Kinh National Park Electronic Information Portal, Natural Features of Kon Ka Kinh National Park, <https://konkakin.gialai.gov.vn/chuyenmuc/Gioi-thieu/%C4%90ac-%C4%91iem-natural-park-kon-ka-kinh.aspx> , accessed date 5/31/2024.
- [9]. ASEAN center for biodiversity, ASEAN Heritage Parks, Kon Ka Kinh National Park, <https://www.aseanbiodiversity.org/asean-heritage-parks/kon-ka-kinh-national-park/> , accessed 13/6/2024 .
- [10]. UNESCO (2021), World Network of Biosphere Reserves , Biosphere reserves - Viet Nam, Kon Ha Nung highland, <https://www.unesco.org/en/mab/kon-ha-nung-highland?hub=66369> , access date updated June 13, 2024.
- [11]. Kon Ka Kinh National Park (2022), Report No. 05/BC-VQG on the implementation of tasks in 2021 and directions for tasks in 2022.
- [12]. Kon Ka Kinh National Park (2010), Kon Ka Kinh National Park Construction Investment Project, Phase 2011 - 2020.
- [13]. Gia Lai Provincial People's Committee (2022), Action Plan on Biodiversity of Gia Lai Province to 2030, vision to 2050, No. 2279/KH-UBND dated October 9, 2022.
- [14]. Gia Lai Electronic Newspaper (2024), Kon Ka Kinh: Conservation for forest development associated with biodiversity, <https://baogialai.com.vn/kon-ka-kinh-bao-ton-de-phat-trien-rung-gan-voi-da-dang-sinh-hoc-post264410.html>, accessed May 28, 2024.