



Main contents of the biosphere reserve management framework in Vietnam

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A biosphere reserve is an area that includes terrestrial, marine, and/or coastal ecosystems or a combination of these, and is internationally recognized under UNESCO's Man and the Biosphere Programme (MAB). It is designated as part of the World Network of Biosphere reserves. In 1976, the World Network of Biosphere reserves was established by UNESCO. As of June 2023, the Network has 748 Biosphere reserves in 134 countries. Vietnam became a member of the World Network of Biosphere reserve and joined MAB in 2000 since the first Biosphere reserve, Can Gio mangrove forest, Ho Chi Minh City, was recognized by UNESCO. After 22 years, Vietnam has 11 Biosphere reserves, accounting for about 14.69% of the country's natural area, becoming the country with the second largest number of Biosphere reserves in Southeast Asia. The nomination and management of biosphere reserves are conducted in accordance with UNESCO's guidelines, while adhering to the legal regulations of the host country. The article provides information on UNESCO's regulations and guidelines, the legal frameworks governing the organization and management of Biosphere reserves in Vietnam, and offers recommendations for improving and implementing the management framework for Biosphere reserves in Vietnam in the future.

1. UNESCO GUIDELINES FOR THE MANAGEMENT OF BIOSPHERE RESERVES

The UNESCO Biosphere reserves Management Framework is an international set of guidelines based on the voluntary participation of Member States, designed to support the management of biosphere reserves, including:

The Statutory framework of the World Network of Biosphere reserve (1995) defines the legal basis for the management and development of biosphere reserves under UNESCO's framework. It includes the following main provisions: Purpose and scope; Definitions; Principles; Nomination criteria; Evaluation and monitoring; Cooperation with intergovernmental organizations and partners; Evaluation and feedback; Effectiveness and implementation. The framework stipulates that the responsibility for the management and operation of biosphere reserves belongs to individual countries and must comply with their own legal systems. Essentially, UNESCO is not responsible for managing the biosphere reserves or for enacting or amending legislation to meet the requirements of the MAB Programme. This responsibility lies with the countries that have recognized biosphere reserves.

The Seville Strategy (1995) for World Network of Biosphere reserves, developed in 1995, sets specific goals for

UNESCO World Biosphere reserves and calls for the participation of all stakeholders.

Madrid Action Plan (2008-2015), MAB Strategy (2015-2025), The Lima Action Plan (2016-2025) sets out the orientation and key tasks in each period to strengthen and expand the World Network of Biosphere reserves in implementing sustainable development goals.

The legal framework of the World Network of Biosphere reserve defines the objectives of the recognition of Biosphere reserves, the functions of Biosphere reserves in terms of conservation (contributing to the conservation of landscapes, ecosystems, species and genetic resources), development (promoting economic, cultural and human development in a sustainable manner in terms of culture, society and ecology), support (supporting demonstration programmes, environmental education and training activities, research and monitoring related to conservation and sustainable development at local, national and global levels) and requires the zoning of Biosphere reserves into core zones, buffer zones and transition zones to carry out these functions. Biosphere reserves are required to periodically conduct a review report every ten years to ensure that all Biosphere reserves in the Network carry out the functions specified in the legal framework of the World Network of Biosphere reserve.

The strategies and plans of the MAB Programme are adopted to support member countries and other stakeholders in promoting biosphere reserves and ensuring their sustainable development. In particular, the MAB Strategy for 2015-2025 outlines four key objectives: (i) Conserve biodiversity, restore and enhance ecosystem services, and encourage the sustainable use of natural resources; (ii) Contribute to building a sustainable, healthy, and equitable society, economy, and human settlements; (iii) Foster sustainable scientific research and education to promote sustainable development; (iv) Support climate change mitigation and adaptation, as well as responses to other aspects of global environmental change. Based on these objectives, five priority areas of action have been identified: (i) The World



Network of Biosphere reserves implementing effective models for sustainable development; (ii) Comprehensive, dynamic, and results-based cooperation linking the MAB Programme and the World Network of Biosphere reserves; (iii) Building effective partnerships and securing adequate, sustainable funding for the MAB Programme and the World Network of Biosphere reserves; (iv) Ensuring comprehensive, open, and transparent sharing of information and data; (v) Effective governance of the World Network of Biosphere reserves.

UNESCO guidelines provide guidance and recommendations for countries to manage and operate Biosphere reserves within their own legal frameworks. Some countries have enacted laws and regulations to establish Biosphere reserves, while others have adapted existing laws to support this purpose.

2. VIETNAM'S LEGAL REGULATIONS ON THE MANAGEMENT OF BIOSPHERE RESERVES

The Law on Environmental Protection 2020 officially took effect on January 1st, 2022. Prior to its implementation, the nomination and management of biosphere reserves were guided by UNESCO, at the same time the management of natural resources, environmental protection, and biodiversity conservation within Biosphere reserves were governed by national laws. For instance, the core areas of Biosphere reserves, which often include nature reserves, were managed in accordance with forestry, fisheries, and biodiversity laws. However, Biosphere reserves were not yet given explicit legal status in national regulations, and there were no provisions regarding the organization of Biosphere reserve management to fulfill new requirements set by UNESCO.

The Law on Environmental Protection 2020, the Decree No.08/2022/NĐ-CP dated January 10th, 2022 of the Government detailing a number of articles of the Law on Environmental Protection (Decree No. 08/2022/ NĐ-CP), and the Circular No.02/2022/TT-BTNMT detailing the implementation of a number of articles of the Law on Environmental Protection (Circular No.02/2022/TT-BTNMT). These regulations establish that biosphere reserves are considered a type of natural heritage and are therefore subject to management and environmental protection regulations of natural heritage under Environmental protection Law. Specifically, the Law on Environmental Protection 2020 includes two articles directly related to biosphere reserves: Article 20 on natural heritage and Article 21 on the content of environmental protection of natural heritage.

The Decree No.08/2022/NĐ-CP further clarifies these two articles of the Law on Environmental Protection 2020 by addressing the following points: criteria, procedures, and authority for establishing and recognizing biosphere reserves (Clause 2, Article 19); procedures and authority for nominating natural heritage for recognition by international organizations (Article 20); and investigation, assessment, management, and environmental protection of natural heritage (Article 21). Additionally, Article 9 of the Circular No. 02/2022/TT-BTNMT outlines the development and approval processes for regulations and plans related to the management and protection of natural heritage.

3. MAIN CONTENTS OF THE BIOSPHERE RESERVES MANAGEMENT FRAMEWORK IN VIETNAM

Based on UNESCO guidelines, Vietnamese legal regulations and practical situations, it is possible to identify the main contents of the management framework for biosphere reserves in Vietnam.

3.1. *Nomination and withdrawal from the title of Biosphere reserves*

Management Board (or organization assigned to manage) of natural heritage sites (including nature reserves as prescribed by the Law on Biodiversity and other natural heritage sites) shall prepare nomination dossiers based on UNESCO's criteria for recognition of Biosphere reserves. The nomination process shall be implemented in accordance with the provisions of Article 20 of the Decree No.08/2022/NĐ-CP. On the other hand, countries may also request UNESCO to withdraw the title of Biosphere reserve when determining no longer meets UNESCO Biosphere reserve criteria.

3.2. *Organization of management of Biosphere reserves*

Agencies involved in the management of the World Biosphere reserve include the following main entities: the Biosphere reserve Management Board, the Ministry of Natural Resources and Environment, the Vietnam National Commission for UNESCO (with the Ministry of Foreign Affairs as the standing agency), the MAB Committee, and the People's Committees of the provinces and cities where the Biosphere reserve is located.

The National Park Management Board, Standing Office, and Advisory Board: To effectively manage the National Park, it is necessary to establish an Inter-sectoral Management Board for the Biosphere reserve. This Management Board plays a key role in inter-sectoral coordination, mobilizing, and enhancing the participation of relevant stakeholders to achieve the objectives of the Biosphere reserve. The decision-making authority for establishing the Inter-sectoral Management Board lies with the Provincial People's Committee for reserves located within one province, or with the Prime Minister for reserves that span multiple provinces, centrally-run cities, or sea areas where provincial administrative responsibility has not been clearly defined.



However, the Decree No.08/2022/NĐ-CP does not specifically address the structure and composition of the Inter-sectoral Management Board or the establishment of the Standing Office/Secretariat and Advisory Board. To ensure the effective implementation of inter-sectoral management tasks, the Head of the Management Board is typically a leader of the Provincial People's Committee (for example, in cases where the reserve is located entirely within one province, such as the Western Nghe An Biosphere reserve) or leadership rotates among the Provincial People's Committees (in cases where the core areas of the reserve are located in multiple provinces, such as the Red River Delta Coastal Wetland Biosphere reserve). In cases where the reserve is located within a district or city, the Head may be a city-level leader. Members of the Inter-sectoral Management Board include representatives from relevant sectors. According to UNESCO guidelines, depending on local conditions, Biosphere reserves may establish Permanent Offices/Secretariats and Advisory Boards. The permanent responsibility is often assigned to the agency managing natural resources and environment, forestry, fisheries, or the organization responsible for managing the particular heritage site. Depending on practical needs, the Provincial People's Committee may also consider establishing an Advisory Board for the Biosphere reserve Management Board to provide advice on management-related issues.

State management agency for biosphere reserve at the central level: The Ministry of Natural Resources and Environment is responsible for directing and guiding the preparation of dossiers for the nomination, recognition, and management of biosphere reserves. The Ministry assists the Government in implementing unified management and environmental protection, develops and submits legal documents for promulgation, organizes the implementation and inspection of compliance with the law, and provides technical guidance on the management and environmental protection of Biosphere reserves.

Vietnam National Commission for UNESCO (Standing agency: Ministry of Foreign Affairs): The Vietnam National Commission for UNESCO was established by the Prime Minister under Decision No.30/11/2011. It includes representatives from relevant ministries and agencies and is tasked with advising and assisting the Prime Minister in directing and coordinating activities related to UNESCO. This involves cooperation between ministries, government agencies, and provincial People's Committees, along with overseeing the organization and operation of UNESCO's specialized subcommittees.

National Committee on Man and the Biosphere (MAB): According to UNESCO guidelines, countries are required to establish a National Committee on Man and the Biosphere (MAB), which is responsible for providing advisory support for the management of biosphere reserves. In Vietnam, the National MAB Committee was initially established by Decision No.173-CT of the Chairman of the Council of Ministers on July 17th, 1986, and has undergone several reinforcements, the latest being under Decision No.02/BTK/19 of the Vietnam National Commission for UNESCO on August 14th, 2019. The MAB National Committee operates under the regulations issued by the UNESCO National Commission, with its term running until 2022. To align with current practices, the MAB National Committee will need to be restructured based on several principles. Its role is to advise the Ministry of Natural Resources and Environment, the UNESCO National Commission, Provincial People's Committees, and the Management Boards of biosphere reserves in fulfilling the nomination and management objectives of these reserves.

People's Committees of provinces and centrally run cities where biosphere reserves are located: These Committees are responsible for managing biosphere reserves according to the law, ensuring unified management and environmental protection within their jurisdiction. In Vietnam, the governance model for biosphere reserves does not involve private or community management. Therefore, current legal frameworks do not include specific provisions for the participation of the private sector or community in directly managing biosphere reserves.



▲ Cat Ba National Park was recognized by UNESCO as a Reserve World Biosphere in 2004.



3.3. Biosphere reserve's zoning

According to the Decree No.08/2022/NĐ-CP, a biosphere reserve is classified as a special national natural heritage site. It is divided into zones to perform the three key functions of a biosphere reserve: conservation, development, and logistic support. Each biosphere reserve requires functional zoning, which includes strictly protected areas (core zones), and areas designated for livelihood and development activities (buffer zones and transition zones).

- **Core Zone:** This zone consists of areas that are permanently protected to preserve landscapes, ecosystems, and genetic resources. According to Point a, Clause 5, Article 21 of the Decree No.08/2022/NĐ-CP, includes the core zone of nature reserves, protected zone Category I of scenic spots recognized as cultural heritage, and areas with core values that must remain intact to preserve the pristine natural features of the heritage site.

- **Buffer zone:** This zone includes areas with lower protection value than the core zone of natural heritage, protection zone category II of scenic spots recognized as cultural heritage and areas adjacent to the core zone's boundary that have the effect of preventing and mitigating the negative impacts of socio-economic development activities outside the natural heritage on the core zone of natural heritage. To ensure consistency in management regime, the buffer zone of the Biosphere reserve is also the buffer zone of the nature reserve (for areas with the core zone being a nature reserve according to the law on biodiversity), the buffer zone of the special-use forest (for areas with the core zone being a special-use forest according to the law on forestry), the buffer zone of the marine reserve (for areas with the core zone being a marine reserve according to the law on fisheries).

- **Transition zone:** This zone is where the community promotes sustainable economic and human activities in terms of culture, society and ecology. According to Point c, Clause 5, Article 21 of the Decree No.08/2022/NĐ-CP, the transition zone is the area located in connection with the buffer zone, where socio-economic development activities need to be controlled to be consistent and in harmony with the protection and conservation goals of establishing and recognizing natural heritage.

3.4. Issuance of plans and regulations for management and environmental protection of Biosphere reserves

The UNESCO Statutory Framework and Vietnamese law both require that Biosphere reserve need to be managed and protected according to plans and management regulations. The Decree No.08/2022/NĐ-CP stipulates that plans and regulations for management and environmental protection of Biosphere reserves shall be approved by competent authorities (Provincial People's Committees for Biosphere reserves located in a province or centrally-run city, Ministry of Natural Resources and Environment for Biosphere

reserves located in multiple provinces). The contents of environmental protection of natural heritage include regulations on controlling production and service activities in the core zone of natural heritage; restoring natural ecosystems, protecting core values of nature and biodiversity; investigating, evaluating, monitoring, supervising, inventorying, and reporting on specific indicators of geology, landscape, ecology, and biodiversity of natural heritage; implementation of other requirements on environmental protection, prevention and control of impacts on the environment, biodiversity and natural heritage according to the provisions of the Decree No.08/2022/NĐ-CP, relevant legal provisions and provisions of international treaties on environment and biodiversity that Vietnam has signed.

The development of management and environmental protection plans for Biosphere reserves should apply a participatory approach involving stakeholders and local communities. For most Biosphere reserves, management plans should focus on: conservation of biodiversity and ecosystem services; sustainable use of resources; improvement of livelihoods and benefits for communities; promotion of the green economy; tourism; ecosystem restoration; disaster mitigation and risk management; climate change, infrastructure development; research and education; communication, cooperation (including national and international cooperation).

3.5. Investigation and evaluation of the Biosphere reserve

The investigation and assessment of the Biosphere reserves shall be carried out as prescribed for natural heritage sites as stipulated in Clause 1, Article 21 of the Decree No. 08/2022/NĐ-CP, including periodic investigation and assessment every 5 years and other investigation and assessment activities as prescribed by relevant laws. Periodic investigation and assessment include the following contents: Environmental developments and natural values that need to be protected and preserved according to the criteria for establishing and recognizing Biosphere reserve; socio-economic development activities that have negative impacts on the environment of natural heritage; activities of exploiting and using the values of natural resources and ecosystem services of natural heritage; activities of restoring natural ecosystems, protecting and preserving the values of nature and biodiversity of natural heritage; implementing solutions for environmental protection of natural heritage according to the provisions of law. The management board or organization assigned to manage natural heritage shall conduct periodic investigation and assessment of natural heritage. The results of the investigation and assessment shall



be sent to the People's Committee of the province where the natural heritage is located and shall be updated in the national biodiversity database and specialized databases according to the provisions of relevant laws.

3.6. Conduct periodic assessment reports on biosphere reserves

Biosphere reserves are required to periodically conduct a ten-year assessment report according to the reporting format provided by UNESCO to ensure that all Biosphere reserves perform the functions specified in the Statutory Framework for the World Network of Biosphere reserve (UNESCO, 2015).

To carry out the responsibility of managing the Biosphere Reserve as committed in the nomination dossier, the Management Boards of the Biosphere Reserve will organize the preparation of reports, submit them to the Provincial People's Committees to send the reports to collect opinions from relevant sectors at both central and local levels (including natural resources and environment; agriculture and rural development; science and technology; culture, sports and tourism; education and training; planning and investment; finance; MAB Committee...); complete the report to send to the UNESCO Committee to submit to the Intergovernmental Council of UNESCO's MAB Program.

3.7. Financial resources for the operation of the Biosphere reserve

Activities of the Biosphere reserve are funded from state budget sources, investment sources, support from national organizations and individuals, foreign donors, organizations and individuals, and revenues from environmental services according to the provisions of law.

4. RECOMMENDATIONS TO STRENGTHEN THE MANAGEMENT OF BIOSPHERE RESERVE IN VIETNAM

Although the Law on Environmental Protection 2020 and its guiding documents have provided a crucial legal foundation for the management and protection of Biosphere Reserves, there are still several limitations in the implementation of Biosphere Reserve management objectives. The Biosphere Reserve management framework lacks sufficient guiding documents, and while some elements have been institutionalized, they remain incomplete. Additionally, the regulations for Biosphere Reserve management have not been uniformly implemented. The Biosphere Reserve Management Boards and the National Committee for Biosphere Reserve Management are not yet fully established, and there is a lack of resources to support management activities. Furthermore, there is no comprehensive master plan to guide and prioritize key tasks in the near future to strengthen management and expand the Biosphere Reserve network. To address these issues, several recommendations are proposed:

Develop strategies and action plans for the entire Vietnam Network of Biosphere reserves in line with UNESCO's orientation and national policies on sustainable development, environmental protection and biodiversity;

Issue technical guidance documents to manage Biosphere reserves in accordance with the provisions of the Law on Environmental Protection 2020 and the Decree No.08/2022/NĐ-CP;

Strengthening capacity and mobilizing resources for the Management Boards of Biosphere reserves; promoting communication and promotion activities of the Biosphere reserves, and strengthening the Network of Biosphere reserves in Vietnam;

Strengthen the role of the National Committee of MAB in advising the Ministry of Natural Resources and Environment in guiding the nomination and management of the biosphere reserves; consolidate and develop the national biosphere reserve network and connect with regional and international networks;

The People's Committees of provinces and cities where the Biosphere reserves are located and the Management Boards of the Biosphere reserves shall study and implement the requirements for the management of the Biosphere reserves according to the requirements of UNESCO and the laws of Vietnam, including perfecting the organization, developing, approving and implementing the Plan, regulations on management and environmental protection of the Biosphere reserves ■

REFERENCES

1. *Report on the Biosphere reserve Management Guidelines Framework in Vietnam under the Project on Theoretical and Practical Basis and Proposal for the World Biosphere reserve Management Guidelines Framework recognized by UNESCO in Vietnam. Code: DTĐL.XH-06/21.*
2. *Law on Environmental Protection, Law No.: 72/2020/QH14.*
3. *Decree No.08/2022/NĐ-CP detailing a number of articles of the Law on Environmental Protection.*
4. *Circular 02/2022/TT-BTNMT dated January 10th, 2022 of the Minister of Natural Resources and Environment guiding the Law on Environmental Protection.*
5. *UNESCO, 2021. Technical Guidelines for UNESCO Biosphere reserves.*
6. *National Committee of the Vietnam Man and Biosphere Program, 2023. Proceedings of the Workshop "Summary of the World Network of Biosphere reserve in Vietnam 2023 - Promoting the value of world biosphere reserves in Vietnam for sustainable development".*
7. *The Statutory framework of the World Network of Biosphere reserve (1995).*