



BIOFIN

The Biodiversity Finance Initiative

Biodiversity Expenditure Review of Thailand

2022 – 2024



This project is co-funded by the European Union



Federal Ministry for the Environment, Nature Conservation and Nuclear Safety



NORWEGIAN MINISTRY OF FOREIGN AFFAIRS



Flanders
State of the Art



Österreichische Bundesregierung
Bundesministerium für
Klimaschutz und
Umwelt
Federal Office for the Environment BFE



Belgium
partner in development



Department
for Environment
Food & Rural Affairs



in partnership with
Canada



Thailand's Biodiversity Expenditure Review 2022 – 2024¹

January 2024

Abbreviations and Acronyms

BEDO	Biodiversity-Based Economy Development Office
BER	Biodiversity Expenditure Review
BIOFIN	Biodiversity Finance Initiative
BIOTEC	National Center for Genetic Engineering and Biotechnology
CCE	Department of Climate Change and Environment
CBD	Convention for Biological Diversity
CEPA	Creative Economy Promotion Agency
CRS	Creditor Reporting System
DEQP	Department of Environmental Quality Promotion
DMCR	Department of Marine and Coastal Resources
DNP	Department of National Parks, Wildlife and Plant Conservation
DWR	Department of Water Resources
FIO	Forest Industry Organization
GDP	Gross Domestic Product
GEF	Global Environment Facility
ISOC	Internal Security Operations Command
LABAI	The Land Bank Administration Institute
MEDS	Ministry of Digital Economy and Society
MHESI	Ministry of Higher Education, Science, Research and Innovation
MINC	Ministry of Culture
MINT	Ministry of Interior
MOAC	Ministry of Agriculture and Cooperatives
MOED	Ministry of Education
MOI	Ministry of Industry
MONRE	Ministry of Natural Resources and Environment
MOPH	Ministry of Public Health
MOT	Ministry of Transport
MOTS	Ministry of Tourism and Sports
NBSAP	National Biodiversity Strategies and Action Plan
NESDC	Office of the National Economic and Social Development Council
NSC	Office of the National Security Council
NSM	National Science Museum
NSTDA	National Science and Technology Development Agency

Abbreviations and Acronyms

ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
ONEP	Office of Natural Resources and Environmental Policy and Planning
PCD	Pollution Control Department
PDA	Pingkanakorn Development Agency
RSPG	Plant Genetic Conservation Project
QSBG	Botanical Garden Organization
RFD	Royal Forest Department
SEEA	United Nations System of Environmental-Economic Accounting
TGO	Thailand Greenhouse Gas Management Organization
TRC	Thai Red Cross
UNDP	United Nations Development Programme
ZPO	The Zoological Park Organization

Executive Summary

The Budget and Expenditure Review (BER) is conducted as part of the Biodiversity Finance Initiative (BIOFIN)'s overall assessment of Thailand's biodiversity policy environment and investment status. The BER assesses the situation regarding biodiversity-related spending in Thailand using data from budget allocations, and expenditures. The BER includes information from external and domestic sources of funds. This review represents the 2023 update to the previous BER, which was conducted for the fiscal years 2016 – 2021.

The BER follows the BIOFIN methodology. Major biodiversity finance actors are identified, the relevancy of their expenditure programs is determined, and biodiversity-related expenditures are assessed. In this version of the BER, project/program-level budget data is obtained from the government's electronic Monitoring and Evaluation System of National Strategy and Country Reform (eMENSCR) platform. For data from the private sector and non-governmental organizations, data from surveys are used. Data on external sources of funds is from the OECD's Creditor Reporting System, as well as the Global Environment Facility's website. The review references Thailand's Fourth National Biodiversity Strategies and Action Plan (NBSAP). Findings are presented by agencies' broad roles in biodiversity conservation and sustainable uses.

The review finds that the primary source of biodiversity funds in Thailand comes from government budget. Total biodiversity-related expenditures for the fiscal years 2022 – 2024 amount to 20.8 billion THB, but there are fluctuations from year to year. This sum represents the resources essential in maintaining conservation and research activities in the country. Nonetheless, taken together with findings from BER 2021, it is found that allocations for biodiversity from government budget as a proportion of total government expenditures is in decline, dropping from 0.53% in 2016 to 0.38% in 2020, and to 0.16% in 2022 before rebounding slightly to 0.30% in 2023. Official development assistance (ODA) represents another important source of funds, although the sum varies from year to year and the allocation is primarily intended for project-based activities. Funds from outside the government budget are allocated from the private sector, and non-governmental organizations.

Budget data shows that responsibility for biodiversity-related activities rests mainly on three core environmental agencies – the Department of Marine and Coastal Resources (DMCR), the Department of National Parks, Wildlife and Plant Conservation (DNP), and the Royal Forest Department (RFD). All three are within the Ministry of Natural Resources and Environment (MONRE), making the ministry the central authority in charge of biodiversity conservation and management efforts in Thailand. Biodiversity-related ODA comes mainly from the Global Environment Facility (GEF). Funds from outside the government's budget are

not well-documented. However, case studies indicate that the private sector and non-governmental organizations do allocate funds and engage in biodiversity-related activities, especially ecosystem restoration and development. Given the declining trend in biodiversity-related allocations from the national budget, financing from non-government sources should be further explored. This is especially true for private-sector financing, or involvement in activities aimed at achieving finance results. Investments should also be made to avoid future expenditure on biodiversity. Measures that can enhance cost effectiveness, increase revenues, and improve efficiency in budget execution should also be explored to reduce resource requirements in achieving biodiversity goals.

บทสรุปสำหรับผู้บริหาร

รายงานงบประมาณและรายจ่าย (BER) เป็นส่วนหนึ่งของการประเมินแนวนโยบายและการลงทุนด้านความหลากหลายทางชีวภาพของประเทศไทยภายใต้โครงการริเริ่มทางการเงินเพื่อความหลากหลายทางชีวภาพ (BIOFIN) รายงานฉบับนี้เป็นการนำข้อมูลงบประมาณ การจัดสรรเงิน และข้อมูลรายจ่ายในงบประมาณ ๒๕๖๕ – ๒๕๖๖ และโครงการในงบประมาณ ๒๕๖๗ (บางส่วน) มาใช้ในการประเมินสถานการณ์ทางการเงินเพื่อความหลากหลายทางชีวภาพของประเทศไทยโดยครอบคลุมแหล่งเงินทุนทั้งจากภายในและภายนอกประเทศ ทั้งนี้เป็นการปรับปรุงข้อมูลในรายงาน BER ให้มีความทันสมัยขึ้นจากรายงานที่เคยทำมาแล้วในปี พ.ศ. ๒๕๖๔

รายงาน BER จัดทำขึ้นตามวิธีการของ BIOFIN โดยเริ่มจากการคัดองค์กรที่เกี่ยวข้องกับความหลากหลายทางชีวภาพ ประเมินความเกี่ยวข้องของกิจกรรมของหน่วยงาน และประเมินเงินรายจ่ายด้านความหลากหลายทางชีวภาพ โดยใช้ข้อมูลงบประมาณรายโครงการ/รายการจากระบบ eMENSCR ของภาครัฐ ประกอบกับข้อมูลจากแบบสอบถามของภาคเอกชนและภาคประชาสังคม นอกจากนี้แล้วยังนำข้อมูลจากระบบ Creditor Reporting System ของ OECD มาใช้ในการหาจำนวนงบประมาณด้านความหลากหลายทางชีวภาพที่มาจากแหล่งทุนต่างประเทศ ในการจัดทำรายงานเล่มนี้ผู้เขียนได้อ้างอิงแนวนโยบาย มาตรการ และแผนการอนุรักษ์และใช้ประโยชน์ความหลากหลายทางชีวภาพอย่างยั่งยืนฉบับที่ ๔ (4th National Biodiversity Strategies and Action Plan: NBSAP)

รายงาน BER พบว่าเงินทุนด้านความหลากหลายทางชีวภาพของประเทศไทยส่วนใหญ่มาจากเงินงบประมาณแผ่นดิน โดยในงบประมาณ ๒๕๖๕ – ๒๕๖๗ นั้นรัฐบาลได้จัดสรรเงินเพื่อความหลากหลายทางชีวภาพรวมทั้งสิ้น ๒.๐๘ หมื่นล้านบาท อย่างไรก็ตามในปีที่ทำการศึกษาพบว่ามีจำนวนงบประมาณเปลี่ยนแปลงเป็นอย่างมากในแต่ละปี ทั้งนี้งบประมาณที่ได้รับจัดสรรจากรัฐนั้นเป็นงบที่จำเป็นในการอนุรักษ์และดำเนินการวิจัยในด้านที่เกี่ยวข้องกับความหลากหลายทางชีวภาพของประเทศไทย อย่างไรก็ตาม เมื่อพิจารณาจากข้อมูลของรายงาน BER ฉบับก่อน ๆ และจากข้อมูลที่ได้ในการทำรายงานครั้งนี้พบว่าสัดส่วนของเงินที่ได้รับจัดสรรเพื่อความหลากหลายทางชีวภาพเมื่อเทียบกับงบประมาณแผ่นดินในแต่ละปีมีสัดส่วนที่ลดลงอย่างต่อเนื่อง จากร้อยละ ๐.๕๒ ของรายจ่ายภาครัฐในปี พ.ศ. ๒๕๕๙ ลดลงเหลือร้อยละ ๐.๓๘ ในปี พ.ศ. ๒๕๖๓ และลดลงเหลือ ร้อยละ ๐.๑๖ ในปี พ.ศ. ๒๕๖๕ ก่อนที่จะเพิ่มขึ้นเล็กน้อยเป็นร้อยละ ๐.๓๐ ในปี พ.ศ. ๒๕๖๖ สำหรับประเทศไทยแล้วอีกแหล่งเงินทุนที่สำคัญมาจากภายนอกประเทศในรูปแบบความร่วมมือเพื่อการพัฒนา (Official Development Assistance: ODA) และยังมีเงินทุนจากภาคเอกชน และองค์กรนอกภาครัฐอื่น ๆ

จากการประมวลผลข้อมูลพบว่างบประมาณด้านความหลากหลายทางชีวภาพในประเทศไทยส่วนมากจะจัดสรรให้แก่หน่วยงานด้านสิ่งแวดล้อมหลัก ๓ หน่วยงาน ได้แก่ กรมทรัพยากรทางทะเลและชายฝั่ง กรมอุทยานแห่งชาติสัตว์ป่าและพันธุ์พืช และกรมป่าไม้ ซึ่งทั้งสามหน่วยงานสังกัดกระทรวงทรัพยากรธรรมชาติและสิ่งแวดล้อม ทางด้านเงินทุน ODA ส่วนมากจะจัดสรรจากกองทุนสิ่งแวดล้อมโลก (Global Environment

Facility: GEF) เงินทุนจากหน่วยงานนอกภาครัฐ ไม่ว่าจะเป็นหน่วยงานเอกชน หรือหน่วยงานอื่น ๆ นั้น พอมีอยู่บ้างแต่ขาดการจัดเก็บข้อมูลทำให้ข้อมูลส่วนใหญ่ขาดหายไป จากสถานการณ์ที่สัดส่วนเงินทุนที่รัฐจัดสรรให้แก่กิจกรรมด้านความหลากหลายทางชีวภาพลดลงอย่างต่อเนื่องในแต่ละปี ทำให้การเพิ่มช่องทางระดมเงินทุนเพื่อความหลากหลายทางชีวภาพมีความจำเป็น โดยเฉพาะการมีส่วนร่วมของภาคเอกชนในการลงทุนเพื่อความหลากหลายทางชีวภาพหรือดำเนินกิจกรรมที่สร้างผลลัพธ์ด้านการเงินเพื่อความหลากหลายทางชีวภาพ นอกจากนี้แล้วการคัดเลือกกิจกรรมที่สามารถลดรายจ่ายด้านความหลากหลายทางชีวภาพในอนาคต หรือการเลือกกิจกรรมที่ส่งผลดีต่อความหลากหลายทางชีวภาพโดยใช้เงินลงทุนไม่มากล้วนเป็นมาตรการที่รัฐควรให้ความสำคัญเพื่อก่อให้เกิดการอนุรักษ์และจัดการทรัพยากรความหลากหลายทางชีวภาพของประเทศอย่างยั่งยืนต่อไป

Thailand's Biodiversity Expenditure Review 2022 – 2024

1. Introduction

The Budget and Expenditure Review (BER) is conducted as part of the Biodiversity Finance Initiative (BIOFIN)'s overall assessment of a country's biodiversity policy environment and investment status. The BER aims to gauge the situation regarding biodiversity-related spending in the country using data from budget allocations and expenditures. For Thailand, the BER has been conducted twice before – BER 2015 for the fiscal years 2011 – 2015 (Chuaprapaisilp 2017) and BER 2021 for the fiscal years 2016 – 2021 (Tambunlertchai 2021). This BER presents 2023 updates to the previous BERs.

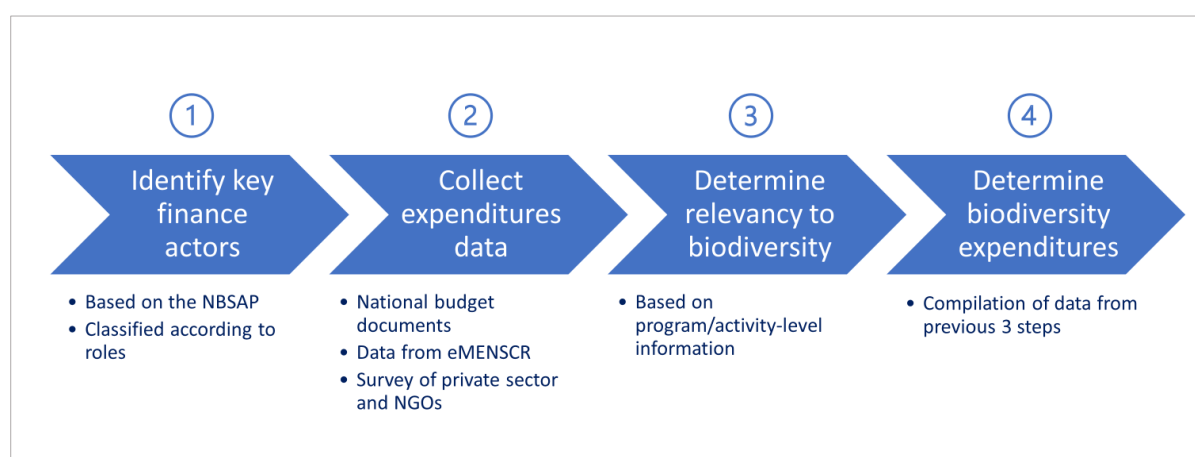
Budget for biodiversity-related activities in Thailand are derived from two main sources – external official development assistance (ODA) and domestic sources of funds. The latter can be further divided into funds from the government budget and from outside of the government budget, namely from the private sector, and non-governmental organizations. This report includes information on ODA and the government budget for biodiversity, as well as examples of funds from outside the government.

2. Data and Methodology

According to the BIOFIN methodology, only biodiversity-relevant expenditures are included in the BER (UNDP 2016, 2018). Depending on data availability, expenditures are assessed through the program approach or the agency approach. The former looks at the detailed expenditures of activities/projects/programs and is considered the best-practice. However, when detailed program-level expenditures are not available, the agency approach, which focuses on the organizations (or “agents”) that make the expenditures, is used (UNDP 2018). For Thailand, relevancy to biodiversity is determined for government budget data only due to data limitations. ODA data included in this report incorporate development assistance from both bilateral and multilateral sources that are meant for environmental protection purposes. Domestic funds from sources outside the government that are included in this report represent examples of expenditures and are not determined for biodiversity relevancy due to data constraints.

As with previous versions of the BER, determination of biodiversity-relevant expenditures follows the BIOFIN methodology. This can be summarized into four key steps as shown in Figure 1.

Figure 1: BER Methodology



In the first step, key finance actors are identified by referencing the National Biodiversity Strategies and Action Plan (NBSAP)¹. Government agencies are classified into five categories according to their broad roles in biodiversity conservation and sustainable uses. They are as follows:

- A. Core environmental agencies
- B. Sustainable use and access and benefits sharing (ABS) agencies
- C. Mainstreaming agencies/ economic sectors
- D. Implementation agencies/ research institutes
- E. Local authorities and communities

For domestic sources of funds, the public sector agencies included in the expenditures database are in Table 1.

¹ This BER references the 4th NBSAP for Thailand (2015 – 2021).

Table 1: Public-Sector Agencies in the Expenditures Database

Agency Type	Institutions
A. Core Environmental Agencies	Biodiversity-based Economy Development Office (BEDO)
	Department of Climate Change and Environment*(CCE)
	Department of Environmental Quality Promotion* (DEQP)
	Department of Marine and Coastal Resources (DMCR)
	Department of National Parks, Wildlife and Plant Conservation (DNP)
	Department of Water Resources (DWR)
	Office of Natural Resources and Environmental Policy and Planning (ONEP)
	Office of the Permanent Secretary, Ministry of Natural Resources and Environment (MONRE)
	Pollution Control Department (PCD)
	Royal Forest Department (RFD)
	Thailand Greenhouse Gas Organization (TGO)
	The Botanical Garden Organization (QSBG)
	The Forestry Industry Organization (FIO)
The Zoological Park Organization (ZPO)	
B. Sustainable Use and ABS Agencies	Ministry of Agriculture and Cooperatives (MOAC)
	Ministry of Public Health (MOPH)
	Ministry of Interior (MINT)
	Royal Thai Police (Police)
	The Land Bank Administration Institute (LABAI)

Agency Type	Institutions
C. Mainstreaming Agencies/ Economic Sectors	Creative Economy Promotion Agency (CEPA)
	Internal Security Operations Command (ISOC)
	Ministry of Culture (MINC)
	Ministry of Education (MOED)
	Ministry of Higher Education, Science, Research and Innovation (MHESI) (excluding universities)
	Ministry of Industry (MOI)
	Ministry of Tourism and Sports (MOTS)
	Ministry of Transport (MOT)
	Office of the National Security Council (NSC)
	Office of the National Economic and Social Development Council (NESDC)
	Pingkanakorn Development Agency (PDA)
Thai Red Cross	
D. Implementation Agencies/ Research Institutes	Universities
	National Science Museum (NSM)
E. Local Authorities and Communities	Provinces and clusters of provinces
	Local government organizations

Note: *Department of Environmental Quality Promotion changed its role and name to the Department of Climate Change and Environment in August 2023.

In the second key step, expenditures data is collected. Multiple sources are utilized to ensure that the data is as comprehensive as possible. Data for government expenditures are obtained from national budget documents and from the electronic Monitoring and Evaluation System of National Strategy and Country Reform (eMENSCR) database. Keywords are used to search for potentially biodiversity-relevant projects/programs in the eMENSCR database. The data from eMENSCR included in this report is collected in October 2023. The search provides program-level budget information for fiscal years 2022 – 2024². Due to delays in the approval of the national budget in the 2024 fiscal year following the general election in 2023,

² The Thai fiscal year runs from 1 October in the previous year until 30 September the following year. For example, the 2022 fiscal year runs from 1 October 2021 – 30 September 2022.

the data included for 2024 are for approved projects only. The final reading of the draft bill on annual budget expenditures for the 2024 fiscal year is expected to be in April 2024 following the approval by the Senate. Before the 2024 budget bill is finalized, the bill for the 2023 fiscal year applies. Prior to the approval of the 2024 budget bill, the Bureau of the Budget advised agencies to plan their activities so that expenditures are no more than two-thirds of the total budget in each workplan and items³.

Data from domestic non-government sources are obtained from a survey of private sectors and NGOs administered by the Office of Natural Resources and Environmental Policy and Planning (ONEP) on activities related to the NBSAP for the years 2020 – 2022. ODA data is obtained from the OECD’s Creditor Reporting System (CRS) and information on Global Environment Facility (GEF) projects in Thailand. Data and sources are summarized in Table 2.

Table 2: Data and Sources

Item	Data Source
Government Biodiversity Expenditures	<ul style="list-style-type: none"> • National budget documents • eMENSCR database
Domestic-Sources of Non-Government Biodiversity Expenditures	<ul style="list-style-type: none"> • Survey of private sector and NGOs
Official Development Assistance (ODA)	<ul style="list-style-type: none"> • OECD’s Creditor Reporting System (CRS) • Global Environment Facility (GEF) projects in Thailand

In the third step, biodiversity-related budget is identified. For government expenditures data, which is available at the program level, the data collected are assessed to determine the relevancy to biodiversity and classified into BIOFIN categories. According to the 2018 BIOFIN Workbook, “biodiversity expenditure” is any expenditure whose purpose is to have a positive impact or to reduce or eliminate pressure on biodiversity (UNDP 2018). Expenditures could be directly related to biodiversity (i.e. biodiversity is the principal purpose of the item or ‘*causa finalis*’) or indirectly related to biodiversity (i.e. biodiversity is the secondary or joint objective of the budget item). Biodiversity relevancy coefficients are applied to the data obtained from step 2 according to the BIOFIN attribution methodology (see Table 3). For project/program-level expenditures information, this attribution is done based on the nature of the activities.

³ Official correspondence number Nor Ror 0702/Vor 152 from the Bureau of the Budget to heads of government agencies dated 31 August 2023.

Project/program level information is used to further classify spending on biodiversity into BIOFIN categories (see Table 4).

Table 3: Biodiversity Relevancy Coefficient Attribution

Coefficient Attribution to Biodiversity Expenditure	Definition	Relation to Rio Markers
“Primary” (100%)	Principle Intent of Organization/Activity is to accomplish one of three CBD objectives: Biodiversity Conservation, Sustainable Use, Access and Benefit Sharing	Rio Marker 2
“Secondary”		
“High” (75% ±15)	Main intent of Organization/ Activity is at least one of the CBD objectives coupled to a lesser degree with other related/ supportive intents (i.e. climate change, watershed maintenance, fisheries production sustainability)	Rio Marker 1
“Medium” (50% ±15)	One intent of Organization/ Activity is at least one of the CBD objectives or Aichi Targets coupled with other non-biodiversity-related intents/ actions in balanced proportion	
“Medium Low” (25% ±15)	Intent primarily for non-biodiversity related activities but have a stated intent for positive biodiversity impacts	
“Low” (5% ±5)	Small biodiversity impacts expected from much larger non-biodiversity program with at least safeguards in place	
“Insignificant” (0%)	None or immeasurable intent or positive impact on biodiversity	Rio Marker 0

Source: Modified from Chuaprapaisilp (2017) and UNDP (2018).

Table 4: BIOFIN Expenditures Categories

Expenditures Category	Definition
Access and benefit sharing	Access to genetic resources, with a focus on prior informed consent, and the distribution of the benefits of genetic diversity, with a focus on equity and transparency (to those whose knowledge is used) and on mutually agreed terms.
Biodiversity awareness and knowledge	Any campaign, action or initiative aimed at raising awareness about biodiversity, its use and/or its value, whether in informal or formal settings; and any action aimed at generating and providing the data and/or information required to make sound decisions regarding biodiversity; scientific research and investigation into key areas related to all aspects of biodiversity, including ecological, social, economic sciences.

Expenditures Category	Definition
Biosafety	Prevention, containment, and eradication of invasive alien species (IAS) as well as safe handling, transport and use of living modified organisms (LMOs/GMOs) resulting from modern biotechnology that may have adverse effects on biological diversity, also taking into account risks to human health.
Green economy	Sustainable biodiversity benefits from private and public sector actions that aim to reduce negative impacts on nature through improved design, engineering, planning, investing, operations, policy, and management. Certain initiatives go beyond reducing negative impacts to encompass the financing and management of nature through green infrastructure, biodiversity-friendly business, sustainability certification, and greening supply chains. Climate change mitigation (industry) benefits biodiversity indirectly and is included.
Biodiversity and development planning	National, state or local planning, policy, finance, legal, coordination, and enforcement actions that cover multiple biodiversity categories or general issues such as biodiversity and development planning and policy
Pollution management	Biodiversity benefits that derive from activities whose primary purpose is the prevention, reduction and elimination of pollution. This category covers most of the activities in the environmental protection category used by the United Nations System of Environmental-Economic Accounting (SEEA) central framework excluding 6, Protection of biodiversity and landscapes (and 8.6, Research on species, etc.). It overlaps with certain pollution control measures in the sustainable use category, such as promotion of sustainable agriculture. If the written objective is to reduce negative impacts, it should be included here; if it is to improve biodiversity in production systems it should be in "sustainable use".
Protected areas and other conservation measures	In situ and ex situ measures to protect and safeguard biodiversity at genetic, species and ecosystem levels
Restoration	The restoration or the rehabilitation of degraded ecosystems for biodiversity and ecosystem services objectives
Sustainable use	Sustainable use of renewable natural resource as defined by the Convention for Biological Diversity (CBD). This category is distinguished from the green economy by its focus on ecosystem services, primarily production and the underlying support services. Activities are targeted towards improving biodiversity

Expenditures Category	Definition
	outcomes in coordination with other co-benefits related to natural resource use.

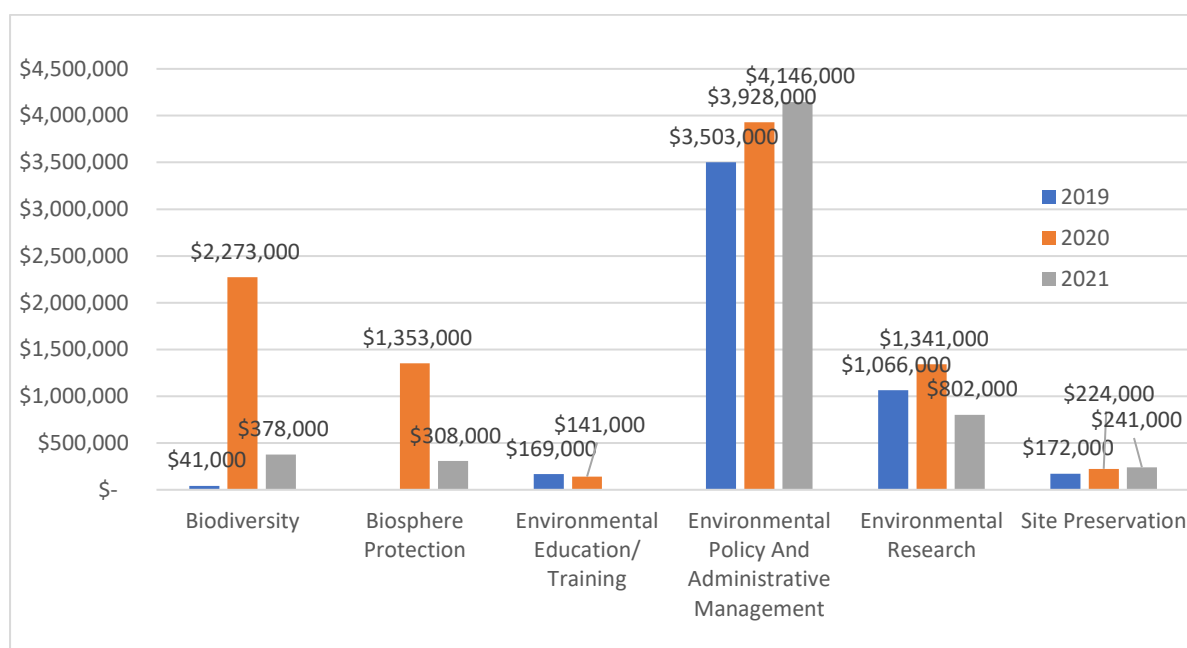
Source: UNDP (2018)

In the fourth step, processed data from the previous 3 steps is aggregated to provide information of expenditures at the agency level. Program-level data is also summarized by BIOFIN categories. Proportions and trends are analyzed to provide insights into the patterns and allocations of biodiversity expenditures in Thailand. Policy suggestions are made based on this analysis. The BER can also be used along with other BIOFIN assessments to support policymakers in developing/revisiting the biodiversity finance plans and finance solutions that are suited to the Thai context.

3. Official Development Assistance (ODA)

ODA funding is an importance source of biodiversity finance in Thailand. Figure 2 provides information on ODA related to environmental protection received by Thailand from 2019 – 2021, divided into six sub-categories. In addition to biodiversity and biosphere protection, other categories are environmental education/training, environmental policy and administrative management, environmental research, and site preservation. Of all the categories, environmental policy and administrative management receive the largest allocation of funds with a total of 11.58 million USD in 2019 - 2021. Environmental research also received sizeable funding with 3.21 million USD in 2019 – 2021. Allocations for biodiversity and biosphere protection in the three years total 2.69 million USD and 1.66 million USD accordingly. However, it is clear from Figure 2 that ODA funds fluctuate from year to year with no clear trend. This is true of the total amount of funds as well as the sub-categories. This is in keeping with the findings in Chuaprapaisilp (2017) and Tambunlertchai (2021).

Figure 2: Environment-related ODA to Thailand, 2019 – 2021 (USD)



Source: OECD Creditor Reporting System

For ODA funds from the Global Environment Facility (GEF), Table 5 shows projects labelled by GEF as biodiversity-related in the GEF-7 and GEF-8 cycles (June 2018 – June 2026). Data shows that biodiversity-related activities received the majority of the funding under both project cycles. In GEF-7, of the 18.56 million USD allocated, biodiversity expenditures account for 9.60 million USD (62 percent). This trend continues in GEF-8, with 11.64 million USD out of 19.10 million USD (61 percent) to be allocated to biodiversity-related projects.

Table 5: Biodiversity-Related Country Projects Supported by the GEF

Project Name	Agency	Grant (USD)
GEF-7 Projects (June 2018 – July 2022)		
1. Inclusive Sustainable Rice Landscapes in Thailand (FOLUR Impact Program)**	UNEP	2,000,000
2. Integrated Forest Landscape Management for Strengthening the Northeastern and Eastern Forest Corridors	FAO	3,600,000
3. Mainstreaming Biodiversity-Based Tourism in Thailand to Support Sustainable Tourism Development	UNDP	3,000,000
GEF-8 Projects (From June 2022 – June 2026)		
4. Forests for life – Intact Tropical Forest Landscape Conservation in Thailand	FAO	6,650,153

Project Name	Agency	Grant (USD)
5. Deep Decarbonization of Thai Industries Based on the Emission Trading System and Carbon Border Adjustment Mechanism	UNIDO, UNEP	5,916,208

Source: ONEP and GEF.

Note: (1) The projects are multi-focal. Only funds for biodiversity are included in the table.

(2) GEF-8 projects included are approved in concept only. The projects are awaiting approval.

(3) Information on GEF-7 projects is from ONEP. Information for GEF-8 is from GEF project database.

(4) Thailand also receives GEF-8 funding under the Umbrella Programme to Support NBSAP Update and the 7th National Reports, as well as funding under the GEF Small Grants Programme.

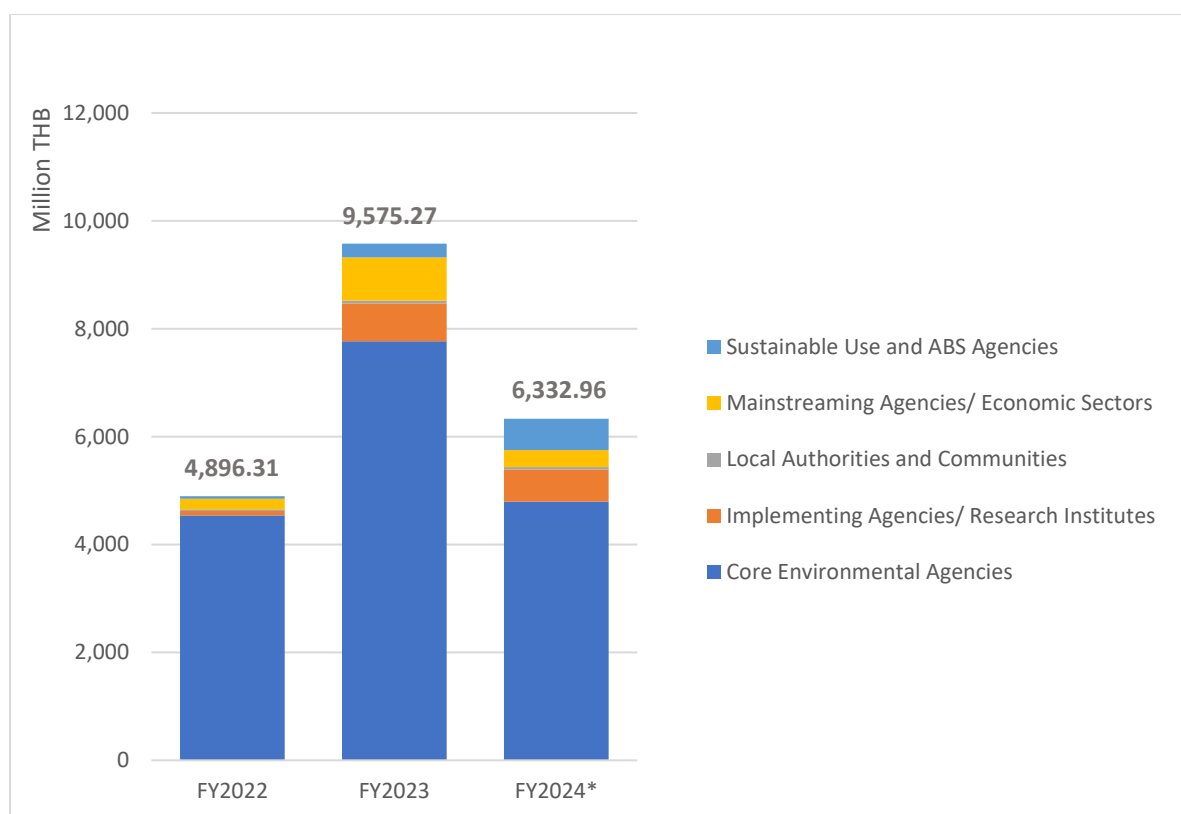
4. Domestic Sources of Biodiversity Expenditures for Thailand

4.1. Biodiversity-Related Expenditures from the Government

Based on project/program-level data from the eMENSOCR database for the fiscal years 2022 – 2023, and approved projects for 2024, a total of 20.8 billion THB (609.03 million USD) is budgeted for biodiversity. However, allocations vary from year to year, depending on local circumstances. The budgets for 2022 – 2024 are, respectively, 4,896.31 million THB (143.33 million USD), 9,575.27 million THB (280.31 million USD), and 6,332.96 million THB (185.39 million USD). Of the three years, 2022 has the smallest budget for biodiversity. This is in keeping with the trend in the national budget, which faced a decrease of 5.66 percent in 2022. The budget in 2023 increased by 2.66 percent. The data for 2024 are for approved projects only and reflects the delay in the budgeting process as mentioned in Section 2.

Classified by type of government agency, it is clear that core environmental agencies receive the largest allocations for biodiversity (see Figure 3 and Table 6 for amount and percentages, with detailed information for core environmental agencies in Figure 4 and Table 7). Even with the cut in government budget in 2022, core environmental agencies still account for 92.78 percent of all biodiversity-related expenditures in the country. This proportion decreases to 81.11 percent and 75.68 percent in 2023 and 2024 respectively. This indicates that when the budget is tight, agencies focus on their core activities. Thus, non-core environmental agencies do not receive as much biodiversity-related expenditures in 2022. This also explains the decrease in proportion of biodiversity-related budget received by core environmental agencies in subsequent years. As the budgetary situation returns to normal, non-core environmental agencies have an increasing role to play in biodiversity-related activities.

Figure 3: Biodiversity Expenditures by Government Agency Type, FY 2022 – 2024



Source: eMENSCR

Note: *Data for 2024 are for approved projects only.

Table 6: Biodiversity Expenditures by Government Agency Type, FY 2022 – 2024

Unit: million THB

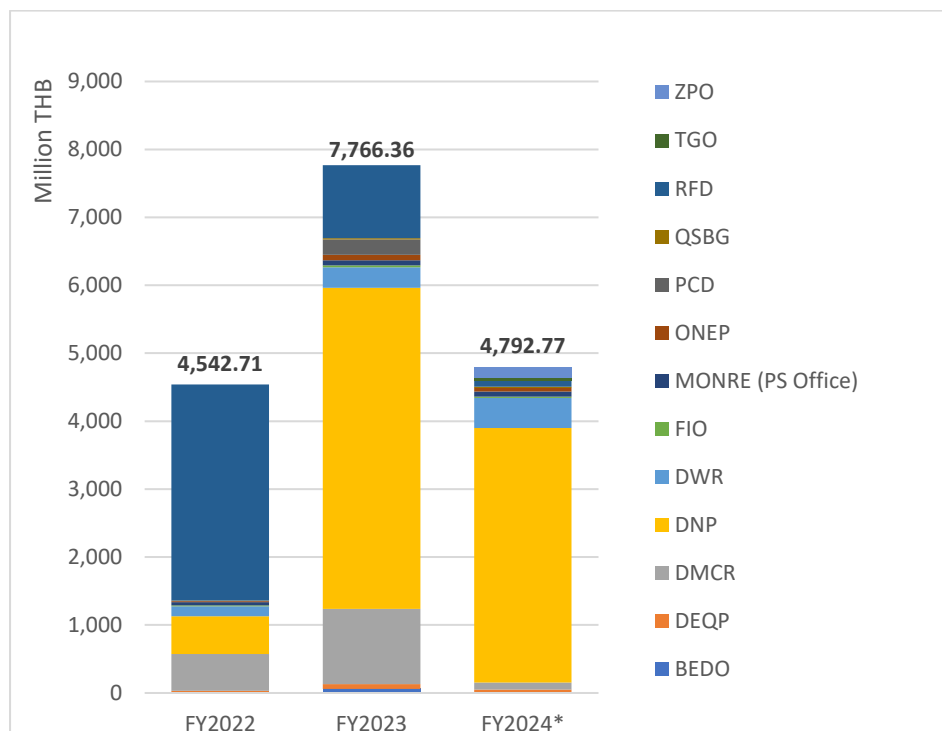
Agency Type	FY2022		FY2023		FY2024*	
	Amount	%	Amount	%	Amount	%
Core Environmental Agencies	4,542.71	92.78	7,766.36	81.11	4,792.77	75.68
Sustainable Use and ABS Agencies	50.01	1.02	252.22	2.63	580.69	9.17
Mainstreaming Agencies/ Economic Sectors	189.24	3.86	792.19	8.27	306.96	4.85
Implementing Agencies/ Research Institutes	83.88	1.71	711.57	7.43	602.53	9.51
Local Authorities and Communities	30.48	0.62	52.93	0.55	50.00	0.79
TOTAL	4,896.31	100	9,575.27	100	6,332.96	100

Source: eMENSCR

Note: *Data for 2024 are for approved projects only.

For core environmental agencies, total expenditures for 2022 – 2024 are, respectively, 4,542.71 million THB (132.98 million USD), 7,766.36 million THB (227.35 million USD), and 4,792.77 million THB (140.30 million USD) (see Figure 4 and Table 7). These are, respectively, 92.78 percent, 81.11 percent, and 75.68 percent of total biodiversity expenditures. Agencies within the Ministry of Natural Resources and Environment (MONRE) receive the highest allocations for biodiversity. Three agencies within MONRE are especially biodiversity relevant. These are the Department of National Parks, Wildlife, and Plant Conservation (DNP), the Royal Forest Department (RFD), and the Department for Marine and Coastal Resources (DMCR). The budgets for these three core environmental agencies are 4,282.6 million THB (125.37 million USD), 6,903.42 million THB (202.09 million USD), and 3,948.80 million THB (115.60 million USD) respectively. These account for 87.47 percent, 72.10 percent, and 62.35 percent of the total biodiversity budget for Thailand in fiscal years 2022 – 2024 respectively. These figures are in keeping with previous BERs and collaborate the findings from the Policy and Institutional Review (PIR), which identified DMCR, DNP, and RFD as important players in biodiversity management in Thailand.

Figure 4: Biodiversity Expenditures of Core Environmental Agencies, FY 2022 – 2024



Source: eMENSCR

Notes: (1) *Data for 2024 are for approved projects only.

(2) Figures on top of each bar chart are total budgets for core environmental agencies for that fiscal year.

Table 7: Biodiversity Expenditures by Core Environmental Agencies, FY 2022 – 2024

Unit = Million THB

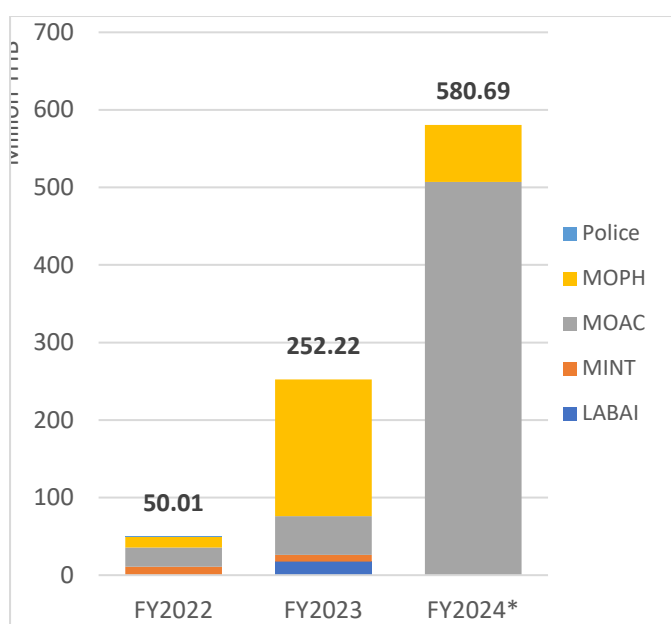
Agency	FY2022	FY2023	FY2024*
BEDO	-	58.95	-
DEQP	29.77	73.21	50.00
DMCR	542.28	1,107.12	104.49
DNP	556.38	4,725.41	3,747.30
DWR	148.89	299.01	440.16
FIO	14.00	27.27	20.12
Office of the Permanent Secretary, MONRE	43.62	78.83	74.16
ONEP	15.14	79.79	52.33
PCD	3.34	223.31	1.20
QSBG	5.20	22.57	16.50
RFD	3,184.10	1,070.89	97.01
TGO	-	-	37.50
ZPO	-	-	152.00
TOTAL	4,542.71	7,766.36	4,792.77

Source: eMENSCR

Note: *Data for 2024 are for approved projects only.

For sustainable use and access and benefit sharing (ABS) agencies, biodiversity expenditures exhibit an increasing trend, rising from 50.01 million THB (1.46 million USD) in 2022 to 252.22 million THB (7.38 million USD) and 580.69 million THB (17 million USD) in 2023 and 2024 accordingly (see Figure 5 and Table 8). However, closer examination of the data at the agency level (Table 8) shows that this trend is driven by the budget allocated to the Ministry of Agriculture and Cooperatives (MOAC). Other agencies exhibit no trend in biodiversity expenditures. For the MOAC, a large budget is allocated to activities pertaining to conservation, restoration, and sustainable use of natural resources carried out by the Fisheries Department, which received a large biodiversity budget in 2024. It is unclear if this trend will continue in the future.

Figure 5: Biodiversity Expenditures of Sustainable Use and ABS Agencies, FY2022 – 2024



Source: eMENSCR

Note: *Data for 2024 are for approved projects only.

Table 8: Biodiversity-Related Expenditures for Sustainable Use and ABS Agencies, FY2022 - 2024

Unit = million THB

Agency	FY2022	FY2023	FY2024*
LABAI	-	17.47	-
MINT	10.75	8.77	-
MOAC	24.9	49.69	507.26
MOPH	14.01	176.28	73.43
Police	0.35	-	-
TOTAL	50.01	252.22	580.69

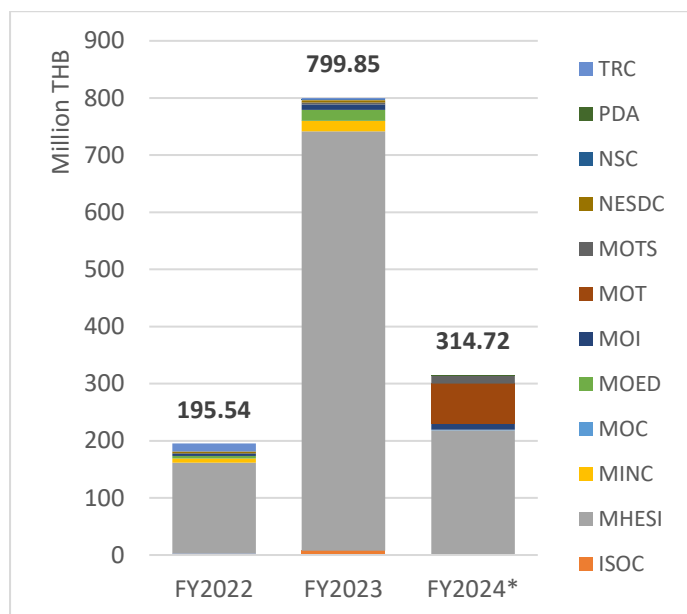
Source: eMENSCR

Note: *Data for 2024 are for approved projects only.

For mainstreaming agencies and economic sectors, expenditures exhibit the same trend as total biodiversity expenditures – modest amounts in 2022 and 2024 with a higher budget in 2023 (see Figure 6 and Table 9). In this category, the agency with the largest biodiversity expenditures is the Ministry of Higher Education, Science, Research and Innovation (MHESI). The National Science and Technology Development Agency (NSTDA), which is home to the National Center for Genetic Engineering and Biotechnology (BIOTEC), is under MHESI. NSTDA is a key recipient of biodiversity-related funds in all three fiscal years. Note that the funds reported under MHESI in this BER excludes funding to universities.

Instead, biodiversity finance allocated to institutions of higher education are included in the implementation agencies/research institutes category.

Figure 6: Biodiversity Expenditures of Mainstreaming Agencies/ Economic Sectors, FY 2022 – 2024



Source: eMENSCR

Note: *Data for 2024 are for approved projects only.

Table 9: Biodiversity Expenditures for Mainstreaming Agencies/ Economic Sectors FY2022-2024

Unit = million THB

Agency	FY2022	FY2023	FY2024*
CEPA	2.71	2.05	-
ISOC	-	5.55	-
MHESI	152.40	726.25	210.69
MINC	1.04	12.93	0.00
MOC	-	0.01	0.70
MOED	10.91	24.56	0.00
MOI	4.79	9.88	10.94
MOT	-	-	70.00
MOTS	-	3.38	14.13
NESDC	3.40	3.78	-
NSC	-	1.20	-
PDA	-	-	0.50
TRC	14.00	2.61	-
Total	189.24	792.19	306.96

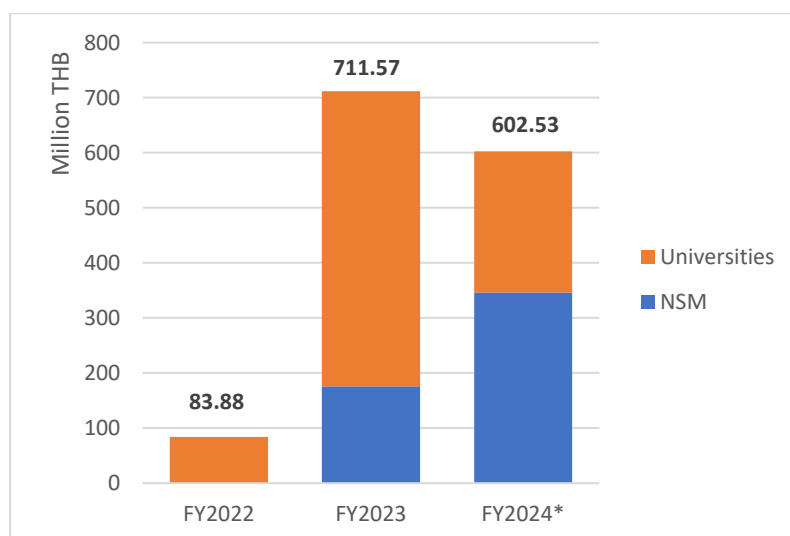
Source: eMENSCR

Note: *Data for 2024 are for approved projects only.

For implementing agencies and research institutes, biodiversity-related funds are allocated to state universities and the National Science Museum (NSM) (see Figure 7 and Table 10). For local authorities and communities, allocations targeted towards biological resources are in Figure 8. For both implementing agencies and research institutes, and for local authorities and communities, government budget allocations for biodiversity have the same trend as the overall biodiversity budget for the country.

One key agency that implements biodiversity-related activities at the local level is the Plant Genetic Conservation Project under the royal initiative of Her Royal Highness Princess Maha Chakri Sirindhorn (RSPG). RSPG’s ultimate goal is to develop personnel and to ensure that plant genetic resources are maintained, managed, and sustainably utilized for the benefit of all Thais. Formally established in 1992, RSPG implements a wide array of initiatives in partnership with public agencies. Most notably, RSPG works with local governments and educational institutions to collect data on biological resources, generate biodiversity awareness among youth and citizens, and work to support locals in ensuring that they derive benefits from the sustainable use of diverse local biological resources. In addition to formalizing the implementation of biodiversity activities by local governments through the Ministry of Interior, RSPG maintains a network of universities in five key regions that serve as centers of excellence to support the agency’s work at the local level. Government budget allocated to universities form part of the biodiversity-related expenditures reported here. RSPG’s work to develop botanic gardens in schools throughout Thailand are also reported as part of the government’s biodiversity expenditures.

Figure 7: Biodiversity Expenditures of Implementation Agencies/ Research Institutes, FY 2022 – 2024



Source: eMENSCR

Note: *Data for 2024 are for approved projects only.

Table 10: Biodiversity-Related Expenditures for Implementation Agencies/ Research Institutes, Fiscal Years 2022

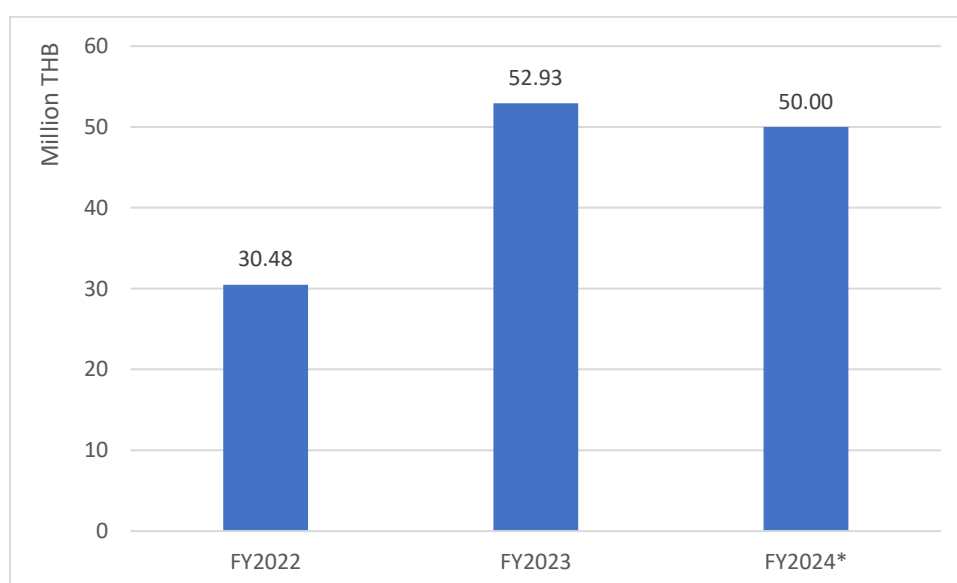
Unit = million THB

Agency	FY2022	FY2023	FY2024*
NSM	-	176.00	346.00
Universities	83.88	535.57	256.53
Total	83.88	711.57	602.53

Source: eMENSCR

Note: *Data for 2024 are for approved projects only.

Figure 8: Biodiversity Expenditures of Local Authorities and Communities, FY 2022 – 2024



Source: eMENSCR

Note: *Data for 2024 are for approved projects only.

Nature-related expenditures can be classified into BIOFIN categories based on program-level information. Thailand allocates a sizeable portion of its biodiversity budget to activities in the category of protected areas and other conservation measures (see Table 11 for budget figures and Figure 9 for proportions). This category includes both *in situ* and *ex situ* measures to protect and safeguard biodiversity at the genetic, species, and ecosystem levels. In addition to activities that contribute to the management of protected areas, other effective area-based conservation measures (OECMs) and *ex situ* conservation activities such as botanical gardens and gene banks are also in this category. Other categories that receive sizeable budget allocations are sustainable use, biodiversity and development planning, as well as biodiversity awareness and knowledge. This trend is consistent across the three fiscal years.

Table 11: Biodiversity Expenditures by BIOFIN Category, FY2022 - 2024

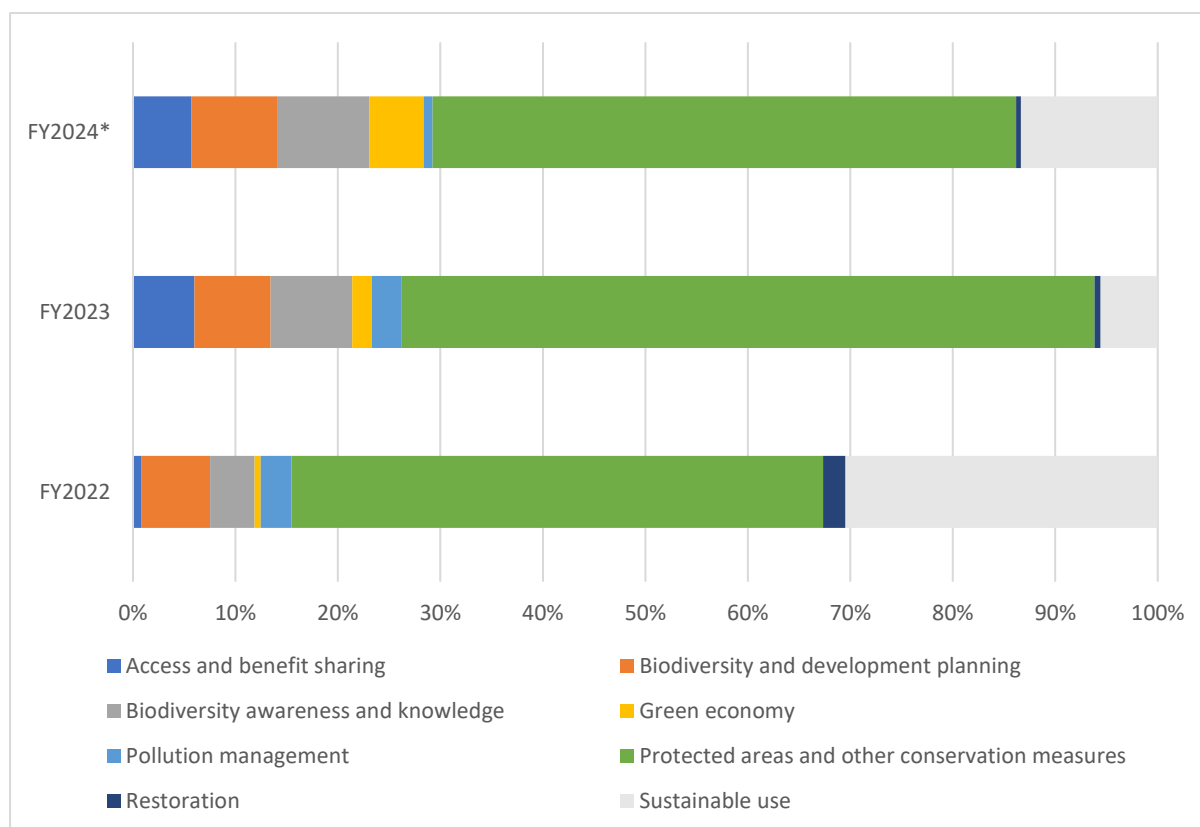
Unit = million THB

BIOFIN Category	FY2022	FY2023	FY2024*
Access and benefit sharing	41.08	572.69	361.28
Biodiversity and development planning	327.54	714.38	529.66
Biodiversity awareness and knowledge	212.70	761.99	569.04
Green economy	29.30	181.01	336.51
Pollution management	146.84	277.24	55.45
Protected areas and other conservation measures	2,539.73	6,477.13	3,605.96
Restoration	106.98	56.99	30.00
Sustainable use	1,492.15	533.84	845.07
Total	4,896.31	9,575.27	6,332.96

Source: eMENSCR

Note: *Data for 2024 are for approved projects only.

Figure 9: Proportion of Biodiversity Expenditures by BIOFIN Category, FY 2022 – 2024



Source: eMENSCR

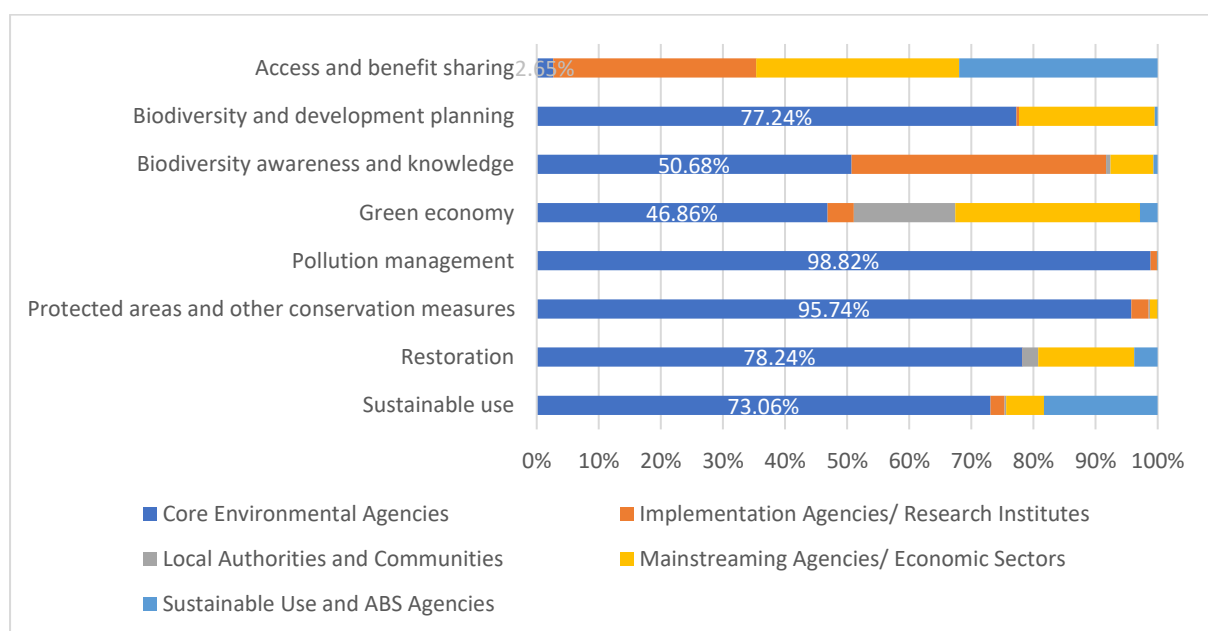
Note: *Data for 2024 are for approved projects only.

Comparing budget allocation classified by BIOFIN categories to Thailand’s NBSAP shows that of the four NBSAP strategies, Thailand allocates the most funds to Strategy 2 –

conserve and restore biodiversity. For the other three strategies – integrate biodiversity values and management with participation at all levels; protect country’s rights and enable management to enhance and share benefits from biodiversity in line with green economy; and develop biodiversity knowledge and database systems to be consistent with internationally recognized standards – are broadly consistent with BIOFIN categories of sustainable use, biodiversity and development planning, and biodiversity awareness and knowledge. These categories also received sizeable amounts of budget allocations in all three fiscal years.

When expenditures for all three fiscal years are classified by BIOFIN category and agency type, the prominence of core environmental agencies comes to the fore. It can be seen from Figure 10 that core environmental agencies receive more than half of the budget allocated in six BIOFIN categories. This is especially true for the categories of pollution management, and protected areas and other conservation measures, where 98.82 percent and 95.74 percent of the biodiversity-related budget are given to core environmental agencies respectively. This type of agency also receives 46.86 percent of the biodiversity budget under the category of green economy, which is a larger proportion compared to other types of agencies. However, core environmental agencies have relatively little role to play in access and benefit sharing, receiving just 2.65 percent of the total budget in this BIOFIN category. Three agency types receive the largest allocations for access and benefit sharing. These are sustainable use and access and benefit sharing agencies, mainstreaming agencies/economic sectors, and implementation agencies/ research institutes.

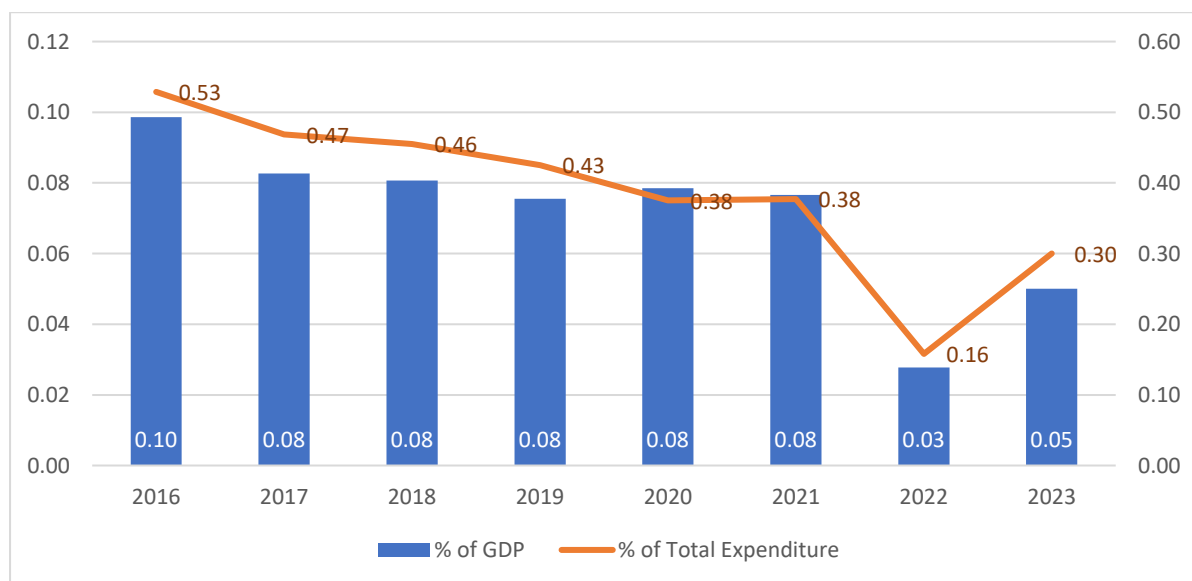
Figure 10: Proportion of Biodiversity Expenditures by BIOFIN Category and Agency Type, FY 2022 – 2024



Source: eMENSCR

For the fiscal years 2022 – 2023 and approved projects for the 2024 fiscal year, a total of 20.8 billion THB (609.03 million USD) is allocated to biodiversity-related activities. While the budget for biodiversity fluctuates from year to year, data from 2016 to 2023 shows a downward trend (see Figure 11 and Table 12). In the 2016 fiscal year, biodiversity expenditures accounted for 0.53 percent of total expenditures. The proportion declined in subsequent years, reaching a low of 0.16 percent in 2022 before climbing slightly to 0.30 percent in 2023. It is noteworthy that when the total government budget was cut by 5.66 percent in 2022, biodiversity expenditures as a proportion of total expenditures decreased by 57.89 percent. This shows that when budget is tight, other expenditures are given priority over biodiversity-related activities. Proportions of biodiversity expenditures to Thailand’s Gross Domestic Product (GDP) exhibits a similar downward trend in recent years. In the 2016 fiscal year, the biodiversity budget was 0.10 percent of the country’s GDP. This stabilized at 0.08 percent for the fiscal years 2017 – 2021. However, the cut in the government budget in 2022 saw the proportion decline to a low of 0.03 percent, before rebounding slightly to 0.05 percent in 2023.

Figure 11: Biodiversity Expenditures as a Proportion of GDP and Total Expenditures, FY2016 - 2023



Source: eMENSCR, NESDC, national budget documents

Note: *Data for 2024 are for approved projects only.

Table 12: Biodiversity Expenditures as a Proportion of GDP and Total Expenditures, FY 2016 – 2023.

Unit: billion THB

	2016	2017	2018	2019	2020	2021	2022	2023
Nominal GDP	14,590	15,489	16,369	16,898	15,698	16,169	17,635	18,640
Total Government Expenditure	2,720	2,733	2,900	3,000	3,286	3,286	3,100	3,185
Biodiversity Expenditure	14	13	13	13	12	12	5	10
% of GDP	0.10	0.08	0.08	0.08	0.08	0.08	0.03	0.05
% of Total Expenditure	0.53	0.47	0.46	0.43	0.38	0.38	0.16	0.30

Source: NESDC, national budget documents, BIOFIN calculations

4.2. Examples of Biodiversity-Related Expenditures from the Private Sector and Non-Governmental Organizations

One other source of domestic funds for biodiversity is from the private sector and non-governmental organizations (NGOs). Funded activities include both the company's own initiatives, as well as participation in projects led by external organizations, including the government. Companies and NGOs often work with local communities to support conservation and sustainable use activities. In recent years, the corporate sector has increasingly shown interest in participation in carbon credit schemes generated from forest management, and reports this as biodiversity-related activities. This is especially true for the energy sector, which mainly produces fossil fuels or is heavily reliant on fossil fuels for energy production. Despite a higher interest in nature-related issues by the private sector and NGOs, the lack of a database on biodiversity-related expenditures from non-public agencies makes it difficult to determine the extent of such funding for biodiversity. Table 13 provides figures reported by a small number of companies in response to a survey on implementation of biodiversity-related activities in the years 2020 – 2022. Due to data limitations, the numbers are not assigned biodiversity-relevancy coefficients. Thus, the amount of expenditures relevant to biodiversity could be smaller than the reported figures. Nonetheless, this information illustrates that companies are engaged in nature-related activities, with some providing sizeable allocations to such work.

Table 13: Biodiversity Expenditures of the Private Sector and NGOs

Industrial Sector	Biodiversity-Related Budget (2020 - 2022) (million THB)
Energy	114.68
Finance	6.15
Real Estate	0.44
Chemicals	0.16
NGO	0.20
TOTAL	121.62

Source: Companies' and NGO's reporting

5. Conclusion and Policy Implications

This Budget and Expenditure Review (BER) assesses the situation of biodiversity-related spending in Thailand that incorporates both external and domestic sources of funds. This review provides the 2023 update to the previous BER, which was conducted for the fiscal years 2016 – 2021. The BIOFIN methodology is used to determine biodiversity-relevancy of expenditures from the government budget, and to provide an assessment of the situation in Thailand. Findings are presented by agencies' broad roles in biodiversity conservation and sustainable use, as well as by BIOFIN categorization of expenditures.

The review finds that the public sector plays a key role in biodiversity management in Thailand. Three agencies within the Ministry of Natural Resources and Environment (MONRE) play important roles. These are the Department of Marine and Coastal Resources (DMCR), the Department of National Parks, Wildlife and Plant Conservation (DNP), and the Royal Forest Department (RFD). Biodiversity-related activities by the public sector are supported mostly by funds from the government budget, with important funding from official development assistance (ODA) especially through allocations from the Global Environment Facility (GEF). Nonetheless, there is a downward trend in the proportion of biodiversity budget to the government's total budget and to the country's GDP. Given that Thailand has a preexisting biodiversity finance gap, this downward trend could further widen the gap between the funds needed to achieve national biodiversity goals and the amount allocated to such activities. Furthermore, the reliance on government budget with supplements from ODA funds means that the financing that enables biodiversity-related activities in Thailand is closely linked to national budgetary process, which, in turn, is affected by the country's development priorities and economic circumstances. This exposes nature-related activities to risks of funding cuts when the budget is tight, and when shorter term concerns are more pressing than the longer-term impacts of environmental sustainability considerations. While private sector and NGOs do fund nature-related activities, they tend to be on a project-by-project basis. Longer-term

initiatives by the private sector are primarily intended to address climate change rather than biodiversity.

Given the importance of preserving the natural environment and given the declining trend in nature-related allocations from the national budget, financing from non-government sources should be further explored and developed to promote the achievement of biodiversity goals in line with the Kunming-Montreal Global Biodiversity Framework. For Thailand, the primary target of private sector involvement should be to support long-term goals as set out by the country's NBSAP. This could be in the form of financing support, or in the form of involvement of the private sector in activities aimed at achieving finance results. This includes investments to avoid future expenditures on biodiversity, enhancing cost effectiveness of existing activities, increasing revenues for biodiversity, and improving the efficiency in budget execution. If all stakeholders who benefit from nature concertedly join together in supporting biodiversity, it can significantly help to bridge the biodiversity finance gap.

Based on budget allocations, the BER finds that three core environmental agencies take a leading role in implementing biodiversity activities. This is especially true in times of budget cuts when financing for biodiversity work to non-core environmental agencies is reduced to virtually zero. With the declining proportion of budget allocations to biodiversity at the national level, and given the exposure to risks of expenditure cuts in times of tight budgets, core environmental agencies need to recognize this trend, and develop strategies to ensure there is adequate financing to promote the achievement of biodiversity goals. This includes strategies to ensure efficiency and cost effectiveness in money spent on biodiversity, to reduce and repurpose harmful subsidies, and to explore channels for blended finance to support biodiversity initiatives. For non-core environmental agencies, the BER finds that they also have a role to play in implementing nature-related activities, especially in normal times with an increasing annual government budget. As such, coordination among core and non-core environmental agencies can help reduce overlaps in budget expenditures and open avenues for achieving efficiency and cost effectiveness. This reinforces the need for a whole of government and whole of society approach to achieve global and local biodiversity goals as called for in the GBF.

With the GBF's and this BER's call for greater involvement of the private sector in the achievement of biodiversity goals at the global and national levels, it is imperative that interaction between the private sector and nature is better understood and made explicit. It is also crucial that the necessary infrastructure is put in place to ensure that private sector funds can be channeled to biodiversity-promoting activities. For the private sector, assessing risks from biodiversity loss can be a starting point in recognizing the need to invest in nature. The

public sector can support private sector involvement in a number of ways, including by facilitating risk assessments, and the development of a green taxonomy that clearly defines nature-positive and nature-negative activities. It is also important for the public sector to compile a database of biodiversity finance expenditures by the private sector in order to track and assess the flow of funds to biodiversity activities. These efforts are important steps that need to be taken to counter the biodiversity finance gap, and to promote national and global biodiversity goals.

References

- Bureau of the Budget. 2021. *Thailand's Budget in Brief, Fiscal Year 2022*. Bureau of the Budget, The Office of the Prime Minister.
- Bureau of the Budget. 2022. *Thailand's Budget in Brief, Fiscal Year 2023*. Bureau of the Budget, The Office of the Prime Minister.
- Chuaprapaisilp, Thethach (2017). *Public, Private and Civil Society Biodiversity Expenditure Review in Thailand*. The Biodiversity Finance Initiative (BIOFIN) Thailand, United Nations Development Programme: Bangkok, Thailand.
- Tambunlertchai, Kanittha. (2021). *Thailand's Biodiversity Expenditure Review 2016 - 2021*. The Biodiversity Finance Initiative (BIOFIN) Thailand, United Nations Development Programme: Bangkok, Thailand.
- UNDP (2016). *Biodiversity Finance Manual: Mobilising Resources for Biodiversity and Sustainable Development*. The Biodiversity Finance Initiative (BIOFIN). United Nations Development Programme: New York, USA. 258 pp.
- UNDP (2018). *The BIOFIN Workbook 2018: Finance for Nature*. The Biodiversity Finance Initiative (BIOFIN). United Nations Development Programme: New York, USA. 202 pp.