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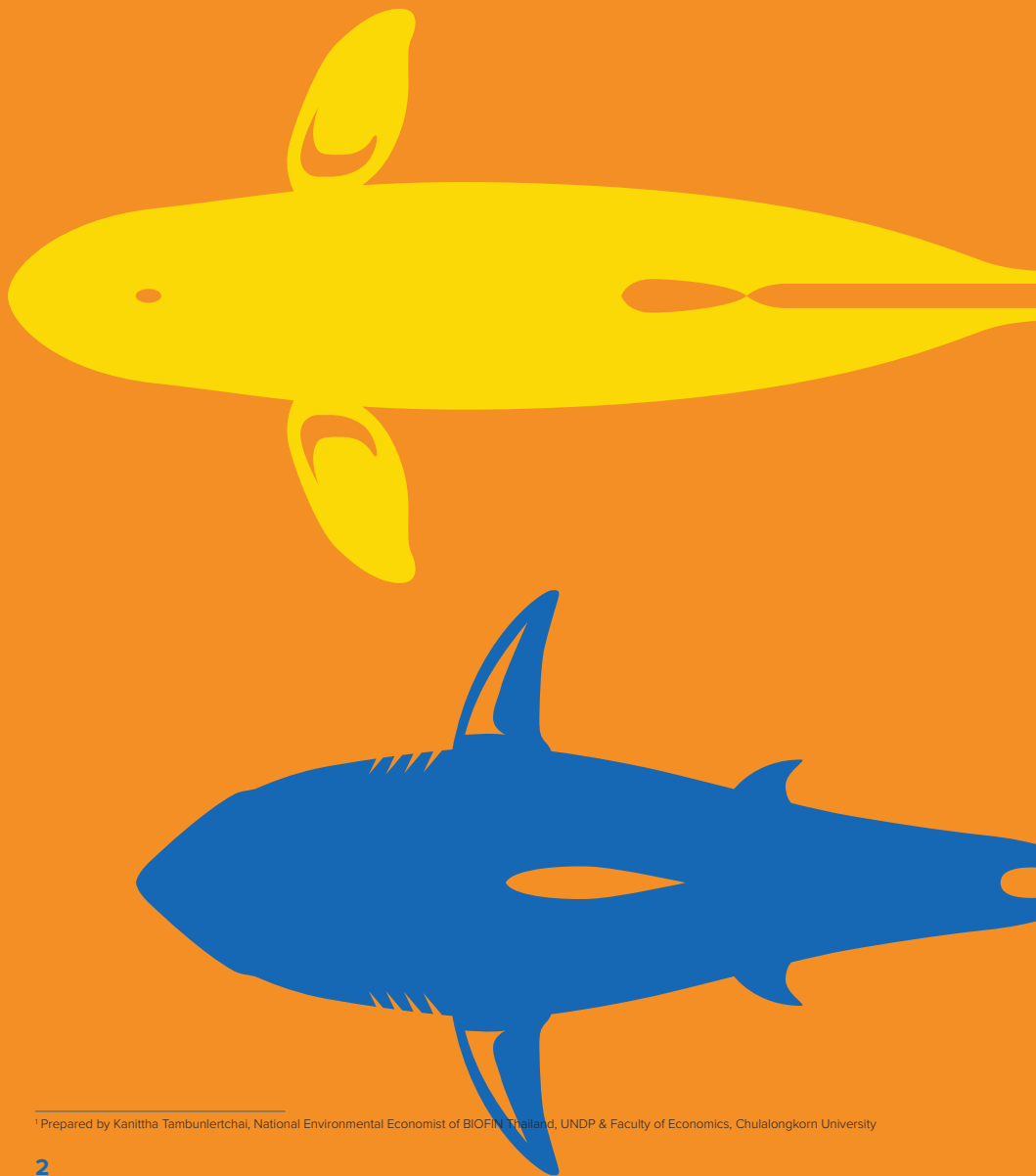
Thailand Biodiversity
Expenditure Review 2016 - 2021



Biodiversity Finance Initiative - BIOFIN
United Nations Development Programme



Thailand's Biodiversity Expenditure Review 2016 - 2021¹ (December 2021)



¹ Prepared by Kanittha Tambunlertchai, National Environmental Economist of BIOFIN Thailand, UNDP & Faculty of Economics, Chulalongkorn University



Abbreviations and Acronyms

ALRO	Agricultural Land Reform Office
ARDA	The Agricultural Research Development Agency
BEDO	Biodiversity-Based Economy Development Office
BER	Biodiversity Expenditure Review
BIOFIN	Biodiversity Finance Initiative
BIOTEC	National Center for Genetic Engineering and Biotechnology
BPP	Border Patrol Police
CBD	Convention on Biological Diversity
CRS	Creditor Reporting System
CSR	Corporate Social Responsibility
DOAE	Department of Agriculture Extension
DEQP	Department of Environmental Quality Promotion
DLA	Department of Local Administration
DMCR	Department of Marine and Coastal Resources
DMS	Department of Medical Science
DNP	Department of National Parks, Wildlife and Plant Conservation
DOA	Department of Agriculture
DOL	Department of Lands
DOT	Department of Tourism
DTAM	Department of Thai Traditional and Alternative Medicine
DWR	Department of Water Resources
FIO	Forest Industry Organization
FAO	Food and Agriculture Organization of the United Nations
FISHERIES	Department of Fisheries
GDP	Gross Domestic Product
GEF	Global Environment Facility
HRDI	Highland Research and Development Institute
LDD	Land Development Department
LDL	Department of Livestock Development
MARINES	Royal Thai Marine Corps
MOAC	Ministry of Agriculture and Cooperatives
MOC	Ministry of Commerce
MOD	Ministry of Defense
MOED	Ministry of Education
MOEG	Ministry of Energy
MOFF	Marketing Organization for Farmers
MOI	Ministry of Industry
MONRE	Ministry of Natural Resources and Environment
MOPH	Ministry of Public Health
NBSAP	National Biodiversity Strategies and Action Plan

NIA	National Innovation Agency
NRC	National Research Council
NSM	National Science Museum
NSTDA	National Science and Technology Development Agency
OAE	Office of Agricultural Economics
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
PWTP	Department of Public Works and Town & Country Planning
QSBG	The Botanical Garden Organization
QSPS	The Department of Sericulture
RDPB	Royal Development Project Board
RFD	Royal Forest Department
RICE DEPT	Rice Department
RID	Royal Irrigation Department
RSPG	Royal Plant Genetic Conservation Project
TAT	Tourism Authority of Thailand
TBCSD	Thailand Business Council for Sustainable Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment 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 budgets, allocations, and expenditures. The BER includes information from external and domestic sources of funds. This review presents the findings for the fiscal years 2016 – 2021 and is an update from the previous BER conducted for the fiscal years 2011 – 2015.

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. Primary data from agencies are used whenever possible. This is supplemented by data from national budget documents, and data collected by international organizations. The review references the Aichi Biodiversity Targets and Thailand's National Biodiversity Strategies and Action Plan (NBSAP). Findings are presented by agency's 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 2016 – 2021 amount to 78 billion THB (approximately 13 billion THB annually). This provides a constant stream of resources essential in maintaining conservation and research activities in the country. Nonetheless, 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. 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, state-owned enterprises, 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. Investments should also be made to avoid future expenditures 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) เป็นส่วนหนึ่งของการประเมินแนวโน้มนโยบายและการลงทุนด้านความหลากหลายทางชีวภาพของประเทศไทยภายใต้โครงการริเริ่มทางการเงินเพื่อความหลากหลายทางชีวภาพ (BIOFIN) รายงานฉบับนี้ นำข้อมูลงบประมาณ การจัดสรรเงิน และข้อมูลรายจ่ายในปีงบประมาณ 2559 – 2564 มาใช้ในการประเมินสถานการณ์ทางการเงินเพื่อความหลากหลายทางชีวภาพของประเทศไทยโดยครอบคลุมแหล่งเงินทุนทั้งจากภายในและภายนอกประเทศ

รายงาน BER จัดทำขึ้นตามวิธีการของ BIOFIN โดยเริ่มจากการคัดองค์กรที่เกี่ยวข้องกับความหลากหลายทางชีวภาพ ประเมินความเกี่ยวข้องของกิจกรรมของหน่วยงาน และประเมินเงินรายจ่ายด้านความหลากหลายทางชีวภาพ โดยใช้ข้อมูลตรงจากหน่วยงาน และข้อมูลจากเอกสารงบประมาณตลอดจนข้อมูลจากองค์กรระหว่างประเทศ และได้อ้างอิงเป้าหมายไอจิ และแนวโน้มนโยบาย มาตรการ และแผนบูรณาการจัดการความหลากหลายทางชีวภาพและใช้ประโยชน์ความหลากหลายทางชีวภาพอย่างยั่งยืน (National Biodiversity Strategies and Action Plan: NBSAP)

รายงาน BER พบว่าเงินทุนด้านความหลากหลายทางชีวภาพของประเทศไทยส่วนใหญ่มาจากเงินงบประมาณแผ่นดิน โดยในปีงบประมาณ 2559 – 2564 นั้นรัฐบาลได้จัดสรรเงินเพื่อความหลากหลายทางชีวภาพรวมทั้งสิ้น 7.8 หมื่นล้านบาท (ประมาณ 1.3 หมื่นล้านบาท ต่อปี) งบประมาณจำนวนนี้เป็นงบฯที่จำเป็นในการอนุรักษ์และดำเนินการวิจัยในด้านที่เกี่ยวข้องกับความหลากหลายทางชีวภาพของประเทศไทย อย่างไรก็ตาม เมื่อเทียบสัดส่วนของเงินที่ได้รับจัดสรรเพื่อการนี้กับงบประมาณแผ่นดินในแต่ละปีจะเห็นได้ว่ามีสัดส่วนที่ลดลงอย่างต่อเนื่องสำหรับประเทศไทยแล้วอีกแหล่งเงินทุนที่สำคัญมาจากภายนอกประเทศในรูปแบบความร่วมมือเพื่อการพัฒนา (Official Development Assistance: ODA) และยังมีเงินทุนจากภาคเอกชน หน่วยงานรัฐวิสาหกิจ และองค์กรนอกภาครัฐอื่น ๆ

จากการประมวลผลข้อมูลพบว่างบประมาณด้านความหลากหลายทางชีวภาพในประเทศไทยส่วนมากจะจัดสรรให้แก่หน่วยงานด้านสิ่งแวดล้อมหลัก 3 หน่วยงาน ได้แก่ กรมทรัพยากรทางทะเลและชายฝั่ง กรมอุทยานแห่งชาติสัตว์ป่าและพันธุ์พืช และกรมป่าไม้ ซึ่งทั้งสามหน่วยงานสังกัดกระทรวงทรัพยากรธรรมชาติและสิ่งแวดล้อม ทางด้านเงินทุน ODA ส่วนมากจะจัดสรรจากกองทุนสิ่งแวดล้อมโลก (Global Environment Facility: GEF). เงินทุนจากหน่วยงานนอกภาครัฐราชการ ไม่ว่าจะเป็นหน่วยงานเอกชน หรือหน่วยงานอื่น ๆ นั้นพอมืออยู่บ้างแต่ขาดการจัดเก็บข้อมูลทำให้ข้อมูลบางส่วนขาดหายไป จากสถานการณ์ที่สัดส่วนเงินทุนที่รัฐจัดสรรให้แก่กิจกรรมด้านความหลากหลายทางชีวภาพลดลงอย่างต่อเนื่องในแต่ละปี ทำให้การเพิ่มช่องทางการระดมเงินทุนเพื่อความหลากหลายทางชีวภาพมีความจำเป็นอย่างยิ่ง นอกจากนี้แล้วการคัดเลือกกิจกรรมที่สามารถลดรายจ่ายด้านความหลากหลายทางชีวภาพในอนาคต หรือการเลือกกิจกรรมที่ส่งผลดีต่อความหลากหลายทางชีวภาพโดยใช้เงินลงทุนไม่มากนักเป็นมาตรการที่รัฐควรให้ความสำคัญเพื่อก่อให้เกิดการอนุรักษ์และจัดการทรัพยากรความหลากหลายทางชีวภาพของประเทศไทยอย่างยั่งยืนต่อไป

Policy Recommendations

The Budget and Expenditure Review shows that many agencies have work that are directly or indirectly related to biodiversity. This includes government agencies within the central government, local authorities and communities, as well as agencies outside the government such as NGOs, the private sector, and state-owned enterprises. The BER also shows that Thailand relies on budget allotted from



(1) Explore channels for harnessing funds from outside the government budget. (2) Identify and invest in priority activities

Since everyone benefit from biodiversity, all stakeholders should be involved in biodiversity financing. Given the increasing interest from the private sector, state-owned enterprises, and non-governmental organizations, additional financing for biodiversity can come in the form of corporate social responsibility funds, co-financing of biodiversity-related activities, or even in-kind support to enhance conservation efforts or improve cost effectiveness and efficiency of existing measures.

that can help avoid future expenditures on biodiversity, and/or improve biodiversity outcomes for the same unit cost. Additional channels for revenues generation should be explored. This includes user fees in protected areas, attracting impact investment to key conservation projects, employment of green taxation, and the use of debt instruments such as blue bonds, etc.

the government to finance biodiversity-related activities. However, such budgetary allocations show a declining trend over time. Given the importance of biodiversity resources, the following policies are recommended to ensure there is funding for proper conservation and management of biodiversity resources in Thailand.



(3) Realign expenditures

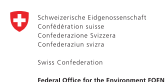
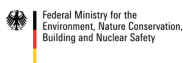
so that funds are redirected towards activities that enhance biodiversity resources rather than detract from it. For example, revisions of subsidies that are harmful to nature can free up budget, which can then be used for biodiversity-related expenditures.

(4) Establish a platform to keep track of biodiversity-related effort and expenditures.

This can foster collaboration between stakeholders working on biodiversity, leading to potential synergies between agencies. The platform can also be used to track biodiversity investment and generate important data for biodiversity planning and management.

Acknowledgement

This study was made possible by the Biodiversity Finance Initiative—BIOFIN of the United Nations Development Programme (UNDP), with the generous support of the European Union, the Governments of Flanders, Germany, Norway, Switzerland, and the Royal Thai Government. Kanittha Tambunlerthchai PhD. (Environmental Economist, BIOFIN Thailand) led and conducted the study and analysis of this Biodiversity Expenditure Review (BER) 2016 - 2021 for Thailand with technical inputs from Office of Natural Resources and Environmental Policy and Planning under the Ministry of Natural Resources and Environment. Thanks to the encouragement of the Secretariat to the Convention on Biological Diversity, the development of national financial baseline data titled 'biodiversity expenditure review from Thailand' will be used under the discussions on the Financial Reporting Framework 2020 for Convention of Biological Diversity. The strong baseline is crucial for the conclusion of the Post-2020 Global Biodiversity Framework. The development of this Biodiversity Expenditure Review draws on technical guidance from the BIOFIN methodology and inputs from Niran Nirannoot (Country project manager, BIOFIN Thailand), Pituck Jongnarangsin (Consultant, BIOFIN Thailand) and Sornsawan Phongphao (Biodiversity Finance Coordinator). Valuable inputs from the Office of Natural Resources and Environmental Policy and Planning are very crucial during the design of the updated BER report. BIOFIN would like to express our thanks to Pattarin Tongsimma (ONEP), Sarocha Roonsiri (ONEP), Benchamaporn Wattanatongchai (CBD National Focal Point Unit, ONEP), Wanlop Preechamart, and Savitri Boonyalak (ONEP) for strong support and technical guidance. This BER report was reviewed and endorsed by the National Committee of Biodiversity for Thailand with the hope that the baseline data will be included into the development of the next generation of the National Biodiversity Strategic and Action Plan for Thailand. Citation UNDP BIOFIN (2021). Biodiversity Expenditure Review for Thailand 2016-2021. Also available at www.biofin.org



Introduction

This document presents 2021 updates to the budget expenditure review (BER) conducted as part of the Biodiversity Finance Initiative (BIOFIN)'s overall assessment of Thailand's biodiversity policy environment and investment status in the fiscal years 2011 – 2015 (Chuaprapaisilp 2017). In the 2017 BER, major finance actors are determined, and the relevancy of their expenditure programs to biodiversity are assessed and projected to 2021. In this document, figures for 2016 – 2021 are updated using actual budget information where possible. Reported data include domestic and external sources of funds.

Biodiversity-related budget in Thailand comes from two main sources – external official development assistance (ODA) and domestic sources of funds. The majority of ODA for biodiversity in Thailand comes from the multilateral trust fund, the Global Environment Facility (GEF). Thailand also receives ODA from bilateral donors. For domestic source of funds, the majority is from the government budget, which provides the necessary funds for maintaining biodiversity conservation and research in Thailand. Outside the government budget, non-government organizations, specialized financial institutions, and the private sector also provide funds for biodiversity. However, these are less well-documented and are expected to be much less compared to government sources. Examples of this latter source of funds is included in this review.

Data and Methodology

To identify biodiversity-related expenditures sourced from outside the country, data from the OECD Creditor Reporting System (CRS) is utilized along with information on GEF funds for country-level projects related to biodiversity. For domestic sources of finance, key finance actors are identified, and expenditures are categorized. This review uses the categorization from Chuaprapaisilp (2017), which classifies actors and expenditures by referencing the current National Biodiversity Strategies and Action Plan (NBSAP)². Biodiversity-related expenditures examined are based on the NBSAP's four strategies and BIOFIN Workbook strategic categories for the Aichi Biodiversity Targets (BIOFIN 2016). Agencies are classified based on their broad roles in biodiversity conservation and sustainable uses, as follows (see Table 1):

- 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
- F. Other agencies outside the government budget (non-government organization, private sector, state-owned enterprises, specialized financial institutions)

² Thailand's Integrated Master Plan on Biodiversity Management 2013 – 2021 and the National Action Plan on Biodiversity Management 2015 – 2016).





Table 1: Agencies in the Expenditures Database

Source	Institutions
Government Budget	
A. Core Environmental Agencies	Department of National Parks, Wildlife and Plant Conservation
	Royal Forest Department
	Department of Marine and Coastal Resources
	Biodiversity-based Economy Development Office
	The Botanical Garden Organization
	The Forestry Industry Organization
	The Zoological Park Organization
	Royal Plant Genetic Conservation Project
	Office of Natural Resources and Environmental Policy and Planning
	Pollution Control Department
	Department of Water Resources
	Department of Environmental Quality Promotion
B. Sustainable Use and ABS Agencies	Ministry of Agriculture and Cooperatives
	Ministry of Public Health
	Ministry of Interior
	Office of the Royal Development Projects Board
C. Mainstreaming Agencies/ Economic Sectors	Ministry of Higher Education, Science, Research and Innovation (excluding universities)
	Ministry of Industry
	Ministry of Tourism
	Ministry of Transportation
	Ministry of Defense
	Ministry of Commerce
	Ministry of Energy
	Marketing Organization for Farmers
D. Implementation Agencies/ Research Institutes	Universities
	National Science Museum
E. Local Authorities and Communities	Provinces and clusters of provinces
Outside Government Budget	
F. Non-Government Organization, Private Sector, State-Owned Enterprise, and Specialized Financial Institutions	Krungthai Bank
	Siam Cement Group
	Toyota Motors

Source: Modified from Chuaprapaisilp (2017)

In determining biodiversity-related expenditures, agencies' expenditures are derived from national budget documents or from data on outputs and projects provided by the respective agencies. Biodiversity relevancy coefficients are applied according to the BIOFIN attribution methodology (see Table 2). Where expenditures information at the output or project level is available, this attribution is done based on the nature of the activities. For agencies whose itemized expenditures are not available, the implied biodiversity relevancy coefficient from Chuaprapaisilp (2017) is used to derive the biodiversity-related expenditures at the agency level based on budget data. Existing data is available from 2016 – 2020. Information for 2021 is projected based on the actual annual budget increase of 2.7 percent.

Table 2: Biodiversity Relevancy Coefficient Attribution

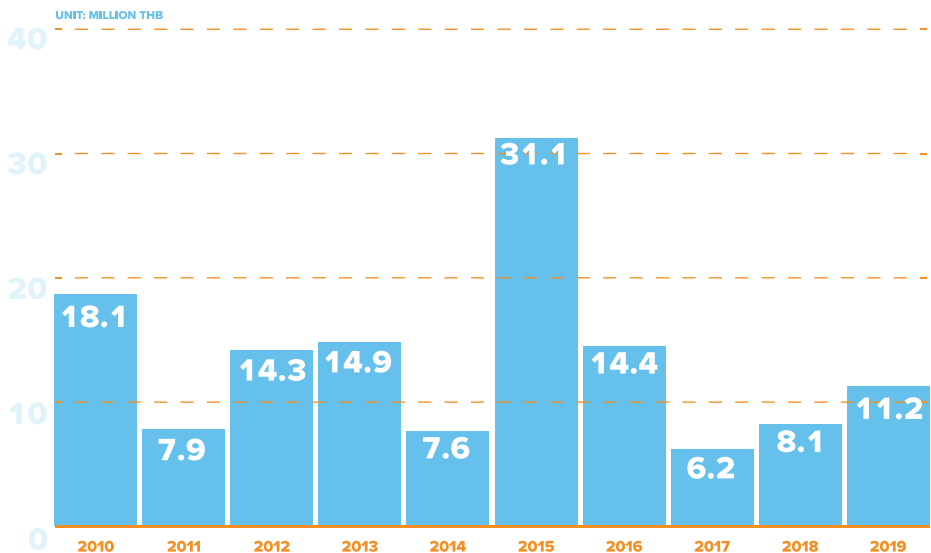
Coefficient Attribution to Biodiversity Expenditure	Definitions	Relation to Rio Markers
 "Complete" (100%)	Principle Intent of Organization/Activity is to accomplish one of three CBD objectives: Biodiversity Conservation, Sustainable Use, Access and Benefit Sharing	Rio Marker 2
 "Very High" (80%)	Main 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%)	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	
 "Low but significant" (20%)	Intent primarily for non-biodiversity related activities but have a stated intent for positive biodiversity impacts	
"Marginal" (2%)	Small biodiversity impacts expected from much larger non-biodiversity program with at least safeguards in place	
"None or immeasurable" (0%)	None or immeasurable intent or positive impact on biodiversity	Rio Marker 0

Source: Modified from Chuaprapaisilp (2017), citing Global BIOFIN, March 2016

Official Development Assistance (ODA)

ODA funding represents one important source of biodiversity-related budget in Thailand. Figure 1 presents information on ODA related to environmental protection received from 2010 – 2019. Funds fluctuate from year-to-year with no trend. GEF funds relevant to the NBSAP period of 2016 – 2021 coincide with the GEF-6 and GEF-7 cycles. These are allocated to projects on illegal wildlife trade, natural capital accounting, sustainable rice, integrated forest management, and mainstreaming biodiversity-based tourism. GEF also provides funds through its small grants program. Information on the projects, the amount of funds, and the implementing agency is in Table 3.

Figure 1: Environment-related ODA to Thailand, 2010 - 2019



Source: OECD Creditor Reporting System

³Included in this category are environmental policy and management, biosphere protection, biodiversity, site preservation, environmental education/training, and environmental research.

Table 3: Biodiversity-Related Country Projects Supported by the GEF

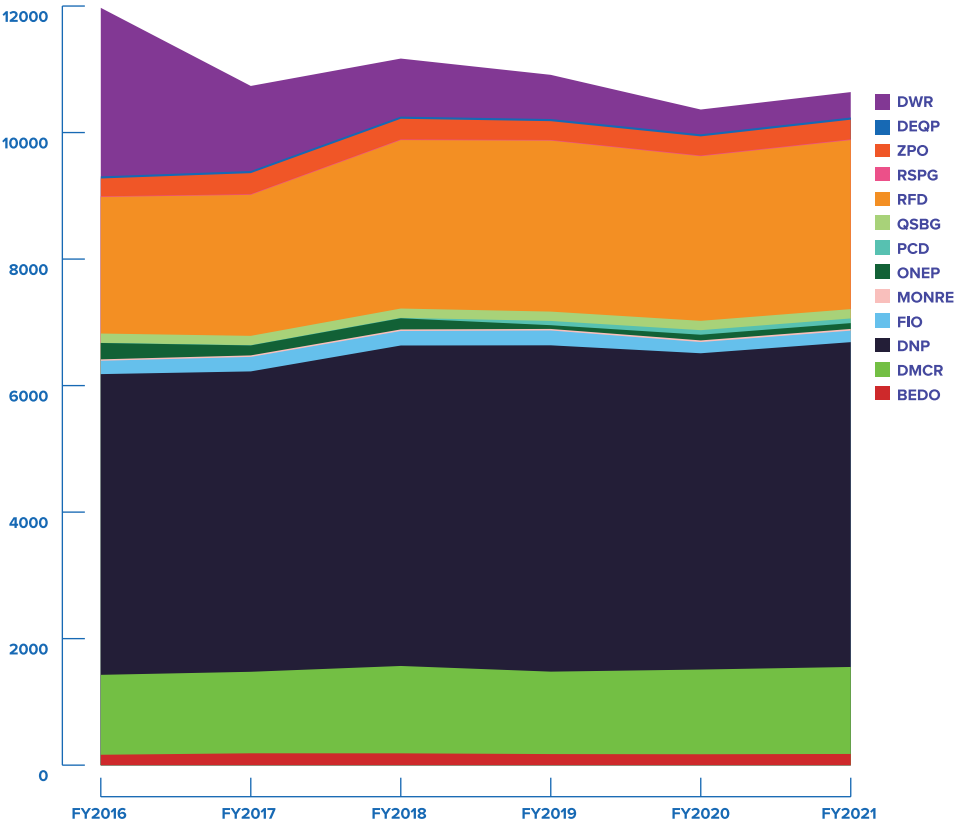
Project Name		Agency	Grant (USD)	Implementing Agency
GEF-6 Projects (June 2014 – July 2018)				
1.	Combating Illegal Wildlife Trade, Focusing on Ivory, Rhino Horn, Tiger and Pangolins in Thailand	UNDP	4,500,000	DNP
2.	Integration of Natural Capital Accounting in Public and Private Sector Policy and Decision-making for Sustainable Landscapes	UNEP	2,244,750	ONEP
3.	Sixth Operational Phase of the GEF Small Grants Programme in Thailand**	UNDP	1,000,000	UNDP
4.	Support to Eligible Parties to Produce the Sixth National Report (6NR) to the CBD (Asia)	UNDP	109,500	ONEP
GEF-7 Projects (June 2018 – July 2022)				
5.	Inclusive Sustainable Rice Landscapes in Thailand (FOLUR Impact Program)**	UNEP	2,000,000	Rice Dept
6.	Integrated Forest Landscape Management for Strengthening the Northeastern and Eastern Forest Corridors	FAO	3,600,000	RFD
7.	Mainstreaming biodiversity-based tourism in Thailand to support sustainable tourism development	UNDP	3,000,000	BEDO

Source: ONEP

Domestic Sources of Biodiversity Expenditures for Thailand, 2016 - 2021

Biodiversity-related expenditures is presented here based on the categorization of agencies. Three core environmental agencies have the largest share of biodiversity expenditures. These are the Department of National Parks, Wildlife, and Plant Conservation (DNP), the Royal Forest Department (RFD), and the Department of Marine and Coastal Resources (DMCR). All three are within the Ministry of Natural Resources and Environment (MONRE). Together, the biodiversity-related budget of these three agencies in 2020 amounts to 8,941 million THB (272 million USD), which is approximately 72.5 percent of total biodiversity expenditures from domestic sources in Thailand. Table 4 presents biodiversity-related expenditures of core environmental agencies for Fiscal Years 2016 – 2021. These numbers are presented in Figure 2 to better capture the proportion of biodiversity-related expenditures among different core environmental agencies.

Figure 2:Biodiversity Expenditures of Core Environmental Agencies, Fiscal Years 2016 – 2021



Source: Estimation and projection from Thailand's National Budget and agencies' reporting.

Table 4: Biodiversity Expenditures of Core Environmental Agencies, Fiscal Years 2016 – 2021.

unit: million THB

Table 4	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
BEDO	164.0	187.3	186.6	175.0	172.2	176.8
DMCR	1,263.5	1,288.4	1,381.2	1,303.2	1,339.0	1,375.2
DNP	4,753.8	4,748.5	5,065.9	5,158.4	4,999.7	5,134.7
DEQP	33.0	33.6	33.9	33.6	33.3	34.2
FIO	210.8	229.3	229.4	234.5	177.3	182.1
Office of the Permanent Secretary, MONRE	22.6	23.8	24.9	24.5	26.1	26.8
ONEP	258.8	157.5	176.6	59.1	89.7	92.1
PCD	1.8	3.5	5.8	67.3	71.8	73.7
QSBG	147.8	147.8	147.8	147.8	147.8	147.8
RFD	2,159.6	2,229.2	2,662.9	2,703.3	2,602.3	2,672.6
RSPG	9.4	9.9	10.3	10.1	10.8	11.1
DWR	2,664.8	1,344.7	917.8	698.5	391.4	401.9
ZPO	281.8	333.1	326.5	296.9	302.6	310.8
Total	11,971.7	10,736.7	11,169.7	10,912.3	10,364.0	10,639.8

Source: Estimation and projection from Thailand's National Budget and agencies' reporting.

Biodiversity-related expenditures for other agencies are provided based on the categorization mentioned above. For agencies whose broad role pertains to Sustainable Use and Access and Benefit Sharing (ABS) (see Table 1), expenditures are provided in Table 5 and the corresponding figure showing the composition of biodiversity-related expenditures for agencies within this category appears in Figure 3. Data for Mainstreaming Agencies and Economic Sectors appear in Table 6 with the corresponding figure appearing in Figure 4. For Implementation Agencies and Research Institutes, expenditures are shown in Table 7 with Figure 5 showing the composition of biodiversity-budget for agencies within this category. In addition to these agencies, activities pertaining to biodiversity are also carried out by local authorities. This is primarily financed by the budget from the Department of Local Administration (DLA) as well as from the budget of each province. Projections based on output and activities expenditures from Chuaprapaisilp (2017) indicate that if the status quo of biodiversity-related activities are maintained at the provincial level, total biodiversity expenditures for DLA and the provinces would amount to a total of 278.5 million THB (8.5 million USD) in Fiscal Year 2020.

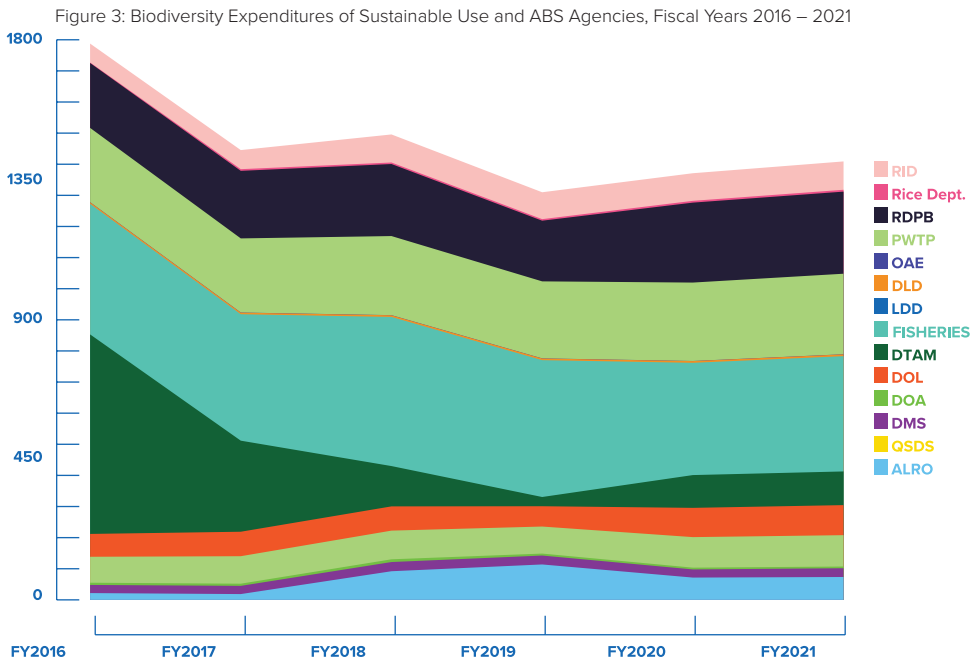


Table 5: Biodiversity Expenditures of Sustainable Use and ABS Agencies, Fiscal Years 2016 – 2021.

unit: million THB

Table 5	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
ALRO	21.8	18.6	92.0	113.8	71.6	73.5
QSDS	26.0	26.1	29.3	28.4	25.9	26.6
DMS	0.2	0.2	0.2	0.2	0.2	1.5
DOA	7.1	7.0	8.8	6.3	5.7	5.5
DAE	118.8	92.2	54.5	65.9	10.6	10.9
DOL	83.4	88.4	92.2	86.9	98.1	100.8
DTAM	73.4	78.6	77.9	65.3	94.0	96.6
Fisheries	641.2	292.6	129.6	29.6	105.3	108.2
LDD	419.7	406.4	479.3	439.8	360.8	370.5
LSDD	4.9	5.1	5.4	5.3	5.6	5.8
OAE	0.4	0.4	0.4	0.4	0.3	0.3
PWTP	238.7	238.2	254.2	247.5	252.0	258.8
RDPB	208.6	217.1	231.5	195.0	256.9	263.9
Rice Dept.	1.7	5.4	4.9	4.9	5.7	5.9
RID	60.7	61.3	90.1	86.4	88.7	91.1
Total	1,906.6	1,537.7	1,550.2	1,375.8	1,381.7	1,419.9

source: Estimation and projection from Thailand's National Budget and agencies' reporting.

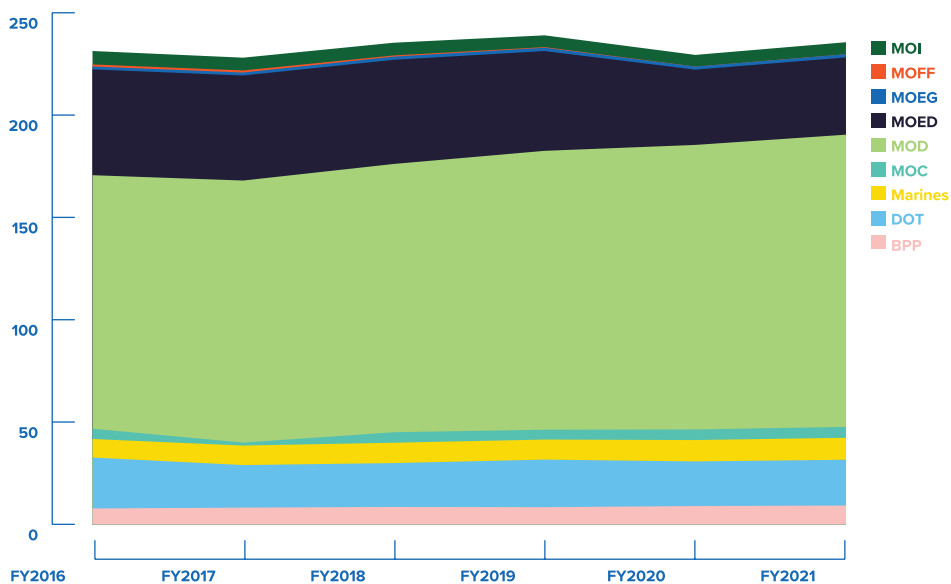
Table 6: Biodiversity Expenditures of Mainstreaming Agencies/ Economic Sectors, Fiscal Years 2016 – 2021.

unit: million THB

Table 6	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
BPP	7.8	8.2	8.5	8.4	9.0	9.2
DOT	24.9	20.8	21.4	23.3	21.8	22.4
Marines	9.1	9.5	9.9	9.8	10.4	10.7
MOC	5.0	1.4	5.1	4.8	5.2	5.3
MOD	123.9	128.1	131.1	136.3	139.0	142.8
MOED	51.7	51.3	50.9	48.8	36.8	37.8
MOEG	1.4	1.4	1.6	1.6	1.5	1.5
MOFF	1.0	1.0	0.6	0.3	0.0	0.0
MOI	6.6	6.2	6.2	5.8	5.7	5.9
Total	231.3	228.0	235.4	239.0	229.4	235.6

source: Estimation and projection from Thailand's National Budget and agencies' reporting.

Figure 4: Biodiversity Expenditures of Mainstreaming Agencies/ Economic Sectors, Fiscal Years 2016 – 2021



source: Estimation and projection from Thailand's National Budget and agencies' reporting.

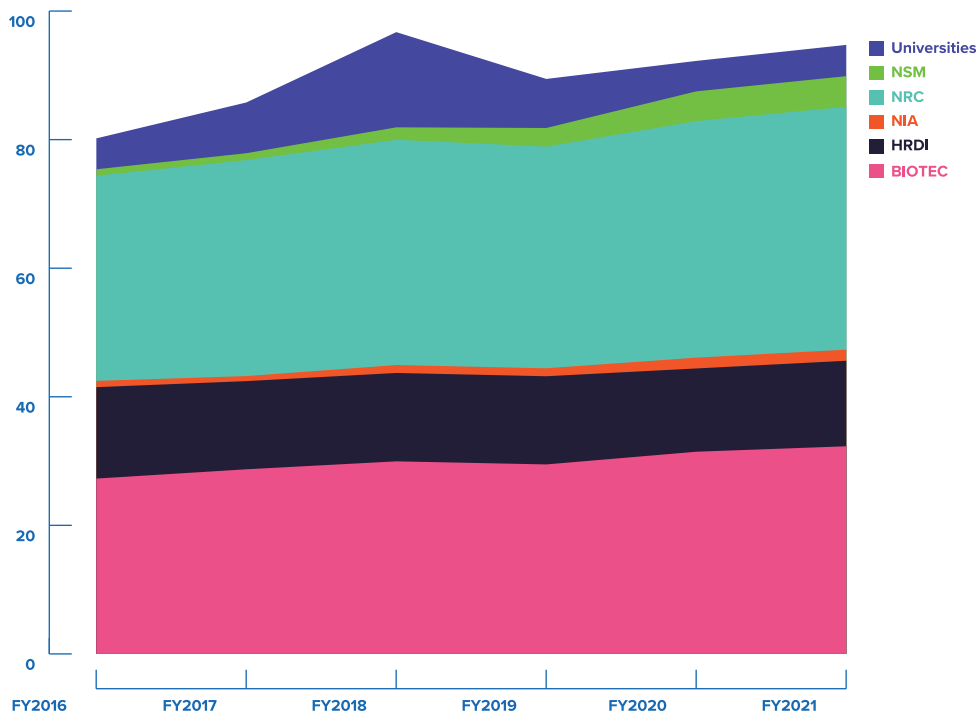
Table 7: Biodiversity Expenditures of Implementation Agencies and Research Institutes,
Fiscal Years 2016 - 2021

Unit: million THB

Table 7	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
BIOTEC	27.3	28.7	30.0	29.5	31.4	32.3
HRDI	14.2	13.7	13.7	13.7	13.0	13.3
NIA	1.0	0.8	1.2	1.2	1.7	1.7
NRC	31.9	33.6	35.0	34.5	36.8	37.8
NSM	1.0	1.1	1.9	2.9	4.6	4.8
Universities*	4.8	7.9	14.8	7.6	4.7	4.9
Total	80.2	85.8	96.7	89.4	92.2	94.7

Note: *Data is not inclusive of all universities in Thailand.
source: Estimation and projection from Thailand's National Budget and agencies' reporting.

Figure 5: Biodiversity Expenditures of Implementation Agencies and Research Institutes,
Fiscal Years 2016 – 2021



source: Estimation and projection from Thailand's National Budget and agencies' reporting.

In total, biodiversity-related expenditures for all agencies from 2016 – 2021 is approximately 12 billion THB (360 million USD) per year with some annual variation (see Figure 6). While total biodiversity-related expenditures fluctuate, the proportion of the figures to Thailand’s nominal gross domestic product (GDP) remains constant at 0.08 percent from 2017 to 2020. However, when comparing biodiversity expenditures with total expenditures, there is a slight downward trend. The figure dropped from 0.53 percent in 2016 to 0.46 percent in 2018 to 0.38 percent in 2020 as shown in Table 8.

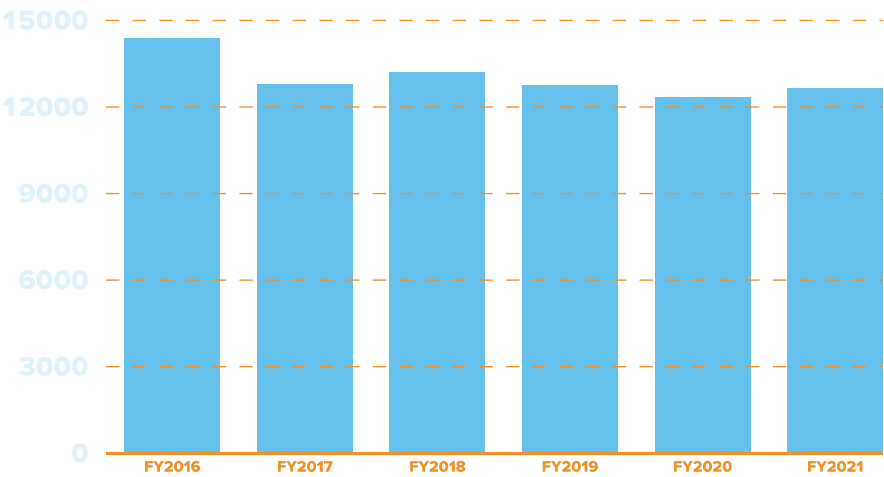
Table 8: Total Biodiversity Expenditures

Unit: million THB

Table 8	2016	2017	2018	2019	2020
Nominal GDP	14,590,337	15,488,664	16,368,705	16,898,086	15,698,286
Total Government Expenditure	2,720,000	2,733,000	2,900,000	3,000,000	3,285,962.50
Biodiversity Budget	14,383	12,800	13,198	12,754	12,324
% of GDP	0.10%	0.08%	0.08%	0.08%	0.08%
% of Total Expenditure	0.53%	0.47%	0.46%	0.43%	0.38%

source: Estimation and projection from Thailand’s National Budget and agencies’ reporting.

Figure 6: Total Biodiversity Expenditures, Fiscal Years 2016 – 2021



source: Estimation and projection from Thailand’s National Budget and agencies’ reporting.

Table 9: Example Activities by the Private Sector and Public Enterprises

Unit = million THB

Table 9	2016	2017	2018	2019	2020
Krungthai Bank					
- Ecosystem restoration and development	-	0.25	-	0.48	0.48
- Awareness-raising	-	-	-	-	1.8
- Promotion of participation by local communities and ethnic groups	-	-	-	-	2.8
- Other biodiversity-related activities	-	-	-	-	4.67
Siam Cement Group (cement and construction materials)					
- Ecosystem restoration and development	14.36	17.15	29.59	25.57	16.00
- Research on ecosystems, species, and genes	1.40	1.81	0.49	1.11	3.13
Toyota Motors					
- Ecosystem restoration and development	9.00	9.00	9.34	7.00	8.90
- Plant and animal genetic conservation	-	-	0.54	0.59	0.54
- Awareness-raising	7.95	7.23	18.92	21.30	27.09
- Research	-	-	-	0.78	1.10
- Network creation	-	-	2.00	2.00	2.00
- Other biodiversity-related activities	957.16				

Source: Agencies' reporting.

In addition to funds from the government budget, non-government actors also provide funds for biodiversity. Example activities are provided in Table 9 based on information provided by Krungthai Bank, Siam Cement Group, and Toyota Motors. Based on this information, it can be seen that funds from outside the government are mainly provided to support ecosystem restoration and development. Companies interested in sustainability issues also issue sustainability reports and are members of the Thailand Business Council for Sustainable Development (TBCSD). The private sector's engagement in biodiversity-related activities is often part of their corporate social responsibility (CSR) programs. In some instances, the private sector, state-owned enterprises, specialized financial institutions, and non-government organizations also work closely with government agencies to implement biodiversity-related activities such as research and genetic conservation activities. This trend in non-government funding, and the practice of partnering with government agencies to carry out biodiversity-related activities are also apparent in the 2017 BER.

Conclusion

In summary, this review presents biodiversity-related expenditures from external and domestic sources in Thailand based on BIOFIN methodology. The coverage is for the NBSAP period of 2016 – 2021. The review finds that while official development assistance provides one important source of funds for nature, the bulk of biodiversity finance in Thailand come from government budget. This provides a constant stream of funds necessary for maintaining conservation and research activities in the country. Budget data shows that responsibility for biodiversity-related activities rests mainly on three core environmental agencies – DMCR, DNP, and RFD. All three are within MONRE, placing the ministry at the center of biodiversity conservation and management efforts in Thailand. Data also shows the task of safeguarding biodiversity cannot be accomplished by environmental agencies alone. The work of a wide range of agencies is also crucial to maintaining and developing biodiversity resources. This review also finds that the private sector, state-owned enterprises, specialized financial institutions, and non-governmental organizations are becoming more interested in biodiversity conservation and research. Given the declining trend in biodiversity-related expenditures from the national budget, financing from non-government sources should be further explored.

References

Bureau of the Budget. 2015. Thailand's Budget in Brief, Fiscal Year 2016. Bureau of the Budget, The Office of the Prime Minister.

Bureau of the Budget. 2016. Thailand's Budget in Brief, Fiscal Year 2017. Bureau of the Budget, The Office of the Prime Minister.

Bureau of the Budget. 2017. Thailand's Budget in Brief, Fiscal Year 2018. Bureau of the Budget, The Office of the Prime Minister.

Bureau of the Budget. 2018. Thailand's Budget in Brief, Fiscal Year 2019. Bureau of the Budget, The Office of the Prime Minister.

Bureau of the Budget. 2019. Thailand's Budget in Brief, Fiscal Year 2020. Bureau of the Budget, The Office of the Prime Minister.

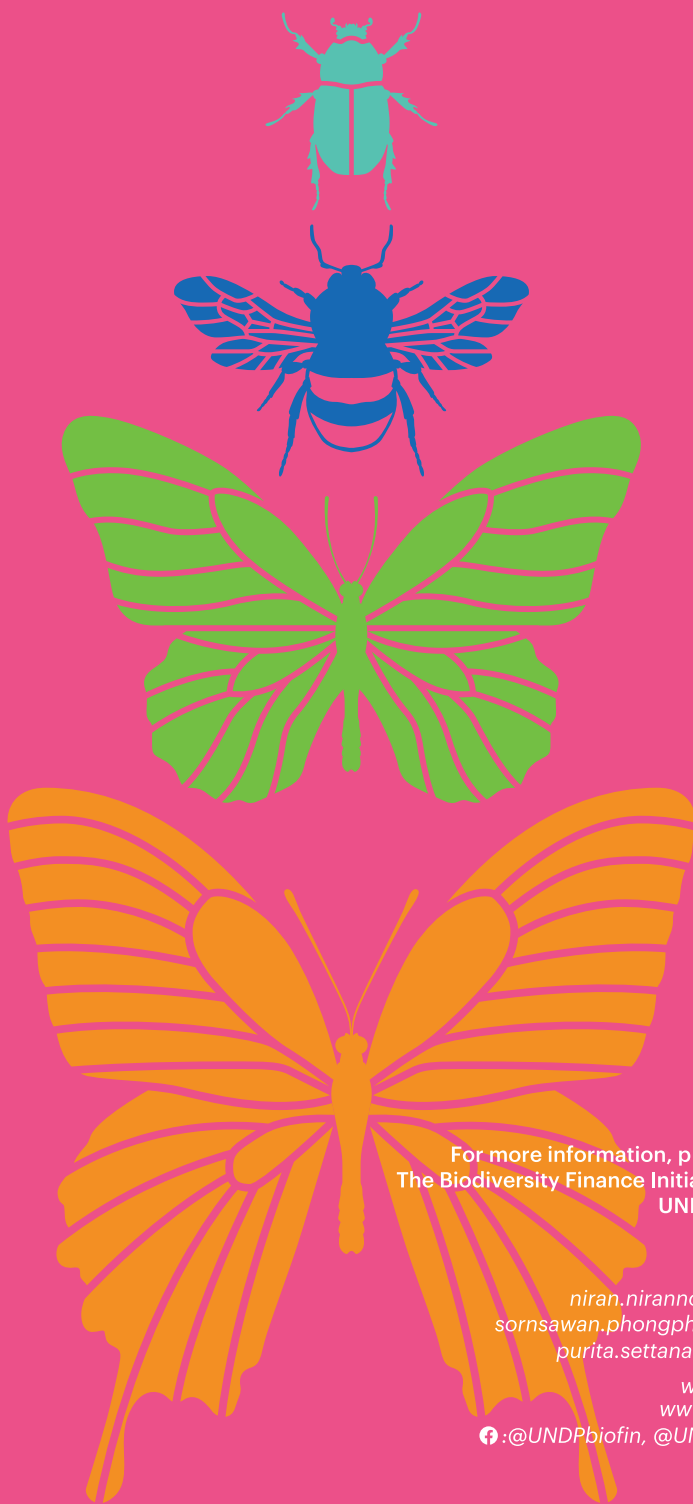
Chuaprapaisilp, Thethach. 2017. Public, Private and Civil Society Biodiversity Expenditure Review in Thailand (Biodiversity Finance Initiative Thailand, United Nations Development Programme).

OECD. 2021. Creditor Reporting System. Retrieved 1 September 2021, from Organisation for Economic Cooperation and Development <https://stats.oecd.org/Index.aspx?DataSetCode=crs1>

UNDP (2016). Biodiversity finance manual: Mobilising resources for biodiversity and sustainable development. The biodiversity finance initiative. David Meyers, Massimiliano Riva, Marlon Flores, Annabelle Trinidad, Onno van den Heuvel, Andrew Seidl, Jamison Ervin, and Marco Arlaud, authors. Tracey Cumming and Usman Iftikhar, supporting authors. United Nations Development Programme: New York. 258 pp. http://www.biodiversityfinance.net/sites/default/files/content/publications/undp-biofin-web_0.pdf.

UNDP (2018). The 2018 BIOFIN workbook: Finance for nature. The biodiversity finance initiative (BIOFIN). Marco Arlaud, Mariana Bellot, Tracey Cumming, Onno van den Heuvel, James Maiden, David Meyers, Midori Paxton, Massimiliano Riva, Andrew Seidl and Annabelle Trinidad. United Nations Development Programme: New York. 202 pp. <http://www.biodiversityfinance.net/sites/default/files/content/publications/BIOFIN%202018%20Workbook.pdf>.





For more information, please contact:
The Biodiversity Finance Initiative - BIOFIN
UNDP in Thailand

niran.nirannoot@undp.org
sornsawan.phongphao@undp.org
purita.settanasin@undp.org

www.biofin.org
www.th.undp.org

 :@UNDPbiofin, @UNDP.BIOFIN.th