ASSESSMENT REPORT

Strengthening Thailand's Taxonomy Phase II

To support a nature-positive and socially inclusive climate transition

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UK PACT

ZSL Zoological Society of London

SAL FOREST

About this report

The development of the Thailand Taxonomy represents a critical opportunity to direct sustainable finance toward activities that not only align with national and global climate objectives but also advance biodiversity conservation and social inclusion.

6	4	3yrs
environmental objectives the Taxonomy classifies activities against	sectors added in Phase II, on top of energy and transportation	to remediate a DNSH or MSS breach before reclassification

NAVIGATION

How to read this report

Sections one and two set out what the study assessed and what Thailand Taxonomy Phase II contains.

Section three benchmarks the Taxonomy against the EU and ASEAN taxonomies. Sections four and five assess its treatment of biodiversity and of GEDSI in turn, each following the same shape: coverage, gaps, global frameworks, and the domestic policies to build on.

Sections six and seven carry the recommendations and the conclusion.

Appendix A argues the case for separating “do less harm” from “do more good” indicators. Appendix B is the indicator set itself, on landscape pages.

Figure 1 has been re-plotted from the source chart's own values, with its attribution unchanged; Figure 2 is reproduced as supplied.

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Contents

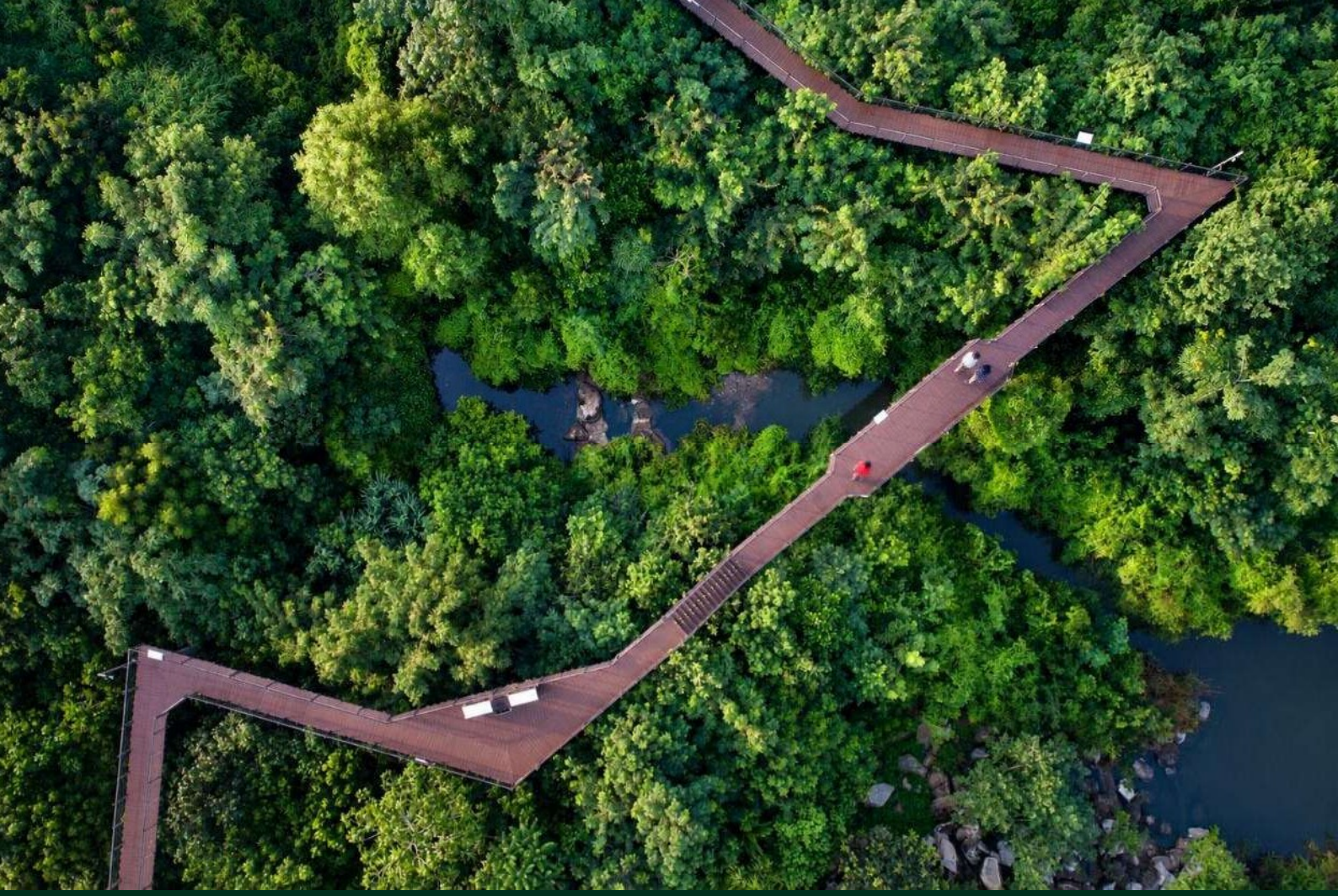
SECTION ONE

1 Executive Summary

The development of the Thailand Taxonomy represents a critical opportunity to direct sustainable finance toward activities that not only align with national and global climate objectives but also advance biodiversity conservation and social inclusion. By embedding the Taxonomy more firmly within both domestic and international sustainability frameworks, Thailand can strengthen its capacity to mobilise green finance in ways that are environmentally sound, socially inclusive, and economically viable.

The Zoological Society of London (ZSL) and Sal Forest are sponsored by the United Kingdom Partnering for Accelerated Climate Transitions (UK PACT) through the Thailand-UK PACT fund to conduct a comprehensive assessment of the recently launched Thailand Taxonomy Phase II, with the overarching aim of evaluating its design, scope, and operational readiness. Particular attention is given to its potential to facilitate a nature-positive and socially just transition. This entails examining the extent to which biodiversity considerations are integrated into the Taxonomy's structure, as well as the degree to which it addresses the principles of Gender Equality, Disability, and Social Inclusion (GEDSI). These dimensions are increasingly recognised as essential for ensuring that climate-related financial instruments do not perpetuate or exacerbate existing social and ecological inequalities.

Our study provides technical and institutional recommendations aimed at enhancing future phases of the Thailand Taxonomy in guiding investment flows toward climate-resilient, biodiversity-positive, and socially equitable outcomes. Through this evidence-based analysis, the research aims to contribute to the ongoing refinement and implementation of the Thailand Taxonomy, thereby strengthening its role as a strategic instrument for sustainable development and transformation of the financial system. In addition to its primary goal of bolstering climate mitigation and adaptation, the Thailand Taxonomy can be a useful tool to promote biodiversity and social inclusion; thus, our study proposes the 'Do Less Harm' and 'Do More Good' Indicators as a supporting document for the use of the Thailand Taxonomy. This document is developed by incorporating indicators for measuring the impact of economic activities on biodiversity and social aspects, recommended or recognised by international standards. Those indicators are suggested for financial institutions or project developers to use as a reference for systematic and quantifiable monitoring of externalities on biodiversity and social inclusion, ensuring their Taxonomy-alignment activities can achieve not only climate ambition but also environmental and social objectives.



SECTION 02

Background

What Thailand Taxonomy Phase II covers, how it classifies activities, and the principles that hold it together.

SECTION TWO

2 Background

Thailand Taxonomy Phase II was officially launched in May 2025. It was developed through the inclusion of additional sectors deemed critical for achieving Thailand's environmental goals, marking a significant expansion of the previous Taxonomy framework. Compared to Phase 1, Thailand Taxonomy Phase II continues to categorise economic activities according to six environmental objectives: 1) Climate change mitigation; 2) Climate change adaptation; 3) Sustainable use and protection of marine and water resources; 4) Resource resilience and transition to a circular economy; 5) Pollution prevention and control; and 6) Protection and restoration of biodiversity and ecosystems.

While Phase 1 focused exclusively on the energy and transportation sectors and emphasised only climate change mitigation, Phase II marks a significant advancement. It expands the Taxonomy framework toward four key sectors: 1) Agriculture; 2) Construction and real estate; 3) Manufacturing; and 4) Waste management (Figure 1). These sectors are evaluated against a broader set of environmental objectives, thereby enhancing the comprehensiveness and alignment of the Taxonomy with Thailand's long-term sustainability goals. The inclusion of these four key sectors is timely, given their relatively high dependencies on natural capital (Figure 1). A summary of the sectoral coverage and associated environmental objectives is presented in Table 1.

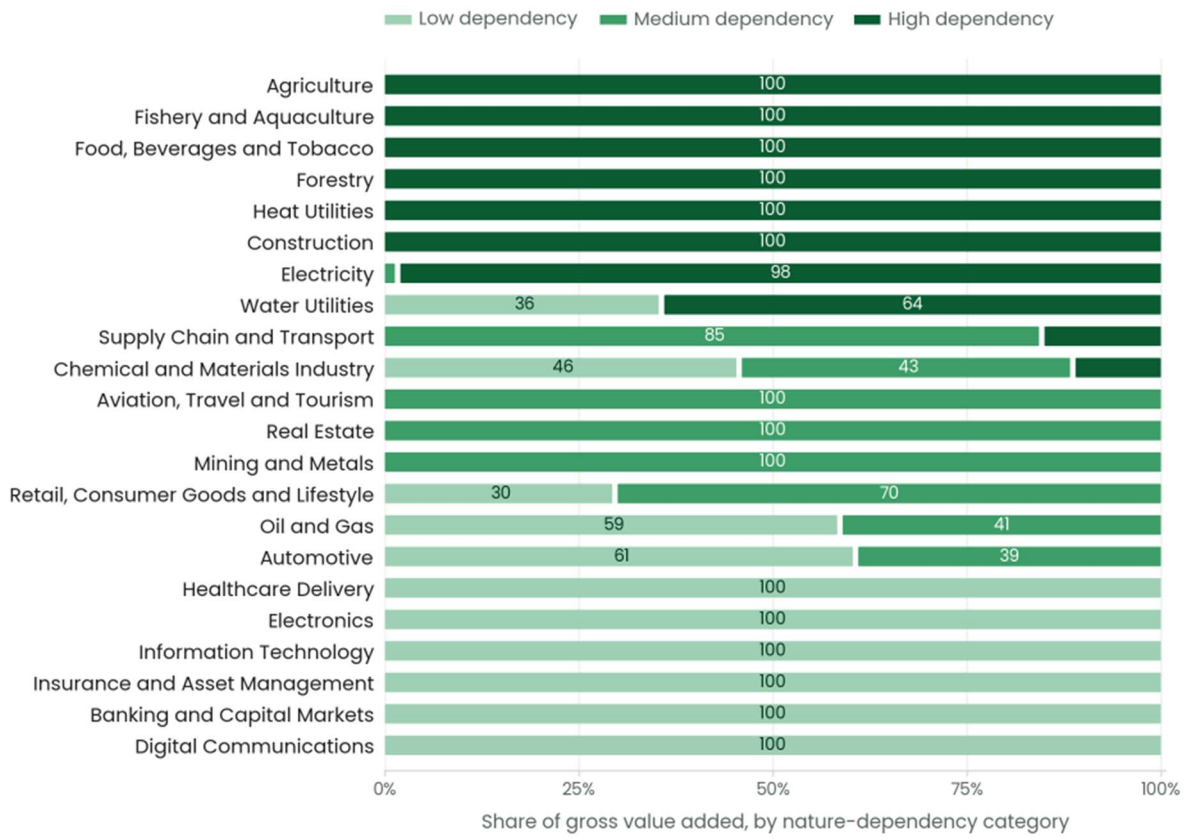


Figure 1 Dependencies of different industries on natural capital. Adapted from MSCI ESG Research, World Economic Forum and PwC, 2020. "Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy," Intergovernmental Science Policy Platform on Biodiversity and Ecosystem Services (IPBES), 2020.

50%
of global GDP is dependent on nature

75%
of global food crops rely on animal pollination

50%
of crops are at risk from soil erosion

Table 1 Thailand Taxonomy Phase II environmental objectives (by sector). Source: Compiled by the research team from the Bank of Thailand (2025b).

Environmental objective	Energy	Transportation	Agriculture (including forestry)	Construction and real estate	Manufacturing	Waste management
Climate change mitigation	✓	✓	✓	✓	✓	✓
Climate change adaptation			✓	✓	✓	✓
Sustainable use and protection of marine and water resources			✓			✓
Resource resilience and transition to a circular economy			✓	✓	✓	✓
Pollution prevention and control						✓
Protection and restoration of biodiversity and ecosystems			✓			

Transposed from the source table so the six objectives read down the page; the entries are unchanged.

Phase 1 established critical environmental foundations, but it also overlooked systematic integration of GEDSI (Gender Equality, Disability, and Social Inclusion) principles. For example, social safeguards were limited to broad references to international labour standards without explicit requirements for gender-responsive design, disability-inclusive infrastructure, or equitable benefit-sharing with marginalised communities like Indigenous groups or smallholder farmers. This gap risks perpetuating exclusion in Thailand's green transition and will be addressed as a core priority for enhancement in Phase II (see Section 5).

Phase II continues to employ a "traffic light system" to classify economic activities within each sector. This classification approach—using green, amber, and red categories—offers greater flexibility and accommodates a wider range of transition pathways toward decarbonisation (see Table 2). As a result, it enhances opportunities for accessing sustainable finance and supports a more inclusive transition to a low-carbon economy (Bank of Thailand, 2025b).

Table 2 Thailand Taxonomy Phase II Traffic Light System. Source: Bank of Thailand (2025b).

Traffic-light system	Meaning	Note	End date (sunset date)
Green	Activities already at or near net-zero emissions that may require some further decarbonisation, but not a significant transition. Activities that are not net zero at the moment but have a clear Paris Agreement-aligned decarbonisation pathway that may be followed.	Applied to new facilities operating in compliance with the requirements of the Taxonomy, or to revenue that is generated through the sale of products that meet the requirements of the Taxonomy.	
Amber	Activities that entail relatively high emissions but are: Facilitating significant emissions reductions in the short term with reliable decarbonisation pathways and prescribed sunset dates. Enabling other green activities, even though they are not green themselves.	Thailand's national decarbonisation strategies and Nationally Determined Contribution (NDC) were taken into account when developing criteria for this category.	By 2040, amber activities must be transformed into green activities or terminated.
Red	Activities that are not compatible with a net-zero trajectory and are not going to become compatible anytime soon.	These activities should therefore be phased out if the country wants to achieve the goals of the Paris Agreement.	By 2040, there must be zero red activities (such as coal-fired power plants).

It is important to note that the agricultural sector adopts a practice-based approach rather than the traffic light system. This deviation is due to the inherent limitations in directly measuring greenhouse gas emissions within the sector, making it more appropriate to evaluate activities based on adopted practices and techniques rather than quantitative emission thresholds.

The principles of Do No Significant Harm (DNSH) and Minimum Social Safeguards (MSS) remain fundamental criteria in Thailand Taxonomy Phase II. According to the Bank of Thailand (2025a), "DNSH ensures that economic activities do not adversely impact other environmental objectives, while MSS aims to prevent negative social consequences." These principles serve to reinforce the integrity of Taxonomy by ensuring that efforts to meet one environmental goal do not undermine others, and social considerations are adequately addressed in the pursuit of sustainability.

Activities that fail to meet either of these two principles are required to develop and implement a remediation plan within a three-year timeframe. Such a plan must be assessed against relevant national or international standards, incorporate stakeholder consultation, and be subject to public disclosure. Failure to achieve compliance within the specified period will result in the reclassification of the activity as non-compliant and its designation under the red category within the Taxonomy framework.

Lastly, the Thailand Taxonomy is designed as a living document, intended to be reviewed and updated periodically—typically every three to five years. However, earlier revisions may be undertaken in response to significant technological advancements, emerging scientific evidence, or newly available data that affect the Taxonomy's criteria, thresholds, or classification approaches. This dynamic structure ensures that the Taxonomy remains aligned with the latest developments in science, innovation, and policy, thereby maintaining its relevance and effectiveness in guiding sustainable economic activities.

SECTION 03

Alignment with international frameworks

How the Thailand Taxonomy sits against the EU and ASEAN taxonomies, and where the three diverge.

SECTION THREE

3 Alignment with International Frameworks

3.1 Benchmarking Against Key Taxonomies

3.1.1 The European Union Taxonomy

The EU Taxonomy aims to stimulate a sustainable transition to accomplish the EU's climate and environmental goals voluntarily. Therefore, it obliges no companies or financial products to achieve environmental performance, and investors are also not bound to invest in particular products. However, companies with more than 500 employees and listed companies, except micro-ones, are required to disclose in their annual reports which activities fall within the scope of the EU's climate and environmental objectives and whether they align with other criteria of the EU Taxonomy (European Commission, 2023). Economic activities, categorised as environmentally sustainable, must meet the following four criteria.

1. Contribute substantially to at least one of the six climate and environmental objectives established by the EU, as detailed below.
   - Climate Change Mitigation
   - Climate Change Adaptation
   - Sustainable Use and Protection of Marine and Water Resources
   - Protection and Restoration of Biodiversity and Ecosystems
   - Transition to a Circular Economy
   - Pollution Prevention and Control
2. Do not significantly harm other remaining objectives.
3. Satisfy minimum safeguards, ensuring good governance and no abuse of human rights and labour rights.
4. Satisfy Technical Screening Criteria (TSC).

Nevertheless, it should not be assumed that economic activities excluded from the EU Taxonomy are unsustainable or adverse to the environment. Instead, they may insignificantly affect the environment, contribute minimally to the climate and environmental objectives, or have not been reviewed yet. With the advancement of technology and scientific knowledge, as well as the development of climate and environmental policies in the future, the TSC will be updated over time with new activities added to the EU Taxonomy, thus enabling it to be a living document (European Commission, 2023). Currently, the EU Taxonomy covers activities in 16 sectors (European Commission,

n.d.), whereby the activities in respective industries and their relevant environmental objectives are displayed in Table 3.

Table 3 Contribution to Environmental Objective by Sectors. Source: European Commission (n.d.) Note: Some activities may not contribute to all objectives in their respective sector.

Sectors	Environmental Objectives
Accommodation activities	Biodiversity
Arts, entertainment, and recreation	Climate Change Adaptation
Construction and real estate activities	Climate Change Adaptation Climate Change Mitigation Circular Economy
Disaster risk management	Climate Change Adaptation Water Resources
Education	Climate Change Adaptation
Energy	Climate Change Adaptation Climate Change Mitigation
Environmental protection and restoration activities	Climate Change Adaptation Climate Change Mitigation Biodiversity
Financial and insurance activities	Climate Change Adaptation
Forestry	Climate Change Adaptation Climate Change Mitigation
Human health and social work activities	Climate Change Adaptation
Information and communication	Climate Change Adaptation Climate Change Mitigation Circular Economy Water Resources
Manufacturing	Climate Change Adaptation Climate Change Mitigation Circular Economy Pollution Prevention Water Resources
Professional, scientific, and technical activities	Climate Change Adaptation Climate Change Mitigation

Sectors	Environmental Objectives
Services	Circular Economy
Transport	Climate Change Adaptation Climate Change Mitigation
Water supply, sewerage, waste management, and remediation	Climate Change Adaptation Climate Change Mitigation Circular Economy Pollution Prevention Water Resources

3.1.2 The Association of Southeast Asian Nations (ASEAN) Taxonomy

The ASEAN Taxonomy has been designed as a unified classification of sustainable activities and assets throughout the region, despite differences in economies, financial systems, and transition paths among the ASEAN Member States (AMS). It has been developed based on the EU and other Taxonomies, including those of AMS, to ensure its compatibility with them. The goal of the ASEAN Taxonomy is to be an encompassing guide for facilitating AMS to achieve an orderly and just transition and sustainable finance adoption (ASEAN Taxonomy Board, 2025).

To embrace users from various economic backgrounds, the Taxonomy introduces two assessment systems with different levels of technical criteria required, namely the Foundation Framework and the Plus Standard. The Foundation Framework is designed as a beginning approach founded on principles-based assessment. It features qualitative guiding questions for examining and classifying economic activities, even with the problem of data availability and accessibility. Meanwhile, the Plus Standard is formulated as an advanced approach incorporating the TSC to enable an assessment at different stages of economic activities. This approach comprises quantitative and qualitative criteria for an assessment of six Focus Sectors (i.e., sectors significantly contributing to emissions and the economy of Southeast Asia) and three Enabling Sectors (i.e., sectors facilitating other sectors to be responsible for climate change mitigation; Table 4). However, it needs to wait until the fourth update in 2025 for the Plus Standard to cover all sectors specified in the ASEAN Taxonomy, with an update of TSCs for the last five sectors: 1) agriculture, forestry, and fishing; 2) manufacturing; 3) water supply, sewerage, and waste management and remediation; 4) information and communication; and 5) professional, scientific, and technical activities (ASEAN Taxonomy Board, 2025).

Table 4 Focus and Enabling Sectors Covered by the ASEAN Taxonomy's Plus Standard. Source: ASEAN Taxonomy Board (2025).

Focus Sectors	Enabling Sectors
Agriculture, forestry, and fishing	Information and communication
Electricity, gas, steam, and air conditioning supply	
Manufacturing	Professional, scientific, and technical activities
Transportation and storage	
Water supply, sewerage, waste management and remediation	Carbon capture, storage, and utilisation
Construction and real estate	

The ASEAN Taxonomy employs a colour-coded system, enabling activities that fall short of the green criteria to be categorised under the amber group, based on their importance for sustainable improvement in ASEAN. Definitions of each colour group are depicted as follows.

- **Green:** Activity that substantially contributes to any environmental objective as specified below.
  - Climate Change Mitigation
  - Climate Change Adaptation
  - Protection of Healthy Ecosystem and Biodiversity
  - Promote Resource Resilience and Transition to Circular Economy
- **Amber:** Activity that has not passed the criteria for Green Class. However, it is in a transition stage toward a more sustainable future; also, this colour is for activities with remarkable remediation presented for their breach of the Do No Significant Harm Principle.
- **Red:** Activity that does not contribute to any environmental objective or significantly harm other environmental objectives.

While explicitly endorsing a 'Just Transition' principle to protect vulnerable groups, the framework could be improved to operationalise GEDSI. For example, no metric exists for tracking women's participation in green jobs, disability accessibility in low-carbon infrastructure, or Indigenous land rights in nature-based solutions, leaving implementation entirely to member states' discretion.

3.2 Key Similarities and Divergences

As a model for Thailand and ASEAN, several principles outlined in the EU Taxonomy have been adopted by the Thailand Taxonomy and the ASEAN Taxonomy, with some additional adjustments imposed with respect to local or regional contexts (Table 6). First of all, regarding environmental and climate objectives, Thailand borrows all six objectives from the EU Taxonomy. Meanwhile, ASEAN only replicates the objectives of climate change mitigation, climate change adaptation, and the circular economy. Despite the absence of a specific goal for pollution prevention and control in the ASEAN Taxonomy, the principle is incorporated within the ecosystem and biodiversity protection objective. The environmental and climate objectives of each Taxonomy are detailed in the following Table 5.

Table 5 Environmental and Climate Objectives of the Three Taxonomies. Source: ASEAN Taxonomy Board (2025), European Commission (2023), and Thailand Taxonomy Board (2025a).

Thailand Taxonomy	EU Taxonomy	ASEAN Taxonomy
Climate Change Mitigation	Climate Change Mitigation	Climate Change Mitigation
Climate Change Adaptation	Climate Change Adaptation	Climate Change Adaptation
Sustainable Use and Protection of Marine and Water Resources	Sustainable Use and Protection of Marine and Water Resources	Protection of Healthy Ecosystem and Biodiversity
Protection and Restoration of Biodiversity and Ecosystems	Protection and Restoration of Biodiversity and Ecosystems	Protection of Healthy Ecosystem and Biodiversity
Promotion of Resource Resilience and Transition to a Circular Economy	Transition to a Circular Economy	Resource Resilience and the Transition to a Circular Economy
Pollution Prevention and Control	Pollution Prevention and Control	Resource Resilience and the Transition to a Circular Economy

The three taxonomies share a similar methodology for defining green economic activities, which is structured around TSC, primarily focusing on climate change mitigation and adaptation objectives. However, later development, led by the EU, has expanded the scope of TSC to enable verification of activities, substantially contributing to the remaining environmental objectives, including biodiversity, circular economy, pollution prevention, and water resources (European Commission, n.d.). Likewise, Thailand Taxonomy Phase II has incorporated TSC for activities aligned with environmental objectives other than climate change mitigation and adaptation in the four additional sectors (Thailand Taxonomy Board, 2025a). The ASEAN Taxonomy Version 4 retains a dual assessment approach in which both the Foundation Framework and the Plus Standard provide tools for identifying the

environmental contribution, covering the four environmental objectives. (ASEAN Taxonomy Board, 2025).

In addition, Thailand and ASEAN integrate essential criteria imposed by the EU, including the “Do No Significant Harm Principle (DNSH)” and other social impact issues, into their Taxonomy. However, the ASEAN Taxonomy allows some activity that violates the DNSH to be categorised under the Amber class, which is not the case in the EU Taxonomy, if it can present the “Remedial Measures to Transition,” or a plan to nullify all significant harm within five years from the assessment date (ASEAN Taxonomy Board, 2025). Similarly, Thailand Taxonomy accepts activities breaching the DNSH to be classified as green or amber activities after their environmental objective contribution. In this case, a public statement concerning the DNSH violation and a plan to accomplish the DNSH conformity within three years from the assessment date must be announced (Thailand Taxonomy Board, 2025b).

Regarding social impact, the EU Taxonomy’s Minimum Safeguards require compliance with international standards on human rights and labour rights with an explicit citation to the OECD Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), core conventions of the Declaration of the International Labour Organisation on Fundamental Principles and Rights at Work, and the International Bill of Human Rights (European Commission, n.d.). Following the EU Taxonomy, the Thailand Taxonomy adopts the aforementioned requirements, except the OECD Guidelines for Multinational Enterprises in its Social Safeguard Measures, with the addition of the IFC Performance Standards (Thailand Taxonomy Board, 2025b). The ASEAN Taxonomy also addresses the protection of human rights, labour rights, and children's rights, as well as the impact on people surrounding the investment sites. However, the ASEAN’s Social Aspects refers to only regional documents, including the ASEAN Human Rights Declaration (AHRD), the Phnom Penh Statement on the Adoption of the AHRD, the ASEAN Declaration on the Protection of the Rights of Migrant Workers, the ASEAN Consensus on the Protection and Promotion of Rights of Migrant Workers, ASEAN Declaration on Promoting Competitiveness, Resilience and Agility of Workers for the Future of Work, and the ASEAN Declaration on Strengthening Social Protection (ASEAN Taxonomy Board, 2025). Despite no explicit reference to the global standards, the main principles of those regional documents broadly align with human rights and labour rights, established or recognised by the UN or the ILO.

It is important to understand the similarities and divergences of the three main taxonomies to inform future improvements (Table 6). For example, the level of enforcement of the three Taxonomies is distinct. The ASEAN Taxonomy is implemented as a guide for governments, companies, or investors in addition to their national taxonomies. In the same way, the Thailand Taxonomy is implemented as a reference that local companies, investors, financial institutions, and public agencies can use voluntarily. On the other hand, the EU Taxonomy obliges large or listed companies in the economy to disclose their classification in their annual report.

Table 6 Similarities and Divergences of the Three Taxonomies. Source: ASEAN Taxonomy Board (2025), European Commission (2023), and Thailand Taxonomy Board (2025b)

Principles	Thailand Taxonomy	EU Taxonomy	ASEAN Taxonomy
Environmental Objectives	6 objectives	6 objectives	4 objectives
Methods for Organising Green Economic Activities	Technical Screening Criteria-based taxonomies	Technical Screening Criteria-based taxonomies	Principles-based Assessment and Technical Screening Criteria-based taxonomies
Do No Significant Harm (DNSH) Principle	Specified	Specified	Specified
Remedial Measures to Transition	Specified	Not specified as an activity; failing the DNSH will result in disqualification	Specified
Social Impact Principle	Specified	Specified	Specified
Enforcement	No legal obligation; users can voluntarily apply as a reference.	Companies with significant investments in the EU must disclose the consistency of their economic activities with the EU Taxonomy.	No legal obligation; users can voluntarily apply as a reference.
Primary Users	Companies Financial Institutions Investors Government agencies	EU member countries Large companies Investors	ASEAN governments Companies Investors

Overall, current taxonomies largely treat social indicators as secondary - this gap overlooks a key reality of climate action: transitioning economies, whether decommissioning coal plants or building utility-scale solar projects, often disrupt local communities, disproportionately affecting women, people with disabilities, and Indigenous groups. As the World Bank (2024) notes, taxonomies must incorporate poverty reduction and shared prosperity to ensure climate policies do not worsen socioeconomic inequalities. Failing to integrate gender metrics into technical criteria means green finance could inadvertently widen the gender gap within emerging green sectors (UN Women, 2025).

While there are opportunities to include novel GEDSI thresholds in the Thailand Taxonomy, both the EU and the ASEAN taxonomies can also be improved to incorporate GEDSI as a central performance indicator. For example, Taxonomy developers can look to the FAIRER

Framework developed by the Zoological Society of London (ZSL) as a practical model (Fair Finance Thailand, 2025; ZSL, 2025). Rather than viewing social safeguards as a tick-box exercise, the framework builds justice, equity, and inclusion into project design. It provides a structured approach to social justice through six principles:

- **Fair:** Distributing the benefits and responsibilities of environmental projects equitably.
- **Accountable:** Creating transparent, accessible grievance mechanisms for affected communities.
- **Inclusive:** Giving marginalised groups an active voice in decision-making.
- **Respectful:** Acknowledging and working within local cultural contexts and community structures.
- **Ethical:** Valuing human dignity and integrity alongside carbon or biodiversity targets.
- **Reflective:** Using continuous feedback loops to monitor long-term community impacts.

Incorporating ZSL FAIRER principles and global just transition standards (World Bank, 2024) into future phases of the Thailand or ASEAN taxonomies requires translating qualitative values into measurable, enforceable Technical Screening Criteria (TSC). Practical applications include:

- **Gender Equality:** Moving beyond aggregate headcount to mandate the reporting of gender-disaggregated employment and wage data across all lifecycle phases of a certified green asset (ILO, 2024; UN Women, 2025).
- **Disability Inclusion:** Requiring green real estate or low-carbon transport projects to meet universal design standards for physical accessibility, ensuring an asset cannot qualify as "green" based solely on emissions.
- **Indigenous Rights:** Establishing audited evidence of Free, Prior, and Informed Consent (FPIC) from local communities as an absolute compliance floor for large-scale nature-based solutions, such as reforestation initiatives (ZSL, 2025).

By moving from basic social safeguards to an active, FAIRER-aligned model, regional taxonomies can maintain practical utility for businesses while actively preventing the social marginalisation that can occur during green transitions.

SECTION 04

Biodiversity conservation objectives

What Phase II covers on biodiversity, where the gaps are, and the frameworks and policies future phases can build on.

SECTION FOUR

4 Biodiversity Conservation Objectives

4.1 Coverage of Biodiversity in Phase II

The protection and restoration of biodiversity and ecosystems remains one of the six environmental and climate objectives, while four additional sectors, namely agriculture, construction and real estate, manufacturing, and waste management, are introduced in this version. Criteria for the identification and classification of economic activities after their alignment to environmental objectives have also been provided. Particularly, the agriculture sector is recognised as the only sector contributing to the biodiversity goal, whereby forestry activities, including sustainable forest management, forestry plantation, and forest conservation, restoration, and maintenance, are addressed as eligible activities for green classification. Examples of forestry activities on Phase II are shown in Table 7. Notably, Nature-based Solutions (NbS) (see 4.3.1) have been included as one option for green forestry activities under Phase II (Thailand Taxonomy Board, 2025c).

Criteria for the identification and classification of other agricultural activities, including planting, livestock, and aquaculture, which are under the practice-based principle, have also been developed. Such criteria encompass various practices that enable those farming activities to transform into sustainable operations. For instance, the production of oil palm and rubber trees can be evaluated as a green practice with the adoption of biodiversity conservation measures such as riparian buffers preservation, wildlife corridor creation, and native tree species plantation. Aquatic animal banks are recognised as a green aquatic production, as they supply aquatic animals to local people and decrease the catching of aquatic animals from natural sources (Thailand Taxonomy Board, 2025c).

Table 7 Example of Forestry Activities in Phase II. Source: Thailand Taxonomy Board (2025c).

Practices	Sustainable Forest Management	Forestry Plantation	Conservation, Restoration, and Maintenance of Natural Forests
Definition	Management of planted and natural forests that ensures forests supply goods and services meeting both present-day and future needs, and contribute to sustainable development.	Plantation of forests and associated activities	Actions needed to protect and assure that environmental services are provided by natural or pristine forests.
Basic Requirement	In order to be aligned with the green category of the Taxonomy, the forest manager must first obtain a valid certification (e.g., TFCC, FSC, PEFC, Premium T-VER) for an area where the management activity is taking place. If certification is obtained, the following activities or inputs are aligned with the Taxonomy as green, whereby community rights must be respected when implementing any of those practices.		
Eligible Activities	Conservation, restoration, and maintenance of forest areas[i]; Expenditures required to obtain the relevant certification; Creation and maintenance of nurseries where seeds and seedlings are sourced from sustainably managed areas; Adoption and maintenance of monitoring technology that enables the tracking of the forest extracts and their conservation status; Equipment and costs incurred by forest management activities pre and post extraction, including primary processing that is either powered by renewable energy or appears amongst the most energy efficient in the country, as certified by local energy efficiency standards; The use of diverse native plants that are suitable for the area to promote biodiversity; Use of organic and bio fertilisers[ii]; Use of physical and biocontrol of pathogens, pests, and weeds[ii]; The use of NbS / integrated landscape management[ii];		

Note: i. Apply to only Sustainable Forest Management and Forestry Plantation. ii: Apply to only Forestry Plantation and Conservation, Restoration, and Maintenance of Natural Forests.

4.2 Biodiversity Conservation Gaps in Phase II

Despite the advancement of the Thailand Taxonomy after the availability of the TSC for the assessment of activities contributing to the biodiversity objective, there is still room for further improvement. The Thailand Taxonomy can be more comprehensive with extension to activities outside the agricultural sectors, substantially contributing to biodiversity conservation and restoration, especially activities related to sustainable tourism and other services that are significant to the Thai economy and employment. In the absence of such criteria for non-agriculture activities in the Thailand Taxonomy, financial institutions will have no reference point for designing financial products that support biodiversity

conservation and restoration. At the same time, it will be challenging for investors to justify claims on these financial assets. As a result, this could delay the development of biodiversity-linked instruments in the Thai financial market and hamper the transition to biodiversity-aligned business among Thai entrepreneurs. Below are three aspects in Phase II where gaps related to biodiversity conservation are apparent.

1 TSC

Thailand Taxonomy Phase II criteria lack specific, quantifiable biodiversity-outcome indicators (e.g., change in species or habitat data in terms of % change/per ha/per year). If monitoring and reporting requirements are not fully detailed without measurable indicators, it would be difficult to assess whether an activity is truly conserving or restoring biodiversity over time. In addition, the TSC tends to focus on direct phases of activities, but many biodiversity impacts happen upstream or downstream throughout the supply chain. For example, in agriculture and livestock operations, feed production, conversion of land and negative impacts of pesticide use are not fully addressed. It is plausible that a livestock operation could meet on-farm thresholds, but source feed from deforested areas, or damage surrounding ecosystems indirectly. Another issue is that the TSC does not consider the full lifespan of projects, cumulative impacts, or future climate change/ecosystem change. In reality, most projects impacting biodiversity require long-term monitoring or adaptive management. For instance, a project might avoid immediate harm initially, but degrade over time (e.g., soil health declines, introduced species become invasive, habitat becomes more fragmented, etc.), and without long-term monitoring and verification requirements, these may go unnoticed. Finally, several TSCs focus heavily on greenhouse gas (GHG) reduction, energy, and emissions, while biodiversity/ecosystem protection/restoration are treated as secondary – such risks could favour projects that are “climate-good but biodiversity-neglected.”

2 MSS

In Phase II, the MSS focus mostly on social risks/impacts (e.g., labour, rights, resettlement, etc.) but less on the mechanisms to restore or compensate for biodiversity loss tied to those social impacts. If harm to a particular habitat or species occurs as part of the activity (even “social” harms may include loss of access to biodiversity), mitigation, restoration, or offsetting must be ready to recover biodiversity. Similar to the TSC, the MSS does not currently mandate detailed biodiversity indicators or require public reporting of biodiversity outcomes as part of social safeguards. Without metrics and monitoring, it would be difficult to ensure that MSS is actually protecting biodiversity outcomes, and projects could fulfil “paper compliance” while still degrading ecosystems. Lastly, the MSS adopts a “grace period” approach, but this could weaken protection for biodiversity because projects may start operating (or be financed) before full compliance. Allowing projects that do not meet MSS (or DNSH) at the assessment time to receive “green/amber” classification with a plan to comply later raises risk. The 3-year remediation period is relatively long, and if sensitive habitats or species are involved, biodiversity damage may happen in the interim and may be irreversible.

3 Governance and Enforcement

In Phase II, safeguards & remedial plans are not binding. For example, if DNSH or MSS are not enforceable, developers may delay compliance or comply superficially, leading to continued negative impacts on biodiversity. Ambiguous accountability & third-party verification could also be an issue. Without independent oversight or audits, there is a risk of greenwashing and misreporting of biodiversity outcomes. If there is a lack of strong regulatory enforcement mechanisms in future phases, negative impacts on biodiversity will continue as Taxonomy criteria are only "reference tools" without legal or regulatory teeth. If responsibilities or enforcement powers are fragmented, there could be duplication, gaps, or conflict, especially when biodiversity conservation involves many agencies (e.g., national parks, forestry, fisheries, local governments, etc.). Ultimately, without meaningful consequences, entities may choose minimal compliance or ignore biodiversity harms. Conversely, without incentives for going beyond minimum, there is little reward for nature-positive behaviour.

4.3 Global Biodiversity Frameworks Relevant to Phase II

Several global biodiversity frameworks below are highly relevant to Phase II (Table 8), which extends the Taxonomy beyond energy and transport into agriculture, forestry, waste, water, and industrial sectors — all of which directly affect ecosystems and biodiversity.

Table 8 Global biodiversity frameworks and their relevance to Thailand's Taxonomy.

Framework	Core Purpose	Integration into future phases
IUCN NbS Global Standard	Allow users to assess the aptness, scale, economic, environmental, and social viability of a nature-based intervention; consider its possible trade-offs; ensure transparency and adaptive project management; and explore possible linkages to international targets and commitments.	MSS: Alignment with NbS Criterion 3: Net-gain to biodiversity and ecosystem integrity helps move MSS beyond "do no harm" to requiring biodiversity co-benefits for social well-being TSC: Alignment with IUCN NbS Criterion 1–3 (societal challenge + ecosystem integrity) will require activities to demonstrate measurable improvement in ecosystem services (e.g., water retention, soil carbon, native vegetation cover).
Kunming-Montreal Global Biodiversity Framework	Sets four long-term goals for 2050 and 23 actionable targets for 2030, aiming to achieve a "nature-positive" world where humanity lives in harmony with nature, and also includes a monitoring framework to track progress.	MSS: Alignment with Target 1: Spatial planning for biodiversity and ecosystem integrity will require MSS to reference biodiversity-sensitive spatial planning (e.g., no projects in Key Biodiversity Areas or protected zones without mitigation hierarchy) TSC: List Targets cited in TSC preamble, mandate a net-gain requirement in DNSH (replace no-net-loss with net-gain where practicable), and have a minimum set of GBF-linked biodiversity & social indicators per sector.

4.3.1 Nature-based Solutions

Nature-based Solutions address societal challenges through actions to sustainably protect, manage, and restore natural and modified ecosystems for both people and nature. International Union for Conservation of Nature (IUCN) conceptualised NbS more than 20 years ago. It first formulated a formal definition of NbS, then developed a rigorous standard to inform the design, implementation, and evaluation of interventions: the IUCN Global Standard for Nature-based Solutions. The emergence of various green financing instruments and mechanisms (e.g., nature-themed bonds, carbon/nature credits, etc.) provides opportunities for Thailand to create a market that channels capital flow into NbS projects. High-quality NbS projects offer direct benefits to local communities, such as job creation, social mobility, and social cohesion, in addition to wider climate and biodiversity objectives. ZSL is currently implementing an NbS project in Thailand's southern Western Forest Complex (SWEFCOM), where there is development of elephant-friendly agroforestry cooperatives that enable smallholder farmers to transition away from monoculture farming to diversified elephant-unpalatable perennial crop systems – this will ultimately promote human-elephant coexistence.

Located in Kanchanaburi Province, this project will (1) establish farmer cooperatives in the north of SWEFCOM, expanding to additional communities as the model scales; (2) scale adoption of agroforestry systems that support coffee, pomelo and black pepper as key productive crops; (3) build sustainable supply chains, through capacity building, market linkages between suppliers and consumers through offtake agreements for produce, and premium branding for elephant-friendly crops; (4) improve farmer income and resilience by reducing elephant raiding of farmer crops and building markets for agroforestry production; (5) reducing human-elephant conflict by supporting movement of elephants within the SWEFCOM avoiding engagement with local communities as a result. A key element of the model is the development of demonstration farms across HEC-prone areas to support training and capacity building. In the long term, emission reduction credits will be explored as a supplementary revenue stream to support agroforestry practices. Further applications of NbS in Thailand can be considered, particularly in the sectors prioritised in the National Adaptation Plan, as shown in Table 9.

Table 9 Sectoral Goals and Application of Nature-based Solutions in the National Adaptation Plan. Source: Department of Climate Change and Environment (2024).

Sector	Goal	Application of Nature-based Solutions
Water Resources Management	Increase water security and decrease losses and damage from water-related disasters.	Develop a manual for the management of water resources under NbS and EbA.
Agriculture and Food Security	Maintain productivity and food security amidst climate risks and impacts.	N/A
Tourism	Strengthen the capacity of the tourism sector toward climate-resilience and sustainable development.	N/A
Public Health	Establish effective public health systems to manage risks and reduce impacts from climate change.	N/A

Sector	Goal	Application of Nature-based Solutions
Natural Resources Management	Sustainable management of biodiversity resources to respond to climate impacts.	Apply EbA and/or NbS in the development of criteria for humans, especially from highland and forest-surrounding communities, to sustainably coexist with forests. Integrate NbS in coastal restoration and participation measures to regulate the utilisation of mangrove areas.
Human Settlement and Security	Enhance the capacity of individuals, communities, and cities to adapt to climate change impacts appropriately according to the local context.	Promote integration of climate change adaptation principles, including NbS, into cities, communities, and municipalities' development plans and strategies.

4.4 Leveraging Thailand's Policies for Biodiversity Conservation in Future Phases

Notable policies concerning Thailand's climate and environment goals that can be leveraged by future phases include the NDC Action Plan on Mitigation, the National Adaptation Plan, and the Action Plan on Biodiversity. The aspects of all three policies are summarised and contrasted in Table 10.

4.4.1 NDC Action Plan on Mitigation (2021-2030)

The Thailand Taxonomy, developed in alignment with the six prioritised sectors of the NDC Action Plan on Mitigation, can play a vital role in helping Thailand reach its climate and environmental policy goals. Following the commitment to the NDC, the NDC Action Plan on Mitigation 2021 – 2030 was initiated as a framework for Thailand to complete its GHG emission goals at the sectoral level, with instruments and mechanisms stipulated to enable relevant organisations to achieve their emission reduction mission. The plan imposes a goal under domestic implementation of 184.8 MtCO2eq mitigation by 2030, lower than the BAU by 33.3% (Department of Climate Change and Environment, 2025). The goals of emission mitigation by sector, along with their relevant mitigation measures, are shown in Table 11. The NDC Action Plan is a powerful lever to strengthen biodiversity outcomes in future phases because both seek to channel finance into nature-related interventions. Future phases can reward and enforce biodiversity-positive mitigation activities rather than just climate-only wins:

- **Reframe "substantial contribution" in TSC:** Requiring that any activity counted toward NDC mitigation in future phases also demonstrates positive biodiversity outcomes (or net-gain) for Taxonomy eligibility: Avoid → Minimise → Restore → Compensate and, where feasible, net-gain for biodiversity.

- **Embed NDC's Sectoral Priorities:** Requiring projects to conduct equity-focused social impact assessments that analyse differential impacts on women, PWDs, and other marginalised communities, ensuring a fair distribution of benefits and burdens.
- **Adopt joint climate and biodiversity KPIs:** Requiring demonstration of performance against both climate and biodiversity KPIs for high-risk sectors (e.g., mangrove survival & canopy cover — % survival at Year 2 and Year 5).

4.4.2 National Adaptation Plan

Addressing the risk and vulnerability of the environment in Thailand amid increasing global temperatures and climate change, and in line with Thailand's commitment to UNFCCC and the Paris Agreement, the National Adaptation Plan was updated for the third time in 2023. The plan serves as guidance for relevant authorities to design their sectoral plans and budgets to achieve climate resilience, vulnerability mitigation, and adaptive capacity enhancement.

The plan prioritises six important sectors, including 1) Water resources management; 2) Agriculture and food security; 3) Tourism; 4) Public health; 5) Natural resources management; and 6) Human settlement and security, for the implementation of climate adaptation policy. It also stipulates the adaptation targets and measures in respective sectors, along with monitoring and evaluation procedures. NAP is a highly strategic policy tool that can be leveraged to make future phases more nature-positive, climate-resilient, and socially inclusive:

- **Reframe "substantial contribution" in TSC:** Requiring activities that build ecosystem resilience or enhance ecosystem services identified in the NAP.
- **Embed Sectoral Indicators:** Integrating NAP's sectoral adaptation indicators into the Taxonomy's MRV system to reduce duplication.
- **Finance and Incentives:** Using the NAP's Adaptation Fund pipeline and Green Climate Fund projects as models for Taxonomy-aligned investment and designing Taxonomy incentives (e.g., green loans, concessional finance) that prioritise NAP-identified adaptation actions such as watershed restoration, coastal ecosystem management, and community-based resource governance.

4.4.3 National Biodiversity Action Plan (2023-2027)

The plan is established as a strategic document for the implementation of biodiversity conservation and utilisation policy in accordance with the Kunming-Montreal Global Biodiversity Framework and the Sustainable Development Goals. It is structured around three key strategies: 1) conserve, restore, and eliminate threats to biodiversity to maintain ecosystem services; 2) promote a bio-based economy and sustainable utilisation of biodiversity; and 3) enhance capacity and participation in biodiversity management. Innovative measures have been introduced by the plan to accomplish effective biodiversity protection and restoration. In particular, among the total 12 goals, alternative measures for environmental protection and financial innovation have been stipulated in goals 2 and 9,

respectively (Office of Natural Resources and Environmental Policy and Planning, 2025). The NBAP is probably the most direct policy instrument to anchor biodiversity into finance and can be used to strengthen biodiversity conservation in future phases.

- **Eligibility and Prioritisation:** Make NBAP priority ecosystems (habitat types, Key Biodiversity Areas, threatened species action priorities) explicit eligible / priority categories for nature-positive finance and designate NBAP-protected or high-sensitivity zones as no-go or subject to strict mitigation/mitigation-hierarchy + net-gain tests.
- **Adopt NBAP Indicators:** Requiring biodiversity KPIs (e.g., area-based [hectares restored/conserved], species-based [e.g., increase in abundance for NBAP priority/IUCN threatened species], etc.)
- **Legal and policy harmonisation:** Embedding NBAP references into Taxonomy legal text and explicitly citing NBAP objectives and maps in TSC and MSS guidance so courts/regulators can interpret Taxonomy obligations consistently, and where feasible, requiring proof of Taxonomy (NBAP) alignment as part of licensing for projects in sensitive sectors.

Table 10 **Summary of NDC Action Plan on Mitigation, the National Adaptation Plan, and the Action Plan on Biodiversity**

	NDC Action Plan on Mitigation	National Adaptation Plan	National Biodiversity Action Plan
Time Frame	2021 – 2030	2023 - 2037	2023 - 2027
Objectives	A framework, with instruments and mechanisms provided for supporting the efforts of relevant authorities to reach the GHG emission reduction goal at the sectoral level.	A framework for the implementation of climate adaptation actions with a focus on climate resilience building, vulnerability reduction, and adaptive capacity increase to support sustainable development.	A strategic document for the implementation of protection, conservation, and sustainable utilisation promotion of biodiversity.
International Frameworks Alignment	UNFCCC The Paris Agreement	UNFCCC The Paris Agreement	The Kunming-Montreal Global Biodiversity Framework The Sustainable Development Goals

	NDC Action Plan on Mitigation	National Adaptation Plan	National Biodiversity Action Plan
Goals	Greenhouse gas emissions are reduced by 184.8 MtCO2eq or 33.3% below Business-as-Usual levels (BAU) by 2030.	• Short-term goals • Raise climate awareness. • Build a basis and instruments for policymaking and mainstreaming. • Establish data and knowledge infrastructure to support decision-making. • Middle-term goals • Strengthen policy instruments and mainstreaming across the priority sectors. • Enhance implementation capacities. • Enhance data and knowledge capacities to measure progress and support decision-making. • Long-term and continuous goals • Ensure climate resilience in the country's development actions. • Ensure continuity of climate awareness, data, and knowledge capacities. • Ensure regular monitoring of progress and updating of the relevant policies and plans.	• Increase the protected areas to at least 30% of the country's area by 2030. • Increase the value-added and income of local communities from bio-resource goods and services. • Enforce regulations on access and benefit sharing. • Promote sustainable agriculture and forestry. • At least 5 local biodiversity management plans are initiated, and at least 20% of businesses report their involvement in biodiversity.

	NDC Action Plan on Mitigation	National Adaptation Plan	National Biodiversity Action Plan
Focusing Sectors	Energy Transportation Community Waste Management and Industrial Waste Industrial Process and Product Use Agriculture	Water Resources Management Agriculture and Food Security Tourism Public Health Natural Resources Management Human Settlement and Security	N/A

Table 11 Emission Mitigation Goals and Measures by Sector (Domestic Implementation) Source: Department of Climate Change and Environment (2025).

Sectors	Emission Mitigation Goals	Major Mitigation Measures
Energy	124.6 MtCO2eq	Energy conservation and efficiency improvement Renewable energy development Carbon capture and storage technology
Transportation	45.6 MtCO2eq	Electrification of transport Energy efficiency improvement Urban mobility Inter-urban transport and green logistics Future energy for transport Transport infrastructure and support
Community Waste Management and Industrial Waste	9.1MtCO2eq	Community waste management Community wastewater management Industrial wastewater management Emission mitigation from community waste and industrial wastewater promotion
Agriculture	4.1MtCO2eq	Livestock waste management Chemical fertiliser reduction Alternate wetting and drying in rice production
Industrial Process and Product Use	1.4 MtCO2eq	Clinker substitution Refrigerant substitution/change

SECTION 05

Social objectives

How Phase II treats gender equality, disability and social inclusion, and what would make those commitments verifiable.

SECTION FIVE

5 Social Objectives

The primary objective of integrating Gender Equality, Disability, and Social Inclusion (GEDSI) into Phase II is to transition Thailand's Taxonomy from a narrow focus on environmental guardrails to a comprehensive framework for a nature-positive and socially inclusive climate transition. By systematically embedding social objectives, the Taxonomy aims to mitigate the risk that green finance could bypass vulnerable populations or exacerbate entrenched inequalities, such as the 10.94% gender wage gap and the significantly low employment rate (36.83%) among working-age Persons with Disabilities (PWDs). The goal is to move beyond aspirational "just transition" principles and instead establish mandatory, auditable metrics that ensure equitable participation and benefit-sharing for women smallholders, Indigenous communities, and coastal fisherfolk.

Furthermore, these social objectives serve to operationalise and enforce Thailand's existing legal mandates, including the Constitution (2017), the Gender Equality Act (2015), and the Empowerment of Persons with Disabilities Act (2007), by transforming them into concrete Technical Screening Criteria (TSC) and Minimum Social Safeguards (MSS). By adopting internationally recognised frameworks like the 2X Criteria for gender-smart investing and ZSL's FAIRER framework for social risk management, the Taxonomy seeks to provide a verifiable "how-to" for financial institutions to conduct due diligence and track social impacts via sex-disaggregated data. Ultimately, this integration aims to position Thailand as an ASEAN leader in inclusive finance, creating a strategic market advantage that attracts high-quality Green Foreign Direct Investment (FDI) while ensuring that no marginalised group is left behind in the shift to a low-carbon economy.

5.1 Coverage of GEDSI in Taxonomy Phase II

While Phase 1 established vital environmental guardrails, it did not systematically integrate Gender Equality, Disability, and Social Inclusion (GEDSI) principles. This omission presents a significant risk: that the benefits of green finance will bypass the most vulnerable populations, exacerbating existing inequalities and undermining the very goal of a "just transition". The data reveals a clear and urgent need for this integration. Persistent gender disparities are entrenched in the Thai economy. As an illustration of income inequality within gender, female-headed households earn significantly less (25,362 baht/month) than male-headed households (28,739 baht/month) (Thailand National Statistical Office, 2022). The labour force participation rate for women is 80.5%, as compared to 94% for men. Despite the existence of equal pay laws, women's wages still lag behind those of men by 10.94%, and the ratio of business ownership is higher among men (60%) than women (40%). Women remain underrepresented in senior and middle management positions in the private sector, representing 34.7% in 2023 (United Nations Working Group on discrimination against women and girls, 2024; The World Bank, 2023). Similarly, Persons with Disabilities (PWDs)

remain a significantly marginalised group. Of the 2.1 million registered PWDs, only 36.83% of those of working age are employed, predominantly in low-wage agriculture and general labour (UNICEF Thailand, 2022). This highlights a critical gap between policy intentions and meaningful economic inclusion.

Indeed, most sustainable finance taxonomies prioritise environmental objectives while neglecting social inclusion. Out of 30 global taxonomies reviewed by the World Business Council for Sustainable Development (WBCSD), only five included social objectives. Regionally, while the ASEAN Taxonomy pioneers a "Just Transition" principle, it defers binding GEDSI requirements to national implementation; the EU Taxonomy reduces social safeguards to broad compliance checks. For Thailand, this presents both a risk and an opportunity since, without mandatory GEDSI integration, Phase II could inadvertently exclude women smallholders, Indigenous communities, persons with disabilities, and coastal fisherfolk from green finance flows. Conversely, by embedding GEDSI as a core pillar, Thailand can leverage its ASEAN leadership to set a regional benchmark for an equitable green transition.

5.2 GEDSI Gaps in Taxonomy Phase II

Based on global best practices, lessons from other countries, and the imperative to fulfil the stakeholders' rights, including women, persons with disabilities, Indigenous communities, and other vulnerable groups, critical gaps have been identified in the existing design of Phase II. These shortcomings prevent the Taxonomy from being a truly effective tool for a just and inclusive green transition. For example, its broad social safeguards had no explicit requirements for gender equality, disability inclusion, or community engagement, risking the exclusion of vulnerable populations from green finance benefits. This omission is symptomatic of a global pattern: most taxonomies focus narrowly on climate or environment, with social objectives often being overlooked, in which only 5 out of 30 taxonomies worldwide including any social goals. Below are three aspects in Phase II where gaps related to GEDSI are apparent.

1 TSC

Phase II criteria currently do not prevent or measure gender and social exclusion. For example, there are no quotas or targets to ensure women, PWDs, Indigenous peoples, or other marginalised groups benefit from green investments. Phase 1 sets no requirement for hiring women in renewable energy jobs or includes universal design for PWDs' accessibility in infrastructure. Moreover, "just transition" principles remain aspirational; there are no criteria to exclude projects that, say, displace women farmers or fail to consult affected communities. Without specific GEDSI metrics (e.g., a minimum percentage of women or PWD employees, requirements for childcare facilities, or mandated Free, Prior, Informed Consent for Indigenous peoples), green finance projects can proceed without benefiting – or even negatively impacting or disadvantaged groups.

Sectoral and Enterprise-Size Considerations

While the integration of robust GEDSI criteria is vital for accountability, there is a significant risk that high reporting burdens and rigid thresholds could inadvertently exclude Small and Medium Enterprises (SMEs) and informal workers, sectors where women and Persons with Disabilities (PWDs) are most heavily concentrated. Given that working-age PWDs have a low employment rate of 36.83% and are predominantly found in low-wage agriculture and general labour, a one-size-fits-all approach to Technical Screening Criteria (TSC) may create a barrier to entry for the very groups the Taxonomy aims to uplift. To maintain "proportionality," Phase II should implement a tiered approach to compliance based on enterprise size and resource capacity. For example, while large-scale infrastructure projects could be strictly held to ≥30% women in leadership and the legally mandated 100:1 PWD hiring ratio, smaller enterprises could be permitted to submit simplified self-declarations of inclusive practices. By leveraging existing disclosure tools like the SEC's Form 56-1 One Report for larger firms while providing streamlined pathways for SMEs, Thailand can ensure that the Taxonomy remains a tool for inclusion rather than an administrative hurdle that "prices out" inclusive green businesses.

2 MSS

Phase II lacks binding references to domestic and international social standards. The MSS in Phase 1 are high-level and do not explicitly invoke Thailand's gender equality and anti-discrimination laws or global conventions. In particular, critical national mandates like the Labour Protection Act's equal pay provision are not reflected, and the new Marriage Equality Act B.E. 2567 (2024) protecting against LGBTQIA+ discrimination is absent from MSS checks. This means a project could formally meet the Taxonomy's MSS yet still fall short of Thailand's own legal obligations on gender equality or disability rights. For instance, a project might ignore the Gender Equality Act's requirements for equal opportunities, or not provide the accommodations guaranteed by the Empowerment of PWD Act, without technically violating current Taxonomy safeguards. Similarly, alignment with international frameworks like CEDAW, CRPD, or the UN Guiding Principles on Business and Human Rights (UNGPs) is not enforced. This gap leaves social performance to voluntary interpretation, which undermines accountability.

3 Governance and Enforcement

Phase II currently has no dedicated oversight mechanism to ensure GEDSI outcomes in Taxonomy implementation. Unlike Mexico's Taxonomy (which convened a Gender Technical Group), Thailand has no formal body to integrate gender expertise into criteria-setting or to monitor compliance. Marginalised groups (e.g., women smallholders, Indigenous communities, PWDs) have had a limited voice in Taxonomy design, which there's no systematic inclusive consultation process. Furthermore, monitoring and data collection on social impacts are weak: Phase 1 did not require sex-disaggregated data on beneficiaries or workers, nor audits of gender pay gaps or disability inclusion in funded activities. Grievance redress mechanisms (e.g., for communities to report social harms) are not linked to the Taxonomy compliance process. These governance gaps mean even well-intentioned social safeguards may not be implemented or verified, and projects can bypass equity

considerations without consequence. The absence of a strong GEDSI governance structure and enforcement tools risks entrenching existing inequalities even as green finance grows. Without corrective action, these gaps could result in green investments that overlook women and vulnerable groups, missing the chance to alleviate Thailand's social inequalities. For example, women's labour force participation (80.5%) already trails men's (94%), and many women exit work early due to unpaid care duties. Likewise, only about 37% of working-age PWDs are employed, mostly in low-paying informal jobs. A green transition that doesn't proactively include such groups could exacerbate income gaps and social exclusion. In contrast, closing these gaps by embedding GEDSI criteria will ensure Phase II delivers both environmental and equitable outcomes.

5.3 Global GEDSI Frameworks and Relevance to Taxonomy Phase II

Globally, there is a growing recognition that taxonomies must address social objectives alongside environmental ones. Key international instruments provide both the justification and the blueprint for this integration. Their relevance is not merely aspirational; they offer actionable criteria that can be translated into Taxonomy rules. Global GEDSI frameworks that are relevant to future phases are shown in Table 12.

Table 12 **Global GEDSI frameworks and their relevance to Phase II.**

Framework	Core Purpose	Integration into Phase II
CEDAW (Convention on Elimination of Discrimination Against Women)	Eliminate discrimination against women in employment, resources, and decision-making.	MSS: Mandate compliance with CEDAW principles as a baseline. TSC: Include criteria for women's participation in leadership (e.g., ≥30% women on project boards) and workforce (e.g., ≥40% of new jobs in renewable energy projects filled by women).
UNCRPD (UN Convention on Rights of Persons with Disabilities)	Guarantee accessibility, inclusion, and equal employment/services for persons with disabilities.	MSS: Require adherence to the Thai Building Code's accessibility standards and the Empowerment of PWD Act. TSC: Mandate universal design in all infrastructure projects and set employment quotas for PWDs (e.g., ≥5% of project workforce).

Framework	Core Purpose	Integration into Phase II
UNGPs (UN Guiding Principles on Business & Human Rights)	Prevent human rights abuses; protect vulnerable groups; ensure remedy mechanisms.	MSS: Mandate Human Rights Due Diligence (HRDD) for all projects, requiring impact assessments on Indigenous groups, women, and PWDs. TSC: Require a functional Grievance Redress Mechanism (GRM) as a condition for eligibility.
SDGs (Agenda 2030: SDGs 5, 8, 10)	Achieve inclusive development ("leave no one behind"); advance gender equality, decent work, and reduced inequalities.	TSC: Align project metrics with SDG targets (e.g., track and report % of jobs for women/PWDs, % of investment benefits reaching low-income communities).

Although not assessed as a global framework, the UN Women issue paper on sustainable finance taxonomies with gender equality considerations can serve as an important reference to strengthen GEDSI in future phases, because the issue paper provides a practical blueprint for systematically integrating gender equality into sustainable finance taxonomies worldwide. A growing number of countries have pioneered actionable models that move beyond aspiration to implementation. The UN Women, in their issue paper on sustainable finance taxonomies, synthesises these global experiments into a practical blueprint, offering Thailand critical lessons on what works, what doesn't, and how to avoid reinventing the wheel. Internationally, two dominant operational models have emerged, providing Thailand with clear pathways to choose from or blend:

1 The Priority Objective Approach (Mexico Model)

Mexico's Taxonomy is groundbreaking for designating gender equality as a standalone sustainable objective, on par with environmental goals like climate change mitigation. This creates a dedicated channel for directing capital toward activities that directly advance women's empowerment, such as financing for women-owned SMEs or investments in gender-specific healthcare.

Implications for Thailand: This model is powerful for ensuring that gender equality is not diluted or traded off against environmental goals. It guarantees a dedicated flow of capital to address core inequalities.

2 The Cross-Cutting Integration Approach (Senegal & ASEAN Model)

This approach embeds gender safeguards directly into environmental objectives. For example, a renewable energy project would not only need to reduce emissions but also demonstrate that it creates employment opportunities for women, uses gender-inclusive consultation processes, and does not displace female farmers (a gender-responsive criterion).

Implications for Thailand: This model ensures that every dollar of green finance also advances social equity. It is highly aligned with the ASEAN Taxonomy's "Just Transition" principle and is effective at preventing environmental projects from exacerbating social harms. Beyond these structural models, three countries offer tangible lessons on operational details. In Mongolia, for example, their SDG Taxonomy incorporates mandatory gender-disaggregated Key Performance Indicators (KPIs) for green jobs. This moves beyond asking "how many jobs were created?" to "for whom were jobs created?" ensuring accountability and measurable outcomes for women's participation. In another example, Guatemala provides a best-practice example of inclusive consultation, specifically requiring the engagement of Indigenous women in the design and governance of Taxonomy-aligned projects. This ensures that projects respect rights and are designed with, not for, marginalised communities. Finally, Senegal is developing a climate Taxonomy that explicitly recognises investments in the care economy (e.g., renewable-powered childcare facilities) as eligible activities. This directly addresses the structural barrier of unpaid care work, which disproportionately falls on women, enabling their participation in the green economy.

5.3.1 Gender Lens Investing

Gender Lens Investing (GLI) is an investment strategy that intentionally analyses gender dynamics to advance gender equality alongside financial returns. It provides the crucial "how" for translating GEDSI principles into investable propositions. The 2X Criteria, launched by the G7, is the first global standard for GLI, providing measurable, verifiable thresholds to qualify investments and corporate practices as "gender-smart." For Thailand's Taxonomy, the 2X Criteria is not a separate framework but a ready-made, market-tested toolkit for operationalising GEDSI directly within its technical screening criteria and eligibility requirements.

To move from theoretical thresholds to practical application, Phase II requires a standardised due diligence and verification workflow that specifies the exact documentation needed to prove alignment. For instance, to verify the 30-35% women in leadership or workforce thresholds under the 2X Criteria, financial institutions should collect organisational charts, employment contracts, and annual pay gap audits. Compliance with universal design can be verified through architectural site photos and proof of adherence to the Thai Building Code, while social safeguards like Free, Prior, and Informed Consent (FPIC) require signed consultation agreements and documented engagement plans. To mitigate the administrative burden on smaller projects and avoid "pricing out" SMEs, a tiered reporting approach should be implemented. This would allow smaller enterprises to submit simplified self-declarations or leverage existing disclosures, such as the SEC's Form 56-1 One Report, whereas large-scale, high-impact projects would require rigorous third-party audits. This ensures that while the Taxonomy remains auditable and transparent, the cost of compliance does not become a barrier to an inclusive green transition.

Table 13 outlines the functional architecture of this framework, detailing the specific pillars and verifiable threshold requirements, such as leadership quotas, workforce parity, and supply chain diversity, necessary to qualify an investment as "gender-smart". By providing

clear benchmarks and sector-specific examples, this table illustrates how the Taxonomy can transform legal mandates into auditable data, ensuring that green finance actively contributes to closing gender gaps in Thailand's transition to a low-carbon economy.

Table 13 Functional Architecture and Threshold Criteria for Gender-Smart Green Investment

Pillar	Threshold Requirements	Examples for Green Sectors	Verification Documents/Evidence
Leadership	≥30-35% women in senior roles, board seats, or ownership	Women as project managers for solar farm developments or on the boards of green investment funds.	Payroll audits, HR policy documents, and board composition reports
Workforce	≥30-35% women employees; equal pay; anti-harassment policies	Female technicians in EV manufacturing plants or construction crews for green buildings, with pay equity audits.	Signed copies of company-wide policies and training logs
Products/Services	Solutions addressing women's needs (e.g., healthcare and finance)	Clean energy-powered childcare centres, women-focused affordable green housing, or financing for women-led clean tech startups.	
Supply Chain	≥30% women-owned suppliers; gender-inclusive value chains	Sourcing components from women-led organic farms for bio-energy or women-owned manufacturing businesses for solar panel parts.	Signed declarations from suppliers or 2X-aligned certificates
Investment Process	Gender due diligence in funding decisions; sex-disaggregated impact tracking.	Mandate the submission of gender-smart business plans, requiring projects to report on job creation for women, with outcomes substantiated by sex-disaggregated data.	

Source: 2XChallenge.org

5.3.2 2X Criteria

The 2X Criteria offers a powerful mechanism to bridge the gap between Thailand's robust national laws and the practical implementation of the Taxonomy, mainly through the

transformation of abstract legal mandates into concrete and financeable requirements. We elaborate on two benefits of integrating them into future phases below:

1 Operationalising GEDSI Compliance and ASEAN Interoperability

The Criteria provide the missing metrics for enforcement. By integrating these thresholds into the Thailand TSC or MSS, regulators can screen projects based on auditable data. For example, a wind energy project could be required to demonstrate that ≥30% of its technical and managerial staff are women to be fully Taxonomy-aligned. In another example, a green bond issuance could be contingent on the issuer sourcing from ≥30% women-owned businesses in its supply chain. Such an approach also establishes ASEAN-interoperable benchmarks, aligning Thailand's implementation of the ASEAN "Just Transition" principle with emerging regional standards like Malaysia's social Taxonomy and Indonesia's green job quotas, which facilitate cross-border sustainable investment.

2 Unlocking Strategic Market Incentives and Green FDI

Adopting the 2X Criteria is not just a regulatory burden; it is a strategic market advantage. Projects that achieve 2X certification gain a competitive edge by attracting a growing pool of global gender-lens ESG capital (e.g., 2X-aligned funds currently manage over $20 billion). This positions Thailand as a destination for high-quality, inclusive green foreign direct investment (FDI). Furthermore, compliant initiatives (e.g., a solar farm with 35% female engineers) could receive fast-tracked Taxonomy approval, accelerating project deployment while simultaneously supporting Thailand's 20-Year Strategy goals for competitive and inclusive economic growth. By leveraging this global standard, future phases can become a catalyst for both capital allocation and transformative social change.

5.3.3 ZSL's FAIRER Framework

ZSL's FAIRER (The Fair, Accountable, Inclusive, Respectful, Ethical, and Reflective) framework is a system designed to ensure that conservation projects and programs have a positive impact on both the environment and the communities through the application of Environmental and Social Safeguards (ESS). Within the scope of developing a green Taxonomy, it is proposed that these standards could be applied for project eligibility in future phases (Table 14). These standards would be based on three of FAIRER's core safeguards: (i) Inclusive Engagement & Free, Prior and Informed Consent, (ii) Environmental and Social Risk Management, and (iii) Trust, Transparency and Accountability. Projects deemed as FAIRER-compliant would correspond to "sustainability" bonds, as ESS are intended to safeguard both the environment and people.

Table 14 **Relevance of ZSL FAIRER Framework ESS to Future Phases.**

ESS	Purpose	Relevance to Future Phases	Example Indicators
Inclusive Engagement	Inclusive engagement aims to counter this exclusion by working to ensure that all actor groups can engage, participate and influence decisions that affect them as part of conservation projects, with a focus on improving opportunities for marginalised groups.	Ensures projects do not reinforce social inequities and exclusion. Promotes marginalised groups' opportunities to participate and contribute to decision-making. Enhances actor engagements, inclusivity and equity	% of projects with an inclusive engagement plan % representation of marginalised groups (women, IPs, PWDs) in governance % of projects with provisions for equitable benefit sharing. # of disaggregated stakeholder consultations Verification Documents/Evidence: Stakeholder consultation minutes and sex-disaggregated attendance logs
Free, Prior & Informed Consent	Ensuring that the rights of Indigenous peoples and communities are recognised, respected and upheld in any decision that may affect their lands, territories, resources or livelihoods.	Ensures that projects respect human rights. Ensures compliance with international and national laws/policies pertaining to the rights of Indigenous peoples.	% of projects with active FPIC policy # of FPIC consultations conducted # of FPIC agreements

ESS	Purpose	Relevance to Future Phases	Example Indicators
Environmental & Social Risk Management	Promote the avoidance of such risks and enhance the environmental and social benefits of a project. If risks cannot be avoided, this safeguard aims to minimise, mitigate or compensate for any potential negative impacts on project-affected peoples (PAPs), and to ensure the project is managing such risks throughout the project lifecycle.	Ensures that environmental and social impacts are identified, managed and mitigated.	% of projects conducted Environmental and social impact assessment (ESIA) ,or equivalent risk/impact assessment (e.g., risk register, SIA, and EIA) % of projects with an environmental and social risk management plan
Trust, Transparency & Accountability	Ensures that stakeholders have access to safe and trusted methods to report their concerns or complaints to the project using grievance mechanisms.	Strengthens governance, transparency and accountability Ensures that any abuses are recorded and responded to	% of projects with an active GRM # grievances received % grievances responded to % grievances satisfactorily resolved Verification Documents/Evidence: A link to a functional digital Grievance Redress Mechanism (GRM) and logs of resolved complaints

5.4 Leveraging Thailand's Policies for GEDSI Integration in Future Phases

Thailand's transition toward a green and sustainable economy is increasingly intertwined with its commitments to social equity, inclusion, and human rights. The nation's robust legal and policy framework provides a powerful, pre-existing foundation for integrating GEDSI into the Taxonomy. Rather than creating new rules, Phase II should function as a catalytic enforcement and financing mechanism, operationalising these existing national mandates and channelling capital towards compliance. By systematically aligning future phases of the Thailand TSC or MSS with these laws, Thailand can ensure that green finance not only supports environmental sustainability but also actively promotes equitable participation and protects vulnerable groups. Below are key Thai regulations that can be directly reinforced and operationalised through GEDSI components in future phases.

5.4.1 Constitution of the Kingdom of Thailand (2017)

The constitution provides the foundational legal principle of equality before the law, prohibiting discrimination based on sex, disability, and other grounds. It obliges the state to protect and assist vulnerable groups (e.g., children, women, the elderly, PWDs, the underprivileged) and mandates sustainable and equitable management of natural resources. Future phases can operationalise these constitutional principles to ensure projects uphold these constitutional guarantees of fairness, social protection, and equitable access to resources by making improvements to/initiating:

- **Equity Assessments:** Requiring projects to conduct equity-focused social impact assessments that analyse differential impacts on women, PWDs, and other marginalised communities, ensuring a fair distribution of benefits and burdens.
- **Resource Allocation:** Ensuring that the benefits of green finance (e.g., access to land, water, clean energy, and project revenues) are distributed fairly, in line with the constitutional mandate for budget allocation to consider differences in gender, age, and other conditions.
- **Protection and Remedy:** Upholding the state's duty to provide remedies by mandating robust grievance mechanisms within projects, ensuring transparent and participatory access to information for affected communities.

5.4.2 Empowerment of Persons with Disabilities Act (2007)

This law guarantees equal rights and accessibility for persons with disabilities (PWDs). It mandates accessible buildings, transport, and information, and provides support through funding and incentives for inclusive employment. A key feature is the legally mandated 100:1 disability hiring ratio in government agencies. For the Green Taxonomy, this act provides a foundation to require accessible infrastructure, inclusive employment quotas (e.g., ≥5% PWD hiring in green projects), and targeted financing for PWD-led initiatives. Future Thailand Taxonomy phases can transform and put this into practice through:

- **Mandating Benchmarks:** Codifying the public sector's legally mandated 100:1 hiring ratio (enforced by the Department of Empowerment of Persons with Disabilities) as a quantifiable inclusion metric for large-scale green projects seeking Taxonomy alignment.
- **Embedding Accessibility:** Integrating universal design standards (as outlined in the Thai Building Code) directly into the Thailand TSC for all construction and infrastructure projects, ensuring physical accessibility is a prerequisite for being classified "green".
- **Channelling Financing:** Prioritising green loans, bonds, and grants for projects that demonstrate best practices in disability-inclusive employment, such as the Ministry of Labour's livelihood programs for PWD self-employment, applied to green sectors like renewable energy technicians or adaptive agriculture.

5.4.3 Gender Equality Act (2015)

This act promotes equal rights and opportunities for all genders across all sectors, prohibiting discrimination in employment, education, and public services. It establishes

enforcement committees to monitor compliance. For the Taxonomy, this law can be operationalised by requiring gender-balanced leadership, equitable hiring practices, and sex-disaggregated data reporting to ensure women have equitable access to training, finance, and benefits in green sectors. Future phases can enforce this through:

- **MSS Compliance:** Requiring all projects, as a baseline condition within the Minimum Social Safeguards (MSS), to demonstrate adherence to the Act's non-discrimination clauses in hiring, pay, and promotion.
- **TSC Incentives:** Designing TSCs that incentivise and reward projects that prioritise women-led or women-owned green enterprises, mandate gender-balanced skills training programs in climate-smart sectors, and enforce the Labour Protection Act's equal pay mandate through required annual pay gap audits.
- **Beyond Binary Inclusion:** Ensuring protections explicitly extend to LGBTQIA+ individuals, in alignment with the spirit of the Marriage Equality Act, through inclusive supplier diversity rules and non-discrimination clauses.

5.4.4 The Draft Second National Action Plan on Business and Human Rights (2023-2027)

This draft plan advances social equity by combating workplace discrimination and mandating environmentally sustainable growth. It requires businesses to conduct rigorous Environmental Impact Assessments (EIAs) and ensures transparent, participatory access to project information for affected communities, with mechanisms for prompt remediation. Future phases can support the integration of human rights due diligence, community engagement, and strong grievance mechanisms into project criteria:

- **Mandating HRDD:** Making Human Rights Due Diligence (HRDD), as outlined by the UN Guiding Principles (UNGPs), a mandatory component of the MSS. This requires businesses to identify, prevent, and mitigate human rights impacts in their operations and supply chains.
- **Linking to Compliance:** This aligns directly with existing market requirements, such as the SEC's Form 56-1 One Report, which requires listed companies to disclose ESG and human rights information, creating a cohesive ecosystem of accountability.
- **Ensuring Accountability:** Requiring effective and accessible grievance mechanisms with digital tracking systems to ensure prompt remediation for any project-related harms, which holds businesses accountable to affected communities.

5.5 Proposed Implementation Roadmap for Phase II and Beyond

To move from an aspirational ‘just transition’ to a verifiable, inclusive green economy, Thailand’s Taxonomy requires a phased implementation roadmap. This approach must prioritise immediate social protections while giving market actors sufficient time to adapt to more rigorous performance targets.

Year 1: Establishing a Social Floor through Mandatory MSS

The immediate priority is to bridge the gap between high-level safeguards and binding legal obligations. During the first year of Phase II implementation, Minimum Social Safeguards (MSS) should become mandatory for all project eligibility. This requires moving beyond voluntary alignment; projects must provide documented evidence of compliance with national legislation, such as the Gender Equality Act (2015) and the Empowerment of Persons with Disabilities Act (2007).

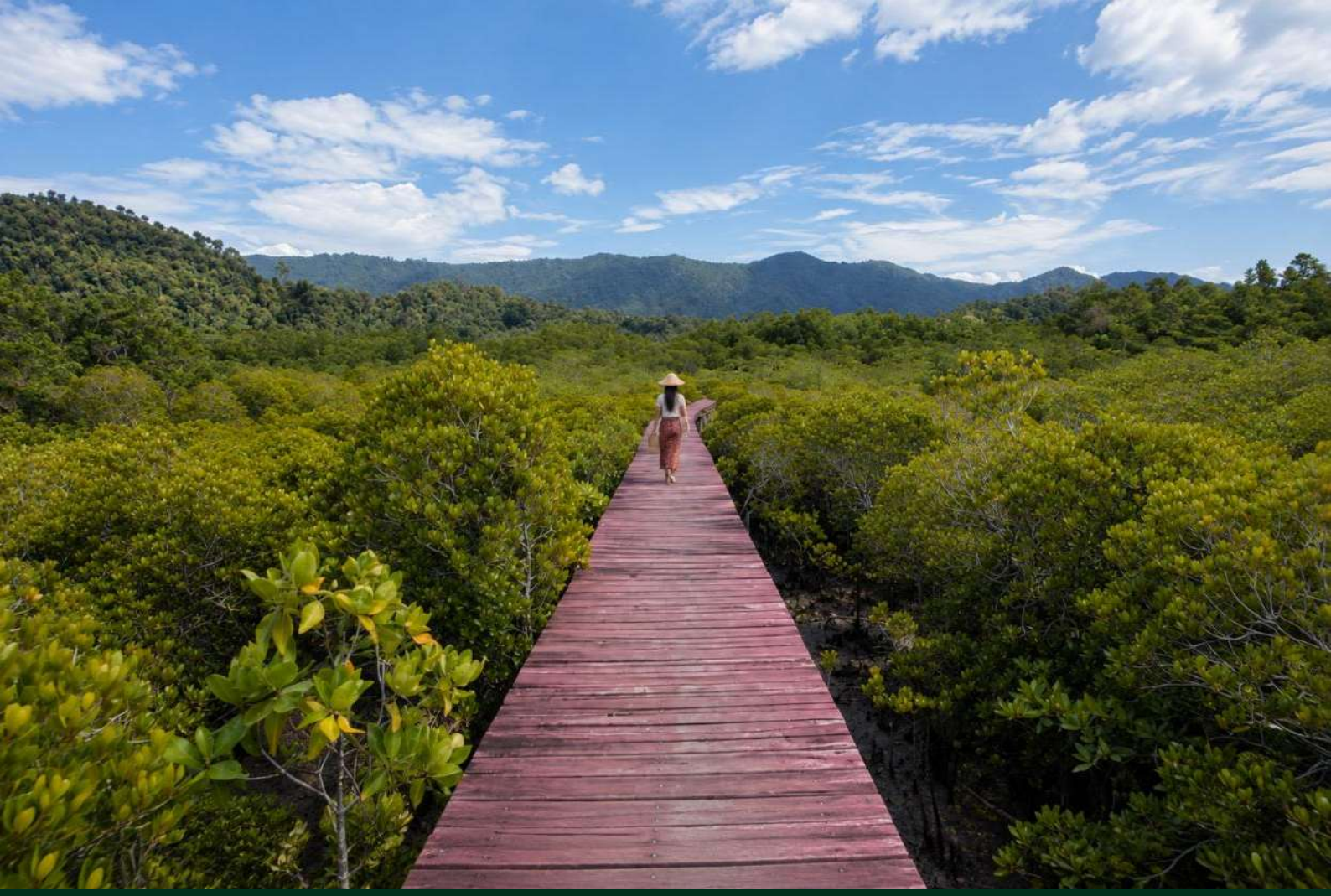
Furthermore, projects must demonstrate baseline non-discrimination in hiring and pay. They must also integrate Human Rights Due Diligence (HRDD), aligned with the UN Guiding Principles on Business and Human Rights (UNGPs), to proactively identify and mitigate adverse impacts on Indigenous communities and women smallholders. Additionally, establishing a functional Grievance Redress Mechanism (GRM) equipped with digital tracking must be a strict prerequisite for any project seeking a "green" classification.

Years 3–5: Phasing in Technical Screening Criteria (TSC) Targets

Once baseline safeguards are firmly established, the Taxonomy should gradually introduce specific, auditable Technical Screening Criteria (TSC) to drive transformative social change. Between years three and five, projects should be expected to meet higher performance thresholds. A practical example is adopting the 2X Criteria requirement, ensuring women hold at least 30–35% of senior leadership or broader workforce roles.

Alongside this, the legally mandated 100:1 disability hiring ratio should be enforced as a quantifiable metric for large-scale green projects. This requirement must be reinforced by the mandatory integration of universal design standards across all new construction and infrastructure.

Supported by the systematic collection of sex-disaggregated data, this phased approach ensures the Taxonomy becomes a robust tool for delivering outcomes that are both nature-positive and socially equitable. Crucially, it achieves this while affording the financial sector the lead time necessary to build institutional capacity.



SECTION 06

Recommendations

What future phases would have to do to become nature-positive and socially inclusive in practice, not only in principle.

SECTION SIX

6 Recommendations

6.1 Moving Towards a Nature-Positive Taxonomy

Future phases of Thailand Taxonomy can help the country move towards Nature-Positive finance by reframing Phase II objectives and screening criteria, and introducing new mandates. The Nature Positive Initiative (NPI) frames "Nature Positive" as a global societal objective. Its definition is grounded in the mission of the Global Biodiversity Framework (GBF), which commits to halt and reverse biodiversity loss by 2030, while using 2020 as the reference baseline, and aims to secure full ecological recovery by 2050. This vision entails the restoration and enhancement of ecosystems, species populations, and genetic diversity on a global scale. Central to the NPI's definition is the application of the mitigation and conservation hierarchies as guiding principles for achieving these outcomes. Regarding the definition of nature-positive finance, the Cambridge Institute for Sustainability Leadership (CISL) proposes a broad definition that includes conservation activities and business activities that avoid or minimise pressures on nature, activities that restore nature, or offsetting activities by corporates. We believe that adopting this definition can help encourage and crowd in private sector investment (Singapore Sustainable Finance Alliance 2025). Indeed, the financial industry's experience with climate change shows that a wider definition can guide financial institutions to extend financing towards activities with a net positive impact. To achieve this, a three-pronged approach is proposed:

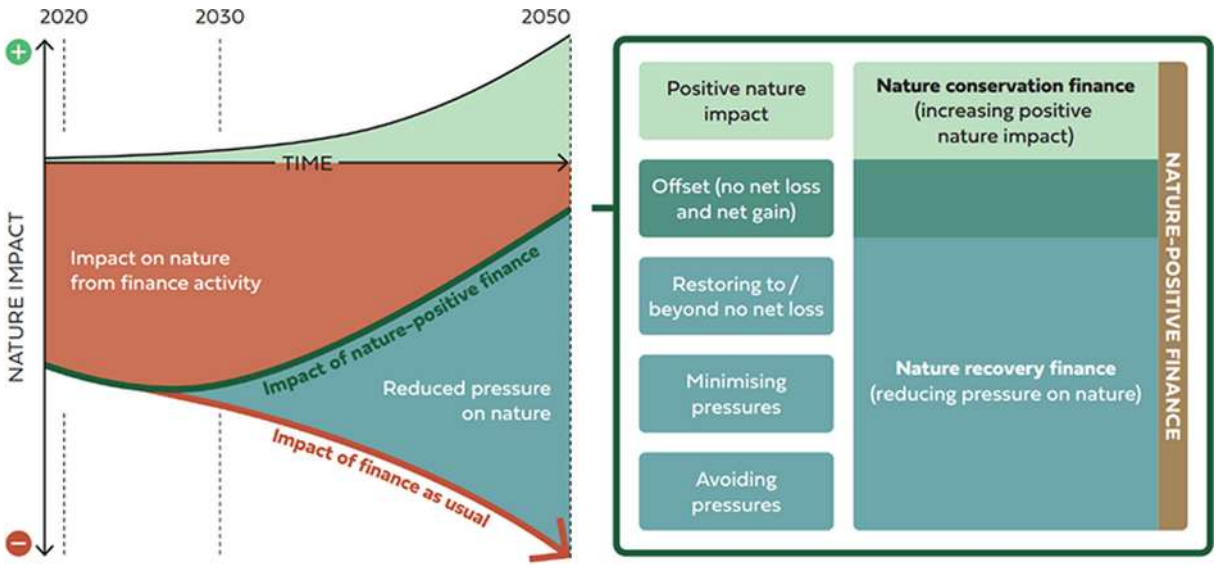


Figure 2: Nature-positive finance aims to halt and reverse nature loss by 2030 on a 2020 baseline and achieve full recovery by 2050. It is divided into nature recovery finance, which reduces pressure on nature, and nature conservation finance, which increases positive impact.

1 Reframe the MSS objective and make links to nature-positive frameworks explicit

Future phases can be redesigned to help drive nature-positive outcomes aligned with global and local frameworks/policies in 4.3 and 4.4. For example, the MSS preamble can redefine "social safeguards" as mechanisms to ensure inclusive participation and equitable sharing of biodiversity and ecosystem service benefits. In another example, future phases can embed these IUCN NbS principles in MSS guidance notes and eligibility criteria, so that any Taxonomy-aligned project must demonstrate: 1) biodiversity enhancement (not just impact avoidance); and 2) equitable participation and benefit-sharing with local communities.

2 Reframe the TSC objective and integrate nature-positive outcomes

Moving beyond "do no significant harm" to explicitly require positive contributions to biodiversity and ecosystem health. For example, the TSC objective can be rephrased from "Avoiding significant harm to biodiversity" to "Generating measurable net-gains in biodiversity, ecosystem function, and resilience". For example, agricultural activities should not only avoid deforestation, but also embed nature-positive objectives (e.g., improve soil biodiversity, restore riparian buffers, enhance pollinator habitats, and promote agroforestry to promote human-wildlife coexistence). Future phases of Thailand Taxonomy should also integrate nature-positive criteria into certain sector criteria. For example, eligible activities under the agriculture sector could include regenerative agriculture, integrated pest management and agroforestry with requirements that mandate measurable indicators (e.g., soil organic carbon increase, native tree cover restored, biodiversity indices improved). Farming practices that support GEDSI (gender, disability, and social inclusion) in nature-positive farming should also be incentivised. In another example, the forestry sector could include additional nature-positive eligible activities such as biodiversity and carbon credit mechanisms. Future phases of Thailand Taxonomy should also include the financial sector and encourage the integration of nature-positive KPIs into nature-themed bonds to deliver measurable net gains for nature.

3 Governance and Enforcement

Phase II currently has no dedicated oversight mechanism to ensure nature-positive outcomes in Taxonomy implementation. In the future, an inter-agency "nature-positive" council (comprising Bank of Thailand, Office of Natural Resources and Environmental Policy and Planning, Department of National Parks, Securities and Exchange Commission, Ministry of Finance, and civil society/academia) could be set up that explicitly links financial governance with biodiversity stewardship. This council could be institutionalised by regulation under the National Environment Quality Act or the Green Finance Framework in order to ensure it has authority over Taxonomy updates and enforcement.

6.2 Moving Towards a Socially Inclusive Taxonomy

Moving beyond Phase 1's broad principles, future phases should strive to systematically operationalise Gender Equality, Disability, and Social Inclusion (GEDSI) by embedding it into the very architecture of the Taxonomy – this will transform it from a voluntary principle into

a mandatory set of enforceable criteria. To achieve this, a three-pronged approach is proposed:

1 Quantifiable GEDSI Thresholds in Thailand TSC

Define clear inclusion metrics for any project to qualify as "sustainable" (e.g., at least 30% women in leadership and workforce roles, ≥5% of employees being persons with disabilities (PWDs) in project teams, pay equity audits). This ensures green investments directly contribute to gender balance and social inclusion. It also expands eligible project categories to care economy infrastructure (e.g., renewable-powered childcare centres) and other activities benefiting vulnerable groups.

2 Binding Legal and Policy Safeguards in Thailand MSS

Anchor the Taxonomy's social safeguards to Thailand's existing laws and international commitments, making compliance mandatory. For example, require alignment with the Gender Equality Act B.E. 2558 (2015), Empowerment of Persons with Disabilities Act B.E. 2550 (2007), and anti-discrimination provisions of the 2017 Constitution, as well as treaties like CEDAW and the UN Convention on the Rights of Persons with Disabilities (CRPD). Any Taxonomy-aligned project must uphold these standards (e.g., no gender-based job discrimination, universal design in infrastructure, respect for Indigenous rights under Free, Prior, Informed Consent).

3 Dedicated GEDSI Governance & Oversight Body

Establish a high-level GEDSI Working Group or committee (e.g., under the Securities and Exchange Commission) to design detailed GEDSI criteria, oversee implementation, and enforce compliance. This body – informed by models like Mexico's Gender Technical Group – would include government, civil society, and expert representatives. It would monitor sex-disaggregated and disability-inclusive data, verify projects' social performance (e.g., conduct audits on gender pay gaps or PWD inclusion), handle grievances, and ensure continuous improvement of GEDSI measures in the Taxonomy framework.

This comprehensive approach (integrating metrics, legal safeguards, and governance) will transform Thailand's Taxonomy into a rule-based system for inclusive green finance. It addresses current gaps and positions Thailand as a regional leader by making gender and inclusion enforceable dimensions of green investment, not just aspirational values.

The following five recommendations are designed to work in concert, systematically hardwiring GEDSI into the very DNA of Thailand's Sustainable Finance Taxonomy. This integration is urgent to ensure the Taxonomy fulfils its purpose as a credible tool for directing capital, mitigating significant social risks, and aligning with global best practices for a just transition. This integrated approach moves beyond voluntary guidance, establishing mandatory filters, enforceable standards, and rigorous accountability to ensure the green transition is fundamentally just and equitable for all.

1 Hardwire GEDSI into Thailand MSS

This helps make existing Thai laws and international human rights standards legally binding within the Taxonomy's framework. Instead of vague principles, the MSS would directly reference specific clauses from Thailand's own powerful laws (e.g., the Gender Equality Act's anti-discrimination articles, the PWD Act's 100:1 hiring ratio). This gives the Taxonomy legal teeth and ensures alignment with national policy. By operationalising existing international standards already contained within the MSS, specifically the UN Guiding Principles on Business and Human Rights (UNGPs), the Taxonomy ensures a robust framework for Human Rights Due Diligence (HRDD). This integration mandates that companies proactively identify, prevent, and mitigate human rights risks through Human Rights Due Diligence (HRDD). Furthermore, it ensures affected communities have a voice and access to remedy through Grievance Redress Mechanisms (GRMs), while upholding the highest standards for respecting the rights of Indigenous peoples via Free, Prior, and Informed Consent (FPIC). Together, these measures form an integrated approach that safeguards vulnerable groups from exploitation and ensures a truly just green transition.

2 Embed Measurable Thresholds into Thailand TSC

Embedding such criteria helps translate principles into quantifiable, enforceable targets specific to each industry (energy, construction, etc.). Using the 2X Criteria provides a ready-made, globally recognised standard for what constitutes "gender-smart" investing. It moves beyond asking "Do you have a policy?" to demanding "Show us the numbers." For example, a mandate of ≥30% women in technical roles directly creates economic opportunities for women in high-growth sectors, breaking down historical barriers. In the construction sector, for example, mandating universal design ensures green buildings and infrastructure are accessible to everyone, including the elderly and PWDs, for the entirety of their lifespan.

3 Establish a Dedicated GEDSI Oversight Body under the Securities and Exchange Commission (SEC)

This helps ensure authoritative enforcement, monitoring, and continuous improvement of Gender Equality, Disability, and Social Inclusion (GEDSI) criteria within Thailand's sustainable finance Taxonomy. The SEC's mandate to ensure fair, transparent, and orderly markets aligns directly with the need for verified GEDSI claims. Hosting this body empowers the SEC to integrate GEDSI compliance into existing disclosure frameworks (e.g., SEC Form 56-1) and directly oversee issuers and listed companies. For instance, a multi-stakeholder committee could be formed, informed by best-practice models (e.g., Mexico's Gender Technical Group), with representatives from: 1) Government Agencies (SEC, Ministry of Finance, Ministry of Social Development and Human Security); 2) Civil Society (experts from organisations representing women, persons with disabilities (PWDs), Indigenous communities, and labour rights); 3) Independent Experts (academics and practitioners in gender finance, social inclusion, and sustainable finance); and 4) the GEDSI Oversight Body, which would address the enforcement deficit by administering and overseeing key mechanisms as detailed in Table 15.

Table 15: GEDSI Oversight Key Mechanisms and How It Solves the Enforcement Deficit.

Accountability Mechanism	Role of the GEDSI Oversight Body	How It Solves the Enforcement Deficit
Mandatory Disclosure & Data Collection	Mandate standardised reporting of sex-disaggregated, disability-inclusive, and social impact data from all issuers of green bonds and loans. Maintain a central repository for this data.	Creates evidence-based oversight. The Body moves from assessing intentions to auditing hard numbers. It makes inclusion metrics measurable and verifiable, eliminating vague claims.
Independent Audits & Verification	Conduct random and targeted audits of projects to verify reported data (e.g., actually checking payrolls for gender pay gaps, site plans for universal design). Commission third-party verifiers and set accreditation standards for them.	Provides "boots on the ground" fact-checking. This prevents fraud and greenwashing by ensuring that what is reported is real; it creates a credible threat of being caught.
Grievance Redress Mechanism (GRM)	Establish and manage a formal GRM that affected communities and workers can access. Investigate complaints independently and impartially. Mandate remedies and corrective actions for violations.	Decentralises enforcement. It empowers those most affected by projects (women, PWDs, Indigenous communities) to be watchdogs. The Body ensures their voices are heard and acted upon, addressing harms that would otherwise be invisible.
Enforcement Powers & Consequences	Issue public rulings on non-compliance. Recommend or directly impose consequences, such as: Suspending a bond's "Taxonomy-aligned" status. Barring non-compliant entities from future sustainable finance markets. Imposing fines or referring cases to other regulatory bodies (e.g., the full SEC).	Makes non-compliance costly. This is the core of enforcement. By having the power to revoke the valuable "green" label and market access, the Body creates a massive financial and reputational incentive for issuers to comply with GEDSI rules from the start.
Transparency & Public Reporting	Publish annual reports on overall market compliance, naming leaders and laggards. Maintain a public dashboard of which projects and bonds are in compliance.	Uses market forces and reputation as a tool. Transparency allows investors to make informed decisions, steering capital towards truly inclusive projects. It subjects all actors to the public.

4 Expand the Scope of Eligible Activities

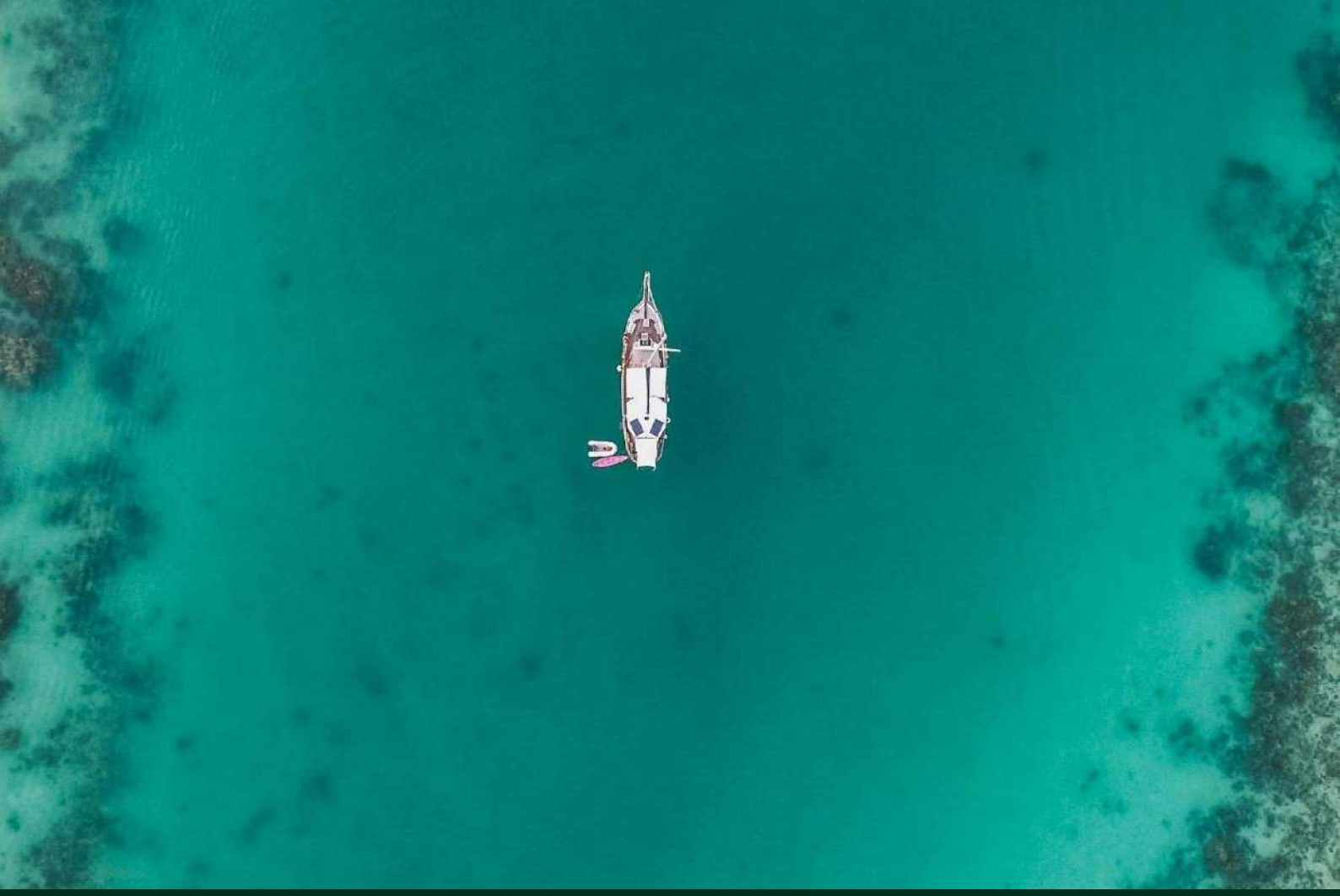
Recognising activities related to the "care economy", for example, is an essential social infrastructure that enables a just transition. Women perform a disproportionate amount of unpaid care work (e.g., childcare and elderly care) - this is a major barrier to their participating in paid green jobs. As such, making renewable-powered care facilities eligible for green finance in Thailand would: 1) directly address a structural barrier to women's economic participation; 2) create jobs in the care sector (which employs mostly women); and 3) lower the carbon footprint of social infrastructure. This redefines "green" to include investments that enable social sustainability.

5 Ensure ASEAN Interoperability and Leadership

It is important to position Thailand as a regional leader and ensure its standards are recognised abroad to attract aligned investment. For instance, ASEAN has a "Just Transition" principle but lacks detailed criteria. By developing strong, operational GEDSI rules, Thailand can: 1) export its standard and influence other ASEAN members and create a consistent regional market; 2) attract ESG-focused capital from global investors looking for projects that meet high social and environmental standards; and 3) prevent a "race to the bottom" where countries compete by having weaker social safeguards.

6.3 Application of “Do Less Harm” and “Do More Good” Indicators

As mentioned in the previous section, there is a need for the Thailand Taxonomy to adopt a quantifiable impact assessment of economic activities to confirm their alignment with DNSH and MSS, supported by solid evidence. To address this need, the supporting document for the Thailand Taxonomy is proposed in the appendix; it is developed by incorporating indicators suggested in international standards for conservation and promotion of biodiversity and social inclusion. The document is designed for financial institutions or project developers to use as a reference for measuring negative effects on biodiversity, communities, and people, preventing such projects from harming the environment and society (Do Less Harm), while accomplishing the climate mitigation or adaptation goal. Meanwhile, the document also includes indicators for examination of positive impact, aiming to promote business practices that benefit biodiversity and social inclusion (Do More Good).



SECTION 07

Conclusion

What the study found, and what it asks of the next phase of the Thailand Taxonomy.

SECTION SEVEN

7 Conclusion

Despite the advancement of the Thailand Taxonomy, accomplishing Phase II with a coverage of four new eligible sectors, enabling more economic activities to have a reference for sustainable operation, the blind spot on nature-positive and GEDSI elements remains. In particular, our research reveals that the Thailand Taxonomy retains no quantifiable KPIs to assess the achievement of Taxonomy-aligned projects, contributing to biodiversity promotion. Meanwhile, nature-positive standards-linked MSS and compliance monitoring bodies are absent. To address the concern of biodiversity loss, the Thailand Taxonomy can be developed into a nature-positive document by adopting the following three proposals.

- Reframe MSS by integrating national and international frameworks on nature-positive outcome promotion, such as the IUCN NbS Global Standard and the Kunming-Montreal Global Biodiversity Framework. This revision can strengthen the Thailand Taxonomy's mechanism in preventing the loss of social welfare caused by biodiversity degradation, while ensuring inclusive participation and fair distribution of biodiversity and ecosystem service benefits.
- Reframe TSC by incorporating measurable positive outcomes of biodiversity and ecosystem health to encourage businesses to comply with nature-positive practices. In addition, it is also recommended to extend the eligible activities to the financial sector, with the promotion of nature-positive KPIs applied to nature-related bonds, to ensure measurable absolute benefits for nature.
- Establish an oversight mechanism in the form of a council comprising representatives from financial and capital regulators, environmental authorities, civil society organisations, and academia, to oversee the update and enforcement of the Taxonomy.

Regarding social aspects, it is also observed that the measurable GEDSI-criteria TSC, social inclusivity standards-linked MSS, and oversight entity are omitted from the Thailand Taxonomy. Hence, the following recommendation is introduced to fill the GEDSI gap in the Thailand Taxonomy, facilitating a transition to a green economy while leaving no one behind.

- Expand the scope of MSS by incorporating GEDSI elements, imposed by national laws and international standards to prevent any job discrimination, non-inclusive architectural design, and indigenous rights omission in Taxonomy-aligned projects.
- Redesign the TSC by incorporating measurable GEDSI criteria to guarantee inclusivity alignment in sustainable projects.
- Establish an oversight entity with representatives from public organisations, civil society organisations, and academia to supervise the GEDSI criteria design, implementation, and compliance.
- Extend the eligible activities to the care economy to enhance a net-zero transition in the sector that mostly hires women.

- Promote the adoption of the GEDSI elements on the ASEAN stage, whereby Thailand can become the model for an inclusive Taxonomy that achieves both sustainable transition and social safeguards.

Addressing the need to embed biodiversity and social inclusion criteria into monitoring mechanisms of Taxonomy-alignment activities, the supporting document for the application of Thailand Taxonomy is proposed as detailed in the appendix. This document is recommended for use as a reference for monitoring the impact on the environment and society. It aims to enable an evidence-based measurement of economic activities to ensure the prevention of negative externalities and the promotion of positive contributions to biodiversity and social inclusion.

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APPENDIX A

“Do Less Harm” and “Do More Good” Indicators

Why a green bond that reduces harm is not yet a bond that restores nature, and what it would take to tell them apart.

APPENDIX A

"Do Less Harm" and "Do More Good" Indicators

1 Introduction: The Biodiversity Finance Gap and the Role of Bond Markets

The global biodiversity crisis now requires financial instruments to go beyond just pollution reduction. The Kunming-Montreal Global Biodiversity Framework (GBF), adopted by 196 countries in December 2022, sets an ambitious global goal of halting and reversing biodiversity loss by 2030. Yet the annual biodiversity financing gap remains vast (estimated to be roughly US$700 billion per year) and private finance for nature, while growing, still falls far short of what is needed. Green bonds have become a major channel for environmental capital, but most green bond frameworks focus primarily on reducing negative environmental impacts: lowering emissions, cutting pollution, or preventing further habitat degradation. These are essential steps, but they are not the same as actively restoring ecosystems, increasing species populations, or enhancing ecological resilience.

In sustainable finance, this distinction is increasingly recognised as the difference between "do less harm" (mitigating negative impacts) and "do more good" (generating net positive outcomes for nature). This explainer, drawing on the indicator framework compiled from the GBF Monitoring Framework, IUCN guidelines, TNFD recommendations, and other global standards, argues that making this distinction explicit (e.g., in indicators attached to bond issuances) is both necessary and valuable for building credible nature-positive bonds as a distinct class of sustainable debt instruments.

2 What "Do Less Harm" and "Do More Good" Mean in Practice

The distinction maps directly onto the well-established mitigation hierarchy used in biodiversity management: avoid, minimise, restore, and offset. The first two steps, avoidance and minimisation, correspond to a "do less harm" logic. A project that reduces pesticide runoff, prevents habitat fragmentation, or limits invasive species establishment is reducing its negative footprint on biodiversity. These actions are necessary but inherently defensive: they aim to slow or stop decline rather than to rebuild what has been lost.

The latter steps, restoration, recovery, and proactive conservation, embody "do more good." Activities like restoring degraded ecosystems, expanding protected area coverage, rebuilding viable species populations, or securing genetic resources in conservation facilities create net positive outcomes. They move the needle from No Net Loss (NNL) toward Net Gain (NG) or what is increasingly called "nature positive" outcomes.

As the Nature Positive Initiative and the Science Based Targets Network (SBTN) emphasise, nature positive requires measurable improvements in the state of biodiversity over an agreed baseline, and not merely a slowing of its decline.

The attached indicator table in Appendix B, compiled from the GBF Monitoring Framework, IUCN Global Standard for Nature-based Solutions, IUCN Guidelines for corporate biodiversity performance, the 2X Challenge for gender, and GEDSI (Gender Equality, Disability, and Social Inclusion) frameworks, classifies over 80 biodiversity and social inclusion indicators by this objective distinction. The table reveals a clear pattern: indicators tracking declines, pressures, and pollution loads (such as the Red List Index, pesticide concentration, coastal eutrophication index, and habitat fragmentation metrics) are fundamentally "do less harm" measures. By contrast, indicators that capture active restoration, recovery trajectories, conservation coverage, and positive benefit-sharing (such as areas under restoration, Green Status of Species, protected area connectivity, and ecosystem services valuation) are "do more good" measures.

3 Why This Distinction Matters for Bond Markets and Thailand Taxonomy

3.1 Preventing Greenwashing and Strengthening Market Credibility

The green bond market has grown rapidly, but so have concerns about greenwashing. For example, there is a risk that bond proceeds fund marginal environmental improvements while the issuer's overall impact on nature remains negative. If a bond issuer reports reductions in pesticide use (a "do less harm" indicator) but never demonstrates any improvement in species populations, ecosystem restoration, or habitat connectivity, the bond can legitimately be called "green" under most existing standards—but it cannot credibly be called "nature positive." The ICMA Sustainable Bonds for Nature: A Practitioner's Guide (June 2025) formally endorses the "nature bond" label as a subset of the green bond market.

We believe that making the do-less-harm / do-more-good distinction explicit in indicator frameworks helps investors, second-party opinion providers, and regulators determine whether a bond's reporting aligns with a No Net Loss standard (adequate for green bonds) or a Net Gain standard (required for a nature positive claim).

3.2 Improving the Implementation of Thailand Taxonomy

Thailand's Taxonomy, which uses a traffic-light system to classify economic activities as green, amber (transitional), or red, currently incorporates two compulsory principles: a climate change mitigation objective supported by technical screening criteria (TSC), and a "Do No Significant Harm" (DNSH) requirement for other environmental objectives. Phase 1, launched in June 2023, covered energy and transport; Phase II, officially launched on 27 May 2025, extended coverage to agriculture, construction and real estate, manufacturing, and waste management.

However, a significant gap in the Taxonomy's design that has been identified in our UK PACT report, as well as by civil society groups including the Fair Finance Thailand coalition, is that the DNSH criteria for non-climate environmental objectives, including biodiversity, remain underdeveloped. An activity can currently be classified as "green" if it meets the climate mitigation threshold, even if it causes significant harm to ecosystems, species habitat, or local communities in ways the Taxonomy does not yet screen for. "Do less harm" indicators drawn from the GBF Monitoring Framework and IUCN guidelines (e.g., the Red List of Ecosystems, habitat fragmentation metrics, coastal eutrophication indices, pesticide toxicity measures, etc.) offer a ready-made, internationally credible toolkit for operationalising the DNSH principle across these newly covered sectors.

This is particularly urgent for agriculture, which Phase II acknowledges as one of the most data-constrained sectors. The Thailand Taxonomy Board has noted that defining technical screening criteria for farm-level activities is challenging due to limited emissions data, yet agriculture is also among the sectors with the most direct and material impacts on biodiversity, particularly through land-use change, chemical pollution, water extraction, and habitat conversion. The "do less harm" biodiversity indicators in the attached framework are especially well-suited to filling this gap: they are activity-specific (mapped to farming, aquaculture, forestry, and waste management), they are aligned with internationally recognised monitoring standards, and many are already structured around measurable thresholds such as pollutant concentrations, degradation ratios, and species risk categories. Embedding these indicators as DNSH screens within the Taxonomy would give financial institutions a practical way to assess whether an activity classified as "green" or "amber" for climate purposes is also avoiding significant biodiversity harm, and addressing the greenwashing risk that both regulators and CSOs have flagged.

Moreover, integrating "do less harm" biodiversity indicators directly into the Taxonomy, or at least as a “checklist” addendum that we are suggesting here, would strengthen Thailand's alignment with the ASEAN Taxonomy Version 3 (December 2024), which similarly uses DNSH principles and is expanding its environmental objectives beyond climate mitigation. It would also position Thai bond issuers more credibly in international markets, where second-party opinion providers and investors increasingly expect nature-related disclosures consistent with the TNFD framework. For a country that is both a major agricultural exporter and home to globally significant biodiversity hotspots, ensuring that the Taxonomy's DNSH criteria are substantiated by measurable, science-based biodiversity indicators is not merely a technical refinement—it is a precondition for the credibility of Thailand's entire sustainable finance ecosystem.

3.3 Aligning with the GBF and Global Target Architecture

The GBF’s structure itself embodies this dual logic. Goals A and B track the status of biodiversity and nature’s contributions to people—state indicators that can reflect either declining harm or improving condition. But the action-oriented Targets (1 through 23) include both protective targets (e.g., Target 7 on pollution reduction, Target 6 on invasive alien species) and restorative targets (e.g., Target 2 on restoring 30% of degraded ecosystems, Target 3 on protecting 30% of land and sea by 2030). Bond issuers who report

only against the protective targets are contributing to the GBF's defensive floor. Those who also report against the restorative targets are contributing to its transformative ambition. The Taskforce on Nature-related Financial Disclosures (TNFD) framework encourages corporate and financial sector disclosure of nature-related dependencies, impacts, risks, and opportunities. Critically, the TNFD's recommended metrics—many drawn from the GBF monitoring framework—span both harm-reduction and positive-outcome categories. A bond framework that explicitly maps its indicators to this spectrum gives investors decision-useful information about what kind of nature outcome they are financing.

3.4 Enabling Tiered Pricing and Investor Signalling

The sustainable bond market increasingly supports thematic sub-labels—blue bonds, gender bonds, transition bonds—that offer investors greater transparency and enable more targeted capital allocation. Investor demand is shifting toward instruments with clear, measurable, location-specific impact. The ADB issued its first Biodiversity and Nature Bond in October 2024, and the City of Nagoya issued the first ICMA-aligned nature bond in 2025. These developments signal that investors value the difference between generic environmental improvement and targeted biodiversity gain. If "do more good" indicators are explicitly separated from "do less harm" indicators, sustainability-linked bonds (SLBs) can structure coupon step-ups or step-downs around the more ambitious set. For example, an SLB could link its interest margin to a "do less harm" baseline (e.g., reducing pesticide toxicity per hectare) while reserving a performance bonus for achieving "do more good" targets (e.g., demonstrating a measurable increase in the Living Planet Index within the project's footprint).

4 Indicators for Biodiversity

The table below provides examples of how indicators from the attached framework map to the "do less harm" and "do more good" objectives, drawn from the GBF Monitoring Framework, the IUCN Global Standard for Nature-based Solutions, and IUCN Guidelines for corporate biodiversity performance:

Table A1: Examples of "do less harm" and "do more good" indicators

Category	"Do Less Harm" Indicators (examples)	"Do More Good" Indicators (examples)
Ecosystem condition	No destruction of IUCN Red List of Ecosystems	Increase in area under afforestation, reforestation and revegetation
Species & extinction risk	Number of species extinctions averted, no destruction of habitats with IUCN Red Listed species	Increase in protection efforts for IUCN Red Listed species
Habitat	No further increase in habitat fragmentation	Increase in area of habitat corridors

Category	"Do Less Harm" Indicators (examples)	"Do More Good" Indicators (examples)
Population trends	No further decrease in population sizes/species abundance	Increase in species population trends (e.g. density)
Conservation area	No further decrease in area of protected areas/OECMs	Increase in area of protected areas/OECMs
Environmental quality	Decrease in pollution (e.g. pesticide concentration, coastal eutrophication, plastic debris density, nitrogen deposition, PM2.5/PM10 levels)	Increase in clean water provision volume
Benefits to humans & social inclusion	Decrease in mortality from unsafe WASH, attacks on environmental defenders, etc.	Establishment of benefit-sharing from genetic resources, increase in FPIC compliance, women's participation ratios, etc.

Source: Compiled from the GBF Monitoring Framework, IUCN Global Standard for NbS, and IUCN Guidelines for corporate biodiversity performance.

Please see a complete table of suggested indicators in Appendix B.

5 Indicators for Social Inclusion

The distinction extends naturally to the social safeguard and inclusion indicators that the GBF, the WBA Corporate Human Rights Benchmark, the 2X Challenge, and GEDSI frameworks require. "Do less harm" in the social dimension includes respecting human rights due diligence (WBA Core UNGP indicators), preventing attacks on environmental defenders, ensuring zero-tolerance for forced labour (particularly in aquaculture and fisheries), and complying with FPIC requirements for indigenous and local communities. "Do more good" includes actively increasing women's leadership representation (the 2X Challenge benchmark of 30% or more), directing financing to women-led enterprises, ensuring meaningful participation of marginalised communities in governance, and tracking disaggregated benefits to underserved populations including persons with disabilities and indigenous peoples. A nature-positive bond that integrates these social dimensions moves beyond biodiversity metrics alone to address the full scope of Target 22 and Target 23 of the GBF, which call for equitable, inclusive, and gender-responsive participation in biodiversity governance.

Please see a complete table of suggested indicators, including GEDSI indicators, in Appendix B.

6 Conclusion: From Merely "Green" to "Nature-Positive"

The core argument is straightforward. Green bonds in their current form typically finance activities that reduce environmental harm: they sit on the "do less harm" side of the mitigation hierarchy. This is valuable, necessary, and should continue. But closing the biodiversity financing gap, and meeting the GBF's ambition of halting and reversing

biodiversity loss by 2030, requires instruments that go further. Nature-positive bonds should be defined by the presence of "do more good" indicators alongside "do less harm" safeguards. They should demonstrate measurable improvements in ecosystem condition, species recovery, habitat connectivity, and community benefit, and not merely the mitigation of decline.

Making this distinction explicit in indicator frameworks serves multiple purposes: it strengthens market credibility against greenwashing, aligns bond reporting with the full architecture of the GBF and TNFD, enables structured pricing mechanisms that reward higher ambition, and gives investors the transparency they need to allocate capital toward the outcomes that matter most. The attached indicator table provides a practical starting point for issuers, investors, and regulators in emerging markets, particularly in the ASEAN context, where biodiversity-rich landscapes and rapid economic development make the distinction between harm reduction and nature recovery both urgent and consequential.

7 References for Appendix A

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Thailand National Statistical Office. (2022). Statistical Yearbook Thailand 2021

The Biodiversity Consultancy / CSBI. A Cross-Sector Guide for Implementing the Mitigation Hierarchy.

UNEP Finance Initiative (2025). Trends and Innovations in Nature Finance: What to Look Out for in 2025.

World Benchmarking Alliance (WBA). Corporate Human Rights Benchmark: Core UNGP Indicators.

World Economic Forum (2025). Finance Solutions for Nature.

Appendix B

The following indicators are recommended for financial institutions and non-financial companies whose operations or fundraising activities involve sustainability objectives. It is recommended that these indicators be used to measure the environmental and social performance not only in mitigating environmental harm and social inequality but also in actively promoting biodiversity and social inclusion. These indicators are derived from international standards on biodiversity conservation and social inclusion principles. In particular, all complementary indicators in the Kunming-Montreal Global Biodiversity Framework are acquired, except those designated to be used by national authorities or international organisations, or those requiring international data collection, surpassing the capabilities of private entities. In addition, indicators from the Sustainable Bonds for Nature: A Practitioner's Guide from the International Capital Market Association (ICMA), excluding those that are not proposed explicitly to projects with contribution to biodiversity and ecosystem restoration and conservation, are also assembled with some example indicators from the IUCN Guidelines for Planning and Monitoring Corporate Biodiversity Performance, the IUCN Global Standard for Nature-based Solutions, and The Taskforce on Nature-related Financial Disclosures' Guidance on the identification and assessment of nature related issues: The LEAP approach. On the social aspect, indicators from the 2X Challenge, GEDSI, and the World Alliance Benchmark on Corporate Human Rights Benchmark are included.

Table B1 Global Biodiversity Framework (GBF)

Objective	Outcome	Category	Indicator	Energy	Transportation	Agriculture	Construction and real estate	Manufacturing	Waste management
Do less harm	Biodiversity	Habitat	Rate of tree cover loss	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Habitat	Mountain Green Cover Index	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Habitat	Mangrove forest fragmentation	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Habitat	Mangrove extent	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Habitat	Forest Fragmentation Index	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Ecosystem	Bioclimatic Ecosystem Resilience Index	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Habitat	Relative magnitude of fragmentation	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Habitat	Extent of physical damage to predominant seafloor habitats	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Habitat	River Fragmentation Index	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Population trend	Mean species abundance	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Ecosystem	Changes in plankton biomass and abundance	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Extinction risk monitor	Comprehensiveness of conservation of socioeconomically and culturally valuable species	✓	✓	✓	✓	✓	✓

Objective	Outcome	Category	Indicator	Energy	Transportation	Agriculture	Construction and real estate	Manufacturing	Waste management
Do less harm	Biodiversity	Extinction risk monitor	Red List Index (wild relatives of domesticated animals)	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Extinction risk monitor	Species Status Information Index	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Extinction risk monitor	Expected loss of phylogenetic diversity	✓	✓	✓	✓	✓	✓
Do more good	Biodiversity	Extinction risk monitor	Proportion of populations maintained within species	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Environmental quality	Ecological footprint	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Extinction risk monitor	Red List Index (pollinating species)	✓	✓	✓	✓	✓	✓
Do more good	Biodiversity	Population trend	Green Status of Species	✓	✓	✓	✓	✓	✓
Do more good	Biodiversity	Extinction risk monitor	Species Threat Abatement and Restoration metric	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Environmental quality	Inland fisheries threat indicator	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Extinction risk monitor	Red List Index (for internationally traded species)	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Extinction risk monitor	Red List Index (impacts of fisheries)	✓	✓	✓	✓	✓	✓

Objective	Outcome	Category	Indicator	Energy	Transportation	Agriculture	Construction and real estate	Manufacturing	Waste management
Do less harm	Biodiversity	Population trend	Marine Stewardship Council Fish Certified Catch	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Population trend	Total catch of cetaceans under the International Convention for the Regulation of Whaling	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Population trend	By-catch of vulnerable and non-target species	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Extinction risk monitor	Red List Index (impacts of invasive alien species)	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Environmental quality	Trends in loss of reactive nitrogen to the environment.	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Environmental quality	Trends in nitrogen deposition	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Environmental quality	Pesticide use per area of cropland	✓	✓	✓	✓	✓	✓
Do more good	Biodiversity	Environmental quality	Above-ground biomass stock in forest (tons/ha)	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Environmental quality	Index of coastal eutrophication	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Environmental quality	Average marine acidity (pH) measured at an agreed suite of representative sampling stations	✓	✓	✓	✓	✓	✓

Objective	Outcome	Category	Indicator	Energy	Transportation	Agriculture	Construction and real estate	Manufacturing	Waste management
Do less harm	Biodiversity	Extinction risk monitor	Red List Index (impact of utilisation)	✓	✓	✓	✓	✓	✓
Do more good	Biodiversity	Environmental quality	Soil organic carbon stocks	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Extinction risk monitor	Red List Index (forest specialist species)	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Extinction risk monitor	Proportion of local breeds classified as being at risk of extinction	✓	✓	✓	✓	✓	✓
Do more good	Biodiversity	Conservation area	Area of forest under sustainable management: total forest management certification by the Forest Stewardship Council and the Programme for the Endorsement of Forest Certification	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Environmental quality	Indicators from the Life Cycle Impact Assessment Programme	✓	✓	✓	✓	✓	✓

A tick and a tinted cell mark the sectors for which the indicator is recommended. Source: Convention on Biological Diversity. (2025). Decision adopted by the Conference of the Parties to the Convention on Biological Diversity on 27 February 2025. https://www.cbd.int/doc/decisions/cop-16/cop-16-dec-31-en.pdf

Table B2 International Capital Market Association (ICMA)

Objective	Outcome	Category	Indicator	Energy	Transportation	Agriculture	Construction and real estate	Manufacturing	Waste management
Do more good	Biodiversity	Natural resources management	% of unadulterated green spaces before and after the project	✓	✓	✓	✓		
Do more good	Biodiversity	Population trend	Absolute number of indigenous, native, and/or naturalised species, flora or fauna (trees, shrubs, and grasses, etc.) restored through the project	✓	✓	✓	✓		
Do more good	Biodiversity	Population trend	Absolute number of predefined target organisms and species per km^2 (bigger fauna) or m^2 (smaller fauna and flora) before and after the project			✓	✓		
Do more good	Biodiversity	Extinction risk monitor	Absolute number of protected and/or priority species that are deemed sensitive in protected/conserved areas before and after the project			✓	✓		
Do less harm	Biodiversity	Environmental quality	Absolute or % reduction in local pollutants		✓	✓	✓	✓	✓
Do less harm	Biodiversity	Environmental quality	Actions to preserve biodiversity (e.g., installation of nesting platforms for overhead lines)	✓		✓	✓		
Do more good	Biodiversity	Natural resources management	Additional water availability and/or increased water catchment in m^3/year			✓	✓		

Objective	Outcome	Category	Indicator	Energy	Transportation	Agriculture	Construction and real estate	Manufacturing	Waste management
Do less harm	Biodiversity	Environmental quality	Ambient noise reduction from the transport infrastructure in decibels and as % of the baseline		✓				
Do more good	Biodiversity	Natural resources management	Amount of rainwater harvested and reused in m^3/a				✓		
Do less harm	Biodiversity	Circular economy	Annual absolute (gross) amount of raw/untreated sewage sludge that is treated and disposed of (in tonnes of dry solids p.a. and in %)						✓
Do less harm	Biodiversity	Circular economy	Annual absolute (gross) amount of sludge that is reused (in tonnes of dry solids p.a. and in %)						✓
Do less harm	Biodiversity	Circular economy	Annual absolute (gross) amount of waste that is separated and/or collected, and treated (including composted) or disposed of (in tonnes p.a. and in % of total waste)		✓				
Do more good	Biodiversity	Circular economy	Annual absolute (gross) amount of wastewater treated, reused or avoided before and after the project in m^3/a and p.e./a and as %		✓				✓
Do more good	Biodiversity	Natural resources management	Annual absolute (gross) water use before and after the project in m^3/a, reduction in water use in %	✓		✓	✓		

Objective	Outcome	Category	Indicator	Energy	Transportation	Agriculture	Construction and real estate	Manufacturing	Waste management
Do more good	Biodiversity	Natural resources management	Annual catchment of water (m^3/year) that complies with quantity (m^3/year) and quality (e.g., turbidity) requirements by utilities				✓		✓
Do more good	Biodiversity	Nature-based solutions	Area covered by nature-based solutions (in ha and % of total area under land management practices and/or infrastructure area; increase in %)	✓		✓	✓		✓
Do more good	Biodiversity	Natural resources management	Area covered by sustainable land and water resources management practices (ha and in % for increase)			✓	✓		
Do more good	Biodiversity	Technology adoption	Area cultivated by precision agriculture in km^2			✓			
Do more good	Biodiversity	Habitat	Area of land restored/remediated/rehabilitated (m^2/hectares)	✓		✓	✓	✓	
Do more good	Biodiversity	Technology adoption	Capacity of ballast water treatment (in m^3/s; increase in %) and/or vessels with ballast water treatment systems installed (in number and % of fleet; increase in %)		✓				
Do more good	Biodiversity	Technology adoption	Capacity of bilge water treatment (in m^3; increase in %) and/or vessels with bilge water treatment systems installed (in number and % of fleet; increase in %)		✓				

Objective	Outcome	Category	Indicator	Energy	Transportation	Agriculture	Construction and real estate	Manufacturing	Waste management
Do more good	Biodiversity	Technology adoption	Capacity of membrane bioreactor-type water treatment (in m^3/s; increase in %) and/or vessels with membrane bioreactor-type water treatment systems installed (in number and % of fleet; increase in %)		✓				
Do more good	Biodiversity	Nature-based solutions	Capacity of renewable energy plant(s) constructed or rehabilitated using nature-based solutions, in MW	✓		✓			
Do more good	Biodiversity	Nature-based solutions	Capacity of the nature-based structure (in m^3 and % of total capacity if combined with grey infrastructure; increase in %)						✓
Do more good	Biodiversity	Nature-based solutions	Capacity of the nature-based structure (in m^3/second or m^3 and % of total capacity if combined with grey infrastructure; increase in %)			✓	✓		
Do less harm	Biodiversity	Natural resources management	Decrease in the dependence on the direct wild capture of fish in favour of farm-raised broodstocks (% total stock for fish production)			✓			
Do more good	Biodiversity	Natural resources management	Farmland covered by new, efficient drainage (ha)			✓			
Do more good	Biodiversity	Natural resources management	Farmland covered by new, or rehabilitated efficient irrigation, water-efficient crops, and/or resource-conserving crop rotation (ha or km^2)			✓			

Objective	Outcome	Category	Indicator	Energy	Transportation	Agriculture	Construction and real estate	Manufacturing	Waste management
Do more good	Biodiversity	Natural resources management	Farmland under soil conservation/regenerative agricultural practices, including increased cover crop coverage, complex crop rotation, crop diversity practices, maintaining living roots/permanent soil coverage, minimum or no tillage farming, and/or crop and livestock integration (ha and % of acreage farmed)			✓			
Do more good	Biodiversity	Extinction risk monitor	Improvement in the Species Threat Abatement and Restoration (STAR) score			✓	✓		
Do more good	Biodiversity	Environmental quality	Improvements in site-specific physical, chemical, and/or biological indicators of soil quality (including but not limited to: nutrient concentration (phosphorus, nitrate), pH level, reactive carbon, water holding capacity, and soil organic matter)	✓	✓	✓	✓	✓	✓
Do more good	Biodiversity	Environmental quality	Improvements in water quality indicators (e.g., temperature, pH, biochemical oxygen demand (BOD), chemical oxygen demand (COD), total nitrogen, total phosphorus, total suspended solids (TSS), or other potential pollutants)		✓	✓	✓	✓	✓
Do more good	Biodiversity	Natural resources management	Increase in % of certified sustainable aquaculture			✓			
Do more good	Biodiversity	Natural resources management	Increase in % of certified sustainable fisheries			✓			

Objective	Outcome	Category	Indicator	Energy	Transportation	Agriculture	Construction and real estate	Manufacturing	Waste management
Do more good	Biodiversity	Conservation area	Increase in agricultural land set aside for biodiversity conservation (e.g., rewilding, conversion of land along field edges to woodland) (ha and % of acreage farmed)			✓			
Do more good	Biodiversity	Disaster management	Increase in agricultural land using more drought-resistant crops in hectares			✓			
Do more good	Biodiversity	Natural resources management	Increase in area under certified organic or sustainable agriculture (ha and % of acreage farmed)			✓			
Do less harm	Biodiversity	Environmental quality	Increase in area under integrated pest management (ha and % of acreage farmed)			✓			
Do more good	Biodiversity	Natural resources management	Increase in area under management practices targeting improved ecosystem services provision (e.g., pollination) (ha and % of acreage farmed)			✓			
Do more good	Biodiversity	Natural resources management	Increase in area under sustainable forest management (ha) / Area converted from conventional logging to reduced-impact logging practices (% of managed forestland) / Adoption of harvesting methods that minimise impacts on soil (% of managed forestland)			✓		✓	
Do more good	Biodiversity	Conservation area	Increase in area under wetland management in km²				✓		✓
Do less harm	Biodiversity	Technology adoption	Increase in cold storage facilities in absolute number and/or in installed capacity (metric tonnes)			✓		✓	

Objective	Outcome	Category	Indicator	Energy	Transportation	Agriculture	Construction and real estate	Manufacturing	Waste management
Do more good	Biodiversity	Natural resources management	Increase in feed supply chain certification coverage (% of total feedstock volume)			✓		✓	
Do more good	Biodiversity	Natural resources management	Increase in feedstock supply chain certification coverage (% of total feedstock volume)			✓		✓	
Do less harm	Biodiversity	Technology adoption	Increase in low-impact fishing gear (in % of operations covered)			✓		✓	
Do more good	Biodiversity	Population trend	Increase in species richness and relative abundance of priority biodiversity species (in number)	✓		✓	✓		
Do more good	Biodiversity	Nature-based solutions	Increase in the biotope area factor (in number and %)				✓		
Do more good	Biodiversity	Ecosystem	Increase in the Forest Landscape Integrity Index			✓			
Do more good	Biodiversity	Natural resources management	Increase in the share of feed that can be shown to be deforestation- or conversion-free			✓		✓	
Do more good	Biodiversity	Natural resources management	Increase in tonnes of sustainable seafood production			✓		✓	
Do more good	Biodiversity	Natural resources management	Increase of area under certified land management in km² or m² and in %			✓	✓		

Objective	Outcome	Category	Indicator	Energy	Transportation	Agriculture	Construction and real estate	Manufacturing	Waste management
Do more good	Biodiversity	Natural resources management	Increase of area under certified land management in km² or m² and in % (in buffer zones of protected areas)			✓			
Do more good	Biodiversity	Natural resources management	Maintenance/increase of provisions of ecosystem services: erosion control and improved soil health, quantity and quality of water (% of managed forestland)			✓			
Do more good	Biodiversity	Conservation area	Maintenance/safeguarding/increase of protected area/OECM/habitat/natural landscape area (including forest) in km² and in % for increase	✓	✓	✓	✓		
Do more good	Social Inclusion	Human Development	Number of employees or % of workforce trained or dedicated to eco-design in circular economy and/or eco-design				✓		
Do more good	Social Inclusion and Biodiversity	Human welfare	Number of people and/or enterprises (e.g., companies or farms) benefiting from measures to mitigate the consequences of floods and droughts						✓
Do more good	Social Inclusion and Biodiversity	Human welfare	Number of people with access to improved sanitation facilities under the project						✓
Do less harm	Biodiversity	Technology adoption	Number of projects involving the integration of bycatch exclusion devices and other fishing gear modification programmes			✓		✓	

Objective	Outcome	Category	Indicator	Energy	Transportation	Agriculture	Construction and real estate	Manufacturing	Waste management
Do more good	Biodiversity	Coexistence monitor	Number of wildlife crossings created		✓		✓		
Do more good	Social Inclusion and Biodiversity	Human Development	Number of workers trained in biodiversity conservation			✓	✓		
Do more good	Biodiversity	Natural resources management	Pasture area under improved management, such as Management Intensive Rotational Grazing (MIG) systems and silvopastoral grazing practices (ha / % of rangeland)			✓			
Do more good	Biodiversity	Natural resources management	Production of native non-timber forest products (in tonnes p.a. and % of total; increase in %)			✓		✓	
Do more good	Biodiversity	Natural resources management	Recharge to groundwater in mm/d, mm/a				✓		
Do less harm	Biodiversity	Disaster management	Reduced/avoided loss of livestock and/or crops			✓			
Do more good	Biodiversity	Natural resources management	Reduced/avoided water loss (in reservoirs/waterways/natural habitats, etc.) in m^3			✓			
Do less harm	Biodiversity	Environmental quality	Reduction in abandoned, lost, or otherwise discarded fishing gear (ALDFG) volumes			✓			✓

Objective	Outcome	Category	Indicator	Energy	Transportation	Agriculture	Construction and real estate	Manufacturing	Waste management
Do less harm	Biodiversity	Population trend	Reduction in bycatch per unit of effort in tonnes or %			✓			
Do less harm	Biodiversity	Environmental quality	Reduction in chemical inputs in kg/ha and in %			✓	✓	✓	
Do more good	Biodiversity	Disaster Management	Reduction in flood damage costs						✓
Do more good	Biodiversity	Disaster management	Reduction in land loss from inundation and/or coastal erosion in km²				✓		
Do more good	Biodiversity	Disaster Management	Reduction in the number of operating days lost to floods						✓
Do less harm	Biodiversity	Environmental quality	Reduction in the absolute number of invading species and/or area occupied by invading species in m² or km² before and after the project.	✓	✓	✓	✓		
Do more good	Biodiversity	Disaster management	Reduction in the number of wildfires, and/or in the area damaged by wildfires in km²			✓			
Do less harm	Biodiversity	Ecosystem	Reduction in the occurrence of farmed fish escapes / Percentage of operations covered by new design improvements, mitigating the risk of escape			✓			
Do less harm	Biodiversity	Natural resources management	Reduction in the use of fish meal and fish oil taken from wild stocks as feed (e.g., in favour of using alternative protein ingredients such as algal, insect, or single-cell ingredients)			✓		✓	

Objective	Outcome	Category	Indicator	Energy	Transportation	Agriculture	Construction and real estate	Manufacturing	Waste management
Do less harm	Biodiversity	Environmental quality	Reduction of chemicals, anti-microbials, or pesticides per tonne of fish and in %			✓	✓	✓	
Do less harm	Biodiversity	Environmental quality	Reduction of chemicals, anti-microbials, pesticides, and/or waste discharged per tonne of fish and in %			✓			
Do less harm	Biodiversity	Technology adoption	Share of fleet with noise reduction technology (in %; increase in %)		✓				
Do more good	Biodiversity	Natural resources management	Stormwater and/or wastewater captured and/or prevented; reduction in peak flow and/or inundation following a storm (e.g., through increased infiltration, efficient drainage) in m3/s or mm		✓				✓
Do more good	Biodiversity	Technology adoption	Vessels with navigation systems that include biodiversity-protection technology (in number and % of fleet; increase in %)		✓				
Do more good	Biodiversity	Natural resources management	Volume of sustainably sourced goods produced or procured (m^3/tonnes)			✓		✓	
Do more good	Biodiversity	Natural resources management	Water savings from improved irrigation, stormwater and rainwater capture, groundwater recharge, and/ or the reuse of highly treated wastewater (e.g. m^3/year)			✓			

A tick and a tinted cell mark the sectors for which the indicator is recommended. Source: International Capital Market Association. (2025). Sustainable Bonds for Nature: A Practitioner's Guide. https://www.icmagroup.org/assets/documents/Sustainable-finance/2025-updates/Sustainable-Bonds-for-Nature-A-Practitioners-Guide-June-2025.pdf

Table B3 2X Criteria

Objective	Outcome	Category	Indicator	Energy	Transportation	Agriculture	Construction and real estate	Manufacturing	Waste management
Do more good	Social inclusion	Gender equality	≥51% of the financed enterprises are owned or founded by women.	✓	✓	✓	✓	✓	✓
Do more good	Social inclusion	Gender equality	≥30% representation of women in senior management positions or on the board of directors.	✓	✓	✓	✓	✓	✓
Do more good	Social inclusion	Gender equality	30–50% female workforce with guaranteed fair working conditions and pay equity.	✓	✓	✓	✓	✓	✓
Do more good	Social inclusion	Gender equality	Development of products or services that specifically and directly benefit women, such as microfinance for women-owned businesses.	✓	✓	✓	✓	✓	✓
Do more good	Social inclusion	Gender equality	Commitment to gender-inclusive supply chain practices	✓	✓	✓	✓	✓	✓

A tick and a tinted cell mark the sectors for which the indicator is recommended. Source: 2X Challenge. (2024). 2X Criteria. https://www.2xchallenge.org/2xcriteria

Table B4 GEDSI

Objective	Outcome	Category	Indicator	Energy	Transportation	Agriculture	Construction and real estate	Manufacturing	Waste management
Do less harm	Social inclusion	Labor rights	Labor rights and fair pay			✓			
Do less harm	Social inclusion	Labor rights	Migrant worker disclosures			✓			

Objective	Outcome	Category	Indicator	Energy	Transportation	Agriculture	Construction and real estate	Manufacturing	Waste management
Do more good	Social inclusion	Benefits to fragile groups	Beneficiary identification	✓	✓	✓	✓	✓	✓
Do more good	Social inclusion	Benefits to fragile groups	Social safeguards	✓	✓	✓	✓	✓	✓
Do more good	Social inclusion	Benefits to fragile groups	Inclusive decision-making	✓	✓	✓	✓	✓	✓
Do more good	Social inclusion	Benefits to fragile groups	Land tenure inclusion			✓			
Do more good	Social inclusion	Benefits to fragile groups	Youth and elderly engagement			✓			
Do more good	Social inclusion	Benefits to fragile groups	Debt resilience			✓			
Do more good	Social inclusion	Benefits to fragile groups	Small-scale producer support			✓			
Do more good	Social inclusion	Benefits to fragile groups	Minimum 1% of employees with disabilities as employees	✓	✓	✓	✓	✓	✓
Do more good	Social inclusion	Benefits to fragile groups	>10% of training programs accessible to persons with disabilities (with assistive technology, inclusive facilities)	✓	✓	✓	✓	✓	✓
Do more good	Social inclusion	Benefits to fragile groups	Identify and assess impacts on fragile or marginalised groups	✓	✓	✓	✓	✓	✓
Do more good	Social inclusion	Gender equality	Disaggregated data	✓	✓	✓	✓	✓	✓

Objective	Outcome	Category	Indicator	Energy	Transportation	Agriculture	Construction and real estate	Manufacturing	Waste management
Do more good	Social inclusion	Gender equality	Share of male vs. female-headed households with electricity access and clean cooking fuel	✓					
Do more good	Social inclusion	Gender equality	% of women vs. men in off-grid renewable energy areas	✓					
Do more good	Social inclusion	Gender equality	Share of household income spent on fuel/electricity, disaggregated by sex of household head	✓					
Do more good	Social inclusion	Gender equality	% of women certified as renewable energy professionals	✓					
Do more good	Social inclusion	Gender equality	% of women-owned micro and small enterprises powered by renewable energy	✓					
Do more good	Social inclusion	Gender equality	Products and services benefiting women produced by the borrower	✓	✓	✓	✓	✓	✓
Do more good	Social inclusion	Gender equality	% of women reporting reduced health risks due to clean energy adoption/agriculture and aquaculture activities	✓		✓			
Do more good	Social inclusion	Gender equality	Performance-Linked Mechanisms	✓	✓	✓	✓	✓	✓
Do more good	Social inclusion	Human rights	Third-party verification	✓	✓	✓	✓	✓	✓

Objective	Outcome	Category	Indicator	Energy	Transportation	Agriculture	Construction and real estate	Manufacturing	Waste management
Do more good	Social inclusion	Gender equality	Women's participation in consultation and decision-making processes	✓	✓	✓	✓	✓	✓
Do more good	Social inclusion	Gender equality	Equal access to employment and economic opportunities for women	✓	✓	✓	✓	✓	✓

A tick and a tinted cell mark the sectors for which the indicator is recommended. Source: International Union for Conservation of Nature and Natural Resources. (2022). Guidelines for planning and monitoring corporate biodiversity performance. https://portals.iucn.org/library/sites/library/files/documents/2021-009-En.pdf

Table B5 IUCN Guidelines for Planning and Monitoring Corporate Biodiversity Performance

Objective	Outcome	Category	Indicator	Energy	Transportation	Agriculture	Construction and real estate	Manufacturing	Waste management
Do more good	Biodiversity	Environmental quality	Decrease in water quality			✓	✓	✓	✓
Do more good	Biodiversity	Environmental quality	Changes in natural flow regimes and potential loss of water supplies			✓	✓		
Do more good	Biodiversity	Environmental quality	Loss of soil fertility and quality			✓		✓	✓
Do more good	Biodiversity	Environmental quality	Loss of water supplies			✓			
Do less harm	Biodiversity	Environmental quality	Decrease in water and/or soil quality			✓		✓	✓
Do less harm	Biodiversity	Environmental quality	Increase in eutrophication (and decreased habitat for local species)			✓		✓	✓

Objective	Outcome	Category	Indicator	Energy	Transportation	Agriculture	Construction and real estate	Manufacturing	Waste management
Do less harm	Biodiversity	Environmental quality	Decrease in air quality	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Habitat	Decrease in habitat cover	✓	✓	✓	✓		
Do less harm	Biodiversity	Habitat	Decrease in distribution of species dependent on the habitat (e.g. forest-dependent birds; seamount-dependent sharks)	✓	✓	✓	✓		
Do less harm	Biodiversity	Habitat	Reduction in native vegetation cover	✓	✓	✓	✓		
Do less harm	Biodiversity	Habitat	Decrease in habitat quality and habitat cover	✓	✓	✓	✓		
Do less harm	Biodiversity	Population trend	Decrease in population sizes of species	✓	✓	✓			
Do less harm	Biodiversity	Population trend	Decrease in the abundance and diversity of species impacted by chemicals (e.g. soil invertebrates, insects) and the species that feed on them (e.g. birds)			✓		✓	✓
Do less harm	Biodiversity	Population trend	Decrease in the abundance and diversity of animal species that are hunted (usually larger mammals and birds)	✓	✓	✓			
Do less harm	Biodiversity	Population trend	Change in distribution and behaviour of animals			✓	✓		
Do less harm	Biodiversity	Population trend	Loss of pollinator species (e.g. bees, birds)	✓	✓	✓		✓	

Objective	Outcome	Category	Indicator	Energy	Transportation	Agriculture	Construction and real estate	Manufacturing	Waste management
Do less harm	Biodiversity	Population trend	Decrease in species abundance	✓	✓	✓			
Do more good	Biodiversity	Population trend	Decrease in distribution of species dependent on the habitat (e.g. corals, algae, fish, benthic invertebrates, etc.)		✓	✓	✓		
Do more good	Biodiversity	Population trend	Decrease in fish stocks and potential loss of fisheries		✓	✓	✓		
Do more good	Biodiversity	Population trend	Reduced species diversity	✓	✓	✓	✓		
Do more good	Biodiversity	Population trend	Decrease in population sizes of cetaceans, marine turtles and other species	✓	✓	✓	✓		
Do more good	Biodiversity	Population trend	Increase in populations of alien invasive species (e.g. molluscs, algae such as Caulerpa taxifolia)		✓	✓	✓		
Do more good	Biodiversity	Population trend	Decrease in populations of native species	✓	✓	✓	✓		
Do more good	Biodiversity	Population trend	Decrease in species impacted by chemicals (e.g. soil invertebrates, insects) and the species that feed on them (e.g. birds)			✓		✓	✓
Do more good	Biodiversity	Population trend	Abundance of species used sustainably by farmers and local communities	✓	✓	✓	✓	✓	✓

Objective	Outcome	Category	Indicator	Energy	Transportation	Agriculture	Construction and real estate	Manufacturing	Waste management
Do more good	Biodiversity	Natural resources management	Volume of timber and non-timber forest products harvested	✓	✓	✓	✓	✓	✓
Do more good	Biodiversity	Population trend	Fisheries production	✓	✓	✓	✓	✓	✓
Do more good	Social Inclusion	Human welfare	Income generated from the sale of harvested resources (e.g., agroforestry crops, fisheries, etc.)	✓	✓	✓	✓	✓	✓
Do more good	Social Inclusion	Human welfare	Index of human wellbeing measures	✓	✓	✓	✓	✓	✓
Do more good	Social Inclusion	Human welfare	Social Progress Index	✓	✓	✓	✓	✓	✓
Do more good	Social Inclusion	Human welfare	Income from nature-based tourism	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Ecosystem	Ecosystem Integrity Index	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Population trend	Species richness and diversity	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Population trend	Population trends (abundance) of key species	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Environmental quality	Water quality	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Habitat	Habitat health	✓	✓	✓	✓	✓	✓

Objective	Outcome	Category	Indicator	Energy	Transportation	Agriculture	Construction and real estate	Manufacturing	Waste management
Do less harm	Biodiversity	Population trend	Population trends (abundance) of key species	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Population trend	Wild Bird Index	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Population trend	Wildlife Picture Index	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Extinction risk monitor	Red List Index	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Extinction risk monitor	Green Status Index	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Extinction risk monitor	Species Threat Abatement and Restoration metric	✓	✓	✓	✓	✓	✓
Do less harm	Biodiversity	Habitat	Habitat fragmentation	✓	✓	✓	✓	✓	✓
Do more good	Biodiversity	Natural resources management	Number of incidents of illegal or unsustainable activity (logging, hunting, etc)	✓	✓	✓	✓	✓	✓
Do more good	Biodiversity	Coexistence monitor	Number of animal strikes (e.g., by boats or turbines)	✓	✓	✓	✓	✓	✓
Do more good	Biodiversity	Population trend	Population trends of key invasive species	✓	✓	✓	✓	✓	✓
Do more good	Biodiversity	Population trend	Index of diversity and abundance of pollution-intolerant aquatic species	✓	✓	✓	✓	✓	✓

Objective	Outcome	Category	Indicator	Energy	Transportation	Agriculture	Construction and real estate	Manufacturing	Waste management
Do more good	Biodiversity	Environmental quality	Water levels	✓	✓	✓	✓	✓	✓
Do more good	Biodiversity	Conservation area	Coverage of protected areas (formal and informal)	✓	✓	✓	✓	✓	✓
Do more good	Biodiversity	Conservation area	Protected area management effectiveness	✓	✓	✓	✓	✓	✓
Do more good	Biodiversity	Conservation area	Number of protected areas, World Heritage Sites, and KBAs in which the company operates	✓	✓	✓	✓	✓	✓
Do more good	Biodiversity	Habitat	Number of trees planted: number surviving; area planted	✓	✓	✓	✓	✓	✓
Do more good	Biodiversity	Habitat	Number of artificial reefs established: area of coral cover	✓	✓	✓	✓	✓	✓
Do more good	Biodiversity	Population trend	Number of alien species eradicated	✓	✓	✓	✓	✓	✓
Do more good	Biodiversity	Natural resources management	Number of farms applying approved techniques	✓	✓	✓	✓	✓	✓

A tick and a tinted cell mark the sectors for which the indicator is recommended. Source: International Union for Conservation of Nature and Natural Resources. (2022). Guidelines for planning and monitoring corporate biodiversity performance. https://portals.iucn.org/library/sites/library/files/documents/2021-009-En.pdf

Table B6 IUCN Global Standard for Nature-based Solutions

Objective	Outcome	Category	Indicator	Energy	Transportation	Agriculture	Construction and real estate	Manufacturing	Waste management
Do more good	Biodiversity	Ecosystem	Percentage of ecosystem area restored	✓	✓	✓			
Do more good	Biodiversity	Population trend	The return of a keystone species	✓	✓	✓			

A tick and a tinted cell mark the sectors for which the indicator is recommended. Source: International Union for Conservation of Nature and Natural Resources. (2020). IUCN Global Standard for Nature-based Solutions. https://portals.iucn.org/library/sites/library/files/documents/2021-009-En.pdf

Table B7 The LEAP Approach

Objective	Outcome	Category	Indicator	Energy	Transportation	Agriculture	Construction and real estate	Manufacturing	Waste management
Do more good	Biodiversity	Ecosystem	Forest Landscape Integrity Index			✓	✓		
Do more good	Biodiversity	Ecosystem	Ecoregion Intactness Index			✓	✓		
Do more good	Biodiversity	Ecosystem	Marine Cumulative Human Impacts			✓	✓		
Do more good	Biodiversity	Ecosystem	Proportion of Land Degraded			✓	✓		
Do more good	Biodiversity	Extinction risk monitor	Species Threat Abatement and Restoration (STAR)			✓	✓		

A tick and a tinted cell mark the sectors for which the indicator is recommended. Source: The Taskforce on Nature-related Financial Disclosures. (2022). Guidance on the identification and assessment of nature related issues: The LEAP approach. https://tnfd.global/wp-content/uploads/2023/08/Guidance_on_the_identification_and_assessment_of_nature-related_Issues_The_TNFD_LEAP_approach_V1.1_October2023.pdf?v=1698403116

Table B8 WBA: Corporate Human Rights Benchmark - Core UNGP Indicators

Objective	Outcome	Category	Indicator	Energy	Transportation	Agriculture	Construction and real estate	Manufacturing	Waste management
Do less harm	Social inclusion	Human rights	Commitment to respect human rights	✓	✓	✓	✓	✓	✓
Do less harm	Social inclusion	Human rights	Commitment to respect the human rights of workers	✓	✓	✓	✓	✓	✓
Do less harm	Social inclusion	Human rights	Commitment to remedy	✓	✓	✓	✓	✓	✓
Do less harm	Social inclusion	Human rights	Responsibility and resources for day-to-day human rights functions	✓	✓	✓	✓	✓	✓
Do less harm	Social inclusion	Human rights	Gender-responsive identification of human rights risks and impacts	✓	✓	✓	✓	✓	✓
Do less harm	Social inclusion	Human rights	Assessing human rights risks and impacts	✓	✓	✓	✓	✓	✓
Do less harm	Social inclusion	Human rights	Integrating and acting on human rights risk and impact assessments	✓	✓	✓	✓	✓	✓
Do less harm	Social inclusion	Human rights	Tracking the effectiveness of actions	✓	✓	✓	✓	✓	✓
Do less harm	Social inclusion	Human rights	Communicating on human rights impacts: Disclose relevant environmental and social information to affected communities	✓	✓	✓	✓	✓	✓
Do less harm	Social inclusion	Human rights	Grievance mechanism(s) for workers	✓	✓	✓	✓	✓	✓

Objective	Outcome	Category	Indicator	Energy	Transportation	Agriculture	Construction and real estate	Manufacturing	Waste management
Do less harm	Social inclusion	Human rights	Grievance mechanism(s) for external individuals and communities	✓	✓	✓	✓	✓	✓
Do less harm	Social inclusion	Human rights	Remedying adverse impacts	✓	✓	✓	✓	✓	✓

A tick and a tinted cell mark the sectors for which the indicator is recommended. Source: World Benchmarking Alliance. (2024). Corporate Human Rights Benchmark - Core UNGP Indicators. https://assets.worldbenchmarkingalliance.org/app/uploads/2024/11/2024-Core-UNGP-Indicators.pdf

Strengthening Thailand's Taxonomy Phase II

To support a nature-positive and socially inclusive climate transition

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