# IS THE PHILIPPINES READY FOR NATURE-RELATED FINANCIAL DISCLOSURES?

This technical brief is developed based on a study commissioned by the DENR-UNDP Biodiversity Finance Initiative (BIOFIN) Philippines.

The findings, interpretation and recommendations expressed in this document do not necessarily reflect the views of the DENR and UNDP nor that of the organizations cited in this technical brief.

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## SOCIETIES AND BUSINESSES DEPEND SIGNIFICANTLY ON THE SERVICES THAT NATURE PROVIDES

When threats to biodiversity accelerate, the risk for businesses and financial capital providers increases significantly. Opportunities for businesses and financial institutions to "manage these risks, engage sustainably with nature, and achieve positive outcomes for nature, their organisations and society" exist.

**BOX 01**

Biodiversity in the Philippines contributes to 56% of the GDP. The benefits derived from biodiversity costs PHP 2.3 trillion (USD 460 billion) supporting people's livelihoods and well-being as well as strengthening the country's resilience to climate change.[i] Ecosystem services range from timber and fuelwood production, water provision, ecotourism, carbon sequestration, flood prevention, and fishery production, among others.

## THERE IS A GLOBAL RECOGNITION OF THE NEED TO HALT THE LOSS OF NATURE

Globally, governments increasingly recognize the importance of halting and reversing nature loss. A case in point is the 15th Conference of Parties (COP15) for the Convention on Biological Diversity (CBD) where over 190 states committed to the Kunming-Montreal Global Biodiversity Framework (KM-GBF) that targets to protect 30% of the earth's land, inland waters, oceans and coastal areas by 2030.

**BOX 02**

Agriculture and fisheries sector derive the most benefit from biodiversity accounting for 9.5% of the GDP in 2018 and employing 8.8 million people or 21% of the workforce.[ii]

Setting up the global framework is essential to prevent "further acceleration in the global rate of species extinction, which is already at least tens to hundreds of times higher than it has averaged over the past 10 million years."

Biodiversity loss is at a critical point which brings significant risks for societies and businesses. Target 15 of the KM-GBF requires states to "take legal, administrative or policy measures to encourage and enable business, and in particular to ensure that large and transnational companies and financial institutions: (a) regularly monitor, assess, and transparently disclose their risks, dependencies and impacts on biodiversity including with requirements for all large as well as transnational companies and financial institutions along their operations, supply and value chains and portfolios."

**BOX 03**

Main threats to biodiversity in the Philippines are pollution, impacts of climate change, overexploitation, proliferation of invasive alien species, and habitat loss.

## THE TASKFORCE ON NATURE-RELATED FINANCIAL DISCLOSURES (TNFD)

Established in 2021, the Taskforce on Nature-Related Financial Disclosures (TNFD) was instituted in response to the growing need to factor nature into financial and business decisions. The TNFD is "a global, market-led initiative that aims to develop and deliver a risk management and disclosure framework for organizations to report and act on evolving nature-related risks and opportunities, with the ultimate aim of supporting a shift in global financial flows away from nature-negative outcomes and toward nature-positive outcomes".[iii]

**BOX 04**

The Taskforce on Nature-related Financial Disclosures (TNFD) was established in 2021 in response to the growing need to factor nature into financial and business decisions. Throughout the TNFD framework, the term 'nature-related issues' refers collectively to the four core concepts in the TNFD framework: nature-related dependencies, impacts, risks and opportunities.

The TNFD is now nearing its two-year framework design and development phase for the first integrated risk management and disclosure framework for nature-related issues (v1.0) due in September 2023 and ready for market adoption. At the heart of the framework is the recognition that dependencies and impacts on nature are location-specific and present risks and opportunities to organizations. The LEAP approach helps guide companies and financial institutions to identify and assess their nature-related issues. (see Figure 01).

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Figure 1. The Risk-Assessment Guidance or LEAP Approach for TNFD.[iv]

## Risk Assessment Guidance (LEAP)

**L Locate** – Interface with Nature

**E Evaluate** – Dependencies & Impacts

**A Assess** – Material Risks & Opportunities

**P Prepare** – To Respond & Report

**Engagement with Affected Stakeholders**

### Locate

**L1 Business footprint**

**Where** are our direct assets and operations, and our related value chain (upstream and downstream) activities?

**L2 Nature interface**

**Which** biomes and ecosystems do these activities interface with?

What is the current integrity and importance of the ecosystems at each location?

**L3 Priority location identification**

**At which** locations does our organisation and its value chain(s) operate in high integrity ecosystems, areas of rapid decline in ecosystem integrity, areas of high biodiversity importance, areas of water stress and/or areas with potential significant dependencies or impacts?

**L4 Sector identification**

**What** sectors, business units, value chains or asset classes are interfacing with nature in these priority locations?

### Evaluate

**E1 ID of relevant environmental assets and ecosystem services**

**What** are our business processes and activities at each priority location? What environmental assets and ecosystem services do we have a dependency or impact on at each priority location?

**E2 ID of dependencies and impacts**

**What** are our nature-related dependencies and impacts across our business at each priority location?

**E3 Dependency analysis**

**What** is the size and scale of our dependencies on nature in each priority location?

**E4 Impact analysis**

**What** is the size and scale of our nature impacts in each priority location?

### Assess

**A1 Risk and opportunity ID**

**What** are the corresponding risks and opportunities for our business?

**A2 Existing risk mitigation and risk and opportunity management**

**What** existing risk mitigation and risk and opportunity management approaches are we already applying?'

**A3 Additional risk mitigation and risk and opportunity management**

**What** additional risk mitigation and risk and opportunity management actions should we consider?

**A4 Risk and opportunity materiality assessment**

**Which** risks and opportunities are material and should be disclosed in line with the TNFD disclosure recommendations?

### Prepare

**Strategy & Resource Allocation**

**P1 Strategy and resource allocation**

**What** strategy and resource allocation decisions should be made as a result of this analysis?

**P2 Performance measurement**

**How** will we set targets and define and measure progress?

**Disclosure Actions**

**P3 Reporting**

**What** will we disclose in line with the TNFD disclosure recommendations?

**P4 Presentation**

**Where and how** do we present our nature-related disclosures?

**Review and Repeat**

## TCFD-Aligned Disclosure Recommendations

| Governance | Strategy | Risk & Impact Management | Metrics & Targets |
|---|---|---|---|
| Disclose the organisation's governance around nature-related dependencies, impacts, risks and opportunities. | Disclose the actual and potential impacts of nature-related dependencies, impacts, risks and opportunitiess on the organisation's businesses, strategy and financial planning where such information is material. | Disclose how the organisation identifies, assesses and manages nature-related dependencies, impacts, risks and opportunities. | Disclose the metrics and targets used to assess and manage relevant nature-related dependencies, impacts, risks and opportunities where such information is material. |
| **Recommended Disclosures** | **Recommended Disclosures** | **Recommended Disclosures** | **Recommended Disclosures** |
| A. Describe the board's oversight of nature-related dependencies, impacts, risks and opportunities.<br><br>B. Describe management's role in assessing and managing nature-related dependencies, impacts, risks and opportunities. | A. Describe the nature-related dependencies, impacts, risks and opportunities the organisation has identified over the short, medium, and long term.<br><br>B. Describe the effect nature-related risks and opportunities have had and may have on the organisation's businesses, strategy, and financial planning.<br><br>C. Describe the resilience of the organisation's strategy to nature-related risks and opportunities, taking into consideration different scenarios.<br><br>D. Disclose the locations where there are assets and/or activities in the organisation's direct operations, and upstream and/or downstream and/or financed where relevant, that are in priority areas. | A. (i) Describe the organisation's processes for identifying and assessing nature-related dependencies, impacts, risks and opportunities in its direct operations.<br><br>A. (ii) Describe the organisation's approach to identifying nature-related dependencies, impacts, risks and opportunities in its upstream and downstream value chain(s) and financed activities and assets.<br><br>B. Describe the organisation's processes for managing nature-related dependencies, impacts, risks and opportunities and actions taken in light of these processes.<br><br>C. Describe how processes for identifying, assessing and managing nature-related risks are integrated into the organisation's overall risk management.<br><br>D. Describe how affected stakeholders are engaged by the organisation in its assessment of, and response to, nature-related dependencies, impacts, risks and opportunities. | A. Disclose the metrics used by the organisation to assess and manage material nature-related risks and opportunities in line with its strategy and risk management process.<br><br>B. Disclose the metrics used by the organisation to assess and manage dependencies and impacts on nature.<br><br>C. Describe the targets and goals used by the organisation to manage nature-related dependencies, impacts, risks and opportunities and its performance against these. |

According to the Taskforce, the term ‘nature-related issues’ refers collectively to the four core concepts in the TNFD framework: nature-related dependencies, impacts, risks, and opportunities. The Taskforce notes that the TNFD is developing a global framework, not a standard.[v]

## IS THE PHILIPPINES READY FOR NATURE-RELATED FINANCIAL DISCLOSURES?

The Philippines is endowed with rich natural resources that benefit livelihoods, well-being, and climate resiliency. More than half (56%) of the Philippine Gross Domestic Product (GDP) comes from economic sectors that directly depend on the flow of goods and services from nature (such as food, raw materials, water flows, and climate regulation).

**BOX 05**

Total wealth per capita is a key indicator of the nation’s economic well-being derived from its natural resources. According to the 2020 World Bank report on the Changing Wealth of Nations, the total  total wealth per capital in the Philippines now stands at US$35,135. This figure reflects a substantial increase, being 4.5 times higher than the US$6,337 reported in the 2010 assessment. This equates to an annual sum of US$3.97 trillion or approximately PHP218.35 trillion.  In contrast, the national government budget for 2024 is PHP6 trillion, representing merely 4% of the overall value of the country’s natural wealth.

Because of its geographic location, the country is exposed to earthquakes, typhoons, and the impacts of climate change. Population pressure, poverty, and over-exploitation have contributed to the destruction of habitats, overfishing, and the degradation of ecosystems. The twin risks of climate change and nature degradation will have long-term impacts on households, the economy, and the financial system. Past attempts to institutionalize national environmental accounting to measure nature’s impacts on the economy have not succeeded due to institutional constraints.


Photo Credits: BIOFIN Philippines

The Philippines has sound and comprehensive environmental laws and policies, but some penalties need updating.  If set high enough, taxes, subsidies, fines, and penalties are effective mechanisms to discourage pollutive activities and promote green practices. Policies to attract green investments using incentives are found in the Green Jobs Act and Agriculture, Fisheries and Rural Development Financing Act. These recent laws and others refer to “green” activities but the term will need further definition. A taxonomy to define “green” activities will help screen and qualify projects applying for incentives.

Photo Credits: DOT and DENR

Biodiversity financing requires significant investments, but public budgets are inadequate. The BIOFIN public and private biodiversity expenditure review shows scenarios where better alignment of public budgets can augment spending for biodiversity in the environment and natural resources sectors. Private finance will be needed to augment financing for “green” activities with nature-positive outcomes and climate change adaptation. The Philippines recently published a Sustainable Finance Road map outlining plans to raise finance through a mix of tools, including better disclosures and adopting a green taxonomy. The Inter-agency Task Force on Sustainable Finance is exploring future guidance requiring all companies to disclose in line with Task Force on Climate-Related Financial Disclosure requirements.

**BOX 06**

BIOFIN or Biodiversity Finance Initiative is a global UNDP initiative across 41 countries which contributes to closing the financing gap for the conservation and sustainable use of biological diversity by identifying, accessing, combining, and sequencing sources of biodiversity funding. In the Philippines, BIOFIN is working with the DENR to finance the Philippine Biodiversity Strategy and Action Plan (PBSAP), the country’s roadmap to conserving its biodiversity. The PBSAP implementation costs PHP 24B/year or PhP334B (USD 7.4B low estimate) from 2015 to 2028. However, public expenditure was estimated at only P4.9B/year (USD 110M) thus a gap of almost PHP 19B (USD 349M) annually was determined. Several finance solutions are being piloted by BIOFIN at present to narrow the financing gap.

## THE PHILIPPINE FINANCIAL SYSTEM AND ITS ROLE IN SUSTAINABILITY REPORTING INCLUDING NATURE-RELATED FINANCIAL DISCLOSURES

The Philippine Financial System holds substantial assets amounting to 125% of the GDP, where a large part (94%) is controlled by banks. The larger banks lend more to the capital-intensive sectors, whereas the smaller banks lend to agriculture and retail consumers, mostly MSMEs. Regardless of size, bank portfolios are exposed to climate and nature risks. A materiality assessment of lending to bank-relevant sectors shows 47% of outstanding loans depend on nature and are vulnerable to nature-related risks. These are in the sectors of agriculture, real estate, construction / infrastructure, water, and power (see Table 01).

**BOX 07**

Nearly half (47%) of the PHP 11 trillion in total loans outstanding held by banks [vi] depends on nature (Bangko Sentral ng Pilipinas or BSP Statistics Loan Accounts, 2022) while seven of the top eight sectors lent by Philippine banks are dependent on one or more ecosystem services.

Table 1. Impacts and Dependencies of Bank-Relevant Sectors

LEGEND: HIGHLY MATERIAL | MODERATELY MATERIAL

**DIRECT IMPACTS**

| Total Loans Outstanding by SECTOR, Aug 2022 | % SHARE | LAND / SEA USE CHANGE | RESOURCE EXPLOITATION | CLIMATE CHANGE | POLLUTION | INVASIVE SPECIES / OTHERS |
|---|---|---|---|---|---|---|
| Real Estate Activities | 19.7% | HIGHLY MATERIAL | | HIGHLY MATERIAL | HIGHLY MATERIAL | |
| Wholesale and Retail Trade, Repair of Motor Vehicles | 11.3% | | | | | |
| Manufacturing | 10.6% | | MODERATELY MATERIAL | MODERATELY MATERIAL | MODERATELY MATERIAL | |
| Electricity, Gas, Steam and Air-Conditioning Supply | 9.9% | HIGHLY MATERIAL | | | | |
| Construction | 3.9% | HIGHLY MATERIAL | MODERATELY MATERIAL | MODERATELY MATERIAL | MODERATELY MATERIAL | |
| Agriculture, Forestry and Fishing | 2.2% | HIGHLY MATERIAL | HIGHLY MATERIAL | MODERATELY MATERIAL | MODERATELY MATERIAL | MODERATELY MATERIAL |
| Water Supply, Sewerage, Waste Management and Renovation | 1.2% | MODERATELY MATERIAL | MODERATELY MATERIAL | MODERATELY MATERIAL | | |
| Mining and Quarrying | 0.4% | HIGHLY MATERIAL | HIGHLY MATERIAL | MODERATELY MATERIAL | HIGHLY MATERIAL | MODERATELY MATERIAL |

**DIRECT DEPENDENCIES**

| Total Loans Outstanding by SECTOR, Aug 2022 | % SHARE | PHYSICAL INPUT | ENABLING PRODUCTION | MITIGATING DIRECT IMPACTS | PROTECTING FROM DISRUPTION |
|---|---|---|---|---|---|
| Real Estate Activities | 19.7% | MODERATELY MATERIAL | | MODERATELY MATERIAL | HIGHLY MATERIAL |
| Wholesale and Retail Trade, Repair of Motor Vehicles | 11.3% | | | | |
| Manufacturing | 10.6% | HIGHLY MATERIAL | | | |
| Electricity, Gas, Steam and Air-Conditioning Supply | 9.9% | HIGHLY MATERIAL | HIGHLY MATERIAL | | HIGHLY MATERIAL |
| Construction | 3.9% | HIGHLY MATERIAL | | | MODERATELY MATERIAL |
| Agriculture, Forestry and Fishing | 2.2% | HIGHLY MATERIAL | HIGHLY MATERIAL | MODERATELY MATERIAL | HIGHLY MATERIAL |
| Water Supply, Sewerage, Waste Management and Renovation | 1.2% | HIGHLY MATERIAL | HIGHLY MATERIAL | | HIGHLY MATERIAL |
| Mining and Quarrying | 0.4% | MODERATELY MATERIAL | MODERATELY MATERIAL | | MODERATELY MATERIAL |
| **Total Share** | **59%** | | | | |

**Total TLO = PhP 11.8 trillion as of August 2022**

The finance sector has moved ahead in identifying risks from climate change but has lagged in broader E&S issues including risks from biodiversity loss. The finance sector is unfamiliar with concepts like "biodiversity", "ecosystem services" and "nature" as they relate to financial risks, much less how risk disclosure on these topics could inform investment decisions.

**BOX 08**

Banks derive significant output revenues from food manufacturing, which has very high dependency (and/or impact) on nature yielding output revenues of PHP 87 billion in 2018 (PSA, 2018).

## POLICY FRAMEWORK FOR RISK REPORTING

A baseline review of the sustainable reporting framework describes the mandates of finance authorities, circulars issued, reporting standards and protocols, and the process of adopting international standards for financial reporting. At the asset level, risk disclosure comes in two forms – regulator-driven risk reporting guidelines and the Environment Impact Statement System.

Firstly, regulatory disclosures on sustainability reporting and environmental and social risk management systems are found in Securities and Exchange Commission or SEC issuances for publicly issuances for publicly listed companies or PLCs (SEC MC 2016-19) and BSP issuances for banks (BSP MC 1085, 1128, 1149). Secondly, the Environmental Impact Statement study is required for all projects located in Environmentally Critical Areas and for all Environmentally Critical Projects in the country. Proponents are expected to "self-monitor" and report compliance to meeting the ECC conditionalities in their periodic reports to the to the Environmental Management Bureau or EMB. [vii]

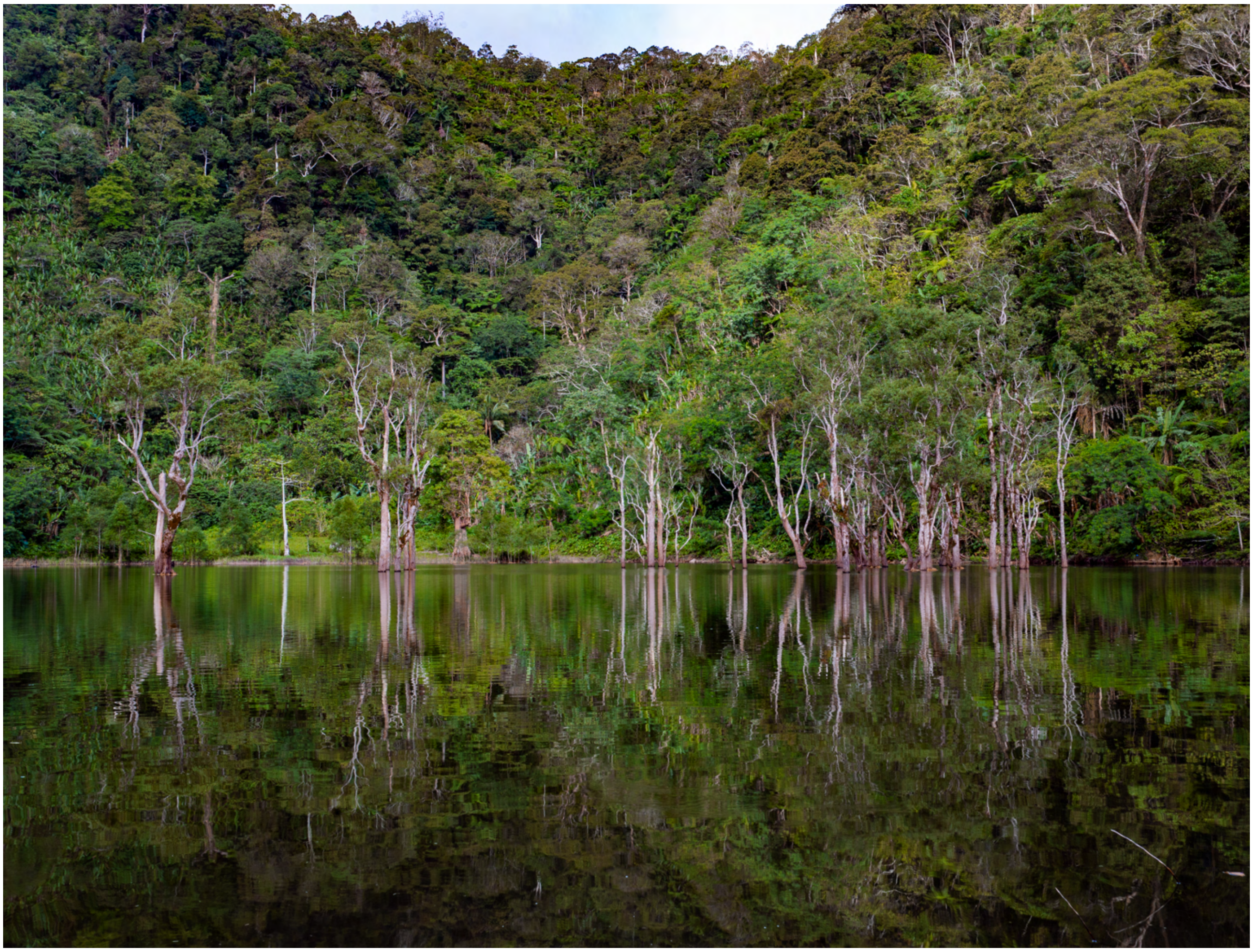


Photo Credits: DOT and DENR

## SUSTAINABILITY REPORTING IN ASIA AND PHILIPPINES

Sustainability reporting is regulatory-driven as shown by a high 90-95% compliance rate, a year after the SEC reporting guidelines (SEC 2019-4) was released in 2019. Despite the high submission rate, a 2021 study by the Sycip, Gorres and Velayo (SGV) auditing company found little disclosure on material topics . Depending on the sector, companies led by holding companies, power, construction, and banks, report on various environmental topics (mostly GHG emissions, pollution, and trees planted).[viii] Few companies report on physical and transition risks from nature and climate change. This points to the need for a policy mandating reporting on material indicators, otherwise PLCs will likely cherry-pick what to report.

Risk reporting on nature and climate change still has a long way to go. Global trends in voluntary reporting show the proliferation of reporting standards and indicators. Despite the emergence of standards, reports still fall short of investors' expectations of greater consistency, comparability, and reliability. A harmonized set of non-financial reporting standards is being developed through the International Sustainability Standards Board or ISSB which is expected to be released in 2023 and align with the earlier developed EU standards. Other standards are those being developed by the US SEC. The TCFD emerges as the common framework across these initiatives which will have repercussions for the Philippines.

## REPORTING STANDARDS AND DATA AVAILABILITY

A compendium of reporting standards was gathered to better understand indicators for nature, biodiversity, and climate. Earlier standards include indicators for the broader social and nature (environmental) category such as impact on pollution and waste. Climate-related reporting gained wide adherence through The TCFD recommendations. For biodiversity, several reporting frameworks adapted focusing on sensitive sectors and location-specific information. Coarse and fine filters were introduced to better understand sensitivities of sectors, impacts and dependencies depending on the availability of data.

Data availability was scoped to explore sources that could support reporting under TNFD. Given asset locations, report preparers can map asset exposures using Philippine mapping portals – HazardHunterPH and National Mapping and Resource Information Authority or NAMRIA geoportal.gov.ph – for initial risk screening of: 1) natural hazards and 2) proximity to protected areas, indigenous lands, mines and other contextual variables, respectively. Other data sources are identified to support reporting for relevant indicators, i.e. forest cover, and water stress. There are plans by government to institutionalize natural capital accounting to better understand the environment-economy nexus. There are innovative accounting approaches within existing financial reporting frameworks and accounting standards to make nature "visible" in financial statements.

## RECOMMENDATIONS

**A** Entry Points

**B** Recommendations on TNFD Pilot

**C** Policy Recommendations

**D** Proposed Institutional Arrangements for TNFD Reporting

Several entry points have emerged in existing circulars, mapping tools and reporting standards to potentially facilitate putting in place a nature-related financial disclosure system in the country.

### Entry Points

**Build on BSP c1128.** The circular requires banks to "conduct E&S due diligence on the borrower at the inception of the client relationship and on an ongoing basis as part of the assessment of the E&S risk profile and creditworthiness. The bank may consider the borrower's industry/sector and geographic location in defining the scope and depth of its due diligence". The circular further adds: "Additional documents may be required from the borrower such as, among others, third party certifications and/or other environmental permits / certificates as required by law, particularly those involved in enterprises that are heavily engaged in the extraction of natural resources, the emission of carbon and poisonous gases or substances in the air, land and water, or other activities that are identified as harmful to the environment." The same circular expects banks to review EIA reports and to identify their "impacts and dependencies" but there is no reference to nature, only E&S in general.

Photo Credits: DOT and DENR

**Leverage asset geolocation data.** Results of TNFD pilots showed that assessing nature-related risks may be easier for institutions which are already familiar with climate risk assessments. Local banks using HazardHunterPH to map physical risks of assets have an advantage as they can leverage location data to map their nature-related impacts and dependencies. The BSP is piloting climate vulnerability mapping methods using asset location plotted in HazardHunter App. The exercise involves a group of banks initially, but the app is now mainstreamed. Banks are now building familiarity with the HazardHunter application in plotting asset locations. Banks can use other mapping portals to leverage the same location data in identifying nature-related risks. For example, the geoportal.gov.ph portal contains map layers for other E&S topics not covered by HazardHunterPH. This will help banks identify other E&S risks and comply with the BSP circulars.

**Apply existing Philippine Financial Reporting Standards on material effects of climate and nature-related matters on financial statements.** The Philippines has now ranked among the top most vulnerable countries.[ix] Investors, environmental, social and corporate governance (ESG) data providers, and rating agencies expect Philippine issuers to disclose these risks in their annual reports and bond prospectus. In serving the interests of investors, auditors are expected to apply materiality judgments[x] as to the potential effects of climate change on companies' business models, cash flows, financial position, and financial performance. While current financial reporting standards applied by auditors do not explicitly refer to climate or nature-related matters, existing financial reporting standards should be applied when their impacts are material in the context of financial statements. Further guidance[xi] is provided to auditors on the applicable International Financial Reporting Standard on their effects.

### Recommendations for a TNFD Pilot

The pilot will test run an analytical framework to identifying risks using maps and a risk classification tool to report against the TNFD recommendations. The pilot will recruit volunteers from priority secctors and banks.

Photo Credits: BIOFIN Philippines

a) **Introduce corporates and banks to mapping portals (geoportal.gov.ph and Hazard Hunter App).** The portals allow users to enter asset locations and download a report on asset exposures to natural hazards and proximity to critical habitats. Exposures of assets may be classified and visualized using "heat" maps.

b) **Develop a risk classification framework.** The risk classification framework is a tool assigning risk scores to assets exposed to natural and climate hazards. There are two main approaches: those which focus on indirect measures via modelling of financial data and sectoral classification and those which focus on direct geospatially derived measurements building on the "heat" maps. Risk scores developed could be a function of 1) the number of ecosystem services the business process is dependent on; and 2) the likelihood and severity of business losses from interruption or loss of ecosystem services on which the business depends. The next step is to formulate strategies, set targets and metrics and to monitor and disclose progress.

c) **Pilot Innovations in Financial Reporting.** The pilot phase can be extended to demonstrate accounting methods that integrates physical risks' impacts into the financial statements. Financial accounting is a key decision-making tool, and linking natural capital data with financial accounts is an obvious route to nature-related financial disclosures. Several methods demonstrate how natural capital can be integrated in financial statements. Several methods demonstrating how natural capital can be integrated into financial statements can be found in the literature on natural capital accounting. [xii, xiii, xiv, xv]

d) **Training and Capacity Building**

Corporates recruited to the pilot will undergo training and capacity building. The proposed topics, knowledge and technical competency standards, outlined below, will support compliance by supervised entities to BSP and SEC regulations (see Table 02)

Table 2. Proposed topics, knowledge, and technical competency standards for corporates

<table>
<tr><th>Topic</th><th>Knowledge Competency Standards</th><th>Technical Competency Standards</th></tr>
<tr><td rowspan="3">Identifying and categorizing risks</td><td>Awareness on climate change and nature risks</td><td>Develop “heat” maps on nature and climate risks</td></tr>
<tr><td>Understand material risks per sector</td><td>Identify physical and transition risks over near term (1 year), medium (2-5 years) and long term (>5 years)</td></tr>
<tr><td>Introduction to mapping portals</td><td></td></tr>
<tr><td rowspan="3">Stress testing and scenario analysis</td><td rowspan="3">Awareness of Catastrophe (CAT) models and their uses. [xvi]</td><td>Formulate scenarios “what ifs” for nature + climate change risks.</td></tr>
<tr><td>Run simulations using CAT models (e.g. Typhoon Haiyan passing through NCR)</td></tr>
<tr><td>Estimate damage losses from simulation</td></tr>
<tr><td rowspan="2">Quantifying risks</td><td rowspan="2">Understanding loss metrics (ECL, AEL)</td><td>Banks assess implications of damage simulations to ECL (Expected Credit Losses)</td></tr>
<tr><td>Corporates assess AEL (Annual Expected Losses)</td></tr>
<tr><td rowspan="4">Strategy Formulation</td><td>Risk mitigation strategies.</td><td>Modeling damage avoidance (explore NBS, or nature+ (integrated solutions).<br>Perform Cost-benefit Analysis</td></tr>
<tr><td>Role of insurance; risk sharing</td><td>Insurance strategy formulation</td></tr>
<tr><td>Capital provisioning for residual risks</td><td>Provisioning for impairment losses; contingent liabilities, Capital Adequacy Ratio</td></tr>
<tr><td>Implications on Financial Statements</td><td></td></tr>
</table>

## Policy recommendations

e) **Mandate reporting of E&S material indicators for specific sectors.** Banks will need information from their counterparties to manage and disclose risks to their loan portfolios. However, companies are not reporting their E&S and climate risks. To reduce information asymmetry, enhance comparability and level the playing field, there is a need for SEC to issue a circular mandating reporting of sector-specific indicators by PLCs. These indicators [xvii] are to be reported irrespective of the results of the materiality assessment by the reporting entity.

f) **Mandating use of mapping portals.** Mandating the use of mapping portals across sectors will standardize and enhance comparability in risk measurement. Similar to the DENR-EMB MOA with Philippine Institute of Volcanology and Seismology or PHIVOLCS adopting and mandating use of HazardHunter by EIA preparers, the SEC and PHIVOLCS can enter into a MOA requiring PLCs to use the HazardHunter App..

Photo Credits: DOT and DENR

g) **Extend Sustainability Reporting to MSMEs.** There is a need for SEC to extend coverage of SEC Sustainability Reporting Guidelines to include MSMEs as they comprise a significant segment of supply chains. This will fill the gap for data needed by the reporting entity to report on Scope 3 sustainability impacts of their upstream suppliers.

h) **Invest in Data.** Investment is required in data for some natural asset classification categories in the National Capital Accounting or NCA Road Map. The Tier 1-3 locations for ecosystem accounting can inform spatially-derived measurements and form part of the NAMRIA map layers. Tier 1 identifies location-specific E&S issues which can provide contextual information on E&S risks and opportunities at finer scales. This facility would extend accounting for nature-related risks and opportunities at the asset or company level.

i) **Push for adoption of Science-based Target Network [xviii] in EIA for restoration activities.** Scientific approaches in setting land and water-based targets in order to achieve a nature-positive economy are being developed under the SBTN. These guidelines cover restoration/non-conversion of natural ecosystems, reduction in pollution and ecosystem integrity and improvement. Adherence to SBTN guidelines could be made part of the ECC conditionalities.

j) **Engage Philippine Financial Reporting Standards Council (PFRSC).** Raise awareness and conduct training among members regarding financial and non-financial reporting of climate and biodiversity topics. Train members on innovative accounting approaches in making natural capital visible in financial statements.

k) **Spatial Finance.** Spatial finance [xix] is predicated on the idea that geographic location, the natural environment, and economic outcomes are interlinked. This new application of spatial finance relies on a suite of innovative technologies including a geographic information system (GIS), remote sensing, and artificial intelligence (AI) to generate insights on sustainability-related risks and opportunities in locations. The Philippine Space Agency launched a nano-satellite that takes satellite images of the Philippines on a regular basis. A white paper can recommend how satellite technologies and spatial finance can be leveraged to support climate and nature-based risk disclosures.

Photo Credits: DOT and DENR

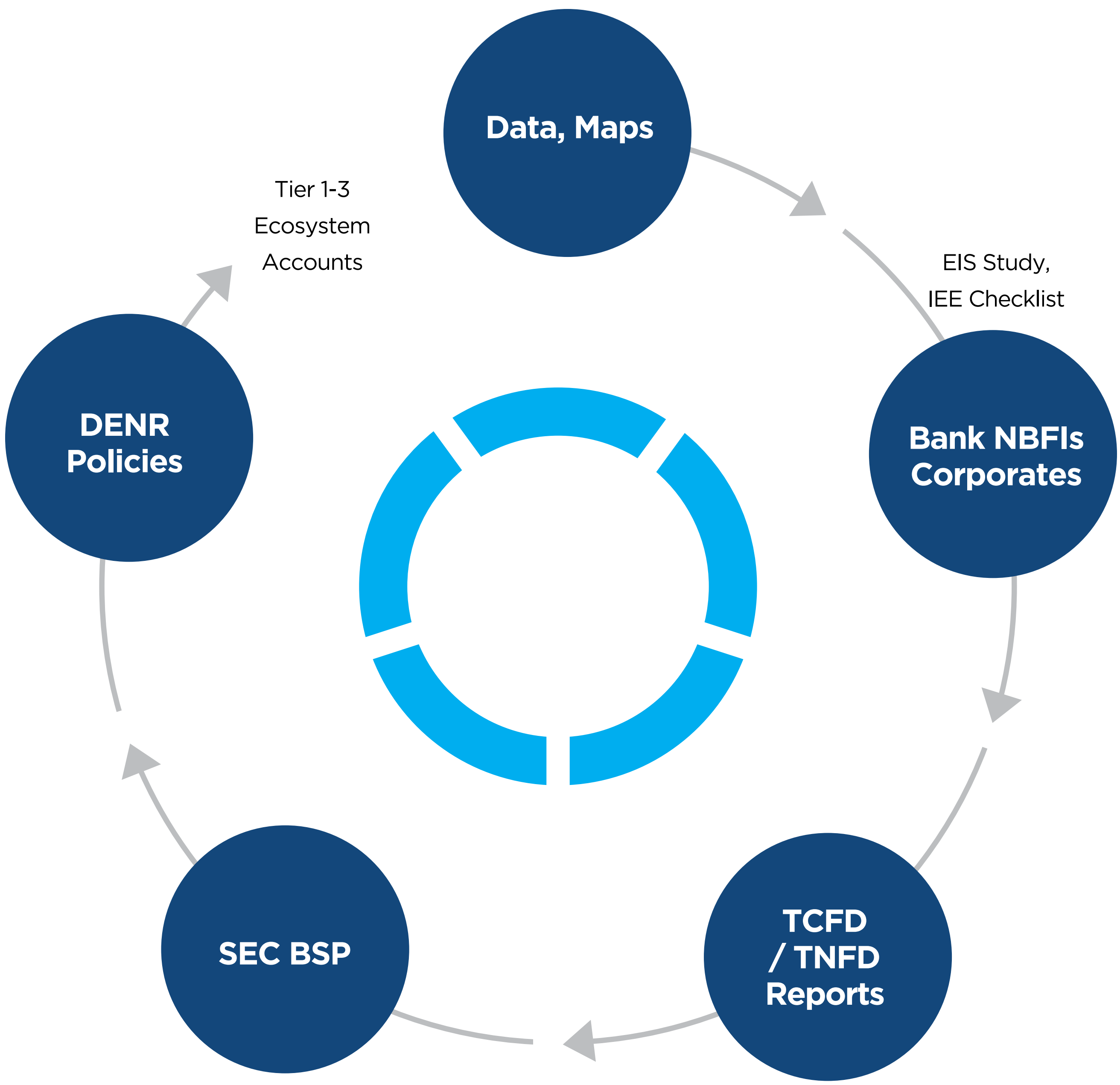
### Proposed Institutional Arrangements for TNFD Reporting

The institutional arrangement for TNFD Reporting builds on the present ecosystem for sustainability reporting. The SEC and BSP circulars provide an enabling framework to jumpstart the process. The private sector participants are banks, non-bank Finance Institutions (NBFIs), Non-Finance Corporations, industry associations, and corporate participants.

The reporting framework will require the development of decision-support, via maps, metadata, and a risk classification system – for use by report preparers. These reports feed into a database where data is processed and used in policy development in the ENR sectors.

A schematic diagram of the reporting process is presented below.

Figure 2. Schematic diagram of the reporting process and its governance



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xvi BSP (2022) Statistics Loan Accounts

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xviii Science Based Targets Network Global Commons Alliance Website

xix WWF website page on Nature and Spatial Finance


**To read the full report, go to bit.ly/NFDPhilippines or scan this QR code:**

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### Contact information

BIOFIN Philippines, biofin.ph@undp.org

BIOFIN is a global UNDP initiative across 41 countries which contributes to closing the financing gap for the conservation and sustainable use of biological diversity by identifying, accessing, combining and sequencing sources of biodiversity funding. In the Philippines, BIOFIN is working with the DENR to finance the Philippine Biodiversity Strategy and Action Plan (PBSAP), the country's roadmap to conserving its biodiversity. The PBSAP implementation costs PhP24B/year or PhP334B (USD 7.4B low estimate) from 2015 to 2028. However, public expenditure was estimated at only P4.9B/year (USD 110M) thus a gap of almost PhP19B (USD 349M) annually was determined. Several finance solutions to address this gap were identified and are being piloted by BIOFIN at present.

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