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The Biodiversity Finance Initiative

IS MADAGASCAR READY FOR NATURE-RELATED FINANCIAL DISCLOSURES?

A Policy and Market Review of Nature-related Disclosure Trends

POLICY BRIEF

August 2025

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LIST OF ABBREVIATIONS AND ACRONYMS

BFM	Banky Foiben'i Madagasikara (Central Bank of Madagascar)
CSBF	Commission de Supervision Bancaire et Financière (Banking and Financial Supervisory Commission)
CSRD	Corporate Sustainability Reporting Directive (EU Directive on the publication of sustainability information by enterprises)
EACN	Ecosystem Accounting for Natural Capital
Fapbm	Foundation for Protected Areas and Biodiversity of Madagascar
FSC	Forest Stewardship Council
GRI	Global Reporting Initiative
IFL	Intact Forest Landscape
IFRS	International Financial Reporting Standards
INSTAT	Institut National de la Statistique
ISSB	International Sustainability Standards Board
LEAP	Locate, Assess, Analyze, Prepare
MECIE	Mise en Compatibilité des Investissements sur l'Environnement (Environmental Investment Compatibility)
MEDD	Ministry of the Environment and Sustainable Development
MEF	Ministry of Economy and Finance
ONE	Office National de l'Environnement
PCG	General Accounting Plan
SIGE	Environmental Management Information System
TCFD	Task Force on Climate Related Financial Disclosures
TGRNR	Transfer of Renewable Natural Resources Management
TNFD	Task Force on Nature-related Financial Disclosures
WAVES	Wealth Accounting and the Valuation of Ecosystem Services

This policy brief is the result of a study conducted to assess Madagascar's preparedness for nature-related financial disclosures. Through this study, the Malagasy government, with the support of UNDP-BIOFIN, has clarified the roles of the different financial authorities in nature-related financial disclosure, identified the public bodies best placed to collect information on biodiversity-related financing and risks from companies, and assessed the current state of impact or CSR reporting practices of Malagasy companies. Although the study shows that Madagascar is not very advanced in this area, stakeholders (government, partners, private sector, etc.) are aware of the importance of taking progressive steps towards greater transparency in order to preserve Madagascar's unique biodiversity.

1. THE LINK BETWEEN NATURE AND BUSINESS IN MADAGASCAR

How important are biodiversity and ecosystem services to Madagascar's economy?

Madagascar is internationally recognized as one of the world's major biodiversity hotspots, with an exceptional level of endemism: around 90% of animal species and 80% of plant species found on the island exist nowhere else on Earth. However, this unique natural heritage is under increasing threat.

According to Global Forest Watch, in 2020, Madagascar had 15.6 million hectares of natural forest, covering 26% of its surface area. By 2023, the country will have lost 299,000 hectares[1] . At this rate, WWF predicts that Madagascar could lose all its intact forest landscapes (IFL) over the next two decades[2] . In addition, a total of 3,986 species of fauna and flora in Madagascar are currently listed on the IUCN Red List as threatened, including 698 classified as Critically Endangered (CR), 2,028 as Endangered (EN), and 1,260 as Vulnerable (VU)[3] .

This degradation of biodiversity and the corresponding loss of ecosystem services could have a significant economic impact.

Box 1: ECOSYSTEMIC SERVICES

The notion of ecosystem services, which has been widely publicized in the wake of the Millennium Ecosystem Assessment (MEA), is broadly defined as the benefits that humans derive from ecosystems. These benefits concern several key services:

- Provisioning services, which correspond to the material products that humans obtain from ecosystems: food, natural fibres, genetic resources, fresh water and pharmacopoeia;
- Regulating services correspond to the benefits derived from the regulation of natural ecosystem processes: pollination, regulation of air quality, climate regulation, water purification, or the regulation of natural risks such as protection against flooding or erosion;
- Support (or self-maintenance) services do not generate direct benefits for humans, but make possible the existence of other services: soil formation, photosynthesis, primary production, nutrient cycles..;
- Cultural services correspond to the non-material benefits that humans derive from ecosystems: cultural landscapes or natural heritage sites, recreation, tourism, spiritual or aesthetic benefits, inspiration for culture and the arts, or recreational experiences.

Source: Méral, P., & Pesche, D. (2016). *Les services écosystémiques: repenser les relations nature et société*: éditions Quae.

Indeed, projections indicate a potential reduction in GDP of 4.2% by 2050 if no remedial action is taken (Johnson et al., 2020[4]). Key sectors highly dependent on biodiversity, such as forestry production (with an estimated 1.31% drop in GDP) and artisanal fishing (estimated loss of 2.58% of GDP, or around 254.4 million USD), are particularly vulnerable (Johnson et al., 2020). Tourism, also at risk, relies heavily on the country's ecological wealth: almost 68% of visitors are attracted by national parks and endemic

[1] https://www.globalforestwatch.org/dashboards/country/MDG
[2] https://www.wwf.mg/?1871966/Destruction-des-forets--une-biodiversite-a-haute-valeur-risque-de-disparaitre
[3] https://www.iucnredlist.org/search?landRegions=MG&searchType=species
[4] Johnson, J. A., Baldos, U. L., Hertel, T., Nootenboom, C., Polasky, S., & Roxburgh, T. (2020). Global Futures: Modelling the global economic impacts of environmental change to support policy-making.

fauna, and terrestrial biodiversity generates around 500 million USD per year (Fapbm, 2022[5]). According to available data, forestry production accounted for 5.4% of Madagascar's GDP in 2021[6] , fishing for around 7%[7] , and tourism for 6% in direct contribution, rising to 13% if indirect effects are included . [8]

This alarming trend calls for innovative and sustainable biodiversity financing mechanisms. Currently, the country faces a chronic biodiversity funding deficit. From 2014 to 2018, biodiversity-related expenditure has consistently exceeded revenue, resulting in a cumulative deficit of over 29 billion ariary (6.37 million USD) (Raharinaivo, 2021).[9]

How can the production and disclosure of nature-related financial information reconcile corporate profitability and biodiversity preservation?

We saw above those three sectors - forest production, fishing and tourism - are particularly vulnerable to biodiversity loss in Madagascar. But how can the production and disclosure of nature-related financial information help companies operating in these sectors to reconcile profitability and sustainability? Before answering this question, it is worth presenting the international reference framework for nature-related financial disclosure: the *Taskforce on Nature-related Financial Disclosures* (TNFD) framework.

The Taskforce on Nature-related Financial Disclosures (TNFD) produced a voluntary framework designed to guide companies and financial institutions in identifying, assessing, managing and disclosing nature-related, dependencies, impacts, risks and opportunities. Published in September 2023, the framework is based on four main pillars:

- Governance: organizations must describe their governance of nature-related risks and opportunities. This includes the role of the board and management in overseeing and managing these issues.
- Strategy: entities are invited to explain how nature-related risks and opportunities influence their business model, strategy and financial planning, in the short, medium and long term.
- Risk management: this pillar aims to document how the organization identifies, assesses and manages nature-related risks as part of its overall risk management processes.
- Indicators and targets: companies must disclose the indicators used to assess their impacts and dependencies on nature, as well as the targets set and performance achieved against these targets.

The disclosures recommended by TNFD therefore cover the four pillars first defined by the TCFD or Task Force on Climate-Related Financial Disclosures, which the International Sustainability Standards Board (ISSB) subsequently integrated into its two standards published in June 2023, namely IFRS S1 "General Requirements for Sustainability-related Financial Disclosures" and IFRS S2 "Climate-related Disclosures". The TNFD thus adapts this disclosure architecture to the nature dimension, where TCFD and IFRS S2 focus on climate, and IFRS S1 deals with sustainability issues across the board.

Another specific feature of the TNFD is the LEAP approach (*Locate - Evaluate - Assess - Prepare*). The LEAP approach is a four-step methodology to guide organizations in analysing their relationship with nature:

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[5] Fapbm. (2022). *Livre blanc : Nos Aires Protégées sont vitales pour notre développement*. Retrieved from https://www.fapbm.org/app/uploads/2022/10/A4-white-paper-FAPBM-FR-9-1.pdf

[6] https://data.worldbank.org/indicator/NY.GDP.FRST.RT.ZS?locations=MG

[7] https://www.capmad.com/economy-en/madagascars-fishing-sector-2024-review-and-2025-strategies/#:~:text=Fishing%20and%20the%20blue%20economy,MGA%2C%20or%20156.29%20million%20USD

[8] https://www.coface.com/news-economy-and-insights/business-risk-dashboard/country-risk-files/madagascar

[9] Raharinaivo, L. J. (2021). *ANALYSE DES DEPENSES POUR LA BIODIVERSITE À MADAGASCAR*. Retrieved from https://www.biofin.org/sites/default/files/content/knowledge_products/Analyse%20des%20Depenses%20de%20la%20BD_Madagascar.pdf

- *Locate*: identify where their interactions with nature lie.
- *Evaluate*: understand their dependencies and impacts.
- *Assess*: study risks and opportunities.
- *Prepare*: integrate results into governance, strategy and reporting.

In addition, TFND provides the option to consider both nature's impact on the company's financial performance (*financial materiality*) and the company's impact on nature (*impact materiality*). This differs from standards such as the GRI or *Global Reporting Initiative*, which focus solely on the *impact materiality*, helping organizations and their stakeholders to express and understand their contributions to sustainable development (impacts on society and the environment), and from ISSB which focus on the *financial materiality aspect*.

Box 2: DEFINITION ELEMENTS FOR NATURE-BASED ISSUES

Nature-related issues: qualitative data and descriptions provided by an organization concerning its dependencies and impacts on nature, as well as the risks and opportunities it faces as a result.

Impacts: positive or negative contributions made by a company or other stakeholder to the state of the natural environment, including air, water and soil pollution, fragmentation or disruption of ecosystems and habitats for [human and] non-human species, alteration of ecosystem regimes, etc.

Dependency relationships: aspects of nature's contributions to man [ecosystem services] on which the functioning of a person or organization depends, including regulation of water flow and quality, control of risks such as fires and floods, pollination, carbon sequestration, etc.

Nature-related risks: all risks to the organization resulting from impacts on nature and/or relationships of dependence on nature. These risks can be divided into three categories: physical risks, transition risks and systemic risks. Physical risks refer to changes in the state (condition and/or extent) of the ecosystems on which the organization depends or on which it has an impact. These changes can alter the flow of ecosystem services, such as the availability of natural inputs (provisioning services). Transition risks are linked to changes in public policy, legal frameworks, market preferences and technology. Indeed, the expectations of investors, customers and partners are rapidly evolving towards sustainable practices, and if the company fails to keep pace with this evolution, it may face various risks such as loss of customers or contracts, and reduced access to financing. As for systemic risks, they refer to the disruptions caused by a fundamental and rapid modification of ecosystems caused by the loss of biodiversity. These disruptions are likely to destabilize markets, economies and the entire financial system.

Nature-related opportunities: gains obtained through a company's dependence on nature, or because of its activities to preserve nature. This includes, but is not limited to, positive changes in sentiment towards the organization/brand due to the impact on environmental assets and ecosystem services that have an impact on society, access to new and emerging markets, access to new assets and sites, access to nature-related green funds, bonds or loans, savings obtained through increased reuse and recycling of natural resources.

To illustrate the implication and application of the TNFD framework, we'll take the example of a company engaged in sustainable artisanal fishing in north-west Madagascar. The company is faced with overfishing of sea cucumbers and tuna, which has caused stocks to plummet over the last ten years, as well as the degradation of coral reefs, essential as fish nurseries. As part of TNFD's LEAP strategy, the company could locate critical areas using the Reef Check protocol and implement strict internal fishing quotas, respecting existing quotas, rotating fishing practices, avoiding sensitive areas and obtaining recognized certifications. To strengthen its business model, it will be able to create a collective brand and offer scientific tourism.

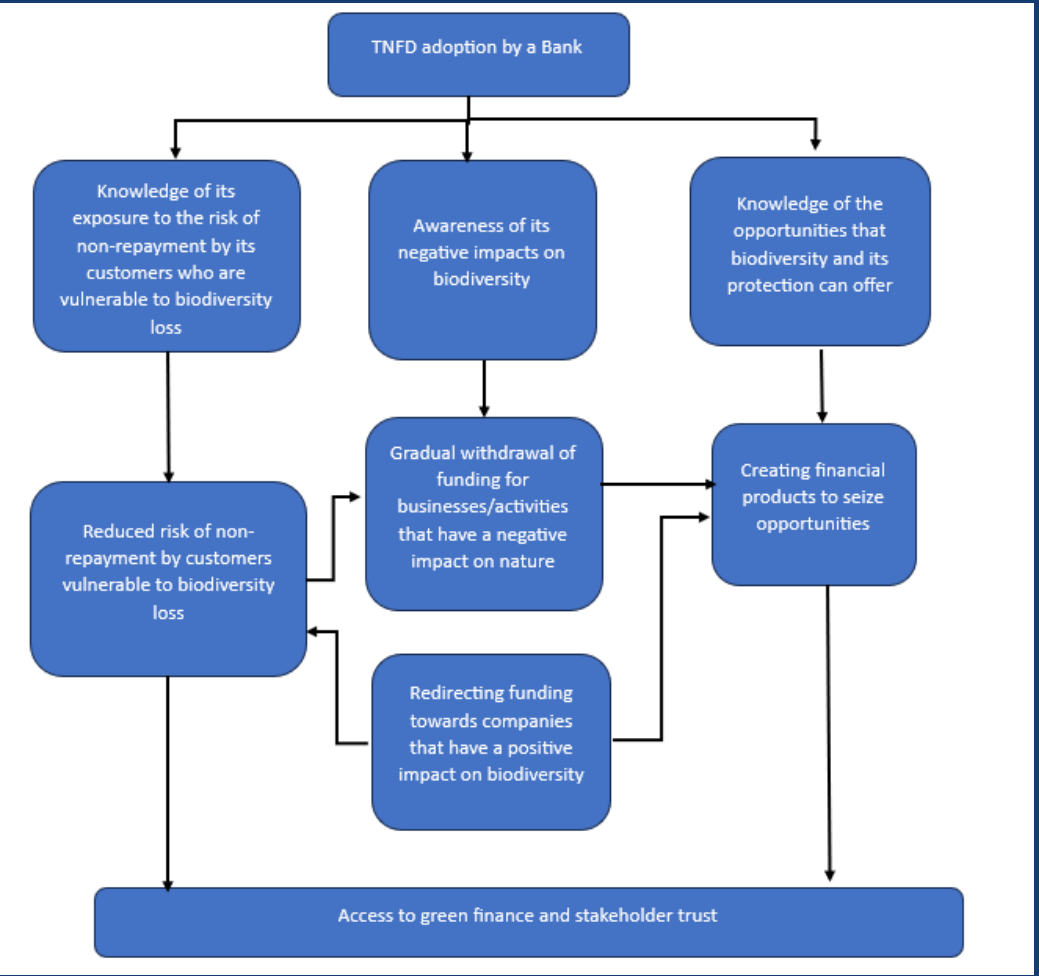
During the assessment, the company would identify:

- Negative impacts such as the degradation of reef ecosystems, the disappearance of certain marine species and the disruption of trophic chains.
- Direct dependencies on the good ecological status of coral reefs, the regeneration of fish stocks and the quality of coastal waters.
- Financial risks linked to the scarcity of resources (drop in income, price instability, loss of jobs), but also economic opportunities thanks to the introduction of sustainable fishing, the emergence of differentiated markets, and the development of participatory ecotourism.

Performance indicators would include: the quota compliance rate, the return of species to protected areas, the evolution of fishermen's incomes thanks to ecotourism, and access to high value-added markets such as Japan.

Finally, let's look at the case of a bank. A bank's adoption of the TNFD framework could transform its financing practices by considering biodiversity-related risks, impacts and opportunities. It highlights a progressive path towards better resource allocation, while building stakeholder confidence and facilitating access to green finance. The diagram provides a simplified illustration of this process.

Box 3: ADOPTION OF THE TNFD: A LEVER FOR RESPONSIBLE AND PRO-BIODIVERSITY FINANCE



In the case of Madagascar, there is currently no official roadmap or specific guidelines from the Commission de Supervision Bancaire et Financière (CSBF) governing green loans, although the BFM encourages banks' initiatives. Despite the absence of a formal institutional framework, some pioneering initiatives show that green lending practices are beginning to emerge. Another significant initiative is the

issue of green, social and sustainable bonds by Société Générale Madagasikara which reached USD 35 million.

Box 4: EMERGENCE OF A FRAMEWORK FOR GREEN FINANCING IN MADAGASCAR

In the absence of formal CSBF guidelines, the private sector and international partners are taking the lead in green financing. They provide a promising frame of reference for the future of green lending in Madagascar. The integration of the BFM and CSBF into the NGFS network could benefit them in the establishment of a regulatory framework for green loans. However, it should be noted that there is an initiative within the BFM to create a climate committee. This committee will define the BFM's and the financial sector's strategy against climate change, coordinate sustainable internal actions and monitor the subject.

It therefore seems essential to actively involve Madagascar's private sector, and the financial sector in particular, in the sustainable management of biodiversity. This presupposes a better understanding of the risks and opportunities associated with nature, as well as the effective integration of these issues into companies' investment strategies and reporting practices.

At the heart of this transition is the principle of double materiality, which invites organizations to assess both the impacts of their activities on ecosystems, and the consequences of environmental developments on their own performance. Transparent communication on these reciprocal interactions is a cornerstone of responsible, forward-looking governance.

Box 5: THE PRINCIPLE OF DOUBLE MATERIALITY

The principle of double materiality, introduced by the European Directive on Corporate Sustainability Reporting (CSRD), means that companies must report on both financial materiality and impact materiality.

Financial materiality refers to the effects of environmental, social or governance (ESG) factors on a company's economic, financial or operational situation. For example, the gradual disappearance of lemurs and other emblematic species of Madagascar's biodiversity, which attract many tourists, can lead to a drop in sales for tour operators and hotels located near natural parks. Conversely, an agricultural business that adopts sustainable practices may obtain recognized environmental certifications, enabling it to access new international markets, notably in Europe or the USA, and thus increase its revenues and profitability.

Impact materiality, on the other hand, concerns the effects - positive or negative - that a company has on its natural, social and societal environment. These may be negative externalities, such as deforestation linked to certain extractive or agricultural activities, or positive externalities, such as ecosystem preservation initiatives or funding devoted to biodiversity restoration.

What are the objectives of the study on Madagascar's readiness to disclose nature-related information?

The objective of the study was to assess the current state of nature-related financial disclosure in Madagascar, identify key gaps, and propose an action plan to strengthen national capacity in this area.

The methodology adopted was based on a combination of literature reviews, consultations with stakeholders and participatory workshops, including a report validation phase. It began with an in-depth documentary analysis of existing legal and regulatory frameworks and reports, which enabled preliminary findings to be drawn. These initial findings were presented and discussed at a launch workshop in July 2024, which brought together more than 50 participants from a variety of backgrounds: banks, supervisory authorities, ministries, NGOs and private sector associations.

The process continued with the drafting of a provisional report, enriched by additional interviews (with stakeholders in the insurance and microfinance sectors), surveys and new documentary reviews, in particular corporate CSR reporting. The analysis of Corporate Social Responsibility (CSR) practices in Madagascar followed a three-pronged approach:

- examination of the practices of the four main Madagascan banks;
- the study of eight CSR or environmental impact reports published online by companies from various sectors;
- the distribution of a questionnaire via a professional network (notably LinkedIn).

However, only twelve responses were received, which limited the quantitative scope of the survey. Nevertheless, it made it possible to explore existing practices and obtain qualitative information on the approaches implemented by the responding companies. These companies operated in a variety of sectors, including agri-food, telecommunications, construction, education and investment.

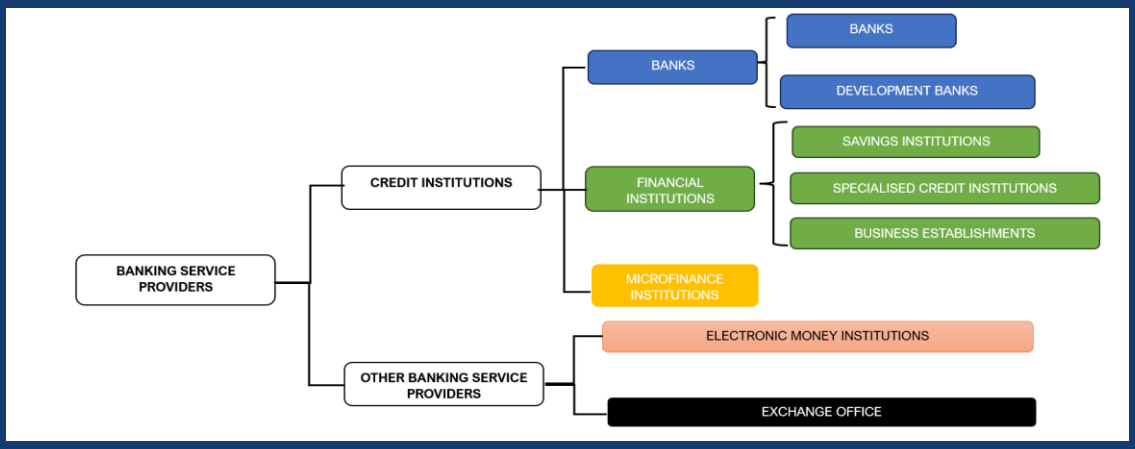
The report was then presented and discussed at a workshop specifically devoted to drawing up and validating the action plan. The workshop brought together representatives from two ministries, the insurance sector, microfinance institutions, business associations and the BIOFIN team.

2. MADAGASCAR'S FINANCIAL SYSTEM AND THE ROLE OF POLICIES IN SUSTAINABLE DEVELOPMENT REPORTING

What does Madagascar's financial sector look like?

Madagascar's financial sector consists mainly of two categories of players: the Central Bank (Banky Foiben'i Madagasikara - BFM) and financial service providers, including banks, insurance companies and private equity firms. Madagascar's financial markets are limited, with a public debt market, a commodity futures market (MEX), and interbank markets for cash and foreign exchange. However, there is no bond market or stock market for equities. This means that investors, such as those who have subscribed to green bonds (e.g. the Green Bonds issued by the former Société Générale, now BRED Madagascar), have no secondary market on which to sell their securities. Banking service providers include 13 banks, 2 e-money institutions and 3 financial institutions, organized under the aegis of the Association Professionnelle des Banques (APB) and the Association des Institutions de Microfinance (APIMF). Private equity companies are grouped within the Association Malgache des Investisseurs en Capital (AMIC). Finally, the insurance sector comprises 5 licensed insurance and reinsurance companies, as well as 25 insurance intermediaries. The following figure provides an overview of the main financial services providers in Madagascar.

Box 6: CATEGORIES OF BANKING SERVICE PROVIDERS



What are the various financial regulatory authorities in Madagascar, what are their respective mandates, and what role do they play in the disclosure of nature-related financial information?

In the context of the disclosure of climate and nature-related information by financial sector industries, we have identified three entities that act as financial authorities: the Commission de Supervision Bancaire et Financière (CSBF), Direction des Opérations Financières and SAMIFIN or *Sampandraharaha Malagasy Iadiana amin'ny Famotsiam-bola* (Madagascar Financial Intelligence Unit).

The box below shows the general mandate and potential roles of these financial authorities in the disclosure of nature-related financial information. These roles are described as "potential" because, although these entities already exercise these functions as part of their mandates on other dimensions, they do not yet apply them specifically to environmental issues.

Box 7: POTENTIAL ROLES OF EACH ENTITY WITH RESPECT TO THE DISCLOSURE OF FINANCIAL INFORMATION RELATED TO NATURE

Name	General mandate	Potential roles in the disclosure of nature-related financial information
Commission de Supervision Bancaire et Financière	Regulation and supervision of the entire financial sector	- Can compel operators to disclose information via its instructions; - Sets regulations and modalities for disclosing information; - Consolidates and publishes financial and non-financial data on the financial sector, including financial information relating to the nature of the sector.
Financial Operations Department	Technical and financial supervision of financial institutions Supervision of entities not subject to supervision by the Commission de Supervision Bancaire et Financière.	- May request financial and non-financial reports, including nature-related financial information - may centralize and consolidate financial information from financial institutions, especially NSEs or Non-Registered Entities - Can assist (technically) financial institutions in the effective implementation of information disclosure
SAMIFIN	Financial information	- Enact, for example through guidelines, procedures for the prevention and detection of money laundering generated by environmental crimes - Collect and analyze data on environmental crime

What existing tools and indicators in Madagascar can be used as a basis for assessing nature-related issues for businesses?

Companies need reliable data and appropriate methodologies to analyze nature-related issues. However, to date, there are no standardized national indicators for natural capital and ecosystem services in Madagascar. In spite of this, several initiatives offer relevant reference points.

Among them, the WAVES (Wealth Accounting and the Valuation of Ecosystem Services) project enables countries to track the economic value of their ecosystems, while the Ecosystem Accounting for Natural Capital (EACN) approach offers a more forward-looking vision, integrating expected ecosystem evolutions. Companies can draw on these initiatives to assess the environmental risks likely to affect their activities, profitability or business continuity.

In addition, there are a number of useful national data sources, some of which are still incomplete or out of date. These include:

- digital platforms such as e-voary.mg, indriconnect.info, haynatiora.mg and natcap.mg, which centralize data on ecosystems, biodiversity, restoration initiatives and stakeholders
- the Tableaux de Bord Environnementaux produced by the Office National de l'Environnement (ONE), in particular the regional tables, which present indicators on the state of the environment, the pressures suffered and the responses undertaken.

Box 8: THE E-VOARY.MG AND HAYNATIORA.MG PLATFORMS: STARTING POINTS ON WHICH COMPANIES CAN BUILD

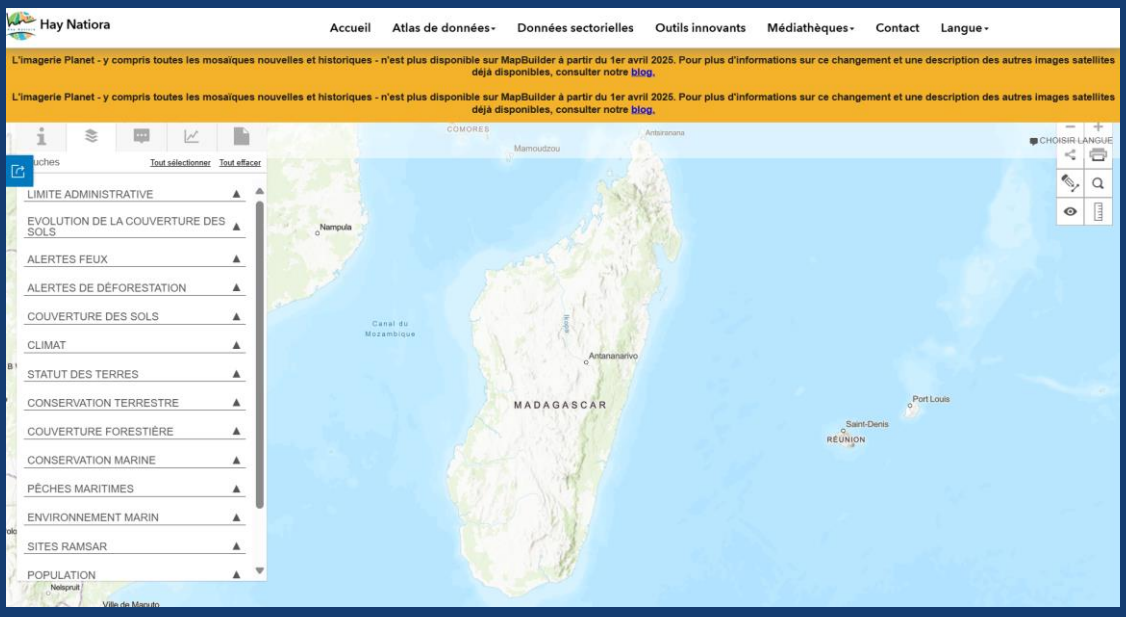
The e-voary.mg platform offers a range of data that can be used by companies in the real sector. For example, there are tabs on Madagascar's Environmental Management Information System (SIGE), the Waste, Pollution and Complaints Management Monitoring System, and the Renewable Natural Resources Management Transfer Information and Management System (TGRNR).

The SIGE contains several indicators, such as:

- Anthropogenic emissions by source of greenhouse gases not regulated by the Montreal Protocol (2020),
- National recycling rate and tons of recycled materials,
- Number of people displaced or missing as a proportion of the total population due to drought (per 100,000 inhabitants),
- Total funding received to cover the additional costs of protecting biodiversity, compared with total funding requested,
- Percentage of degraded ecosystems restored,
- The proportion of degraded land in relation to total land area, etc.

The TGRNR also includes several indicators, such as the activities of COBAs (grassroots communities).

The HayNatiora.mg platform is a portal dedicated to making available the latest data, technologies and tools for biodiversity conservation and natural resource management in Madagascar. It is managed by the Office National pour l'Environnement (ONE) through the Direction des Informations Environnementales, des Connaissances et de la Communication. Like the other platforms mentioned above, HayNatiora.mg offers information on the environment and biodiversity, but this time through interactive maps. It also integrates sector-specific data. The image below gives an example of haynatiora's content.



What is the state of the institutional, policy and regulatory framework for the disclosure of nature-related risks and opportunities in Madagascar?

The institutional, policy and regulatory framework for nature-related risk and opportunities disclosure is still under development in Madagascar. Although certain structures, such as the Commission de Supervision Bancaire et Financière (CSBF), have put in place instructions aimed at guaranteeing the transparency and stability of the financial system, it should be noted that these rules do not yet take into account the specific risks linked to biodiversity and climate change. Currently, the CSBF can request detailed information from financial sector players on an annual basis, but this is mainly limited to financial soundness and consumer protection, without requiring information relating to environmental risks and opportunities.

In terms of corporate social responsibility (CSR), the mining sector is governed by specific requirements set out in Law no. 2023-007 of July 27, 2023 revising the mining code, whereas Malagasy companies generally adopt a CSR approach because they are influenced by various stakeholders such as the ONE or *Office National pour l'Environnemen*t, the State, the population, the parent company or foreign customers, and by the manager's sensitivity to the poverty that is rife in Madagascar. Another influencing factor is the MECIE (Mise en Compatibilité des Investissements sur l'Environnement) decree, which requires investment projects likely to harm society or the environment to carry out an impact study (Harison, 2013; Rabekolo, 2019[10]).

Box 9: THE CORPORATE SOCIAL RESPONSIBILITY PLAN (PRSE) IN MALGARY'S NEW MINING CODE

Articles 241 and 242 of Law 2023-007 stipulate that mining companies must draw up a "Corporate Social Responsibility Plan" (CSRP), which must be the subject of tripartite agreements between the promoter, host communities and local authorities. This PRSE must include three elements, namely:

- social investments ;

- basic infrastructure, particularly in the fields of health, education, energy, communications and hydro-agriculture;

- local content.

[10] Rabekolo, F. (2019). *Modélisation du processus d'adoption de la démarche RSE et de son instrumentation via le reporting sociétal: cas des entreprises localisées à Madagascar.* Université de Poitiers (France); IAE et Harison, V. (2013). RSE: des principes internationaux à la mise en pratique locale. Le cas de deux entreprises malgaches. *Le Management international à l'écoute du local*, 299-317.)

3. NATURE AND CURRENT PRACTICES OF SUSTAINABLE DEVELOPMENT REPORTING IN MADAGASCAR

In Madagascar, there is no regulatory framework or national standards for the disclosure of information on climate, environment or sustainability, or on the biodiversity impact of companies. Companies committed to Corporate Social Responsibility (CSR) and reporting on their environmental impacts are free to choose the standards they wish to adopt.

To gain a better understanding of current environmental reporting and sustainable development practices in Madagascar's private sector, a three-stage analysis was carried out:

- A study of the practices of four major banks operating in Madagascar: BOA Madagascar, BRED Banque Populaire Madagascar (formerly Société Générale Madagasikara), BNI Madagascar and BMOI Madagascar;
- A review of eight CSR or impact reports available online, issued by companies from a variety of sectors;
- Distribution of a questionnaire to a targeted panel of economic players, via our professional network.

Box 10: PRACTICES OF MAJOR MALGACHIAN BANKS

In a context where no regulatory framework prescribes the disclosure of information related to nature or sustainable development, Malagasy banks adopt diverse approaches, often guided by the orientations of their international banking groups.

- Société Générale Madagasikara (now BRED Banque Populaire) has set up a Sustainable and Positive Impact Bond Framework (SPIF Framework), defining eligible activities, selection, exclusion and monitoring criteria. This framework is part of a structured sustainable finance approach. The bank was also assessed by ISS-Corporate on its sustainability credentials, particularly in terms of ESG risks, as part of its positive-impact bond issue.
- Bank of Africa Madagascar (BOA Madagascar), a subsidiary of the BMCE Group, does not publish a specific CSR report for Madagascar. Nevertheless, its sustainability commitments are integrated into the group's publications, which refer to the Sustainable Development Goals (SDGs).
- Banque Malgache de l'Océan Indien (BMOI), part of the BCP group, also does not have a CSR report specific to its Madagascan subsidiary. However, the group's publications are aligned with ISO 26000 and the SDGs as benchmarks for sustainable development.
- BNI Madagascar, part of the Axian group, has undertaken a complete assessment of its carbon footprint (scopes 1, 2 and 3), as well as reforestation initiatives. These actions are mainly highlighted in the environmental impact reports published at Group level.

Box 11: ANALYSIS OF ONLINE CSR/IMPACT REPORTS

COMPANY	BUSINESS SECTOR	DOCUMENTS CONSULTED	DIMENSION/INDICATORS
Star Madagascar	Beverage production	MADAGASCAR CSR REPORT 2020	Compensatory actions (Indicators: Trees planted) Water management (Indicators: Reduction in water consumption) Waste management (Indicators: Tonnes of waste recycled at factories; Tonnes of PET waste collected) Other (Indicators: Budget for CSR actions)
UNIMA	Shrimp production and sales	Social and Environmental Responsibility Report 2022-2023	Biodiversity (Indicators: preserved areas in hectares, hectares of preserved mangroves; hectares of protected areas network established) Compensatory actions (Indicators: trees planted) Carbon policy (Indicators: CO2 sequestration; carbon footprint)
RIO TINTO QMM	Extractive and mining industries	Committed to Madagascar 2020	Compensatory actions (Indicators: hectares of protected areas created; annual investments in the environment and the community)
Ambatovy SA	Extractive and mining industries	Ambatovy: SUSTAINABLE DEVELOPMENT REPORT 2017	Compensatory impact and action (Indicators: ha of mining footprint; ha of compensation area) Biodiversity (Indicators: New orchid species classified, species rescued) Waste management (Indicators: Quantity of waste in m3 and its disposal; recycling in m3; tonnes of rock and soil with unprofitable concentrations) Water management (Indicators: Water withdrawal during operations) Carbon policy (Indicators: Overall GHG emissions) Other (Indicators: Number of environmental incidents)
INVISIO GROUP	Mixed	INVISO GROUP CSR REPORT - THINK IMPACT 2022	Waste management (Indicators: Tonnes of recycled materials; kg of waste avoided annually; number of bottles and containers avoided; number of pallets reconditioned; sorting bins installed; cardboard and paper processed; plastics processed) Compensatory actions (Indicators: number of plants planted during reforestation operations)
AXIAN	Mixed	EXECUTIVE SUMMARY IMPACT REPORT 2022 + INTERACTIVE IMPACT REPORT 2022	Compensatory actions (Indicators: Number of seedlings planted with 5 years of monitoring; hectares of vegetation restored; number of households equipped with domestic solar kits; mangrove restoration) Energy transition (Indicators: Percentage of installed power plant capacity that is renewable energy; percentage reduction in electricity consumption; technical sites powered by renewable energy) Impacts (Indicators: TOTAL EMISSIONS IN TCO2E SCOPE 01, SCOPE 02, SCOPE 03; tonnes of CO2 emissions avoided) Waste management (Indicators: Units of waste electrical and electronic equipment recycled and reused by certified organisations)
EPSILON	Textiles	CSR REPORT 2023 A RESPONSIBLE COMPANY, A SUSTAINABLE COMPANY	Waste management (indicators: Total waste produced; waste recycled internally; waste recycled externally; waste sent to landfill) Water management (indicators: absolute consumption; recycled water reused from the former water treatment plant) Energy transition (Indicators: Absolute consumption; solar production) Compensatory actions (Indicators: Plants reforested; plants offered to partners and collaborators; species planted; survival rate)
Orange Madagascar	Telecommunications	CSR Report 2022: Towards responsible digital technology	Energy transition (Indicators: Renewable energy ratio; technical sites powered by wind energy; % reduction in fuel oil consumption; Renewable Energy ratio) Carbon policy (Indicators: Scope 1 CO2 emissions) Waste management (Indicators: % reduction in the amount spent on reconditioned purchases; % of IT equipment purchases from the circular economy)

What can we learn from the CSR and environmental impact reports published online by companies in Madagascar?

The publication of corporate social responsibility (CSR) reports in Madagascar is generally motivated by reporting requirements at the level of international groups, or by the desire to comply with recognized standards, particularly with a view to gaining access to foreign markets.

The benchmarks used in the reports analyzed include:

- United Nations Sustainable Development Goals (SDGs)
- International Finance Corporation (IFC) Performance Standards
- Equator Principles
- United Nations Global Compact

The most frequently used indicators focus on :

- Compensatory actions: number of trees planted, number of seedlings under monitoring (5 years), surface area of vegetation restored, number of households with solar kits, mangrove restoration projects.
- Waste management: total waste produced, proportion recycled internally, proportion recycled externally, volume sent to landfill.

Other indicators also appear in certain reports:

- Water management: total consumption, volume reused via wastewater treatment plants.
- Environmental impact: surface area of mining footprint.
- Carbon policy: CO_2 emissions, carbon sequestration.
- Energy transition: energy consumption, solar production.
- Budget allocated to CSR (mentioned in only one case).

Finally, only two companies make explicit reference to biodiversity through indicators such as hectares of protected areas or mangroves restored.

How do organizations perceive and disclose nature-related risks and opportunities through survey results?

A survey was carried out among 12 companies in Madagascar to assess their current practices in disclosing information on nature-related risks and opportunities. The companies responding to the survey operate in a variety of sectors. Some operate in several fields, including notebook production, oxygen and acetylene manufacturing, printed plastic film production, the purchase and resale of medical equipment, the production and export of chillies and pineapples, and industrial space rental. Other companies specialize in specific sectors such as construction and public works, education, telecommunications, auditing, chartered accountancy and consultancy, international solidarity, communications and media. Some companies are also involved in investment activities and in the fishing and aquaculture sectors. The main findings are as follows:

- Dependence on natural factors: 50% of organizations recognize a dependence of their revenues or fixed assets on natural factors (climate, water, flora/fauna, etc.).
- Influence on the natural environment: 67% of respondents claim to exert a direct or indirect influence on natural elements through their activities or those of their stakeholders.
- Publication of nature-related information: only half of organizations claim to publish information on the risks and opportunities associated with natural factors.
- Types of reports published: 50% of organizations publish an annual or integrated report including non-financial elements, while 25% publish a dedicated sustainability report (CSR or Impact). On the other hand, 41.7% do not publish their financial statements online.
- Standards used: of the 9 organizations that answered this question, 66.7% use the United Nations' Sustainable Development Goals (SDGs). Other benchmarks mentioned include the UN Global Compact, IRIS+ standards and the specific requirements of their customers' specifications.

Current nature-related reporting practices in Madagascar reveal several important trends. Firstly, there is a growing awareness of the principle of double materiality, according to which companies must not only measure their impact on the environment but also assess how environmental changes influence their activity. However, the absence of systematic assessment remains a major obstacle: indicators are rarely standardized, and analyses of dependencies or nature-related risks remain ad hoc.

Disclosure of information remains largely voluntary, with no generalized normative framework at national level. Most published reports take a purely material approach, i.e. they are limited to describing the actions taken, without measuring their effects or integrating sustainability issues into the company's strategy.
Against this backdrop, it would appear necessary to strengthen Malagasy companies' in-house expertise in environmental assessment and disclosure, and to set up harmonized national frameworks. This would

improve the comparability of reports, better meet the expectations of international financial partners, and promote access to green financing.

Box 12: SURVEY RESULTS

Dependence on natural factors

50% of companies say they depend on natural factors (water, climate, flora/fauna, pollution, etc.), while 50% say they do not.

Influence on natural factors

67% of respondents indicated that they exert influence over natural factors, while 33% responded negatively.

Risk and opportunity assessment

50% of respondents indicated that they assess the risks and opportunities associated with the influence of natural factors, while 50% responded negatively.

Types of published reports

The most commonly used medium for organizations to inform their stakeholders is the integrated annual report (including non-financial information), published by 50% of the companies surveyed. This is followed by annual financial statements and CSR/sustainability/impact reports, each published by 25% of companies.

Four companies do not disclose any information on their websites and therefore do not publish any reports.

Two companies claim to publish reports, but not at the Madagascar level (consolidated and published at the group level, internationally).

Standards, guidelines and initiatives used

The Sustainable Development Goals (SDGs) are the most frequently mentioned, followed by the United Nations Global Compact, SASB, GRI, IRIS+ and specific contractual requirements.

4. CONCLUSIONS AND RECOMMENDATIONS

What are the main entry points for preparing Madagascar for nature-related financial disclosure?

The financial authorities' analysis highlights the need to integrate biodiversity and climate change risks into financial regulation. The CSBF does not yet have a regulatory framework in this area, which requires capacity-building for its regulatory and supervisory departments. Training on international frameworks (ISSB, GRI, TCFD, TNFD) and on central bank practices would support the development of an appropriate regulatory framework. In addition, the BFM and CSBF could take advantage of the best practices of the NGFS network to integrate these dimensions into financial supervision.

The updating and transparency of the sector's financial information remains a major challenge. The updating of documents published by the BFM, in particular the CSBF report, is essential to ensure effective monitoring and to keep market players informed. It is therefore recommended to strengthen institutional capacities and adopt new technologies to improve the collection and analysis of financial data. In addition, SAMIFIN, which applies an interconnected approach to combating illicit financial flows, could integrate environmental risks into its framework of action and improve the communication of its data to the public.

On the statistical front, INSTAT and ONE need to broaden their scope to include environmental and climate data. Although INSTAT has a business statistics department, it does not yet systematically collect such data. Permanent mechanisms therefore need to be put in place to improve the updating and quality of business and environmental statistics. ONE, as the regulator of environmental data, should also broaden its scope to cover nature-related risks.

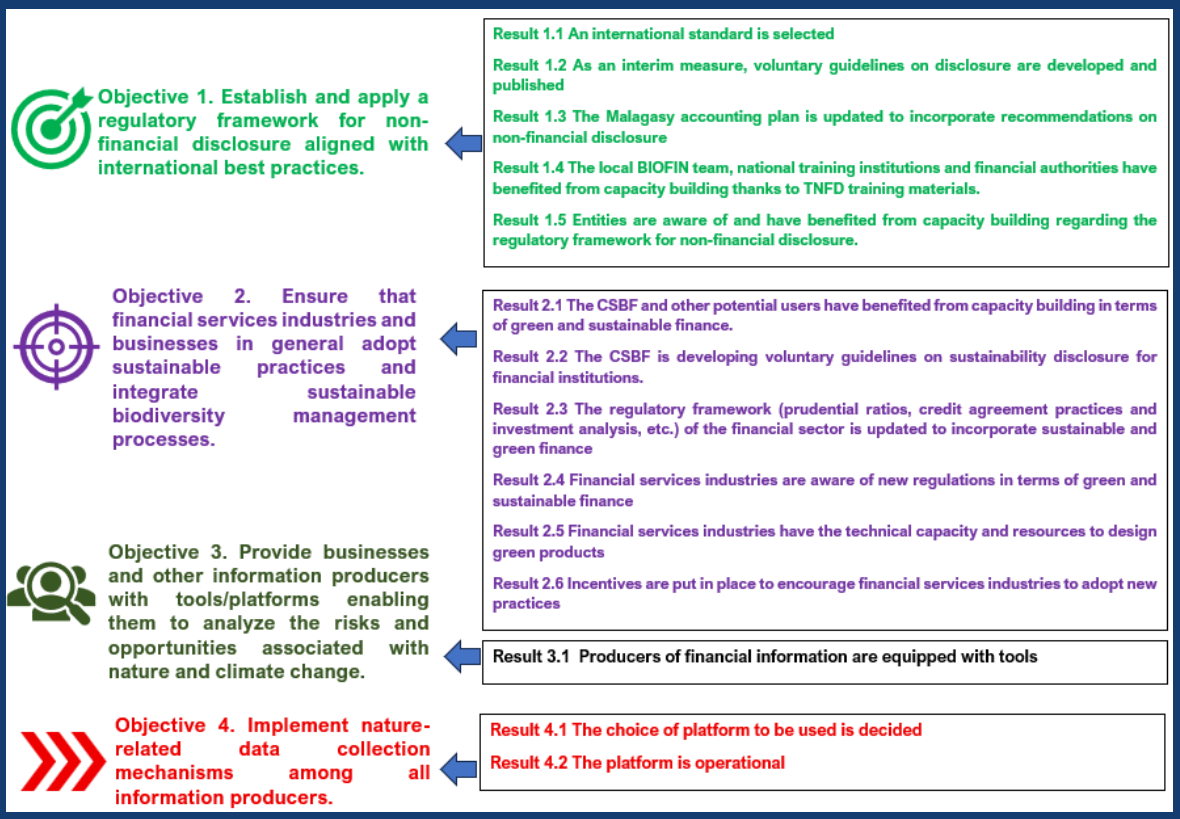
Lastly, updating Madagascar's accounting framework is a priority, in order to incorporate international sustainability standards such as IFRS S1 and S2. The flexibility of the 2005 General Accounting Plan needs to be preserved to adapt to the capacities of local companies, while gradually introducing double materiality and clarifying the integration of extra-financial reporting. Once this update has been completed, awareness-raising and training campaigns will be necessary to ensure gradual and effective adoption by the stakeholders concerned.

What actions can be taken to prepare Madagascar for the dissemination of nature-related information?

The study commissioned by UNDP/BIOFIN Madagascar, supplemented by the consultations carried out, identified some thirty strategic actions covering the short term (2025-2026), the medium term (2027-2028) and the long term (2029-2030).

These actions are aimed at achieving four major objectives. Firstly, the establishment and application of a regulatory framework for financial disclosure based on the principle of double materiality, to ensure that the environmental and social impacts of economic activities are better taken into account (objective 01). Secondly, the integration of sustainability principles into the financial services industries and economic entities in general, thus promoting more responsible management (objective 02). In addition, these actions provide for the development of tools and platforms enabling companies and information producers to analyze the risks and opportunities associated with nature and climate change (objective 03). Finally, they will contribute to the establishment of effective environmental data collection mechanisms, involving all information producers, in order to improve the quality and availability of the data needed for informed decision-making (objective 04).

Box 13: RESULTS FRAMEWORK



To achieve these results and objectives, various actions are proposed, revolving around the establishment of a coherent normative framework, capacity-building for key players, the promotion of sustainable practices in the financial sector, and the improvement of nature-related data collection and analysis tools. The plan is to carry out comparative analyses to identify the international benchmarks best suited to the Malagasy context (GRI, ESRS, TNFD, etc.) and to draw up voluntary guidelines for sustainability disclosure. These will be widely disseminated.

At the same time, the standard-setting body, the *Conseil Supérieur de la Comptabilité*, could consider updating the national chart of accounts and sector guides, particularly for credit institutions. Training campaigns are recommended to be deployed by technical assistance programmes such as UNDP BIOFIN, national training institutions, financial authorities, accountancy professionals and companies. Capacity building should also cover the certification of non-financial information.

In the field of financial services, initial and ongoing training programs are recommended to be offered to the CSBF and other institutions to prepare them to integrate the dimensions of green and sustainable finance into their regulatory tools. Voluntary guidelines can be developed for them, accompanied by studies and benchmarks to update the applicable regulatory framework. These new rules are recommended then to be the subject of a communication campaign aimed at players in the sector, who can also receive support in designing sustainable financial products and accessing incentive schemes, such as subsidies, technical support and forums for meetings between investors and institutions.

Finally, simple, it is recommended to design tailored tools to help report producers analyze the risks and opportunities associated with nature and climate. Their distribution can be accompanied by practical training courses. In-depth analyses should also be carried out to determine which digital platform should be used to centralize the collection of environmental data. Madagascar already has digital platforms such as the Système National Intégré de Suivi-Évaluation (SNISE) and the Système d'Information de Gestion Environnementale (SIGE), which centralize data on the impacts of public policies and development programs. However, SNISE is limited to impact, effect and output indicators, without including financial data, and encounters difficulties linked to a lack of resources for cross-checking and validating information. In parallel, some platforms such as e-voary facilitate

access to environmental data for companies, while SIS-ENS and e-hetra enable the collection of financial data, although their scope remains restricted.

Given these limitations, two technological options can be considered to improve the digital disclosure of environmental and financial information. The first is to adapt the tax declaration tool managed by the tax authorities (Direction Générale des Impôts) to include environmental and biodiversity indicators, which would require collaboration protocols with the tax authorities. The second option would be to develop a new dedicated national platform, bringing together financial data, environmental risk indicators and information on financing linked to the preservation of ecosystems.

In the Malagasy context, it is also essential to deploy a system for recording environmental expenditure by companies and other private entities. Although this information does not fall directly within the strict definition of "nature-related financial information", its collection is a strategic priority. The framework adopted for the implementation of disclosure will therefore have to respond to this dual challenge: on the one hand, to provide reliable data on environmental expenditure by economic players, and on the other, to lay the foundations for a gradual transition towards genuine disclosure of nature-related risks, dependencies, impacts and opportunities, in line with international standards and frameworks.

About BIOFIN in Madagascar

In 2019, Madagascar joined the Global Biodiversity Finance Initiative (BIOFIN) to develop a Biodiversity Financing Plan (BFP).

BIOFIN Madagascar also carried out a Policy and Institutional Analysis (API), a Biodiversity Expenditure Analysis (ADB) and a Financing Needs Assessment (FNA). These analyses revealed that biodiversity is still poorly integrated into public policies, and that spending on its conservation remains limited (less than 3% of the public budget). The EBF estimated the financial requirements for implementing the National Biodiversity Strategy and Action Plan (SPNAB) from 2022 to 2025 at around 900 million dollars.

This methodological phase was completed in December 2022 with the finalization and validation of the PFB by the National Steering Committee. The plan identifies 14 priority financing solutions, such as the extension of Protected Areas, climate change financing and ecological offsetting, aimed at mobilizing sustainable resources for biodiversity. In addition to these solutions, the aim is to better integrate the private sector into sustainable nature management.

BIOFIN Madagascar is currently implementing five financing solutions:

1. Improving public budget execution through results-based management (RBM).
2. Diversifying and increasing funding sources for institutions that finance protected areas.
3. Mobilization of financial resources to ensure sustainable management of forest resources.
4. Study of Madagascar's readiness to disclose nature-related financial information.
5. Development and implementation of a sustainable financing strategy for the blue economy, focusing on the sustainable use of marine and coastal resources with climate co-benefits.

This technical note is based on a study commissioned by UNDP/BIOFIN Madagascar. The findings, interpretations and recommendations expressed in this document do not necessarily reflect the views