

Monitoring, Reporting and Verification (MRV) System

BRAZILIAN SUSTAINABLE TAXONOMY

SECRETARIAT OF
ECONOMIC POLICY

MINISTRY OF
FINANCE



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Monitoring, Reporting and Verification System (MRV)

Introduction

This document presents the proposed objectives, methodological processes, governance structure, and implementation timeline of the Monitoring, Reporting and Verification (MRV) System of the Brazilian Sustainable Taxonomy (TSB). The recommendations outlined in this document are aligned with the TSB's Action Plan (BRASIL, MF, 2023) and take into consideration the main references of the international and national best practices for the implementation of sustainable taxonomies and MRV systems.

The first section, *The MRV System of the Brazilian Sustainable Taxonomy*, outlines the expected objectives of the TSB's MRV System, in view of its relevance to the achievement of the TSB's objectives.

The second section, *Methodological Processes and Definitions*, provides definitions regarding the methodological processes designed for the implementation and operationalization of the TSB's MRV System. The following three sections — *Reporting*, *Monitoring*, and *Verification* — provide considerations on the definition of key performance indicators for reporting by organizations and the processes relating to the stages of monitoring and verification of the reported data.

These three sections provide preliminary proposals for the timeline of each implementation stage of the TSB's MRV System, considering the definition of milestones for its operationalization. They also propose an information flow structure to adapt data reporting to the reality of Brazil's sustainable finance ecosystem, in the light of relevant international experiences — such as the Taxonomy of the European Union (EU).

Finally, in the last section, *Governance of the MRV System*, the governance structure proposed for the MRV System is presented, considering the delimitation of the key actors who will be involved in the monitoring, reporting and verification stages, the definition of responsibilities, and the need to build the MRV Portal of the TSB.

The MRV System of the Brazilian Sustainable Taxonomy

The TSB's MRV System¹ is a normative, methodological, and governance structure that aims to ensure the monitoring, reporting, and verification of capital flows related to sustainable activities in accordance with the TSB, contributing to its transparency and integrity.

The **Reporting** element refers to the process of organizations making available information relating to the TSB, following specific methodological processes in accordance with the regulations and requirements that will be established for disclosing the information. At the reporting stage, the organization's information, at the level of TSB-aligned² or partially aligned³ activities, will be submitted so that it can later be monitored. The recommendations regarding the reporting of TSB-related information are described in the section *Reporting*.

¹ Hereafter referred to as the **MRV System**.

² Defined based on compliance with the technical criteria defined for each activity, including the criteria of Substantial Contribution to at least one of the TSB's climate, environmental, and socio-economic objectives, of Do No Significant Harm to any of the other objectives, and compliance with the Minimum Safeguards.

³ Defined based on compliance with the Minimum Safeguards and the criteria of Substantial Contribution to at least one of the TSB's climate, environmental, and socio-economic objectives.

The **Monitoring** element refers to the ongoing process of analysis and management of the TSB-related data. From a systemic point of view, this process aims to assess the development and evolution of capital flows directed towards TSB-aligned or partially aligned economic activities. At the organizational level, the monitoring of sustainable activities is relevant for managing processes and information flows related to TSB-relevant activities and the organization's sustainability objectives.

The **Verification** element refers to the process of assessing and validating the quantitative and qualitative information reported, so that it complies with the requirements of the TSB and the regulations linked to it, guaranteeing the credibility and integrity of the data reported and monitored.

The MRV System will also be relevant for guiding and monitoring public policies and financial incentives by measuring the information reported and the evolution of financial flows, providing support for identifying gaps and progress in the sectors covered by the TSB. One of the pillars of this monitoring will be the **MRV Portal**, an interface for aggregating financial information related to the TSB, explained in more detail below.

Although not being its main objective, the MRV System can also serve as an instrument for implementing and monitoring the progress of contributions to sustainability targets at the national level, such as metrics linked to the Sustainable Development Goals (SDGs) and the Nationally Determined Contributions (NDC) to the Paris Climate Agreement, according to Brazil's Climate Plan (*Plano Clima*).

Objectives of the MRV System

Based on the TSB's Action Plan, and the meetings, literature review, public consultations and other forms of stakeholder engagement of the MRV Working Group (WG), two strategic objectives of the MRV System are proposed to guide its design, implementation, and assessment phases:

- 1. Organize the reporting, monitoring, and verification of the information by systematizing data from financial flows aligned or partially aligned with the TSB, with the aim of supporting the TSB's strategic objectives.**

The information gathered through the MRV System should contribute directly to the TSB's strategic objectives,⁴ with special attention to the objective of creating a basis for "producing reliable information on sustainable finance flows by encouraging transparency, integrity and a long-term vision for economic and financial activity" (BRASIL, MF, 2023). In this way, the MRV System is expected to organize in a structured way the information regarding the flows aligned or partially aligned with the TSB, as well as their verification, allowing the monitoring of the data reported by the organizations covered by the TSB.⁵

Thus, the main strategic objective of the MRV System is to enable the **monitoring of financial information reported** to systematize data about sustainable finance at the national level according to the classification of activities and the technical criteria defined for its eleven climate, environmental, and socio-economic objectives.

⁴ The TSB's strategic objectives according to the TSB Action Plan are (BRASIL, MF, 2023): 1. Mobilize and redirect public and private financing and investment toward economic activities with positive climate, environmental, and social impacts, promoting sustainable, inclusive, and regenerative development; 2. Promote technological densification aimed at climate, environmental, social and economic sustainability, increasing the Brazilian's economy productivity and competitiveness on a sustainable basis; 3. Establish a foundation for producing reliable information on sustainable finance flows by encouraging transparency, integrity and a long-term vision for economic and financial activity.

⁵ Namely, publicly-held or not publicly-held financial companies (financial institutions, banking institutions, asset management firms, and investment funds), non-financial companies (listed public companies, unlisted public companies, and not publicly-held companies, including large-, medium- and small-sized companies), insurance companies, and supplementary pension plan entities (public and private). The timetable for these organizations to join the TSB, as well as whether membership is mandatory, will be described in sections The Reporting, Monitoring, and Verification.

2. Provide transparency and credibility to the financial flow aimed at the TSB's climate, environmental, and socio-economic objectives.

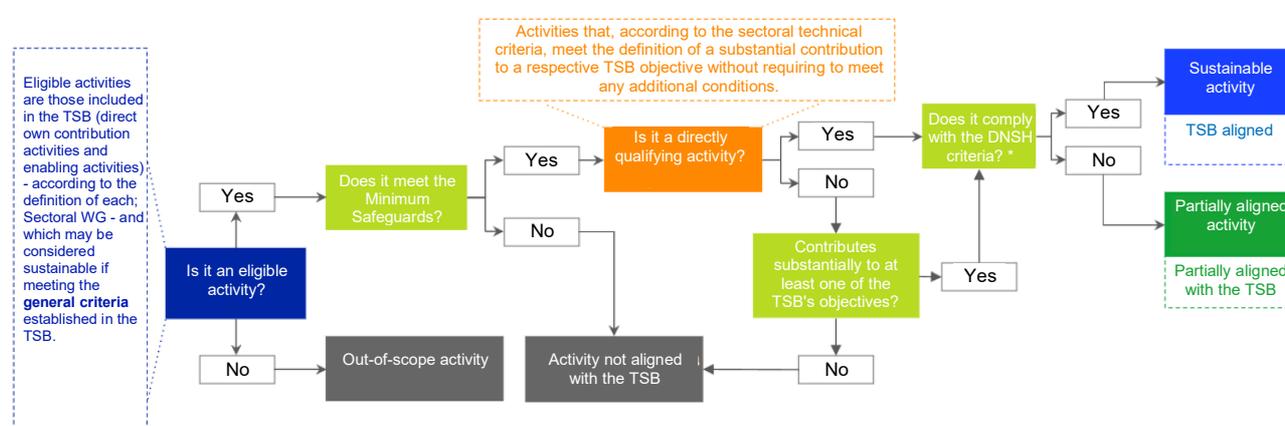
Considering the need to align the MRV System with the TSB's objectives, the second strategic objective of the MRV System is to **provide transparency and accessibility to data and information** related to the TSB, allowing different actors to monitor and assess the progress of organizations and the country towards a more sustainable economy.

The TSB Action Plan states that it is necessary to "create objective metrics for assessment, monitor the volume and pace of proceeds allocated in order to identify any gaps, and update financial instruments, eliminating the risk of illegal activity" (BRASIL, MF, 2023). Since the MRV System will be the instrument for the TSB's operationalization, it is expected that its development will not only provide transparency and credibility to financial flows aligned or partially aligned with the TSB but also provide the public with quality information about activities declared as "sustainable". This will, for example, allow decision-makers to use the data from the MRV System to guide the creation of public policies and the adoption of investment practices that are more sustainable and in line with the TSB's climate, environmental, and socio-economic objectives.⁶

Methodological processes and definitions

To define how the MRV System's operationalization will take place and to understand how information about the economic activities covered by the TSB will be included in the System, the following methodological structure is proposed:

Figure 1 — Categorization of activities within the scope of the TSB



Source: Own elaboration.

*Note: During the initial phase of the introduction of the TSB, the DNSH criteria will apply to a limited extent. A methodology based on the differentiated materiality of the DNSH criteria by sector and objective will be tested. Based on the results, the requirements for applying the DNSH criteria during this transitional phase will be defined.

⁶ The MRV WG carried out an in-depth study of the financial system's sustainability-related regulations, covering more than a dozen specific regulations analyzed. Among the regulations analyzed were those of the National Monetary Council (*Conselho Monetário Nacional* (CMN)) (3), the Central Bank of Brazil (*Banco Central do Brasil* (BCB)) (2), the Securities and Exchange Commission (*Comissão de Valores Mobiliários* (CVM)) (5), the National Superintendence of Complementary Pensions (*Superintendência Nacional de Previdência Complementar* (PREVIC)) (1), and the Superintendence of Private Insurance (SUSEP) (1), which are directly connected with the purposes of the MRV System.

TSB-aligned activities (sustainable activities)

Economic activities are considered *aligned* with the TSB (or *sustainable*) if they are eligible activities⁷ and meet all of the TSB's general alignment criteria, i.e., when they contribute substantially to at least one of the TSB's climate, environmental, and socio-economic objectives, do no significant harm (DNSH) to any of the other objectives, and meet the minimum safeguards (MS). This includes *directly qualified* activities⁸ that comply with the DNSH criteria and MS. The definition of the specific technical criteria for substantial contribution and DNSH is based on the work carried out by the Sectoral Technical Groups (WGs).

When reporting TSB-related information, it is suggested that organizations report — in aggregate form — key performance indicators described in the section *Reporting*, as well disaggregated information about the aligned activities or assets, called *characterization information*. The following sections will detail aspects relating to information reporting, monitoring, and verification of TSB-related information.

Partially TSB-aligned activities

Economic activities are considered partially TSB-aligned if they are eligible activities that comply with the MS and substantial contribution criteria to at least one of the climate, environmental, and socio-economic objectives of the TSB — but that do not meet or do not provide evidence for meeting the DNSH criteria.

The proposal to incorporate the *partial alignment* category into the reporting structure arises from the need to facilitate the initial TSB implementation in regulatory and institutional environments marked by heterogeneous technical capabilities, information asymmetries, and low maturity in the systems for classifying and verifying economic and financial activities and assets — challenges which may, at an early phase, limit the capacity to capture all the requirements for proving the sustainability of activities. It is therefore a transitional and pragmatic strategy to encourage voluntary adherence and prepare the ground for gradual progress on alignment, while at the same time allowing to some extent the measurement of sustainable financial flows, contributing to the systematization of data, mobilization of resources, among other objectives related to the TSB. The adoption of the partial alignment category to the TSB reporting structure does not impact its status as a binary classification instrument, given that the adoption is of a temporary nature.

The incorporation of the partial alignment category also requires the recognition that the frameworks currently used by financial institutions, such as internal green credit policies, labeling schemes, and socio-environmental and climate criteria may continue to apply during a transitional phase. The temporary use of the partial alignment category offers a suitable time window for these frameworks to gradually and incrementally accompany the regulatory, methodological, and operational adjustments that will result from the TSB introduction.

It is therefore recommended that reporting organizations follow this transition path and be prepared for the future full integration of the alignment criteria, according to the deadlines and guidelines defined in the TSB implementation process. This integration should take place as the national market evolves in terms of governance, technical infrastructure, and data availability, promoting greater reliability and consistency in the application of the technical criteria.

⁷ Eligible activities are those listed by the TSB, according to the selection of each Sectoral WG, and that can be considered sustainable if they meet the general alignment criteria established in the TSB.

⁸ Activities that, according to the analysis of the Sectoral WGs, meet the definition of a substantial contribution to a TSB objective without having to meet any additional technical criteria. However, to be considered *TSB-aligned* or *sustainable*, they must additionally meet the DNSH criteria and the MS.

Reporting

In order to define the indicators and methodological procedures for reporting the key performance indicators under the TSB's MRV System to assess organizations' adherence to the TSB's climate, environmental, and socio-economic objectives, the proposals in this section take as a reference the indicators and methodologies adopted by the European Union (EU) Taxonomy, adapting them to the TSB in accordance with the reality of the Brazilian financial ecosystem.⁹

As a priority, it will be necessary for the regulatory entities to assess relevant regulations for their potential linkage to the TSB. It is therefore suggested that the competent regulatory authorities carry out an in-depth assessment of the feasibility of linking existing regulations to the TSB and communicate to the Interinstitutional Committee of the Brazilian Sustainable Taxonomy (*Comitê Interinstitucional da Taxonomia Sustentável Brasileira* (CITSB)) how they intend to link them.¹⁰ Generally speaking, regulations should consider the following (non-exhaustive) options for reporting requirements:

- i. Description of how and to what extent the organization considers or intends to consider the TSB in its strategy, governance, processes, products and services, and risk management;
- ii. Characterization information¹¹ of aligned or partially aligned activities:
 - a. TSB objective(s) to which they contribute;
 - b. Sector and National Classification of Economic Activities (*Classificação Nacional de Atividades Econômicas* (CNAE)) code (division, group, class, and subclass);
 - c. Description of the activity;¹²
 - d. Geolocation of the activity, where available;¹³
- iii. For **non-financial companies**, the following key performance indicator *Proportion of Sustainable Economic Activities* (*Proporção de Atividades Econômicas Sustentáveis* (PAES)), based on:
 - a. **Revenue, or turnover** (in BRL and as a % of the total) generated from products or services associated with aligned economic activities aligned;
 - b. **Capital expenditure (capex)** (in BRL and as a % of total capital expenditure) related to assets or processes associated with aligned activities;
- iv. For **financial companies**, the following key performance indicators of the credit or investment portfolios:
 - a. **Proportion of Sustainable Assets** (*Proporção de Ativos Sustentáveis* (PAS)), calculated from the financed economic activities that are TSB-aligned;
 - b. **Proportion of Sustainable Enabling Operations** (POVS), calculated from operations that enable TSB-aligned economic activities;
 - c. **Proportion of Sustainable Investments** (PIS), calculated from invested economic activities that are TSB-aligned;

⁹ Despite the relevance of the taxonomies of Mexico, Colombia, and other national sustainable taxonomies for the elaboration of the TSB, for the MRV System in particular, including the definitions on methodologies and structures for monitoring, reporting and verification of aligned activities, the experience of the EU Taxonomy provides a greater number of references and regulatory instruments under implementation, unlike the other examples cited that currently are not subject to a regulatory framework.

¹⁰ It will therefore be important for the National Monetary Council (CMN), the Securities and Exchange Commission (CVM), and the Central Bank of Brazil (BCB) to have a period of adaptation to ensure that their regulations allude to the qualifying information and key performance indicators that must be reported by financial and non-financial companies whose activities are aligned or partially aligned with the TSB. The information should be as clear as possible, although challenges are expected, as has already been pointed out in international experience (UNEP FI, 2021; PwC, 2024; TEG, 2020).

¹¹ It refers to disaggregated information about aligned or partially aligned activities.

¹² The description of the activity refers to the need to detail the type of activity, according to the definitions that will be covered in the respective sectoral chapters.

¹³ It is suggested that activities involved in productive land use also include georeferencing data.

- v. For **financial products labeled** as "sustainable" ("aligned") or "partially aligned", the level of alignment with the TSB, among other information;
- vi. Whether the reported information is verified or audited¹⁴ by an independent verifier, informing the name of the entity, if applicable, and accesses information to the verification document.

During the initial transition phase, each of the key performance indicators listed above can also be reported — via separate sub-indicators — for partially aligned activities.

Since collecting the data and calculating the indicators suggested above brings a considerable level of complexity to reporting organizations, it is necessary to provide clear guidelines for the TSB users.¹⁵ It should be noted that the detailed methodological composition of each key performance indicator, as well as the procedures for measuring and consolidating the data, will be the subject to in-depth technical analysis, participatory validation as part of the regulatory process, and periodic evaluations. This definition will take into account the refinement of measurement criteria, the adequacy of available information bases, sector specifics, and harmonization with existing accounting and prudential structures. The evolution of these definitions will be dealt with at a later stage of the TSB's development, as proposed in the section *Reporting timeline*.

Non-financial companies

Organizations considered as non-financial companies include:

- i. Listed public companies (including smaller companies);¹⁶
- ii. Unlisted public companies;¹⁷
- iii. Closely-held companies¹⁸ (including large, medium- and small-sized companies).

For non-financial companies, in a first phase (**WAVE 1**), the adoption of key performance indicators for reporting to the TSB is proposed for listed public companies, excluding smaller companies. For the purposes of applying the principle of proportionality and phased implementation, the concept of "smaller company" defined through CVM Resolution No. 232/2025 is adopted.¹⁹ The prioritization of listed public companies in this first phase results from the existence of a specific regulatory framework for this market segment that already determines guidelines for sustainability reporting, labelling of sustainable securities as well as other environmental, social governance (ESG) linked to the activities of these organizations.²⁰

In a second phase (**WAVE 2**), it is suggested to extend reporting requirements to smaller listed public companies, unlisted public companies, and large, medium- and small-sized closely-held companies, or part of them, considering the principles of proportionality and applicability, proposing specific processes and indicators for these organizations.²¹

¹⁴ This topic is currently under development, and additional recommendations will be made progressively, according to the stages foreseen in the TSB implementation timetable.

¹⁵ For reference, see European Commission (2021a) and UNEP FI (2022).

¹⁶ As defined by Law No. 6.404/1976 and its amendments. Using the official translation of *Companhias abertas listadas*, as per Resolution CVM No. 80/2022, Resolution CVM No. 193/2023 and Law No. 6.404/1976.

¹⁷ Using the official translation of *Companhias abertas não listadas*, as per Resolution CVM No. 80/2022, Resolution CVM No. 193/2023 and Law No. 6.404/1976.

¹⁸ Using the official translation of *Companhias fechadas*, as per Law No. 6.404/1976.

¹⁹ From then on, this nomenclature will always exclude smaller companies subject to different regulatory requirements.

²⁰ As in CVM Resolutions No. 193/2023 and No. 80/2022 (as amended by CVM Resolution No. 59/2021).

²¹ The phasing of the reporting application for closely-held companies according to their size should be defined in the next phases of the TSB implementation, as described in the Figure 4, in which a preparation phase for the inclusion of the segments of WAVE 2 is foreseen in T+1.

Structure of the key performance indicators

The process of measuring sustainable economic activities requires a technical approach that makes it possible to capture, in a comparable and consistent way, the TSB alignment of companies' operational and financial activities. In this context, the use of the key performance indicator **Proportion of Sustainable Economic Activities** (*Proporção de Atividades Econômicas Sustentáveis* (PAES)).

PAES — Proportion of Sustainable Economic Activities

The PAES aims to measure the proportion of aligned or partially aligned economic activities of a non-financial company, based on two main variables: **Revenue** (or **turnover**) and **capital expenditure** (or **capex**).

The PAES' methodological structure seeks to ensure:

- I. Comparability between economic sectors, respecting their operational specifics;
- II. Traceability of economic activities, based on auditable accounts that can be independently verified;
- III. Harmonization with international benchmarks, while maintaining adaptations consistent with the Brazilian institutional and accounting context.

The PAES is the key performance indicator that measures the level of alignment of the activities of **non-financial companies** with sustainable activities, according to the technical criteria established by the TSB. The PAES expresses the proportion of revenue, or turnover, generated by or capex allocated to TSB-aligned activities and the total revenue and capex of the company, as per its financial statements. To ensure traceability and comparability of data, it is recommended to perform this measurement separately for revenue, or turnover, and capex, and for the categories of aligned and partially aligned revenue and capex, in absolute and relative values:

- I. Aligned revenue / total revenue;
- II. Partially aligned revenue / total revenue;
- III. Aligned capex / total capex;
- IV. Partially aligned capex / total capex.

Given its structuring function within the TSB scope, it is proposed to consider the PAES-stock (revenue and capex) as the central (mandatory) indicator for all non-financial companies subject to the TSB. Furthermore, it is also recommended to introduce the PAES-flow (revenue and capex) to measure the generation of new sustainable flows over specific periods, promoting a dynamic reading of the company's transition and adaptation path to alignment with the TSB.²²

Additionally, and on an optional basis, it is recommended to develop auxiliary metrics to assess the level of maturity or transition of the company's portfolio of sustainable activities. The following is suggested: i) The proportion of partially aligned to aligned revenue (or turnover); ii) The proportion of partially aligned to aligned CAPEX. These metrics can provide additional support for transition analysis, especially in sectors subject to progressive decarbonization plans, technological upgrades, or dependence on inputs from sources that are not yet sustainable.

Finally, it is essential to highlight that the calculation methods, data collection practices, and verification procedures for the PAES should be progressively deepened in the next phases of the TSB implementation, ensuring their adequate

²² Key "stock" indicators seek to reflect the accumulation of proceeds earmarked for sustainable activities by organizations. In the case of non-financial companies, these figures represent the sum of the previous "flow" indicators. In the case of financial companies, this is the value of the assets held in the portfolio, as will be discussed below.

application to different operational, accounting, and sectoral contexts of the Brazilian market in order to provide objective guidance for TSB users and provide standardized reporting models.²³

Table 1: Key performance indicators for reporting (non-financial companies)

Indicator		Metric
PAES (Proportion of Sustainable Economic Activities)	Total revenue	Absolute value (BRL)
	TSB-aligned revenue aligned with the TSB (relative to the activity reported)	Absolute (BRL) and relative values (%)
	Partially TSB-aligned revenue partially (relative to the activity reported)	Absolute (BRL) and relative values (%)
	Total capex	Absolute value (BRL)
	TSB-aligned capex (relative to the activity reported)	Absolute (BRL) and relative values (%)
	Partially TSB-aligned capex (relative to the activity reported)	Absolute (BRL) and relative values (%)

Source: Own elaboration based on EU Platform on Sustainable Finance (EU PSF, 2024).

Financial companies

For the first moment of the TSB, the establishment of key performance indicators for reporting is suggested the following financial institutions (**WAVE 1**):

- i. Financial institutions classified by the BCB as segments S1 and S2;²⁴
- ii. Asset management firms and investment funds.

For the other financial institutions (**WAVE 2**), the feasibility of implementing the indicators will be verified on the basis of a detailed analysis of the complexity and specific characteristics in which each institution operates. This includes, among others: financial institutions in the segments S3, S4, and S5; credit unions; payment institutions and other entities in the intermediation subsystem; insurance companies;²⁵ pension funds; and capitalization institutions (BCB, 2024b).²⁶ This analysis can be based, for example, on the following criteria: 1) the nature of the institution's business; 2) the affinity of the institution's nature with the TSB's strategic objectives; and 3) the size and complexity.

The first reports should cover instruments already established in the financial system, such as in the credit capital markets, including debt securities²⁷ and shareholdings. Therefore, the initial monitoring of data will include specific indicators for reporting by organizations in this segment, in accordance with the financial instruments linked to the TSB.

²³ See as a reference, for example, European Commission (2021a).

²⁴ Central Bank of Brazil classification (2024b).

²⁵ It is worth highlighting the specific role that the insurance sector can play in promoting sustainable finance aimed at climate change adaptation, especially due to its technical capacity in risk assessment and the incorporation of resilience criteria in the pricing of premiums and the definition of coverage.

²⁶ The requirements and criteria defined should respect the existing segmentation for the proportional regulation application (S1, S2, S3, and S4), ensuring that companies with lower prudential regulatory complexity are not burdened with disproportionate requirements. This will prevent the cost of regulation from exceeding the expected benefits, promoting a fair and accessible transformation for all market players. As was adopted for banking institutions, it is recommended that the TSB application for those organizations supervised by SUSEP be implemented in a staged manner, respecting the S1, S2, S3, S4, and S5 segmentations. In this way, deadlines, applicability of monitoring, reporting and verification can be adjusted according to the segmentation of the regulated entities.

²⁷ Considering the principles of proportionality and the gradual implementation of reporting requirements, it is suggested that for debt instruments only the primary market is considered for the first phase of the TSB implementation. Nevertheless, it is suggested the inclusion of national and international emissions of securities.

As far as the flow of information is concerned, all organizations must go through the methodological flow detailed at the beginning of this section, submitting the characterization information and the key performance indicators listed above as appropriate depending on the type of instrument and reporting information.

Structure of the key performance indicators

The heterogeneity of funding sources and the growing sophistication of financial products and instruments demand metrics that focus on granularity, comparability, and regular verification.

In this context, it is proposed the development of three main key performance indicators:

- **Proportion of Sustainable Assets (PAS):** indicator that measures the percentage of aligned (sustainable) assets registered in the balance sheet of financial (banking) institutions;
- **Proportion of Sustainable Enabling Operations (POVS):** complementary indicator that quantifies structured operations (off-balance sheet) that enable sustainable activities.
- **Proportion of Sustainable Investments (PIS):** indicator that measures the percentage of aligned (sustainable) investments under the management of fund managers;

The proposed methodological development responds to three central demands identified during the TSB construction and its consultation process:

- i. The need to distinguish between different types of assets and financial instruments, according to their accounting and adherence to the TSB criteria;
- ii. The measurement of off-balance sustainable operations as a component for broadening the scope of sustainable financing indicators;
- iii. The possibility of incorporating the measurement of operations related to individuals (*Pessoa Física* (PF)) and micro-, small- and medium-sized enterprises (MSMEs), ensuring adherence to the actual composition and broadening of the portfolio scopes.

Differentiation between different types of financial assets and instruments

The TSB's structure of key performance indicators is based on the recognition that financial institutions operate with a variety of assets and instruments whose accounting nature and sustainability links require specific assessment criteria. This accounting and functional differentiation guides the methodological process of categorizing activities as aligned or partially aligned, as well as defining the applicable measurement and reporting procedures.

In the case of banking financial institutions, the PAS indicator will make it possible to measure, in a structured way, the share of sustainable assets recorded on the institution's balance sheet, covering credit and financing operations, debt securities acquired, and shareholdings²⁸, directly linked to TSB-aligned economic activities. This is an on-balance indicator for assets, ensuring comparability between banking books with different compositions and risk profiles.

The PIS indicator applies to the universe of asset management firms and investment funds, measuring the alignment of assets under management with the TSB criteria. The PIS structures the analysis of the sustainable exposure of portfolios that make up a significant portion of the financial system and are responsible for relevant capital allocation decisions.

²⁸ The inclusion of PAS shareholdings will depend on the analysis of the institution's corporate structure and the accounting ownership of the asset. In cases where holdings are allocated to conglomerate vehicles other than the main financial institution, it will be necessary to assess whether there is a direct link to the financial activity or whether it is an entity focused exclusively on market investments. Methodological details on the eligibility of assets in the numerator and denominator will be established in the next phases of the TSB development.

Although both measure exposure to sustainable activities, the PAS refers to assets registered directly on the institution's balance sheet — under its ownership and proprietary responsibility — while the PIS reports assets managed with third-party proceeds, reflecting the fiduciary function exercised by fund or portfolio managers. The difference is therefore based on the ownership of the assets, the origin of the funds, and the role played by the institution in the financial intermediation chain.

The TSB's methodological structure, by incorporating specific indicators for own assets and assets under management, enables a more granular, sectorally appropriate measurement and allows for the development of verification tools that are proportional to the complexity of the financial institution's structures.

Measurement of off-balance sustainable operations

The TSB proposal recognizes that the measurement of financial institutions' contributions to the sustainability objectives should not be limited to assets recorded directly on the balance sheet. Financial instruments such as guarantees, financial guarantee contracts, letters of credit, co-financing, and other modalities and hybrid structures play a structuring role in enabling sustainable operations, although they do not fit into the metrics that only consider recorded financial assets.

To incorporate these dynamics, the POVS indicator is proposed, designed as a complementary metric to the PAS. The POVS makes it possible to measure, in a parameterized and verifiable way, the volume of enabling (off-balance) operations that directly contribute to the allocation of capital to sustainable activities.²⁹ Its application is based on segmentation by type of financial product, ensuring granularity, traceability, and comparability. By considering instruments that are not accounted for in the institution's assets, the POVS broadens the scope of measurement and makes visible a relevant part of the role of financial institutions in structuring sustainable financing solutions, especially in contexts of shared risk or with multiple agents.

Incorporation of the measurement of operations related to individuals (PF) and MSMEs

The structure of the TSB's key performance indicators must take into account the heterogeneous composition of financial institution portfolios, in which products aimed at PFs and MSMEs are prevalent. To this end, it is essential to delve deeply into the logic of the MRV System in terms of this reality, structuring indicators capable of measuring, in an objective, traceable, and methodologically robust way, the volume of credit destined for these segments when associated with sustainable (aligned) or partially aligned economic activities under the terms of the TSB. The adoption of the PAS, PIS, and POVS indicators will, in this context, allow for a more comprehensive and granular reading of the financial institutions' performance in promoting sustainability, taking into account the diversity of their portfolios.

Table 2: Key performance indicators for reporting of asset (financial companies)

Instrument	Indicator	Metrics	
Banking books	Proportion of Sustainable Assets* (PAS)		
	Assets (on-balance)	Proportion of Sustainable Assets (PAS)	Relative values (%)
		Proportion of Partially Aligned Assets (partial PAS — transitional)	Relative values (%)
		No. of aligned credit and securities operations	Absolute values (no.)
		No. of partially aligned credit and securities operations	Absolute values (no.)
		Total value of sustainable assets	Absolute values (BRL)
		Total value of partially aligned assets	Absolute values (BRL)

²⁹ The volume of labeled bonds issued and not registered can be considered in the indicators (POVS or other), even if the indicators need to be broken down in the implementation phase. This distinction will have to be discussed in the implementation phase.

		Proportion of sustainable enabling operations (POVS)	
	Enabling operations (off-balance)	Proportion of Sustainable Enabling Operations (POVS)	Relative values (%)
		Proportion of Partially Aligned Enabling Operations (partial POVS — transitional)	Relative values (%)
		No. of aligned operations	Absolute values (no.)
		No. of partially aligned operations	Absolute values (no.)
		Total value aligned	Absolute values (BRL)
		Total value partially aligned	Absolute values (BRL)
Asset portfolios under management	Proportion of Sustainable Investments (PIS)		Relative values (%)
	Proportion of Partially Aligned Investments (partial PIS — transitional)		Relative values (%)
	Shareholdings (public and private)	Total value invested in aligned activities	Absolute values (BRL)
		Total value invested in partially aligned activities	Absolute values (BRL)
	Debt Securities	Total value allocated to aligned activities	Absolute values (BRL)
		Total value allocated to partially aligned activities	Absolute values (BRL)
	Debt Securities	No. of aligned securities	Absolute values (no.)
		No. of partially aligned securities	Absolute values (no.)

Source: Own elaboration based on EU Platform on Sustainable Finance (EU PSF, 2024).

PAS — Proportion of Sustainable Assets

The PAS is the indicator that measures the exposure of banking financial institutions' assets to sustainable activities, according to the TSB criteria. The PAS, conceptually equivalent to the European Green Asset Ratio, expresses the proportion between assets aligned or partially aligned with the TSB and the institution's total financial assets (with "aligned" and "partially aligned" assets reported separately). The following composition is suggested for this indicator:

Numerator: Value of financial assets recorded on the balance sheet that finance aligned activities, or partially aligned activities (reported separately).

Denominator: Total financial assets of the institution.

Given its structural importance, the **PAS-stock** should be considered the **main indicator** (mandatory) and applied to all banking financial institutions. It is also recommended to develop and report the **PAS-flow**, an indicator (optional) that will make it possible to measure the progress of the generation of new sustainable assets in specific periods, contributing to the evolutionary and transitional reading of the institution's portfolio.

It is recommended as well, as another option, to use complementary metrics to the stock indicator, with the aim of improving the reading of the potential convergence of portfolios towards full alignment with the TSB. These metrics include: i) the proportion between the total of partially aligned and aligned assets in stock; and ii) the proportion between partially aligned and aligned assets in flow. These approaches can provide additional support for interpreting the transition stage of certain portfolios, sectors, or economic activities. It should be noted, however, that these metrics

are complementary and should not assume a central or substitute role in the disclosure of the main key performance indicator (PAS-stock).³⁰

Again, it is important to emphasize that these points should be further developed and adapted to the particularities of the national market, ensuring that the disclosure reflects Brazil's regulatory, economic, and operational specifics. This detail will be essential to ensure the correct interpretation and application of the indicators in the local context.³¹

POVS — Proportion of Sustainable Enabling Operations

The POVVS is the key performance indicator developed to measure sustainable operations enabled by financial institutions outside their accounting balance sheet, known as off-balance. This is a complementary indicator to the PAS, allowing the measurement of portfolios to be expanded to provide a broader view of the financial institution.

Conceptually inspired by the European Union's Banking Book Taxonomy Alignment Ratio (BTAR), the POVVS takes on an expanded approach to reflect the diversity of financial structures used in the country. The indicator allows for the standardized measurement of enabling operations, i.e., those in which the bank, even without directly owning or controlling the sustainable asset, makes a financial commitment to its realization through guarantees, co-financing, letters of credit, transfers, or hybrid instruments with a specific and traceable purpose. The indicator's composition will be defined when the methodology of indicators is detailed in a next phase. Given its complementary function to the measurement of direct exposure (on-balance), it is recommended that the **POVS-stock** be applied by all institutions that operate financial instruments with relevant enabling effects on sustainable financing. It is suggested as well, as an option, the development of the **POVS-flow**, to be calculated on the basis of new off-balance operations agreed in a given period, allowing the evolution of the institution's indirect performance in sustainable activities to be analyzed.

In a first stage of implementation, institutions will be able to disclose:

- i. for stocks, the values of enabling sustainable operations in force on the reference date of the disclosure;
- ii. for flows, the values of new enabling sustainable operations agreed during the twelve months prior to the reference date.

It is recommended as well, as an option, the use of complementary metrics to the POVVS indicator, in order to qualify the reading of the systemic contribution of financial institutions in structuring sustainable off-balance operations. These metrics include: i) the proportion between the total of operations linked to partially aligned and aligned assets in stock; and ii) the proportion between the total of operations linked to partially aligned and aligned assets in flow. These approaches can provide additional support for understanding the level of engagement of the institution in guarantees, and co-financing aimed at the transition. It should be noted, however, that such metrics are complementary and should not assume a central or substitute role in the disclosure of the main key performance indicator (POVS-stock).

Distinction between enabling and mobilized assets

In the field of sustainable finance, the distinction between an institution's role as a direct provider of capital and as a catalyst for third-party funds is fundamental. This duality materializes in the concepts of *enabling assets* and *mobilized assets*. This distinction has implications for impact measurement, risk allocation and, crucially, for the establishment of alignment indicators, such as the POVVS indicator. The correct segregation of these two functions is a key condition for the integrity and comparability of any taxonomy-based reporting system.

³⁰ Analyses of recent studies (ABN AMRO, 2025) point out that the incorporation of complementary metrics to the stock indicator — such as those based on flows, level of partial alignment, and breakdowns by macro profile (MSMEs and PF, for example) — can give greater methodological robustness to the measurement. When assessed in a coordinated manner, these metrics make it possible to identify more precise transition paths and improve comparability between institutions with similar portfolio compositions.

³¹ It is further recommended to carry out a detailed study on financial products, with a view to aligning and harmonizing data for national and international organizations. These studies must take into account the complexity and particularities of the domestic market, as well as its consistency with the global banking scenario.

Within the financial ecosystem, an institution's commitment to a sustainable economy is manifested through different instruments, which the TSB suggests should be measured separately to ensure clarity and precision. On the one hand, the PAS indicator focuses on the direct financing of on-balance-sheet assets. This universe includes traditional exposures such as corporate loans, project financing, and bonds held in the banking book, where the institution allocates its capital and assumes the primary credit risk. On the other hand, the TSB recognizes that supporting sustainable activities is not limited to that and thus suggests the introduction of the POVS indicator to measure off-balance commitments.

In the context of the TSB, an *enabling asset* is, by definition, a financial instrument that does not form part of the accounting balance sheet but represents a commitment that makes direct financing possible. Examples are guarantees that mitigate the risk for other creditors or for the project itself, or letters of credit that guarantee payments, thus enabling the asset or the main sustainable activity realization. Thus, while the PAS measures direct funding, the POVS measures the instruments that catalyze it. Despite this functional segregation, the key condition for both is the same: the existence of an explicit link and traceability of the use of proceeds that connects the institution's financial commitment — whether direct or contingent — to the alignment of the asset or activity according to the TSB criteria.

On the other hand, *mobilized assets* refer to the institution's role as intermediary or structurer. In these cases, the institution does not allocate its own capital, but acts as an agent to originate, structure, and distribute instruments that raise funds from third parties. Its function is essentially to create a liability on the balance sheet of another entity, and it manifests itself in two main ways. Firstly, in capital market operations: the institution structures the issuance of a sustainable bond, which becomes a liability on the issuer's balance sheet, while the end investors register the asset. Secondly, in asset management: the institution constitutes an investment vehicle, such as a fund, which has its own legal personality and property, legally segregated. The capital raised by this fund represents an obligation towards its shareholders, reflected in its net equity, but is not part of the balance sheet of the management institution, which only records *assets under management* as an operational metric. In both scenarios, the institution's revenue is primarily based on commissions, reflecting its service provision, and not on interest from its own financial exposure.

The exclusion of mobilized assets from the POVS is a deliberate methodological recommendation and technically aligned with best practices, for three main reasons: (i) financial service activities do not result in a relevant and lasting financial exposure on the institution's balance sheet that falls within the prudential perimeter of the indicator; (ii) the structuring institution does not have contractual control and the ability to directly verify the TSB-related use of proceeds, which is an obligation of the issuer towards end investors; (iii) the inclusion of mobilized assets would create a risk of double counting: the same activity would be counted as "mobilized" by the structuring institution and as an "aligned asset" (within the scope of the PAS indicator) by the investor; in the case of an enabling operation, it would be conceived as an enabling operation to this Institution (within the scope of the POVS indicator). To preserve the integrity of the system, it is suggested attributing the aligned asset to the entity that holds the final credit risk and the direct link to the asset.

It can therefore be concluded that although the ability to mobilize capital is a critical and high-impact function for the scale of the sustainable transition, it represents an activity that is economically distinct from direct enabling. Their measurement and disclosure are important, but they must take place in a segregated manner, through their own indicators — such as a "volume of mobilized sustainable finance" indicator — and detailed qualitative disclosures, ensuring that transparency about both functions is achieved without compromising the clarity, robustness, and fundamental purpose of the TSB's key performance indicators of the institution's financial portfolios and their transition metrics.

Technical note: Banking book and trading books

It is recommended to, at first, restricting the application of the TSB's key performance indicators to exposures allocated in the banking book for banking financial institutions, given the criteria of traceability, robustness, and alignment with international best practices. The banking book comprises the financial assets that the financial institution keeps on its balance sheet for a longer period, usually until maturity, and typically originate from a direct contractual relationship between the lender and the economic activity being funded. It is precisely this characteristic — the presence of a verifiable contractual link — that makes the banking book the natural domain for the application of a taxonomy guided by the use of proceeds criterion, making it possible to analyze the level of alignment with the climate, environmental, and social criteria of specific economic activities and projects.

In contrast, the trading book is defined not only by the nature of the instruments it contains, but fundamentally by the managerial intention to analyze profits in the short term from active exposure to market risks, such as variations in prices, interest rates, exchange rates, and volatility. Evidence of this intention must be provided by formally established internal policies and controls, which can materialize through different financial strategies, such as proprietary trading, arbitrage, market-making, and hedging of other positions.

This multiplicity of objectives shows that the portfolio's economic rationale is geared towards dynamic risk management and result generation, rather than direct or traceable financing of sustainable economic activities, which reinforces its structural and methodological distinction from the banking book. As established in prudential rules — especially CMN Resolution No. 4.557/2017 — and in line with the Fundamental Review of the Trading Book (FRTB) prepared by the Basel Committee on Banking Supervision (BCBS), trading books comprise instruments acquired for the purpose of active trading, short-term resale, or hedging of other positions in the book. It is a high turnover book, subject to daily market marking, operationally separated from the banking book and subject to its own capital allocation rules.

This distinction between books is not only an accounting issue but represents one of the central pillars of the prudential rules and has direct implications for how the sustainable alignment of financial assets is assessed. The operations of trading books impose structural restrictions on the application of criteria based on the use of proceeds, since:

- i. There is no direct contractual relationship between the investor and the underlying economic activity;
- ii. The transactions do not generate "new" capital for the issuer, breaking the causal link necessary for impact assessment;
- iii. The high turnover and short duration of the positions make any traceability and verification of the asset operationally unfeasible;

The EU Taxonomy, for example, has deliberately excluded trading book exposures from the main key performance indicators applicable to financial institutions, such as GAR and BTAR, and in the Regulatory Technical Standards (RTS) issued by the European Banking Authority (EBA).

However, the exclusive adoption of the banking book as a measurement basis, if maintained permanently, could generate an important gap in the assessment of TSB alignment in the Brazilian financial system, especially with regard to institutions whose business model is intensive in trading activities. This is the case, for example, of asset management firms with specialized theses and asset classes, insurance companies, and institutions with active treasury structures and a strong presence in the capital markets, where these assets and operations often represent a significant portion of assets under management and capital allocation.

In view of this, it is suggested that the TSB, in a future phase, plans to design and implement a specific complementary indicator to measure the alignment of assets in the trading book. This metric can be based on the following principles:

- i. Methodological segregation: the trading book indicator should be reported separately from the banking book indicators, with different terminology, scope, and methodology, so as to provide clarity of concepts;
- ii. Focus on the issuer: as it is not possible to trace the use of proceeds in most trading book operations, it is recommended to use proxies based on the issuer's characteristics, such as percentage of revenue and investments (capex) to analyze the level of TSB alignment;
- iii. Granularity and transparency: the indicator should allow disaggregation by type of asset (variable income, debt securities, fund shares, derivatives etc.) and explain the level of transparency of the issuers regarding their TSB alignment;
- iv. Systemic integrity: mechanisms must be implemented to prevent the double counting of assets between different institutions or between books of the same institution, ensuring the consistency of aggregated data.

It is suggested that the development of this indicator for trading books will be incorporated into a next TSB regulatory wave (for example, T+3 or later), based on the consolidation of banking book metrics. This progress could be preceded by a pilot project or specific public consultation, guaranteeing market engagement, proportional adaptation to possible traceability, and alignment with emerging international practices. The structured inclusion of this indicator will allow the TSB to broaden its scope and capacity to capture all the exposures of the national financial system, while maintaining technical consistency, comparability between institutions, and the reliability of its metrics.

PIS — Proportion of Sustainable Investments

The PIS is the key performance indicator that measures the proportion of the TSB-aligned investments managed by asset management firms and investment funds. It will reflect the proportion of proceeds allocated, in a traceable way, to TSB-aligned activities. The following composition is suggested for this indicator:

Numerator: Value of financial assets under management related to the aligned activities (or partially aligned, reported separately).

Denominator: Total assets under management.

Given its structural importance, it is recommended to consider the PIS-stock as the main mandatory indicator to be reported by organizations that manage or hold investment portfolios. Furthermore, the reporting of the PIS-flow is suggested, an optional indicator that enables to measure the evolution of the allocation of new proceeds to sustainable activities over time, contributing to the dynamic analysis of portfolio transitions. For initial reporting purposes, the stock should consider the value of investments in assets or instruments covered on the reference date of the disclosure, while the flow may consider the value of new investments made in the previous year, based on information available in the statements and periodic reports.

It is also recommended to use complementary optional metrics, with the aim of improving the reading of the potential convergence of portfolios towards full TSB alignment. These are some of the suggested metrics: i) the proportion between partially aligned and aligned assets in the portfolio (stock); and ii) the proportion between partially aligned and aligned new invested assets (flow). These approaches can provide relevant technical support to interpret the stage of transition of portfolios or economic sectors more assertively, pointing to better comparability between institutions of similar sizes and investment policies. It should be noted, however, that such metrics are complementary suggestions and should not assume a central or substitute role in the public disclosure of the main indicator (PIS-stock).

Considering the specifics of the Brazilian capital market and the different levels of maturity in measuring the alignment of managed assets, it is also recommended to phase in the implementation of the PIS indicator. First, asset management firms and investment funds shall apply the metric based on available data related to the allocation of proceeds. As

investees begin to disclose standardized TSB alignment indicators, it will be possible to incorporate additional metrics that increase the accuracy and comparability of the reported indicators.

Inclusion of operations with MSMEs and Individuals (PFs)

The TSB recognizes the critical importance of MSMEs and individuals (PFs) in achieving the country's sustainable development goals. The inclusion of operations with these counterparties in the PAS, POVS, and PIS indicators is therefore a strategic guideline.

Although the main mechanism for assessing the alignment in both segments is often similar, based on verifying the allocation of proceeds via credit products, it has been decided to deal with MSMEs and individuals in separate sections in this document. This separation is not due to the verification method, but rather to structural differences in legal nature (Legal Entities and Individuals), credit risk segmentation, and data system architecture already consolidated in financial institutions. This approach aims to provide greater future regulatory clarity, facilitate operational implementation without imposing disproportionate systemic restructuring, and guarantee transparency and granularity in the disclosure of indicators to the market.

The following sections detail the seminal methodological approaches applicable to each of these segments.

MSMEs

The potential methodological inclusion of MSMEs in the TSB indicators stems from their economic relevance, territorial capillarity, and representativeness in national credit. It is, however, a guideline under evaluation, to be detailed in subsequent phases of the methodological process, considering technical feasibility and data availability. The possible inclusion of these companies in the TSB's MRV System will require solutions proportional to the associated operational challenges, such as limited institutional reporting capacity, the absence of formal impact measurement practices and the difficulty of accessing independent technical certifications or verifications.

In the TSB context, it is recognized that the participation of MSMEs in the PAS, POVS, and PIS indicators could follow a logic of technical proportionality and operational compatibility. To this end, specific methodological approaches may be allowed to measure the exposure and alignment of these operations with the TSB criteria without compromising the integrity of the indicators.

Considering the operational challenges in obtaining supporting documentation from MSMEs, it is suggested that the TSB assesses the use of proportional evidence for inclusion in the PAS and PIS, through mechanisms such as:

- i. Labeled financial products (including retail), with a thematic destination at the time of contracting (for example: "green credit lines" with objectives defined by internal regulations or transfer rules, which meet the TSB alignment criteria and have mechanisms for identifying and verifying the allocation of proceeds);
- ii. Simplified certifications, verifications, or opinions issued by technical bodies, qualified professionals, or recognized programs, as long as they incorporate or already cover the TSB alignment criteria (for example: green seal or certification, energy efficiency report, adherence to public transition programs, among others);
- iii. Sectoral proxies, provided they are based on publicly documented methodologies aligned with the TSB, applicable to sectors of low regulatory complexity and strong structural association with the TSB's objectives (e.g., small-scale regenerative agriculture, distributed solar energy, community reforestation, among others).

The POVS indicator, on the other hand, would capture operations in which these companies are the final beneficiaries of enabling instruments, and which have operational links to aligned activities. Accounting for these operations requires

the application of methodologies that consider the link between the financial instrument and the activity (aligned or partially aligned), based on verifiable technical criteria and proportional attribution methods.

It is suggested that instruments linked to MSMEs should be eligible for POVS, provided that:

- i. The product or operation is intended to enable an activity aligned with the TSB;
- ii. There is evidence that the instrument is linked to an aligned project or activity; and
- iii. Proportional attribution methodologies (to be defined and detailed) are applied, based on co-financing rules, risk sharing, or partial exposure.

Examples include (non-exhaustive list):

- i. Letters of credit, financial guarantee contracts or guarantees issued by public banks or guarantee funds for sustainable activities;
- ii. Operations structured with multilateral institutions or development banks that include climate, environmental, or social eligibility clauses linked to the beneficiary MSME; and
- iii. Innovative platforms in which the financial institution's contribution is made via risk hedging instruments, aimed at sectors or regions with low capacity for direct access to capital.

Such instruments require the development of robust methods for indirectly measuring impact, which are consistent with good "attributed enabling" practices. These methods involve the definition of percentage attribution factors, contractual tracking mechanisms, and verification by sampling when full traceability is not operationally feasible.

It is also recommended that, in addition to the consolidated indicator (reflecting operations with different counterparty categories), financial institutions also present the breakdown of indicators by counterparty categories: companies that report the PAES and companies that do not report the PAES (including MSMEs); operations with MSMEs in a disaggregated form in the numerator of the PAS, POVS, and PIS indicators, separately identifying the volumes of "aligned" and "partially aligned" assets over total assets directed to this segment. To ensure methodological consistency and comparability between institutions with different portfolio profiles, the denominator of the indicators should also include total assets and operations with MSMEs. This treatment is in line with international best practices that recommend specific exposure categories for more accurate comparative analysis and improved traceability.

Individuals (PFs)

Firstly, it is necessary to recognize that the PAS, POVS, and PIS indicators apply exclusively to assets with direct exposure to counterparties that have minimum technical and regulatory conditions for measuring alignment, or whose alignment can be identified through the allocation of proceeds, as pointed out in the previous section. In practice, these requirements restrict the scope of the indicators to assets linked, for the most part, to companies with National Registry of Legal Entities (*Cadastro Nacional da Pessoa Jurídica*, CNPJ) and with some level of formal reporting or direct verification, and to operations for which the destination of the funds is known.

Transactions with individuals may be considered in TSB reporting, provided that the alignment criteria and methodological processes established are observed. This inclusion finds technical support in the possibility of classifying assets with exposure to individuals as "aligned" or "partially aligned", provided that:

- i. There is objective traceability of use of proceeds (e.g., labeled credit with reporting of use of proceeds aligned with the TSB);

- ii. There is a proxy model for retail financial products with a specific destination, which reflect the TSB alignment criteria (e.g., agricultural product for reforestation and territorial validation, planted area, or financing of solar panels with presentation of linked documentation); and
- iii. There is documented evidence of the compliance with the Substantial Contribution and DNSH criteria, and with MF, including this verification relating to the product, such as a credit line, and not to the individual borrower.

In these cases, the verification unit shifts from the individual counterparty to the structure of the financial product. However, the compliance of any operation, even through a labeled product, still depends on verification that the final counterparty complies with the Substantial Contribution and DNSH criteria and adheres to the MS. This adherence will be assessed through a process of *diligence* proportional to the risk, which includes, among others, the systematic consultation of public and official sources of evidence (licensing, registry of labor analogous to slavery, etc.).

As mentioned in the previous section, it is recommended that, in addition to the consolidated indicator (reflecting operations with different counterparty categories), financial institutions also present a breakdown of the indicators by counterparty category, e.g., organizations that report the PAES and that do not report the PAES (including MSMEs and PFs). It is also suggested that operations with PFs should be presented in a disaggregated manner in the numerator of the PAS, POVS, and PIS indicators, with separate identification of the volumes of "aligned" and "partially aligned" assets.

The use of methodological proxies based on the financial product must be technically validated against the TSB criteria. The denominator of the indicators, when broken down by counterparty category, should include total assets and operations with PFs, ensuring proportionality and comparability between institutions. This treatment contributes to avoiding distortions, ensuring the integrity of aggregated data, and promoting a methodologically robust characterization of institutional portfolio exposures.

Proposed phased reporting implementation

The implementation of the TSB is organized in successive waves of application, combining pilot phases³² and progressive operationalization. This gradual approach aims to ensure the technical viability, regulatory adherence, and reporting capacity of the different organizations, while respecting their roles in the financial ecosystem.

Wave 1: Pilot

The first pilot stage involves three priority groups:

- i. **Listed public companies** (excluding smaller companies), focusing on the PAES indicator;
- ii. **Banking financial institutions of the segments S1 and S2**, focusing on the PAS and POVS indicators; and
- iii. **Asset management firms and investment funds**, focusing on the PIS indicator.

The choice to start with listed public companies is due to their greater regulatory maturity, reporting capacity, and presence in more consolidated governance and transparency regimes. The reporting of the PAES is relevant for feeding the data chain that will be used by financial institutions, which will rely on the reports of investees to inform their own indicators. These indicators require the availability of verifiable information on the economic activity financed or invested, which, as indicated above, can come from two main sources: reporting by the counterparty or the known allocation of proceeds. As mentioned in the description of the PIS, the importance of adapting financial companies' adherence to indicators to the availability of data is recognized, and reporting requirements must keep pace with

³² It should be noted that the **pilot period** referred to here should not be confused with the initial **testing process** of the TSB. While the first corresponds to the initial implementation phase of any new regulation published by a regulatory authority, the second consists of a trial run of the TSB with financial and non-financial institutions. These tests will be used not only to make any adjustments to the criteria, but also to develop the DNSH materiality criteria.

developments in data availability. At the same time, the pilot with financial institutions allows the methodologies to be tested, preparing the ground for the full integration of measurement and assessment of the suitability of key performance indicators.

Wave 1: Implementation

After the Wave 1 pilot, the first formal implementation phase begins, applicable to the same group of institutions of the Wave 1 pilot, now having to report mandatorily:

- i. **Listed public companies** (excluding smaller companies), reporting the PAES;
- ii. **Financial institutions of the segments S1 and S2**, reporting the PAS and POVS, integrating available PAES information of financed companies.
- iii. **Asset management firm and investment funds**, consolidating the measurement for the PIS indicator based on data obtained in the previous cycle.

This stage represents the first integrated operation of the MRV System, where organizations provide data on aligned or partially aligned activities, respectively, and financial institutions measure their exposure to these assets, already cross-validated between sources. Financial institutions also continue to integrate the measurement based on the known allocations of the asset's proceeds, including from counterparties that do not report the PAES. It remains the caveat regarding the need for financial companies to observe data availability for the reporting of indicators.

Wave 2: Pilot

A second pilot cycle begins, now focusing on the following segments (Wave 2):

- i. Smaller listed public companies;
- ii. Unlisted public companies;
- iii. Closely-held companies;
- iv. Financial institutions of the segments S3, S4, and S5;
- v. Insurance companies;
- vi. Pension funds, including those that are open (EAPC) and closed (EFPC).

In parallel to the Wave 1 implementation phase, the pilot phase of Wave 2 organizations starts, whose regulatory, operational, and governance heterogeneity requires greater methodological calibration. The adoption of a pilot phase for these segments is due to the need to test the adaptability of the TSB's indicators to diversified ownership and accounting structures, considering different types of exposure, operating arrangements, and levels of integration with sustainability reporting practices.

This stage therefore aims to assess the technical applicability of the alignment criteria, the traceability of the financial instruments involved, and the feasibility of applying standardized metrics, such as those aimed at measuring sustainable assets (PAS), enabling operations (POVS), and sustainable investments (PIS). The robustness of these indicators, in their different natures — stock, flow, and complementary metrics — will be essential to ensure a coherent reading of institutional exposure and the transition path associated with sustainable activities according to the TSB parameters.

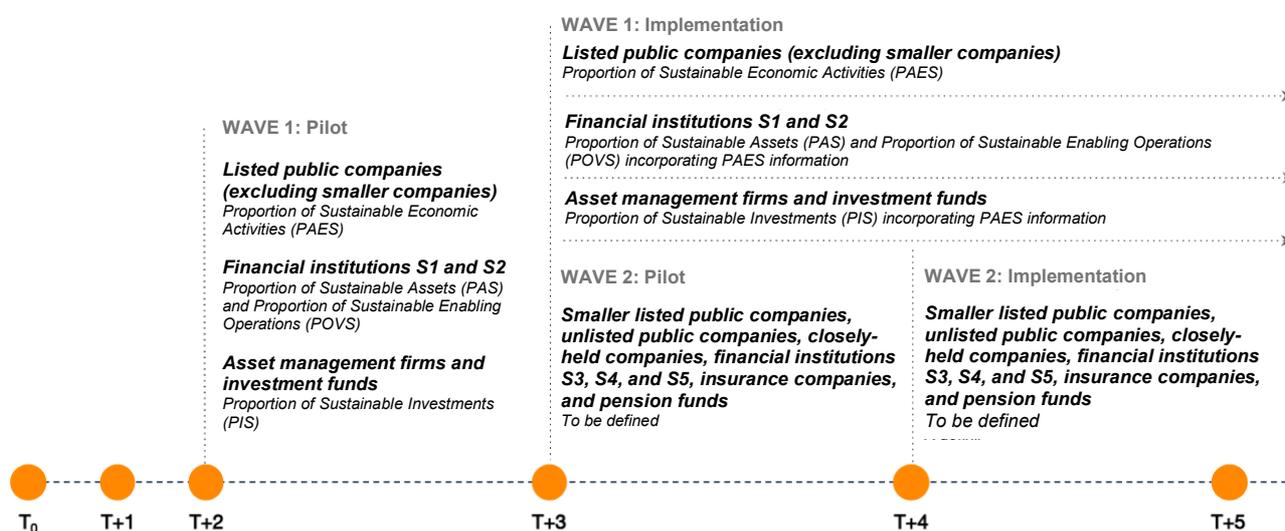
The consolidation of a comprehensive empirical base will also contribute to the refinement of methodological criteria and verification mechanisms, supporting the development of guidelines that are proportional and technically applicable to the institutional diversity of the national market. This process will be decisive in ensuring inter-institutional comparability and strengthening progressive regulatory alignment between the different segments, respecting their specific operational and financial characteristics.

Wave 2: Implementation

This milestone in the implementation is related to the results obtained in the pilot phase started in T+3, involving the organizations participating in Wave 2. Depending on the nature and multiplicity of these agents' operations, they may be required to apply different TSB indicators — including PAES, PAS, POVS, and PIS — in a way that is proportional and adjusted to their specific activities.

The progressive integration of these new segments broadens the scope of the MRV System and makes it possible to consolidate the TSB as a transversal instrument for measuring and classifying sustainable finance activities in Brazil.

Figure 2 — Proposed timetable for the gradual implementation of reporting indicators



Source: Own elaboration.

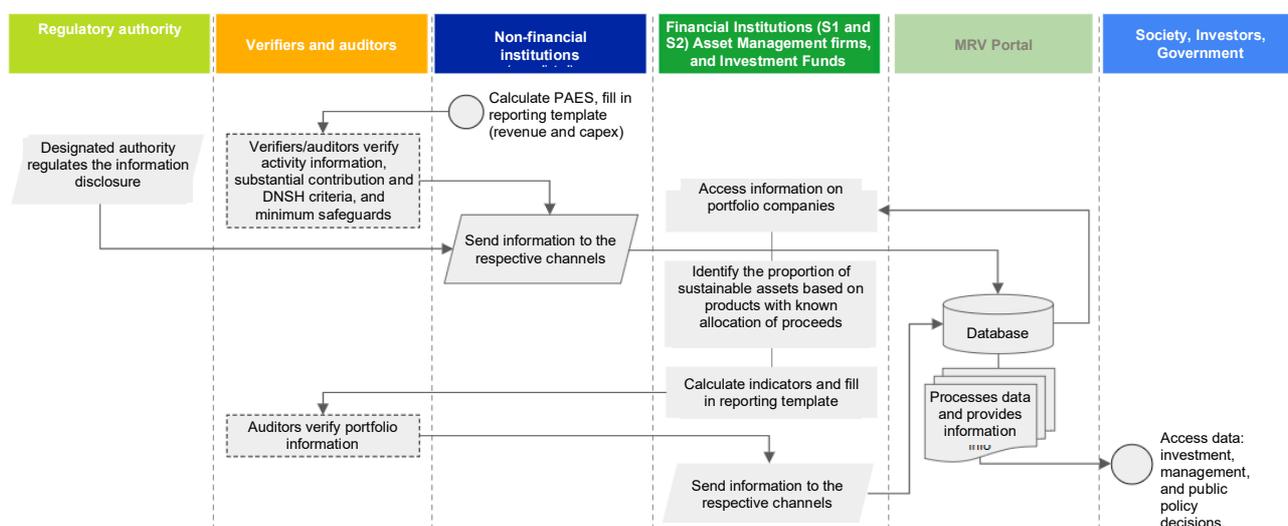
The definition of annual intervals between the implementation milestones (T+2, T+3, T+4), where T₀ is the year of the TSB publication, responds to the need to ensure adequate conditions for the internalization of regulatory requirements, the improvement of information systems, and the institutionalization of MRV processes. This time frame is technically coherent with the accounting and disclosure cycles already practiced by the market, and in line with the gradual models observed in international experiences, such as the EU Taxonomy.

Adopting an incremental implementation logic makes it possible to test the applicability of the proposed methodologies, identify points for refinement, and promote iterative adjustments based on accumulated experience. Each progressive phase of implementation is considered dependent on the technical-operational maturity of the previous one, which contributes to the consistency of the system, mitigates risks of informational asymmetry, and reinforces predictability and stability in the process of consolidating the TSB as a benchmark for sustainable national financing.

Information flowchart: Reporting Wave 1

To illustrate how the flow of information in the MRV System will be organized, the adoption of an information flowchart for reporting Wave 1 is proposed. The aim of the flowchart is to clarify the monitoring, reporting and verification process and to organize the governance and responsibilities for each stage of the process.

Figure 3 — Information flowchart for listed public companies, financial institutions S1 and S2, asset management firms, and investment funds



Source: Own elaboration.

For listed public companies, the first step in reporting is to fill in the standard TSB reporting form that will be made available. The informed information has to be externally evaluated for TSB alignment. The verified form will then be registered in the database through which it will be made publicly available.

For financial institutions, asset management firms, and investment funds, the responsibility for reporting key performance indicators applies also in cases where financed or invested company is not subject to the TSB reporting obligation. When it is not possible to obtain the activity-specific information directly from the financed or invested company, the institution must use the information available on the TSB's MRV Portal, according to the process described above. It should be noted that this information refers to eligible economic activities and their respective alignment conditions, and not to the company's overall set of information. The data from the MRV Portal will complement that collected directly by the institution from its products with known allocation and controls associated with sustainability, together forming the basis for calculating key performance indicators and filling in the standard reporting form. The information reported in the form must be externally verified. The verified form will then be registered in the database through which it will be made publicly available.

With the establishment of the MRV Portal, the reported data is suggested to be stored in a centralized database that allows the information to be processed and made available on a public platform. Specific definitions on the ordering of the process of linking the verification and reporting stages on the MRV Portal should be made during the period foreseen for its operational development, according to the timeline established in the Action Plan MRV System (section *Reporting Timeline*), with the aim of providing greater detail on the format for linking the verified report to the MRV Portal. The way in which the information will be verified before entered into the system will be detailed in a future stage, in line with the timeline presented in the section *Verification*, which foresees a period dedicated to building these processes.

This flowchart was drafted as an illustration, and will have to be further refined as the definitions of data governance, information collection and processing formats, the systems to be used, and the planned regulatory references progress.

Considerations on thematic debt securities

The issuance of debt securities plays a structural role in financial intermediation, being used by banking institutions, asset management firms, companies, and public entities to finance economic activities.³³ Within the TSB scope, such instruments should be considered both as assets registered on the balance sheet, when acquired by financial institutions, and in off-balance-sheet structures, such as guarantees, co-financing, or other financial support mechanisms.

In order to guarantee the functionality and credibility of the thematic instruments market, it is recommended that the structures of these bonds in the TSB indicators preserve methodological compatibility with existing frameworks, such as the principles of the International Capital Market Association (ICMA) through the *Green, Social, and Sustainability-Linked Bond Principles*, the standards of the Climate Bonds Initiative (CBI) and the parameters of the *European Green Bonds Regulation* (EU GBS).³⁴ This integration ensures regulatory continuity, facilitates interoperability with international practices, and avoids disrupting existing operating models.

The adoption of the TSB as an additional reference, rather than a requirement for application, in the process of labeling and reporting on debt instruments is recommended, especially considering that its regulatory applications are still under development and require progressive integration into existing governance and compliance structures. Therefore, the coexistence between the TSB and the frameworks currently in use is essential to enable a pragmatic and technically grounded regulatory transition.

In this context, it is recommended that instruments issued, acquired, or managed by institutions can continue to be structured and verified according to internationally recognized methodologies (such as ICMA or CBI), with validation by independent entities (such as through the use of Second Party Opinions (SPOs) or Certifications), even when they do not fall directly under the TSB criteria. Maintaining this option, on a transitional basis, will allow the gradual and technically consistent adoption of the TSB as a complementary reference, without interrupting the market or the accounting of already financed sustainable activities.

The preservation of existing sustainable finance frameworks should be understood as an integral part of the transition process. The harmonization of existing practices with the TSB could take place gradually, supported by its methodological evolution. It should be noted that one of the principles guiding the definitions associated with the MRV System is interoperability with international standards. This approach favors transition, generates gradual comparability, and provides transparency of thematic operations, while maintaining both international attractiveness and attention to domestic priorities and realities.

For this moment, this is a pragmatic choice, which seeks to respect the diversity of practices already consolidated in the market. However, it is important to recognize that the coexistence of different forms of verification, without harmonized minimum criteria, can generate information asymmetries, limit comparability and, in certain cases, reduce legal certainty. Therefore, in the phases following the publication of the TSB, work will be conducted on defining guidelines, processes, and requirements for identifying thematic bonds aligned with the TSB, seeking compatibility with existing frameworks.

³³ It should be noted that the issuance of Sustainable Sovereign Bonds is based on its own framework, whose approach to the TSB still needs to be better defined, given the different scopes.

³⁴ The EU GBS is a voluntary regulation that offers a set of standards for issuing green bonds that are allowed to use the "EU Green Bond" (EuGB) label. By adhering to the standards, issuers of a EuGB commit to using the proceeds obtained to finance or refinance environmental projects and assets that contribute to the objectives of the EU Taxonomy, in accordance with the requirements established by Regulation (EU) 2023/2631 (EU, 2023). In addition to the requirements regarding the defined use of proceeds in line with the EU Taxonomy, the regulation establishes requirements for the disclosure of standardized reporting documents, the pre- and post-issuance verification of disclosed information by independent verifiers, and the registration and supervision of the verifying entities. The regulation aims to promote the transparency and credibility of green bonds, and could be adapted to the Brazilian context by binding the issuance of financial products labeled as "sustainable" according to the TSB.

Procedures for measuring thematic debt securities

Financial institutions, asset management firms, and non-financial companies must adopt different procedures, depending on their role in the security's value chain. The table below systematizes some of the scenarios (not exhaustive):

Table 3 — Scenarios (non-exhaustive) for the application of key performance indicators (thematic debt securities)

Institution	Application	Applicable indicator	Technical requirements	Current forms of verifications
Banks	Buy TSB-aligned bond (on-balance)	PAS	Bond with TSB-aligned and traceable use of proceeds.	Second party opinion (SPO) of the issuer, documental evaluation, use of proceeds report, independent audit.
	Issue TSB-aligned bond (own liabilities)	Not applicable (liabilities)	No direct integration of indicators; can be inserted as a "mobilized" asset and voluntary separate report.	"Allocation reporting" (external verification; optional).
	Guarantee or co-finance the issuance of a TSB-aligned bond (off-balance)	POVS	TSB-aligned and traceable use of proceeds.	Joint SPO, independent verifier, technical plan, associated regulations.
Asset management firms and investment funds	TSB-aligned assets managed	PIS	Fund must prove alignment of invested assets or activities and structured sustainable policy.	Assessment of underlying assets, fund policy, independent report, external verification.

Institution	Application	Applicable indicator	Technical requirements	Current forms of verifications
Non-financial companies	Issue TSB-aligned bond	Not applicable (<i>ex-ante</i>)	Project with technical and financial evidence of TSB alignment.	Independent audit, certification of the use of proceeds, impact report.
	Use of proceeds with traceability	PAES (<i>ex-post</i>) Capex/Revenue	Formal and public commitment to allocate proceeds to TSB-aligned projects/activities. Mechanism for segregating and tracking obtained proceeds. Obligation to report periodically about the allocation of proceeds (with an impact on PAES-Capex) and, subsequently, on the performance of the assets funded (with an impact on PAES-Revenue).	

Source: Own elaboration.

It will be important to differentiate between financial products labelled as sustainable securities, such as full allocation to aligned activities, or securities with partial allocation to aligned activities. In the second case, the portion of aligned activities needs to be disclosed by the issuer of the security.

The guidelines to be developed to guide organizations in reporting information related to aligned securities should consider and avoid the risk of double counting. Double counting can occur when a sustainable security issuer and the investing institution simultaneously record the same transaction in their respective indicators.

On the measurement of sustainability-linked bonds (without use of proceeds)

The analysis of debt securities requires a specific methodological treatment for Sustainability-Linked Bonds (SLBs), whose operating logic differs structurally from instruments based on the directed use of proceeds. According to ICMA's SLB Principles, the sustainability credential of an SLB does not lie in directing capital to a specific project, but rather in the contractual linking of its financial characteristics to the issuer's achievement of future Sustainability Performance Targets (SPTs). This forward-looking characteristic, which depends on future performance, poses specific methodological challenges for measuring the alignment of these instruments with the TSB, since there is no direct and traceable link between the capital mobilized and a sustainable economic activity.

International experience, within the scope of the EU Taxonomy, offers a relevant precedent for the TSB. For not being "use of proceeds" instruments, SLBs are generally not considered eligible for the Green Asset Ratio (GAR)'s numerator. The underlying logic is that the taxonomy measures the alignment of economic activities, and the capital of an SLB, intended for general corporate purposes, does not in itself guarantee the financing of aligned activities.

For the TSB, we recommend an approach that recognizes the specific structure of the SLBs, but makes their eventual recognition in the key performance indicators dependent on verified compliance with the agreed sustainability targets. The alignment of an SLB, for the purposes of inclusion in the PAES, PAS, POVS, or PIS indicators, cannot be determined at the time of its acquisition or structuring (*ex-ante*), but only after verification of compliance with the targets by the issuer (*ex-post*).

The adoption of the following methodological guideline is suggested for future phases of the TSB implementation:

An SLB held as a portfolio asset may be considered aligned with the TSB, in the corresponding reporting period, only if compliance with the predefined performance targets (SPTs) is verified and the interest rate step-down process or agreed underlying benefit is established, as verified by an independent entity on the assessment date corresponding to that period. If the targets are not met, the bond should not be taken into account in the TSB indicators.

This initial suggested approach proposes to guarantee the methodological integrity of the TSB by linking the recognition of exposure to empirical evidence that the instrument has demonstrably encouraged material and relevant sustainability performance on the part of the issuer. The details of the verification criteria, the reporting deadlines, and the documentation required to prove that the targets have been met should be further developed in subsequent phases of the TSB's implementation.

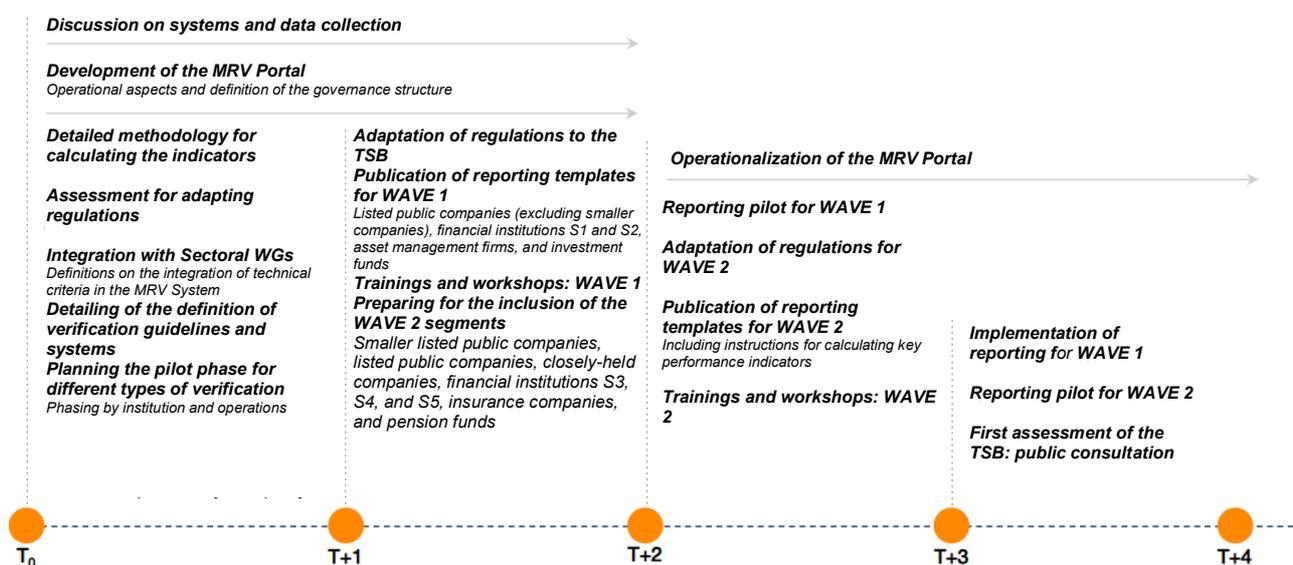
Finally, the TSB's reporting and respective key performance indicators should be supported by a system of extensive diligence verification by independent and qualified entities, in order to ensure that the activities and projects funded comply with the established criteria³⁵, mitigating the risk of greenwashing, that is, when projects present themselves as sustainable without proper substantiation. The procedures and policies regarding verification will be detailed in the section *Verification*.

Reporting timeline

Action Plan of the MRV System: next steps after the TSB publication

To ensure the successful implementation of the TSB's MRV System, a phased Action Plan is proposed, with clear steps and defined responsibilities.

Figure 4 — Action Plan of the MRV System after the TSB publication



Source: Own elaboration.

³⁵ Good practices already established in the Brazilian market are suggested as a reference: CBI (2024), ICMA (2021), and Febraban (2023).

T0: Publication of the TSB

In T0, year of the TSB publication, it is suggested to discuss with its governance structure the characteristics and functionalities of the MRV Portal, with the aim of assessing possible data collection paths within the TSB scope. These discussions and definitions should continue until the end of T+1.

Linked to this stage, it is also recommended to begin the planning stage for the development of the MRV Portal — with the definition and duties described in the section *MRV Portal* — considering the analysis of the platform's operational viability, the design of its governance and management, as well as technical definitions regarding the structure that will be used to organize the data and information reported to the TSB; therefore, the reporting, monitoring, and verification processes will be organized within a single platform. Discussions and definitions on the MRV Portal should continue until the end of T+1.

At the same time, the methodologies for calculating the key performance indicators will be developed, based on the preliminary definitions provided in this chapter, deepening them and providing further detail to the calculation specifics.

Another important step planned for the first moment after the TSB's publication is the discussion on how to integrate the specific definitions of the Sectoral WGs into the MRV System. To this end, it is considered necessary to discuss ways of linking the sectoral technical criteria defined in the MRV System, since this chapter recommends proposals for reporting key performance indicators relating to the activities aligned with the TSB, and not the specific technical criteria. Therefore, the possibilities of integrating the monitoring, reporting and verification of information on the defined sectoral technical criteria into the organization of the MRV System should be assessed.

The regulatory authorities will assess the possible adaptation of existing regulations that to the TSB by T+1. The introduction of incentives for the adoption of the TSB by organizations is also suggested to be assessed.

It is further proposed that in this first year after TSB publication, the in-depth process for defining verification guidelines and systems should also be carried out, followed by the planning of a pilot phase for types of verification, considering the publication of a specific action plan contemplating a phased implementation by different types of institutions or products.

T+1: One year after the TSB is published

In T+1 regulatory adaptations are to be proposed. At the same time, the standardized reporting templates for **Wave 1** shall be published. It is also recommended to publish illustrative examples of filled-in reporting forms. In this phase, trainings and workshops should be held to provide guidance on the methodologies for calculating indicators, filling-in forms, and reporting requirements for Wave 1 organization.

Finally, T+1 is also recommended as the starting point for planning the inclusion of the **Wave 2** segments into the MRV System, including listed public companies, closely-held companies (which may include MSMEs, subject to the principles of proportionality and applicability), insurance companies, and pension funds. This process includes the discussion of adapted regulations, defining specific or adapting previously defined key performance indicators, defining the methodologies for calculating the indicators, designing the reporting process, and developing standard reporting templates for each type of organization.

T+2: Two years after the TSB is published

In T+2, the MRV Portal begins to operate, with the inclusion of Wave 1 reporting. This first year of reporting can serve as a *pilot phase* for the TSB, to test the practical applicability of reporting requirements and functionalities of the MRV System. At the same time, it is proposed that the TSB governance coordinate with regulatory authorities the adaptation of regulations relating to Wave 2 organizations. Likewise, T+2 is the period suggested for the publication of the reporting

templates for Wave 2, together with the conduction of trainings and workshops for these organizations who will start reporting in T+3.

T+3: Three years after the TSB is published

For T+3, the beginning of the reporting by Wave 2 organizations and the first cycle for the review of the TSB and the MRV System — including the MRV Portal — is suggested, with a public consultation to collect public perceptions on the TSB's usability, its effectiveness, and proposed improvements. The contributions received through the public consultation should be used to update the TSB and the MRV System and make them more robust.

Monitoring

Once the organizations have reported, the reported data can be monitored and analyzed, in order to assess the transition of the economy and the financial flows directed towards the climate, environmental, and socio-economic objectives of the TSB, so that different actors can base their decision-making — whether for investments, the creation of public policies, or the strategic planning of companies — on reported and verified information regarding the progress and financing of the economy's transition, as well as on the main investment gaps.

For this reason, the monitoring of reported data and indicators is essential for assessing the TSB's own progress and that of the market towards alignment with the sustainability objectives. Therefore, this section proposes the adoption of important aspects to ensure that the TSB's MRV System enables data monitoring, also considering aspects related to the regulation of information disclosure by market regulators and the specific governance implications foreseen for the MRV Portal.

MRV Portal

The MRV System includes the development of a data platform called the MRV Portal. The MRV Portal will aim to systematize the TSB-related data, provide transparency and accessibility to this information, and enable the monitoring and assessment of the data by different stakeholders, therefore supporting the TSB's strategic objectives.

TSB-related information requested to be reported by competent supervisory authorities and of public interest, must be published on this publicly accessible portal. The level of granularity and scope of this information will be analyzed during the stages of creation of the portal. Organizations subject to TSB-linked regulations should be able to report data directly to the platform's management entity via an electronic system. For data to be collected, processed, and made available in an efficient and consistent manner, it must be reported in an electronic format³⁶ in a structured way.

The responsibility of maintaining and managing the platform will be assigned to a public entity, under the supervision of the CITSB. It is suggested that the management entity will be responsible for:

- i) Maintaining and managing the technological infrastructure that organizes and stores the collected information;
- ii) Collecting data in a standardized manner;
- iii) Ensuring that data is up-to-date, consistent, and usable;
- iv) Suggesting and carrying out continuous revisions and improvements to processes;
- v) Supporting the integration of information from different databases to optimize the use of the platform and its data for the various uses and processes;

³⁶ It is suggested to assess the adoption of a common digital language for receiving data from different systems, subject to a careful analysis of feasibility, costs, benefits, and flexibility. The decision-making process will require an in-depth discussion between the various actors, including both public authorities and the private sector.

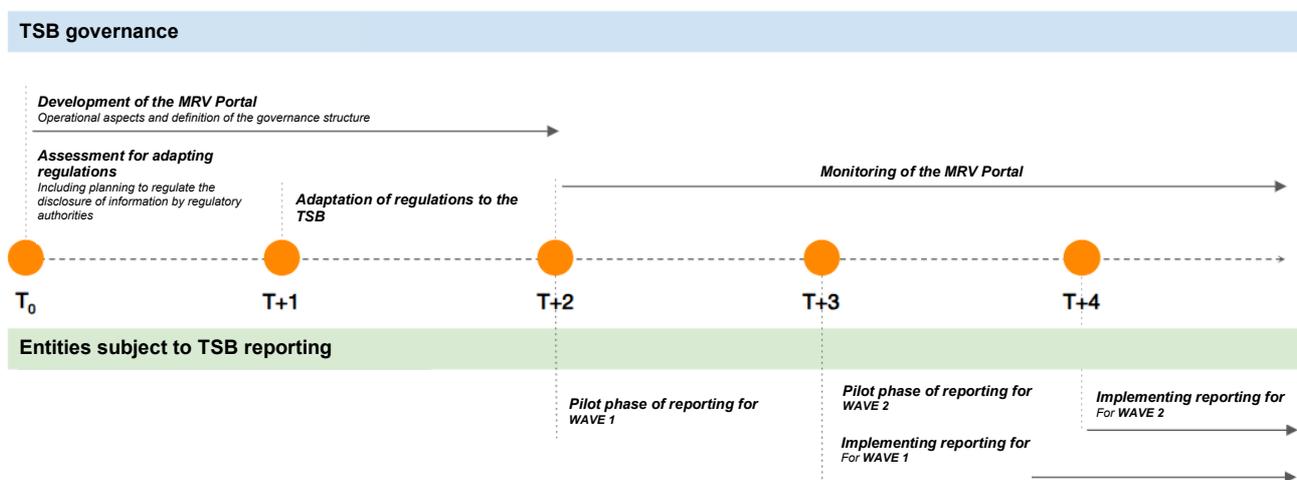
- vi) Analyzing and reporting the aggregated and analyzed information, including for international contexts, such as the Biennial Update Reports (BURs), related to the country's sustainability and climate actions.

Clear protocols should be established for collecting, storing, making available, and assessing information. It needs to be assessed which data exactly will be made available on the platform, ensuring the protection of the information processed in accordance with current laws and applicable confidentiality protocols.

Monitoring timeline

The following initial timeline is proposed for implementing the monitoring system within the scope of the TSB's MRV System:

Figure 5 — Timeline for monitoring in the MRV System



Source: Own elaboration.

The proposed timeline shall be assessed with the regulatory authorities for the analysis of the feasibility of implementation in accordance with their processes, capacities, and timelines.

In T₀, the year of the TSB's publication, the adaptation of regulations will be assessed by the regulatory authorities. Also, from T₀ onwards, the monitoring processes within the TSB governance should be assessed and planned. At the same time, the processes for planning and structuring the MRV Portal will begin, with the definition of operational aspects — relating to the data collection and processing structure — and its governance structure.

In T+1, the linking of regulations to the TSB should be operationalized, assessing the possibility of using reported data for monitoring from T+2 onwards, as appropriate. The launch of the MRV Portal is proposed for T+2, once the entire reporting, monitoring, and verification process can be centralized on this platform.

Verification

The verification aims to bring credibility and integrity to the quantitative and qualitative information reported and imputed in the MRV System. It is recommended to verify the information regarding its TSB alignment. This verification can be made by a qualified independent entity before publication to guarantee the integrity of the information.

To ensure the qualification of verification entities, the establishment of an accreditation and supervision system by competent authorities is suggested. To this end, within the scope of the CITSB, respective processes and responsibilities

for the accreditation of these entities should be defined. The accreditation process consists of assessing and accrediting the verification entity, assessing its qualifications to assess and verify regulatory compliance of reported data.

It should be noted that non-financial or sustainability information³⁷ is currently not subject to external verification or mandatory external auditing.³⁸

Figure 6 — Current forms of external review of sustainability-related financial information

Current	Listed public companies	Financial institutions S1	Fund managers	Individual	MSMEs
Organizational level	Assurance by an independent auditor registered with the CVM	Assurance by an independent auditor	Assurance by an independent auditor registered with the CVM	N/A	N/A
Level of activity, process, or product (financial or non-financial)	Environmental certifications	Labeled bonds (ICMA, CBI), verification via SPO	N/A	Due diligence of the loan with defined use of proceeds	Environmental certifications
	Due diligence of the loan with defined use of proceeds				
	Labeled bonds (ICMA, CBI), verification via SPO				

Source: Own elaboration.

Figure 6 shows two verification levels, either at the organization level (in which the performance of an institution as a whole is assessed), or at the activity, process, or product level (in which the information of a specific activity, process, or product is assessed).

Listed and unlisted public companies, for example, already have structures in place to verify sustainability- and climate-related information, although these are not mandatory. The requirements for limited and reasonable assurance are regulated by CVM Resolution No. 219/2024. These companies can also be subject to audit processes if they decide, for voluntary reasons, to obtain environmental certifications on their products or processes, for example, to access new markets, premium prices, among others.

In the case of applications for credit lines with a specific designation related to sustainable activities, such as credit lines for solar panels or electrification of fleets, financial institutions already practice the acquisition sample verifications on the use of proceeds.

In the case of labeled bonds, the ICMA Principles recommend to obtain an external review, such as a SPO or certification, and the CBI Standard require a certification by an accredited entity.³⁹ In Brazil, if a company issues labelled debt security

³⁷ It is worth noting that regulations in other jurisdictions have changed the terminology from "non-financial information" to "sustainability information". In the EU, for example, the Corporate Sustainability Reporting Directive (CSRD), which replaced the Non-Financial Reporting Directive (NFRD), is the main directive on corporate sustainability reporting for publicly- and not publicly-held companies. For financial institutions, the Sustainable Finance Disclosure Regulation (SFDR) regulates the disclosure of sustainability information from capital market agents and financial institutions.

³⁸ In Brazil, no specific regulations were identified for sustainability information disclosure, but rather a set of CMN Resolutions (including CVM and BCB) that address issues of corporate information disclosure and governance of social, environmental, and climate risks, as already mentioned. There are no specific regulations governing sustainability reporting by not publicly-held companies either. Voluntary national and international standards for independent verification, such as for labeled bonds, include those by the International Auditing and Assurance Standards Board (IAASB, 2009; 2013) and International Ethics Standards Board for Accountants (IESBA, 2024).

Both CVM Resolution No. 219/2024, and CMN Resolution No. 5.185/2024, set deadlines for introducing limited and reasonable assurance — with reasonable assurance having a higher level of diligence than limited assurance. However, CVM Resolution No. 219 (which amends CVM Resolution No. 193) will become mandatory in 2026. Similarly, CMN Resolution No. 5.185 makes assurance mandatory from 2026, with different deadlines for different categories of financial institutions. Both Resolutions refer to Technical Pronouncements 01 and 02 of the Brazilian Sustainability Pronouncements Committee (*Comitê Brasileiro de Pronunciamentos de Sustentabilidade* (CBPS)) to regulate the preparation and disclosure of sustainability-related financial information.

³⁹ There are different types of external reviews in sustainable finance, whose applicability can vary according to the financial instrument, the needs of the sectors, and the scrutiny desired. The ICMA Green Bond Principles (2022) mentions four types of external assessment. The following definitions are adapted based on current market understanding: i) Verification: independent assurance regarding a designated set of criteria or indicators of sustainable bonds.

or loan with a SPO, it must, in accordance with CVM Resolution No. 175/2022, disclose the name of the entity responsible for the issuance of the SPO.

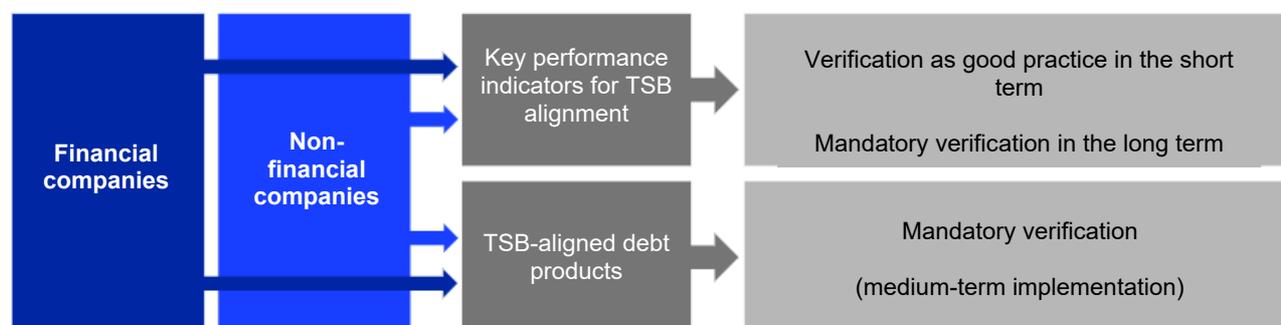
To ensure the integrity of the TSB-related information reported, it is necessary to standardize the verification process. An in-depth assessment is needed to draft recommendations for the establishment of an accreditation regime and guidelines for the verification of TSB-related sustainability information, including aspects of the structure, scope, requirements, timeline, and responsibilities of such a regime, as well as considerations regarding proportionality and possible incentives.⁴⁰

In this context, it is observed that the verification processes in relation to sustainable taxonomies tend to prioritize mechanisms with lower compliance costs – a pathway the TSB should follow as well. Until a formal regime is established, it is recommended to carry out assessments and pilots to ensure consistency with the TSB implementation phases. During these phases, operational and compliance costs, and the ability of organizations to adhere to the verification processes will be observed. A discussion with stakeholders should be held before the TSB implementation phase, in order to gather more information from market participants that already obtain and offer verifications, in order to propose cost-effective ways to be considered and tested in the TSB implementation phase.

Preliminary considerations for the TSB's verification system

It is recommended that the TSB-related information reported, including the key performance indicators, is verified before being published. In addition, it is recommended to introduce a TSB-linked label for TSB-aligned debt securities and other financial products with an external verification.

Figure 7 — Scope of the TSB's verification system



Source: Own elaboration.

Note: The key performance indicators for TSB alignment differ between financial and non-financial companies, as explained in the section Reporting, resulting in different verification processes and timelines.

As a way of stimulating the market, during the voluntary adoption phase of the TSB, it is recommended to provide incentives to financial and non-financial companies that adopt verification practices, as well as the valuation of financial and non-financial companies that choose to carry out voluntary reporting and verification. It is recommended that these incentives be aligned with national sustainable development programs, to be discussed between the federal government, regulatory authorities, and auto-regulatory bodies on a case-by-case basis. International experience shows

ii) Certification: provides an issuer of sustainable bonds with a certificate confirming that the bond complies with the specific criteria defined by a standard; alignment with these criteria is usually assessed by qualified and accredited third parties, i.e., by companies accredited by the standard-setting body.

(iii) Second Party Opinion: an independent opinion provided by an institution — such as consulting firms — other than the issuer, which has expertise and experience in sustainability impact.

(iv) Rating: classifies an issuer of a sustainable bond based on an assessment made by a third party, such as specialized research providers or rating agencies, in terms of the characteristics of the issue and the calibration of the level of ambition of sustainability performance targets based on a pre-established rating methodology.

⁴⁰ Inspired by paragraphs (24), (28), (38), and (45), as well as Chapter I of EU (2023).

that incentives are key to encouraging market actors, especially those with less resources, to generate quality data and verify it.⁴¹

Considerations on verification

Consolidating the verification element within the TSB will require the development of a technical-operational model that integrates different flows for generating, assessing, and reporting sustainability information, respecting the diversity of actors, the proportionality of the actors' responsibilities, and the feasibility of implementation.

Separating financial auditing from sustainability verification⁴²

It is recommended to make explicit the functional separation between auditing financial information and verifying compliance with reported activities with the TSB criteria. The financial audit must ensure the integrity of the accounting and exposure data, while the technical criteria of Substantial Contribution, DNSH, and MS must be verified based on proprietary methodologies applicable to the nature of the operations.

Verification models for financial companies

Considering the variety of products, operating volumes, and institutional maturity, it is recommended that financial companies maintain the flexibility to use different verification models depending on the nature of each product or operation. It is recommended that the frameworks already used in the Brazilian sustainable finance market be preserved, serving as a legitimate and complementary basis for the TSB. It is also important to allow verification at the standardized product level, such as credit lines, for example, for solar panels or low-carbon agriculture.

Transparency of internal verification processes should be required, which includes disclosure of governance, applied criteria, and control mechanisms. Another fundamental principle is the recognition of shared verification: financial institutions would be responsible for traceability and financial compliance, while third parties, where applicable, would be in charge of verifying the alignment of the activity.

Non-financial companies — proportionality guidelines

For non-financial companies, it is recommended that the verification of TSB alignment during the initial TSB implementation phase also considers flexibility in the voluntary adoption of independent verifications (e.g., SPOs, sector certifications, technical reports), as well as the future establishment of an accreditation system and regulation of the TSB verification system.

MSMEs — verification based on proportional due diligence

Given the high relative cost of independent verification for MSMEs, it is recommended to adopt simplified and financially feasible verification mechanisms, such as:

- The pathways for MSME adhesion to the TSB must include the possibility of incorporating already recognized sector certifications.⁴³

Individuals — evidence of use and loan due diligence

⁴¹ Challenge pointed out in UNEP FI (2021).

⁴² This differentiation is due to the need for specific knowledge to verify sustainability-related information. According to Accountancy Europe, an organization that represents the interests of accounting, auditing, and consulting professionals throughout Europe, statutory auditors must meet specific requirements to be eligible to perform assurance work on sustainability reports: they must undergo practical training in the assurance of annual and consolidated sustainability reports or other sustainability-related services, and pass a specific examination. Knowledge includes: legal requirements and reporting standards related to the preparation of annual and consolidated sustainability reports; sustainability analysis; sustainability due diligence processes; and legal requirements and assurance standards for sustainability reports.

⁴³ The EU's Sustainable Finance Platform presented in the publication "Streamlining Sustainable Finance for SMEs" (PSF, 2025) alternatives for adherence to the EU Taxonomy that include the incorporation of a list of pre-defined certifications. It is understood that this discussion has yet to be held in Brazil.

For transactions with individuals, it is recommended to:

- Consider maintaining the mechanisms already in place for loan due diligence and proof of allocation of proceeds (e.g., contracts, proof of installation, invoices), consultation of available databases (e.g., of the Brazilian Institute of Environment and Renewable Natural Resources (*Instituto Brasileiro do Meio Ambiente* (Ibama)), Register of Labor Analogous to Slavery, licensing), or even operational procedures in which the proceeds are assigned directly to the supplier. It is worth noting that these possibilities should not prejudice any responsibility for compliance with the MS. These possibilities will have to be discussed with stakeholders and financial institutions, given the importance of individuals in banking institutions.
- Consider the use of voluntary certifications (e.g., suppliers' green labels) as a complementary verification element, as suggested for MSMEs.

Verification of labeled financial instruments

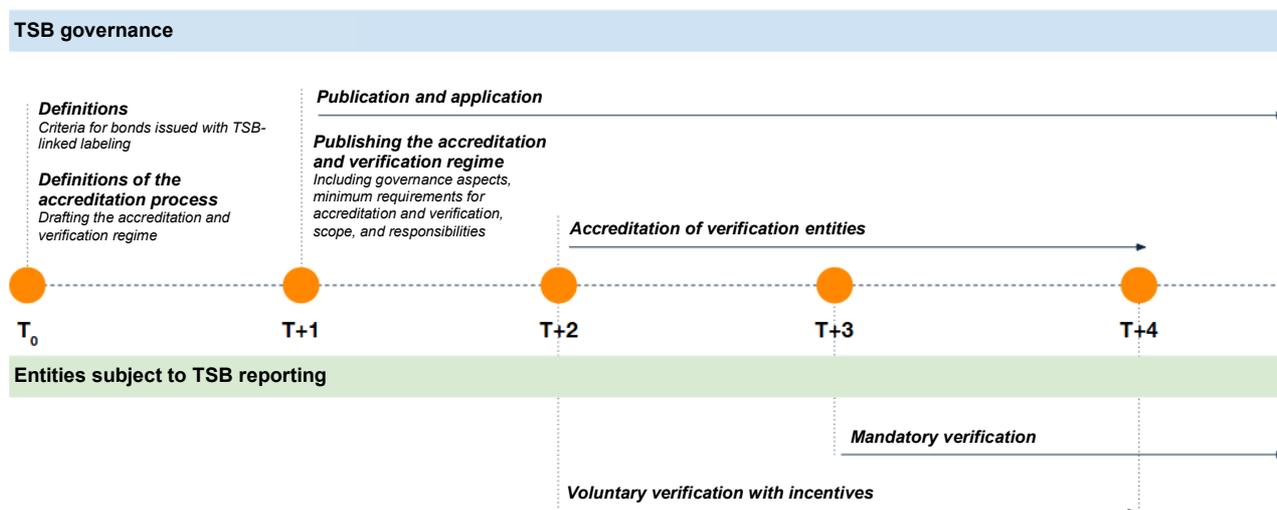
In line with the current regulation of investment funds in Brazil, defined by CVM Resolution No. 175/2022, it is initially recommended that capital market instruments labeled as sustainable declare i) the form and extent to which the organization considers the TSB in the product; ii) the methodologies applied; iii) the percentage of assets related to TSB-aligned activities; iv) the TSB's climate, environmental, and/or socio-economic objectives(s) the product contributes to; v) whether this information has been verified or audited internally or by an independent entity, identifying that entity, if applicable, and providing the access information to the verification document; or vi) an explanation for the reasons the TSB has not been considered, if applicable; and vii) its contribution to the SDGs, if applicable.

Pre-issuance (ensuring the integrity of the product's structuring) and post-issuance verification (of compliance of allocated proceeds with the TSB criteria, including the assessment of the key performance indicators) are recommended.⁴⁴ It is considered that this point should be discussed with regulatory authorities and market actors after the publication of the TSB.

⁴⁴ References for defining labeled bonds by allocation of proceeds or by performance include: ICMA Principles and Guidelines (2021); Anbima's Guide to sustainable bond offerings (Anbima, 2022), and GIZ & Financial Innovation Lab (2022). The latter gives an overview of a series of sustainability-linked financial products used in Brazil.

Verification timeline

Figure 8 — Timeline for verification in the MRV System



Source: Own elaboration.

The proposals in this timeline are preliminary proposals that will have to be assessed together with the regulatory authorities to analyze the feasibility of implementation in accordance with the processes, capacities, and timelines of both these authorities and the TSB governance bodies.

In T₀, year of the TSB's publication, the accreditation processes for verification entities should be started to be defined and minimum verification requirements designed. The regulation of the accreditation and verification should contain aspects such as: governance (including the designation of the entity responsible for accreditation and supervision of verification entities), minimum requirements for accreditation and verification, scope, and responsibilities. In T+1 the proposal for the accreditation and verification regulation should be published.

Assessments for the revision of regulations on labelled financial instruments should be carried out in T₀, considering verification aspects. Subsequently, in T+2 regulations for aligned or partially aligned bonds should be published with the relevant definitions, so that verification for labelled bonds of these categories becomes mandatory in T₃. This implementation deadline will have to be assessed with the relevant regulatory authorities.

In T+3, during the period of voluntary TSB adoption, organizations should publish reports with voluntary verification. To promote the voluntary adoption of verification, government and market actors should discuss potential incentive mechanisms (financial and non-financial).

Mandatory verification of reported information is proposed to begin as soon as the accreditation system for verification entities is established, that is from T+4, observing the principle of proportionality.

Governance of the MRV System

The governance of the MRV System will seek to establish a system that ensures the monitoring, reporting and verification of the economic transition and capital flows related to sustainable activities under the TSB. It will initially follow the structure of the Interinstitutional Committee of the Brazilian Sustainable Taxonomy (CITSB) established by Decree 11.961/2024, in a permanent and deliberative nature. This governance may be adjusted depending on the TSB's

regulatory framework. The governance of the MRV System will be organized between different entities, including regulators, in their respective competencies.

The regulatory bodies will be responsible for assessing the relevant regulations regarding their potential to be linked to the TSB, and proposing changes based on these assessments, in accordance with the respective normative or regulatory processes. It will be necessary to mature the definitions of the MRV System governance — including the governance of the MRV Portal — including management and supervision structures that ensure that its strategic objectives are achieved throughout the design, implementation, and review phases of the MRV System.

Final considerations

This document contains an initial proposal for the TSB's MRV System, the result of a collective construction process carried out over the course of a year with the TSB's MRV WG. Furthermore, various entities in the sustainable finance ecosystem have provided valuable and fundamental input into the drafting of the recommendations in this chapter, underscoring the participatory nature of its content. The TSB is an instrument that continues to evolve, and the MRV System will progress in line with the structures that support the TSB; therefore, it is essential to maintain open channels for dialogue with stakeholders.

In this context, it is imperative to emphasize that both the MRV System and the TSB itself are in their early stages of development and implementation. Both represent fundamental milestones for the progress of sustainable finance in Brazil, however, their effectiveness and long-term applicability will intrinsically depend on a continuous and robust process of interaction and feedback with the vast ecosystem of actors involved. This collaborative dynamic, involving the government, regulatory authorities, self-regulatory bodies, financial institutions, companies, investors, civil society, and academia, will be crucial to identifying and addressing emerging challenges, refining methodologies and indicators, and ensuring that structures adapt to market dynamics and international best practices. The continued evolution of these instruments will be a direct reflection of the ecosystem's capacity for dialogue and engagement, solidifying the TSB's credibility and relevance as a catalyst for the transition to a more socially, environmentally, climatically and economically sustainable economy.

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