



Second-Party Opinion on BMV Global's Sustainability Credit Units

Alignment with SDGs:



Alignment with GBP/GLP categories:

- Environmentally sustainable management of living natural resources and land use.
- Terrestrial and aquatic biodiversity conservation.

Alignment with CBI's sectorial criteria:

- Agriculture and Forestry.

Alignment with EU Taxonomy's sectorial criteria:

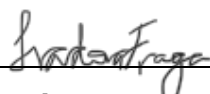
- Conservation, Restoration of habitats, ecosystems and species.

GBP/GLB	Level of alignment with best practices	Highlights	Gaps for leadership
Use of proceeds	Leadship	✓ Proceeds destined to payment for ecosystem services for the conservation of native vegetation. ✓ Part of the proceeds is directed to investments in rural properties for sustainable agriculture, while another portion is allocated to producer associations for the development of production clusters.	-
Process for project evaluation and selection UCS of areas protected by law	Satisfactory	✓ Reduces economic pressure for deforestation. ✓ Compliance with environmental legislation and prohibition of deforestation (even if legal) of areas transformed into UCS. ✓ UCS compensation protocol was assured by an external verifier. ✓ Reduction of the social and environmental impacts of the use of proceeds with the development and implementation of the Productive Activity and Environmental Adequacy Plans (PAPAs, in Portuguese acronym) and Environmental Management Plans.	✗ Native vegetation conservation is already required by legislation (Forestry Code) as a protected area. ✗ Partial alignment with CBI sector criteria and EU Taxonomy criteria.
Process for project evaluation and selection UCS of conservation units above what is required by law	Comfortable	✓ Reduces of economic pressure for deforestation. ✓ Conservation is beyond what is required by legislation. ✓ Compliance with environmental legislation and impossibility of deforestation (even if legal) of areas transformed into UCS. ✓ UCS compensation protocol was assured by an external verifier.	✗ Partial alignment with CBI sector criteria and EU Taxonomy criteria.
Management of proceeds	Leadship	✓ The pricing methodology is publicly available and audited. ✓ Origin Certificates are traceable and UCS are registered in a blockchain system to eliminate the risk of double counting. ✓ The system is validated, regulated and certified by an independent third party. ERM considers there are no significant proceeds contamination risk.	-
Reporting	Comfortable	✓ The socio-environmental and financial indicators monitored following the implementation of the planned activities ensure alignment with the eligibility criteria for program participation and are verified by an independent third party, with reporting occurring at least annually. ✓ Information on the allocation of resources derived from the commercialization of UCS is disclosed on the BMV Digital platform, where investors can access it in real time. This complies with the General Data Protection Law (LGPD). ✓ Part of the socio-environmental impact indicators related to the active hubs are publicly available on BMV Global's website.	✗ Other socio-environmental and financial indicators (as described in Annex VII) available through the BMV Digital Platform are not publicly accessible. ✗ Second-Party Opinion will be disclosed internally and to clients only.

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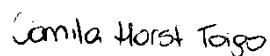
Second-Party Opinion

Sustainability Credit Units (UCS) of BMV Global



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ABOUT ERM

ERM is a leading global sustainability consultancy with operations in more than 70 jurisdictions and 8,000 employees worldwide. As part of its Sustainable Finance practice, ERM has assessed 300+ financial instruments for sustainability, such as green, social and sustainable bonds, sustainable investment proceeds and goal-linked instruments. ERM is also accredited by the Climate Bonds Initiative at a global level and, since 2020, NINT, now part of the ERM group, has been among the top 10 global second opinion providers for sustainable bonds, according to Environmental Finance.

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1. SCOPE

The purpose of this Second Party Opinion report is to provide an opinion on the social and environmental, socio-economic, and climate-related benefits of BMV Global Sustainability Credit Units (UCS, in Portuguese acronym) and its labeling as a "green financial structure".

ERM has used its proprietary method of analysis, which is aligned with the Loan Syndications and Trading Association (LSTA)'s *Green Loan Principles* (GLP)¹, The International Capital Market Association (ICMA)'s *Green Bond Principles* (GBP)² and *Sustainable Bonds for Nature practitioner's Guide*³, *Climate Bonds Initiative's Climate Bonds Taxonomy*⁴, European Union Sustainable Finance Taxonomy⁵, United Nations' Sustainable Development Goals (SDGs)⁶, Brazilian Financial and Capital Markets Association's (Anbima, in Portuguese acronym) *Guide on ESG Bonds*⁷, Brazilian Banking Federation's (Febraban, in Portuguese acronym) *Guide on Sustainable Debt in Brazil*⁸, Brazilian Government's *Brazilian Sustainable Taxonomy*⁹, *The International Carbon Reduction and Offset Alliance (ICROA)*¹⁰ and other internationally recognized sustainability standards.

Although designed for bonds, ERM understands that the methodology is applicable to the financial structure of Sustainability Credit Units (UCS) and used its experience and proprietary methods to make the appropriate methodological adjustments.

ERM's opinion is based on:

- Transaction characteristics established through BMV Protocol;
- Social and environmental, socio-economic, and climate-related benefits of the structure for generating and trading Sustainability Credit Units (UCS).

This report used information and documents provided by BMV Global, some of which were confidential, desk research, and other elements acquired through virtual interviews with teams responsible for BMV Global's management and environmental management of the *Tesouro Verde* and *Brasil Mata Viva* Programs. This process took place between March and July 2025.

The assessment process consisted of:

- Planning the assessment;
- Performing the assessment, including client preparation, obtaining evidences and practitioner assessment;
- Forming the assessment conclusion;
- Preparing the assessment report.

¹ [Green Loan Principles - LSTA](#)

² [Green Bond Principles » ICMA](#)

³ [Sustainable-Bonds-for-Nature-A-Practitioners-Guide-June-2025.pdf](#)

⁴ [Climate Bonds Taxonomy | Climate Bonds Initiative](#)

⁵ [EU Taxonomy Navigator](#)

⁶ [As Nações Unidas no Brasil](#)

⁷ [GUIA PARA OFERTAS DE TÍTULOS SUSTENTÁVEIS.pdf](#)

⁸ [GuiaDividaSust_Abr23_02.pdf](#)

⁹ [taxonomia-sustentavel-brasileira.pdf](#)

¹⁰ [ICROA | Accrediting Best Practice in Carbon Offsetting](#)

Statement of Responsibility

ERM is not a shareholder, investee, client or supplier of BMV Global. SITAWI's Sustainable Finance Program, which later became NINT and is now part of ERM, provided a Second Opinion on BMV Global's Sustainability Credit Units (UCS, in Portuguese acronym) in 2021. Accordingly, ERM declares that it has no conflict of interest and is able to issue an independent opinion on the environmental, socio-economic, and climate-related benefits of the Sustainability Credit Units and its labeling as a "green financial structure".

The analyses contained in this opinion are based on a series of documents, some of which are confidential, provided by BMV Global. We cannot vouch for their completeness, accuracy or even veracity. ERM is therefore not responsible for the use of the information contained in this opinion.

THIS IS NOT A RECOMENDATION

We emphasize that all the evaluations and opinions indicated in this report do not constitute an investment recommendation.

2. OPINION

In ERM's Opinion, the Sustainability Credit Units (UCS) can be characterized as a "Green Financing Structure", with positive contributions to socioeconomic and environmental development.

ERM used its proprietary valuation method, which is aligned with the Green Bond Principles (GBP), which are guidelines that help the market understand the key points of a financial product and how it is characterized as Green. As mentioned previously, although designed for bonds, ERM understands that the methodology is applicable to the financial structure of Sustainability Credit Units (UCS), with the appropriate methodological adjustments. More details on these principles can be found in Appendix I - Method.

Adherence to the GBP, although a voluntary process, signals to investors and other market agents that the investment follows adequate standards of sustainability performance and transparency.

The assessment on the UCS alignment with the four components of the GBP is presented below.

GBP Alignment	Summary of ERM's practices and opinion
Use of proceeds 	BMV Global's Business Model: BMV Global is a Natural Capital manager that operates in the management of financial mechanisms that enable, directly and indirectly, investments in: i. conservation and restoration of forests in private and public areas; ii. development of sustainable agricultural production arrangements in private properties; iii. companies that sustain the value chain of local productive arrangements, in an operational or strategic manner; iv. local social and economic development; v. strengthening of local public management for the promotion of socioeconomic and environmental development; vi. investment proceeds or companies with good social and environmental management practices and generation of positive social and environmental impact. These investments occur through the BMV Program and, more specifically, the BMV Standard¹¹, a scientific standard that presents a solution for the economic valuation of ecosystem services produced by native forests and their biomes. Thus, creating a source of revenue to finance native forest conservation and include it in the economic matrix, thus making the maintenance of forest areas and environmental preservation economically viable. BMV Standard can be used in areas of public or private domain that have preserved native vegetation, whether in Legal Reserve areas and Permanent

¹¹ Standard – 2 – BMV – Brasil Mata Viva

Preservation Areas, Conservation Units, Parks, remnants whose ownership is legitimate and those responsible have autonomy as to the definition of their use.

The product that originates the green financial structure, generated by BMV Standard is the **Sustainability Credit Units (UCS)**, an environmental asset product of the rural activity of conservation of native vegetation. The UCS quantifies the **ecosystem services** produced per hectare of native forest and its biodiversity can produce and value considering the price of agricultural commodities that today **pressure the deforestation** of native forest. Quantification is carried out in tons of stored CO₂eq, calculated from **27 indicators** of ecosystem services. These indicators are presented in Table 4, in Annex II - BMV Standard methodology approach and operation of supported programs.

The credits may be destined for the **voluntary carbon market**, according to *International Carbon Reduction and Offset Alliance*, and are **equivalent to 1 ton of CO₂ eq.** generated from the ecosystem services provided by native forest **conservation**. Furthermore, the UCS may be used in the **regulated market** as collateral for financial operations - whether public or private - as a store of value, for asset appreciation, or as instruments for fulfilling environmental, social, and climate-related responsibilities and commitments.

Thus, UCS are commodities which can be acquired and evidenced accordingly to International Financial Reporting Standards (IFRS)¹² 1 and 2¹³, by companies, governments and individuals who wish to invest in nature conservation, in socio-environmental projects and sustainable productive matrices. These UCS can be commercialized, for example, to a company in search of offsetting emissions, reducing its ecological footprint, socio-environmental qualification, best ESG practices or obtaining incentives. Within the voluntary carbon market context, UCS can be used as compensation for Greenhouse Gas (GHG) emissions in the context of voluntary carbon markets, in alignment with the ambitions set by the Paris Agreement.

Programs linked to Standard BMV's approach: Both private landowners and public agencies **promote ecosystem services** through **native forest conservation**, generating Sustainability Credit Units (UCS), which can be traded, held in custody in financial institutions, applied to the companies' accounting as liabilities and as assets. Therefore, Standard BVM has two approaches. The generation of UCS by **private owners** is carried out in the

¹² IFRS - IFRS Sustainability Standards Navigator

¹³ IFRS S1: General Requirements for Disclosure of Sustainability-related Financial Information and IFRS S2 Climate-related Disclosures

context of the **Brasil Mata Viva Program**. While the **GovTech Tesouro Verde Program**¹⁴ is responsible for generating government UCS.

In both cases, the proceeds are primarily allocated to **conservation** activities¹⁵. Additionally, the revenue generated by the sale of UCS is destined to structure the Local Developments Hubs (explained afterwards in the report), allowing each of the Programs to also foster specific activities, including the development of sustainable agricultural activities, in the case of the *Brasil Mata Viva Program*, and the strengthening of public management for local sustainable development, in the case of the *Tesouro Verde Program*.

Therefore, although each case has its particularities, in general, the resources allocated for payments for ecosystem services aimed at conserving native vegetation are strategically distributed.

A portion is invested directly in the properties, with the goal of promoting productive and environmental improvements through the introduction of sustainable technologies and the restoration of degraded areas, or to encourage sustainable agricultural practices. Another portion is directed to producers' associations, aiming to strengthen local productive arrangements and vertically integrated local sustainable supply chain.

This financial mechanism process and the details of the methodological approach adopted, and the operation of the *Brasil Mata Viva* and *Tesouro Verde* Programs are available in Annex II - BMV Standard methodology approach and operation of supported programs.

The amount of UCS generated on **private properties** is distributed as follows and as presented in Figure 1, in Annex II - BMV Standard methodology approach and operation of supported programs.

- (i) 60% for the landowner(s) to invest in the property. Half is invested in practices for the maintenance and conservation of the area and in the implementation of the Productive and Environmental Adjustment Plan (PAPA, in Portuguese acronym). The other half is allocated to the implementation of the Sustainable Development Plan (PDS, in Portuguese acronym), including social investment and support for productive systems aimed at regional sustainable development.
- (ii) 30% to BMV Global, the Intellectual Capital Investor.
- (iii) 10% for the financial investor(s).

The proceeds from the sale of UCS from **public agencies** are directed to the public agency itself (if it has fomented the demand for the acquisition of UCS by

¹⁴ <https://tesouroverde.global/>

¹⁵ Intended for productive and environmental adequacy with the introduction of sustainable production technologies and recovery of degraded areas, if applicable.

companies), as illustrated by Figure 2 and detailed in Annex II - BMV Standard methodology approach and operation of supported programs.

The Brasil Mata Viva and Tesouro Verde Programs currently have as their main area of focus two strongly threatened Brazilian biomes - Amazonia and Cerrado - characterized essentially by deforestation linked to agricultural and cattle raising activities. Some relevant characteristics for the analysis related to the states where the Programs operate are presented in Annex IV - Program Relevance and Impact.

Investment Relevance and Impact: Activities related to land use play a central role in the decarbonization of the economy, especially in Brazil, given that agriculture and deforestation, together, are responsible for three-quarters of the country's greenhouse gas (GHG) emissions¹⁶.

The financial structure of the UCS generates several potential positive impacts, namely:

- Forest conservation: Management of the human use of forest ecosystems, including their preservation, maintenance, sustainable use, restoration, and recovery. It aims to produce the greatest positive impact, on a sustainable basis, for current generations, maintaining its potential to satisfy the needs and aspirations of future generations, and ensuring the sustainable economic use of natural resources and their ecosystem services;
- Forest restoration: intentional human intervention to restore the native vegetation cover through the implementation of agroforestry systems, reforestation, natural regeneration of vegetation, ecological rehabilitation or restoration, aiming to trigger, facilitate or accelerate the natural succession process;
- Sustainable productive agricultural and ranching arrangements: Good agricultural management practices that allow an effective response to environmental and social conditions, providing guarantees related to social and environmental risks and to the maintenance of long-term sustainability of its productive balance; and use of sustainable technologies, increasing agriculture productivity.
- Local socio-economic development: The process of expanding social well-being, involving economic factors such as income and wealth production, access to basic services such as health and education, political participation, and conditions for the full exercise of human rights;
- Support to the Brasil Mata Viva and Tesouro Verde Programs: Structure for the feasibility of the programs to promote forest conservation and restoration, sustainable agricultural and livestock production arrangements or strengthening public management for local sustainable development;

¹⁶ [SEEG-RELATORIO-ANALITICO-12.pdf](#)

- Strengthening of public management for local sustainable development: Measures aimed at increasing the effectiveness of public management in the sustainability agenda, including the financing of specific programs related to the theme, with the objective of reverting the revenue from ecosystem services to the maintenance of these services and leveraging
- their benefits for society.

The impacts mentioned are adherent and relevant to the context of implementation of the activities, as detailed in Annex IV - Program Relevance and Impact. It is worth mentioning that, as detailed in the annex, considering the populations and regions currently served by the programs, it also provides positive **social positive impacts**. However, there is no evidence that the beneficiary population is fully classified as a vulnerable population in accordance with the Social Bond Principles. Therefore, this Second Party Opinion maintains its focus on **environmental impacts**.

Alignment with international standards: Besides promoting sustainable development in the context where the Programs are inserted, the financial structure also presents alignment with internationally recognized criteria for the labeling of green financial products.

From the environmental point of view, the fostered activities are recognized by the **Green Bond Principles** (GBP) as categories eligible to be classified as "Green":

- Environmentally sustainable management of living natural resources and land use (including environmentally sustainable agriculture; environmentally sustainable animal husbandry; environmentally sustainable fishery and aquaculture; environmentally sustainable forestry, including afforestation or reforestation, and preservation or restoration of natural landscapes);
- Terrestrial and aquatic biodiversity conservation.

Additionally, the activities are aligned more specifically to the 'nature-themed' green bonds, also described by ICMA, which refer to nature-related projects that may contribute to:

- a) restoration and conservation of biodiversity, ecosystems and ecosystem services;
- b) transformation of economic activities to reduce one or more of the direct drivers of biodiversity, ecosystems and ecosystem services loss: land and sea use change, overexploitation of natural resources, pollution, spread of invasive species, and climate change;
- c) integration of nature-based solutions across economic sectors; and

d) implementation of initiatives (policies for sovereign issuers), tools, and activities that support projects under (a) to (c) above.

ICMA reinforces all nature-themed bonds should go beyond a business as usual (BAU) scenario and should ensure identification, assessment and management of environmental and social risks and impacts associated with the projects and investments supported.

Some activities to be fostered are also aligned with **Climate Bonds Taxonomy**, that considers that activities of non-commercial forest conservation and restoration, sustainable forestry, agricultural production of perennial and non-perennial crops, and livestock production are potentially eligible to be classified as climate financial instruments.

The **European Union (EU) Taxonomy** is a classification system of environmentally sustainable economic activities, described as those that make a substantial contribution to at least one of the EU's climate and environmental objectives, while not significantly undermining any of these objectives and meeting minimum safeguards. The EU Taxonomy includes among these activities, the "Conversion, Restoration of Habitats, Ecosystems and Species"¹⁷, to which the UCS of BMV Global apply.

The assessment of the alignment of the UCS with the sectoral criteria defined by the CBI and the Taxonomy of the European Union will be presented in the next section, called Project Selection and Evaluation Process (GBP 2).

Finally, the activities are also related to the Sustainable Development Goals (SDGs) 12 ("Responsible Consumption and Production") and 15 ("Life on Land"), mainly to the subgoals presented below:

TABLE 1 – SGDS AND APPLICABLE TARGETS

SDG	Targets
	12.2 - By 2030, achieve a sustainable management and efficient use of natural resources.
	15.2 - By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally"

Source: United Nations¹⁸

¹⁷ [Conservation, including restoration, of habitats\[1\], ecosystems\[2\] and species](#)

¹⁸ [THE 17 GOALS | Sustainable Development](#)

Level of alignment: ERM considers UCS to be aligned with the Use of Proceeds component (Green Bond Principle 1). No point of improvement was identified in terms of alignment with the best market practices. The proceeds originated by the UCS are intended for payment for ecosystem services for the conservation of native vegetation; investments in the property, aiming at the development of sustainable agricultural production and for the association of producers, for the development of productive arrangements. The environmental, socio-economic, and climate-related benefits associated with the use of resources are clear, measurable, and long-term. Therefore, ERM has classified the alignment with this component as **Leadership**.

Process for Project evaluation and selection



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Process for project evaluation and selection: According to BMV Protocol, the definition of proceeds allocation is made based on the diagnosis of the areas and the Plan for Productive Activity and Environmental Adequacy, conducted by the *Brasil Mata Viva* and *Tesouro Verde* Programs (detailed in Annex II - BMV Standard methodology approach and operation of supported programs, under the coordination of BMV Global, according to the criteria described below.

Eligibility and exclusion criteria: The eligibility and exclusion criteria established for the two programs are presented in Annex III - Eligibility and exclusion criteria for UCS origination. These are formalized in BMV Standard and are compliant with social and environmental legislation.

Areas that must be preserved by legal requirements, such as Areas of Permanent Preservation (APPs) and Legal Reserves (RLs, in Portuguese acronym), as well as areas with forest conservation above what is required by law on a voluntary basis, may be converted into UCS. ERM understands that, for each of the types of areas, there are different levels of environmental additionality:

- i) For UCS generated from areas that should already be preserved according to environmental legislation, including the Forest Code¹⁹, their maintenance and conservation represent compliance with legal obligations. However, the provision of financial incentives enables the implementation of protection and maintenance activities, while also helping to reduce the economic pressures that drive deforestation. Although land preservation in these cases is required by law, in practice this is not necessarily what happens. According to the Annual Report on Deforestation in Brazil,²⁰ published by MapBiomas, a significant part of the deforestation recorded in the country occurred in areas that, by law, should be preserved - such as Legal Reserves and Permanent Preservation Areas. The report indicates that 24.7% of all alerts validated in Brazil in 2024 occurred over Legal Reserve areas. In terms of area, this is equivalent to 15.9% of the total deforested area in Brazil in 2024²¹. In the last six years, 19.9% of all the area deforested in the period was native vegetation within Legal Reserves declared in the

¹⁹ http://www.planalto.gov.br/ccivil_03/_ato2011-2014/2012/lei/l12651.htm

²⁰ [Mapbiomas Alert](#)

²¹ [MapBiomas Brazil](#)

Environmental Rural Register (CAR in Portuguese acronym). Thus, evidencing that despite the legal requirements of the Forest Code, deforestation in protected areas continues to be a recurrent practice, indicating failures in inspection and compliance with environmental legislation.

Moreover, in addition to reducing the economic pressure for deforestation, there is the financial incentive (60% of the value of the UCS), which returns to the producer for investments in the property, with the objective of preserving protected areas while fostering **socioeconomic and territorial development** through **sustainable agricultural** and livestock practices, as well as through productive initiatives organized by the **producers' associations**. Proceeds are also directed to the development of the Productive Activity and Environmental Adequacy Plans (PAPAs) and Environmental Management Plans that aim to guarantee the minimization of the socio-environmental impacts of each of the properties. The adhering landowners are prohibited from engaging in deforestation activities, even when such actions are legally permissible.

In summary, the additionality of UCS generated from areas that are already subject to mandatory conservation under environmental law is considered lower than in cases where vegetation preservation is beyond legal obligations, as presented below.

- ii) Regarding UCS generated from areas with forest conservation beyond what is required by law, there are also all the benefits mentioned in the previous item, plus the incentive to maintain and recover additional native vegetation. In these cases, there is more environmental additionality, as agricultural production with no deforestation and conservation beyond what is required by law represents an important step towards conservation of forest carbon stock and mitigation of climate change in Brazil, since land use change represents the main emission source in the country and is aligned with Brazil's Nationally Determined Contribution (NDC).

Pre-selected activities and projects: The activities already selected for the *Brasil Mata Viva* Program, until the elaboration of this report, have already mobilized 969 holders of UCs (including producers, clients, partners and companies), with the potential to generate up to 453.110.047 Sustainability Credit Units. Considering the current average price – in June 2025 - of one UCS (BRL 192.35)²², these credits may result in a gross income of over **BRL 87 billion**, to be distributed as described in 'Use of Proceeds'.

The allocation of part of these proceeds (30%, as previously mentioned) is foreseen for investments in the development of productive arrangements in the nuclei of the *Brasil Mata Viva* Program, totaling approximately BRL 28.5 billion. The amount is an estimate based on a previous selection of eligible private rural producers, and according to the evaluation process previously pointed out, each

²² The UCS price is updated monthly and is available on <https://bmvdigital.global/>

of the activities must go through the elaboration process of the respective PAPA and Environmental Management Plan.

Independent verification: The UCS pricing methodology is publicly available under an ISBN registration and was audited by an independent consultancy in January 2020. The audit concluded that the methodology is appropriate, the calculations were properly carried out based on the adopted technical assumptions, and the UCS price at the time was reasonable.

BMV's UCS **compensation protocol** was also audited by an external verifier, in 2021, concluding that, through verification of the methodology, processes and data presented by the BMV Global, the compensation protocol is reliable, with its respective instruments and methodologies for measuring environmental impacts/liabilities and certification of compensation through the acquisition of the corresponding UCS.

BMV has submitted assurance, validation, and additionality declarations issued by an independent consultancy, confirming the reliability of the data and methodologies used in the BMV Standard. The consultancy also recognizes the model's social and environmental co-benefits, validating its application in corporate sustainability policies.

Additional information and supporting materials regarding the usability of UCS, the attribution of the asset to sustainability indices and certifications, as well as other external assessments of the BMV Standard, are available at Annex II - BMV Standard methodology approach and operation of supported programs.

Definition of the Area of Influence Eligibility and Governance Structure:

In order for native vegetation areas - where Sustainability Credit Units (UCS) are originated - to be certified under the BMV Standard, they must be organized into a "nucleus." This nucleus consists of a group of rural landowners who voluntarily join the program and formally associate to collectively carry out activities focused on **environmental conservation** and the **sustainable use of land**.

Formation of the Nuclei: The establishment of a nucleus occurs in two stages. The first involves verifying the generation of Sustainability Credit Units and preparing the Productive and Environmental Adjustment Plan (PAPA, in Portuguese acronym) for each property, along with the Sustainable Development Plan (PDS, in Portuguese acronym). These instruments aim to enhance productive practices within the properties and local communities.

This stage involves two main stakeholders:

1. **Project participants:** landowners or legal holders of the areas, with the authority to determine land use;

2. **Regional Rural Producers' Association:** responsible for the creation, implementation, maintenance, and management of the **Local Development Hub** associated with the nucleus.

The **Local Development Hub** is the core element of the project's sustainability model, as it functions as a regulatory body within the system, responsible for managing financial flows, monitoring performance, and ensuring compliance with the guidelines of the BMV Program. The hub brings together producers from the BMV Nucleus with the shared goal of achieving sustainable and optimized production.

The management of the hubs is carried out by the **Producers' Association**, the legal entity that precedes the formation of the **Special Purpose Entities** (SPEs). These entities focus on developing local productive arrangements to foster socioeconomic development. The arrangements are **certified, traceable**, (through a process explained afterwards, in the 'Management of proceeds' principle) and aimed at strengthening and adding value to the local sustainable production chain, thereby improving community income and quality of life. Further details on the hubs are provided in Annex II - BMV Standard methodology approach and operation of supported programs.

The second stage of nucleus development occurs once technical and financial maturity is reached, enabling benefits to extend across the regional production chain. At this point, in addition to the producers' association, **SPEs** are established, potentially including producers outside the nucleus. These entities are formed in partnership with an **anchor company**, a key economic agent within a specific production chain, which collaborates with other stakeholders in the project. Table 6, available in Annex III - Eligibility and exclusion criteria for UCS origination, presents the detailed description of the Nuclei formation process.

Eligibility and BMV Certification of Nuclei: To be certified, nuclei must undergo:

- UCS inventory;
- Verification and validation of the amount of credits generated;
- Annual assessment of UCS generation based on the previous harvest year;
- Calculation of a "Sustainability Score," which considers environmental, social, and economic factors;
- Validation by an independent verifier.

Annual audits assess nuclei on various aspects, including forest inventories, association governance, use of collective resources, performance, and indicator tracking. UCS generation calculations are validated by subject-matter experts,

and nucleus performance is continuously monitored using BMV-specific indicators to ensure the delivery of ecosystem services to conservation investors.

Além dos documentos de formação do núcleo, o organismo de auditoria deverá verificar se os relatórios técnicos de quantificação das UCS e os relatórios de monitoramento foram devidamente conduzidos, certificando-se ainda que os processos de análise de campo, análises de laboratórios e cálculos estejam corretos

In addition to the documents establishing the nuclei, the auditing body must verify whether the technical reports on UCS quantification and the monitoring reports have been properly conducted, also ensuring that the field analysis procedures, laboratory analyses, and calculations are accurate.

Adhesion and Governance: The process of joining a nucleus includes a public hearing with community participation. In the case of private properties, landowners must organize into an association, which, in collaboration with BMV, will be responsible for defining, implementing, and maintaining the nucleus's structural projects.

BMV has also provided independent audit reports from three external verifiers covering eight nuclei under the Brazil Mata Viva Project, all of which received positive evaluations. The stored carbon quantification methodology was deemed appropriate and correctly applied. The amount of sustainability credits is determined based on the correlation between stored biomass and tons of carbon equivalent (tCO_{2e}). Only one case did not include specific carbon quantification values, though the final reports still received a positive verification status.

Alignment with international standards: An analysis of alignment with the CBI criteria for Agriculture²³ and Forestry²⁴ was carried out. The main conclusions are described below, and the full analysis is presented in Annex V.

- The promoted forest conservation and restoration activities are supported by Productive Activity and Environmental Adequacy Plans and Environmental Management Plans, in the case of private producers, and by Management Plans, in the case of protected areas maintained by public agencies. The programs incorporate protocols for monitoring, reporting, and verification aimed at mitigating risks. However, there is no explicit requirement for the development of plans focused on the assessment or reduction of physical risks associated with climate change, nor for strategies addressing climate adaptation and resilience.
- Forestry and wood processing activities are also partially aligned with the criteria. Although regularized in terms of land rights, the programs do not

²³ [Agriculture Criteria | Climate Bonds Initiative](#)

²⁴ [Forestry, Land Conservation and Restoration | Climate Bonds Initiative](#)

require that eligible areas have forest certifications or plans for evaluation and mitigation of physical risks of climate change. Thus, they partially meet the criteria established by the Climate Bonds Initiative for the category.

- The agricultural activities of the *Brasil Mata Viva* Program are guided by Productive Activity and Environmental Adjustment Plans and Environmental Management Plans, which are developed by universities that maintain institutional collaboration with researchers and scientific validators and seek to implement climate change mitigation practices, aligned with the Climate Bonds Initiative's Agricultural criteria. Although no trajectory for the reduction of emissions is foreseen, all areas neutralize their emissions with the Sustainability Credit Units. In relation to deforestation, all the landowners have a commitment not to carry out this activity, even if it is in accordance with the Forest Code. Moreover, all landowners are committed to refraining from deforestation, even when it is legally permitted under the Forest Code. However, it is not possible to guarantee that no areas have been converted since December 31, 2010, as required by CBI's criteria, given that the cut-off date established by the BMV Standard is December 31, 2020.

The detailed evaluation of the UCs against the sectoral criteria defined by the CBI is detailed in Annex V.

Moreover, ERM has assessed the alignment with European Union (EU) Taxonomy's criteria for Conversion, Restoration of Habitats, Ecosystems and Species²⁵, available in Annex VI – Europe Union Taxonomy Conservation, Restoration of Habitats, Ecosystems and Species' Criteria Assessment. In summary, the activity demonstrates partial alignment with the established criteria by contributing to the conservation of native vegetation and promoting the maintenance of ecosystems, species, and habitats. The eligibility criteria for areas/projects cover most of the elements required by the Taxonomy, as evidenced through the management instruments (Sustainable Development Plans, Productive Activity and Environmental Adjustment Plans, Environmental Management Plans, or decrees/regulatory frameworks in the case of public lands). However, there is insufficient evidence to ensure full compliance with all criteria, particularly those related to climate risk and vulnerability assessments and the Do No Significant Harm (DNSH) principles.

Based on the above, ERM concludes that the programs responsible for the selection and monitoring of the areas generating UCS demonstrate **partial alignment** with both reference frameworks.

²⁵ [EU Taxonomy Navigator | European Commission](#)

Level of alignment: Overall, ERM considers UCS to be aligned with the Process for evaluation and selection of projects component (Green Bond Principle 2). In terms of alignment with best market practices, the component was assessed as having **partial alignment** with the sectoral criteria established by the Climate Bonds Initiative and the European Union Taxonomy, as detailed in Annex V – Climate Bonds Initiative's criteria for Agriculture and Forestry and Annex VI – Europe Union Taxonomy Conservation, Restoration of Habitats, Ecosystems and Species' Criteria Assessment. Moreover, due to the legal compliance requirements mentioned above, ERM has classified the alignment with this component as **Satisfactory** for UCS generated in conservation areas required by legislation and **Comfortable** for UCS generated in areas above what is required by legislation.

Summary of the Process from Origination to Commercialization of Sustainability Credit Units (UCS):

1. Area Verification: Technical analysis to assess the eligibility of the property.
2. Registration of the Financial Asset on B3: Issuance of the Green Rural Product Note (CPR Verde) for UCS.
3. Area Validation: On-site technical studies and independent international auditing.
4. UCS Registration on Blockchain: Allocation of UCS to a digital wallet on the BMV Digital Platform.
5. UCS Offering on the Market: Financial return to the producer.

Management of proceeds



The entire management process of UCS - from registration to commercialization - is conducted through the **BMV Digital Platform**²⁶. The platform stores registration data and the value of each UCS, enabling oversight and management by natural capital investors (landholders), intellectual capital (BMV Global), and financial capital stakeholders.

The platform offers UCS to the market through accredited platforms, verifies and validates transactions, updates the system with the quantity sold, and transfers the UCS to the buyer, issuing a Sustainability Seal for each transaction. Finally, when an investor purchases a Green Rural Product Note (CPR Verde) to redeem UCS, the BMV Digital agent registers and issues the CPR Verde on B3 in the creditor's name, in the correct quantity and value.

A detailed description of each step in the process will be presented below.

Origination of UCS and property registry: The **registration** of landowners - whether individuals or companies - the rural property, the nucleus they belong

²⁶ [BMV digital](#)

to and the association linked to the UCS batch is carried out by the internal BMV team. Each association responsible for managing a nucleus must be registered in the BMV system in a registration process that includes the review and approval of the association's documentation.

UCS are initially encoded with a serial number assigned at the time of their registration on the **blockchain** system, which serves as a unique identification code. Based on this code, a **Certificate of Origin** is generated-unique, traceable, asset-backed, and transferable-which is **recorded in the ownership wallet** of each originator. This certificate ensures that each UCS is distinct and directly linked to the geographic unit from which it originates.

All UCS transactions, including ownership transfers and retirements, are recorded on the blockchain and **verified** by an **independent third party**. Once the legitimacy of the generated UCS is confirmed, the units are officially registered.

The BMV Global presented to ERM, in real time, the full operation of its **management, registration, and custody** systems for UCS transactions. The demonstration included a practical simulation of UCS transfers between digital wallets, showcasing the complete traceability of transactions. This system ensures data integrity by preventing **double-counting** of credits and project overlap, thereby enhancing the reliability of the information. It was demonstrated that each crop registered in the system contains detailed information such as the producer's name, the name of the rural property, geographic coordinates, crop code, association, and production nucleus, among other relevant data. The system can automatically identify the area of rural property at the time a new crop is registered. If any changes occur in the registered area, the system detects and flags the inconsistency.

BMV Global also showcased the geospatial traceability system used by its Standard, known as Linkmesh, which enables real-time visualization of the properties participating in the program and the exact locations where UCS harvests originate. Among the available data layers are the precise locations of certified rural properties, boundaries of preserved native forest areas, deforestation zones, regeneration and reforestation areas, as well as the presence of traditional communities and Indigenous peoples. It is relevant to note that the platform provides access to the full historical record of changes that have occurred within each area. This allows the system to detect any alterations to the property's boundaries at the time a new harvest is registered, ensuring the integrity of the data. This robust traceability infrastructure, integrated with blockchain technology, guarantees transparency, prevents double counting of credits, and enables accurate audits of the origin and environmental impact of each unit generated.

At each crediting period, a new batch of Sustainability Credit Units is made available on the BMV Digital Platform for commercialization, described below.

UCS commercialization: Once registered on the BMV Digital Platform, the UCS are made available for commercialization through the financial system and accredited marketplace platforms. Although these platforms operate within decentralized distribution systems, they are **integrated** with a **central registry system** that ensures full traceability of transactions.

For operations involving the issuance of green bonds in the regulated market, records will be made through a Clearing House-a financial market infrastructure that facilitates transactions between buyers and sellers, ensuring efficiency and security. The platform guarantees the existence of the bond being sold and the availability of sufficient capital to acquire the green bond, while maintaining the confidentiality of the parties involved in the transaction.

The BMV Digital Platform is integrated with the Brazilian Stock Exchange (B3), enabling the registration and issuance of exchange-traded financial instruments for operations in the regulated financial market. These instruments include **Green Rural Product Notes** (CPRs, in Portuguese acronym), which are backed by UCS registered with an ISIN code on B3, Brazilian stock exchange.

The right to commercialize UCS is safeguarded by the holder, and all transactions are recorded on the BMV Digital platform with full compliance from the holders, ensuring transaction security and the integrity of the UCS market. Even after the credits are transferred, each transaction **retains its link to the origin** of the harvest, as described in the traceability system above, which facilitates audits and verification processes.

Thus, through the integration of systems with BMV Digital, which centralizes all records and transactions, features a well-defined and robust traceability process, and provides real-time access for holders to their digital portfolios, ERM considers that the risk of proceeds contamination risk is significantly reduced.

Level of alignment: The UCS are aligned with the Management of Proceeds component (Green Bond Principle 3). No point of improvement was identified in terms of alignment with the best market practices. Therefore, ERM has classified the alignment with this component as **Leadership**.

Reporting: After the implementation of the activities outlined in the Productive Activity and Environmental Adjustment Plan - in the case of private properties - or in the Decree or Regulatory Framework - for public properties - the activities are monitored as described in item 'p' of Table 5 (Annex III - Eligibility and exclusion criteria for UCS origination). This monitoring is based on financial, environmental, and social indicators designed to ensure alignment with the

Reporting



eligibility criteria of each program, as detailed in Annex VII - Evaluation and monitoring indicators.

The reporting process for these indicators is systematized by the BMV Global through the BMV Digital platform, which is accessible only to investors. It is based on reports from rural properties (in the case of the Brasil Mata Viva Program, compiled by the respective Producers' Association) and official certificates of detailed resource execution issued by public authorities (in the case of the GovTech Tesouro Verde Program).

Information regarding the UCS (Sustainable Conservation Units) traded and the allocation of resources by producers, productive arrangements, and government entities is disclosed on the BMV Digital platform. There, both financial and natural capital investors (i.e., landowners) can access real-time information on UCS transactions, rural units, and the development hubs in which they are located. It is important to note that the disclosure of financial information complies with Brazil's General Data Protection Law (LGPD)²⁷ to protect investor privacy.

Currently, there are eight nuclei distributed in the states of Amazonas²⁸, Amapá²⁹, Mato Grosso³⁰, Tocantins, Pará e Rondônia³¹, Rio de Janeiro³². Regarding these projects, public information is available on the performance of each one in the 'Projects' section of the BMV Global's website³³. In addition to basic data such as name, start date, location, total area, and biome, the disclosed indicators include vegetation and soil strata, supported production area, hydrological flow, fauna and flora (number of protected species), stored timber, and assessments of the presence of high conservation value areas.

Monitoring investments in UCS obtained in each nucleus and implemented in structuring projects and development centers is conducted annually. As previously mentioned, all stages of the process are audited by an independent third party for validation and verification, according to BMV Standard.

Level of alignment: The UCS are aligned with the Reporting component (*Green Bond Principle 4*). However, financial indicators and part of the social and environmental indicators that ensure alignment with program eligibility criteria are reported exclusively to investors via the BMV Digital Platform. ERM believes that especially the social and environmental indicators could be made publicly available, still in compliance with the LGPD. Furthermore, this Second Party

²⁷ Lei Geral de Proteção de Dados Pessoais (LGPD) — Ministério do Desenvolvimento e Assistência Social, Família e Combate à Fome

²⁸ Projeto Arinos: BMV – Brasil Mata Viva; Projeto Guariba: BMV – Brasil Mata Viva e Projeto Madeira: BMV – Brasil Mata Viva

²⁹ Projeto Amapá: BMV – Brasil Mata Viva

³⁰ Projeto Xingú Mata Viva: BMV – Brasil Mata Viva e Teles Pires: BMV – Brasil Mata Viva

³¹ Projeto Madeira: BMV – Brasil Mata Viva

³² Projeto Mumbuca: BMV – Brasil Mata Viva

³³ BMV – Brasil Mata Viva

Opinion (SPO) will not be publicly disclosed, but only shared internally and with clients, which represents an area for improvement in terms of alignment with the best market practices. Therefore, its classification is **Comfortable**.

3. CONTROVERSIES RESEARCH

Research on labor inspection portals show that BMV Global is not listed in the Register of Employers³⁴ that have subjected workers to conditions analogous to slavery and has no outstanding labor debts³⁵. In addition, the company has no environmental embargoes or notices from the Brazilian Institute for the Environment and Renewable Natural Resources (IBAMA)³⁶.

A media search was carried out on cases of negative repercussions involving BMV Global and no cases were found.

³⁴ [cadastro de empregadores.pdf](#)

³⁵ [Certidão Negativa de Débitos Trabalhistas](#)

³⁶ [IBAMA - Consulta Pública de Embargos e Autuações Ambientais](#)

ANNEX I - METHOD

The analysis conducted by ERM is based on a proprietary methodology, grounded in internationally recognized sustainability standards - among them, the four components of the *Green Bond Principles (GBP)*, *Green Loan Principles (GLP)*, *Social Bond Principle (SBP)* e/ou *Sustainability Bond Guidelines* the *Sustainability-Linked Bond Principles (SLBP)* and *Sustainability-Linked Loan Principles (SLLP)* - and refined through ERM's market experience and best ESG practices. More details on these four components are presented below:

- **Use of Proceeds:** Assessment on the purpose of the financial structure and its framing with the categories of projects/assets eligible for ESG financing, according to the guidelines of the references used.
- **Process for Project Evaluation and Selection:** Assessment on how the company guarantees and monitors the generation of environmental and/or social benefits associated with the projects/assets/populations to be financed/benefited, as well as mitigates potential adverse ESG risks that could declassify the operation as green, social, sustainable and/or transition.
- **Management of Proceeds:** Assessment on the internal procedures of the company for the financial management of the proceeds raised, in order to ensure that their destination will be the financing of eligible activities, according to the classification of the categories defined in the UoP analysis. In addition, the scope of the temporary allocation of these resources until the complete allocation to eligible projects is evaluated, so that they do not temporarily finance carbon-intensive assets.
- **Reporting:** Assessment on the company's level of transparency in reporting the allocation of proceeds raised and labeled, as well as the expected positive impacts/benefits of the projects/assets financed with the proceeds.

Controversies

Research is carried out on potential ESG Controversies that the company, subsidiaries, holding company and/or projects may be involved in. Controversies can be classified as low, medium, high and very high severity, according to the concepts below.

TABLE 2 - ESG CONTROVERSIES SEVERITY LEVEL

Severity Level	Parameters
Low	Controversies of minor impact or with few impacted individuals. Breaches the law and/or negatively impacts stakeholders, causing low-severity damage. The level of difficulty and/or cost associated with remediation is low.
Moderate	Breaches the law and/or negatively impacts stakeholders, causing damage of moderate severity. The level of difficulty and cost associated with remediation are medium.
Severe	Breaches the law and/or negatively impacts stakeholders, having caused significant damage (on a large scale and/or high intensity). The severity of

	the impact is high and the level of difficulty and cost associated with remediation is high, but still existing.
Very severe	Breaches the law and/or negatively affects stakeholders, and the damage is irremediable or difficult or costly to remedy. This is the highest level of severity and refers to the worst possible socio-environmental scenarios. In general, they involve impacts of millions or billions of dollars, and/or major negative repercussions in public opinion, and/or permanent damage to the company's image and/or penalties that threaten the continuation of a company's activities.

The company's position in the face of a controversy can be classified as proactive, remediative, defensive, and non-responsive. To make the classification, we used the parameters below:

TABLE 3 - RESPONSIVENESS LEVELS

Responsiveness Levels	Parameters
Proactive	In addition to the company acting in a remedial manner when faced with a controversy, the company takes measures that go beyond its obligation. In addition, the company carries out systematic procedures to prevent the problem that occurred from recurring.
Remedial	The company takes the necessary actions to correct the damage and communicates appropriately with the impacted stakeholders.
Defensive	The company does not assume responsibility for the controversy, either by awaiting a court ruling or judgment or by believing that it should not be held accountable for the matter; and/or it takes insufficient actions to rectify the damages; and/or issues a statement without undertaking corrective actions.
Non-responsive	There is no action or communication from the company regarding the controversy.

Source: ERM

ANNEX II - BMV STANDARD METHODOLOGY APPROACH AND OPERATION OF SUPPORTED PROGRAMS

BMV STANDARD'S METHODOLOGY

BMV Global's mechanism quantifies, assigns value to, and defines ownership of ecosystem assets, thereby enabling compensation for the conservation of native forests and other natural assets. The projects supported by the BMV Standard methodology are based on the premise of quantifying, valuing, and establishing ownership of ecosystem benefits, which in turn allows for financial remuneration for native forest conservation. This is made possible through mechanisms such as Payment for Environmental Services (PES), nature-based solutions, sustainability-oriented practices, and participation in greenhouse gas emissions reduction markets.

As per the Forest Code (Federal Law N° 12,651/2012³⁷), the Payment for Environmental Services is defined as a measure to "support and encourage environmental services in the form of retribution, monetary or otherwise, to activities for the conservation and improvement of ecosystems and that generate environmental services." The concept of carbon credit, on the other hand, is incorporated from the translation of **ecosystem services** arising from native forest conservation and restoration and their measurement into **carbon dioxide equivalents (CO2 eq.)**, stored in the biomass of forested areas that, as conserved assets, avoid the emission of CO2. Thus, the carbon credit emerges from this logic as a mechanism to operationalize CO2 eq. transactions, being provided by the Forest Code as "(...) a tradable, autonomous asset, with the legal nature of a civil fruit in the case of forest credits derived from preservation efforts (...)"³⁸. Thus, the UCS are units of carbon equivalent credit, resulting from the process of avoided deforestation through the conservation and preservation of forest carbon stocks. Each UCS is **equivalent to 1 ton of CO2 eq. generated from ecosystem services**.

Quantification is carried out in tons of stored CO2eq, calculated from **27 indicators** of ecosystem services of a natural ecosystem, presented in the table below.

TABLE 4 - ECOSYSTEM SERVICES INDICATORS

Type of Service	Description	Services
Provisioning	Products obtained directly from natural or semi-natural ecosystems (agriculture).	1. Water supply 2. Timber and other resources 3. Food production 4. Phytopharmaceuticals 5. Genetic resources 6. Biochemical 7. Ornamental Features

³⁷ [L12651](#)

³⁸ [Portal da Câmara dos Deputados](#)

Regulating	Benefits obtained from natural processes that regulate the environmental conditions that sustain human life.	8. Climate regulation 9. Air purification 10. Erosion control 11. Minimization of floods and droughts. 12. Maintenance and regulation of the hydrological cycle 13. Waste treatment 14. Pest and disease control 15. Pollination 16. Natural damage mitigation
Benefic	Natural processes necessary for other services to exist.	17. Maintenance of biodiversity 18. Soil formation 19. Carbon storage 20. Oxygen production 21. Nutrient cycling 22. Water cycling and filtration 23. Aquifer supply
Cultural	Benefits which emerge from the intimate interaction of societies with the natural environment.	24. Educational values 25. Cultural and landscape heritage. 26. Sense of location 27. Knowledge generation (formal and traditional)

Fonte: Elaboração própria a partir de documentação do BMV

The UCS generated by the projects are **certified** and **transacted** (in the arrangement guaranteed by the Rural Product Notes – CPRs, whose explanation is in the following subsection), and the resources obtained from their sale are destined for the projects to undertake the development activities **of rural communities and productive arrangements**, enabling the continuity of native **forest conservation** and **restoration** actions.

GREEN RURAL PRODUCT NOTE (CPR)

The **Rural Product Notes** (CPR, in Portuguese acronym) is a mechanism established by Federal Law 8,929/1994³⁹ that consists of the **promise of future delivery of rural products**, receiving cash payment related to the sale of goods. This mechanism **allows the UCS to function as a bargaining chip for the development of productive arrangements**, providing for the revenue from agricultural productivity as a way of redeeming the banknote at its maturity. In 2020, Federal Law 13,986⁴⁰ expanded the concept of rural products subject to the issuance of CPR, ensuring even more support for the UCS.

Decree 10,828/2021 regulates the issuance of the Green Rural Product Note (CPR), a bond that finances native forest conservation activities and is backed by activities that reduce greenhouse gas

³⁹ [L8929](#)

⁴⁰ [L13986](#)

emissions, increase forest carbon stock, and aim to conserve native biodiversity, soils, water resources, and other ecosystem benefits. The Green CPR allows products related to forest conservation and its biomes to be considered agricultural products. The UCS is contemplated by the decree, allowing the Green CPR to be backed by the UCS, which represents the ecosystem services of the preserved forest, allowing its use as an asset, possibly enabling the achievement of business commitments.

Subsequently, in 2022, Law No. 14,421 introduced some changes in the issuance of CPR and other agribusiness securities. In short, (i) it further expanded the concept of rural products that can be subject to CPR, including derivatives and by-products of agricultural, livestock, forestry and fishing activities, (ii) extended the deadline for registration or deposit of the CPR in entities authorized by the Central Bank, providing more flexibility to issuers. Likewise, it is understood that such changes in the regulatory environment for private financing in agribusiness increase legal certainty and attractiveness for investments, also generating more support for UCS.

The CPRs now cover products obtained through activities related to the **conservation and management of native forests** within the scope of the public forest concession program or obtained in other forestry activities that may be defined by the Executive Branch as environmentally sustainable.

BMV STANDARD SUPPORTED PROGRAMS

The responsible for the projects supported under the BMV Standard methodology may be **private owners** (including corporate) in the context of the Brasil Mata Viva Program, or **public agencies** supported in the context of the GovTech Tesouro Verde Program, presented in more detail below.

BRASIL MATA VIVA PROGRAM

The projects supported by the *Brasil Mata Viva Program*, by enabling the **conservation and restoration of forested areas within private properties**, promote ecosystem services, generating Sustainability Credit Units (UCS). These projects, developed by private rural landowners voluntarily organized in associations, are guided by the respective nuclei or "Sustainable Development Hubs" (details about this process are available in Table 6).

Within the scope of this program, the proceeds generated by the commercialization of the UCS make up the financing instrument of the supported projects and are destined for (i) the introduction of sustainable production technologies, (ii) the recovery of degraded areas, forest conservation and restoration, and (iii) the structuring of a Local Development Center, which aims to provide the community as a whole with improved income and quality of life.

Among the activities already selected for the *Brasil Mata Viva Program*, the following are included:

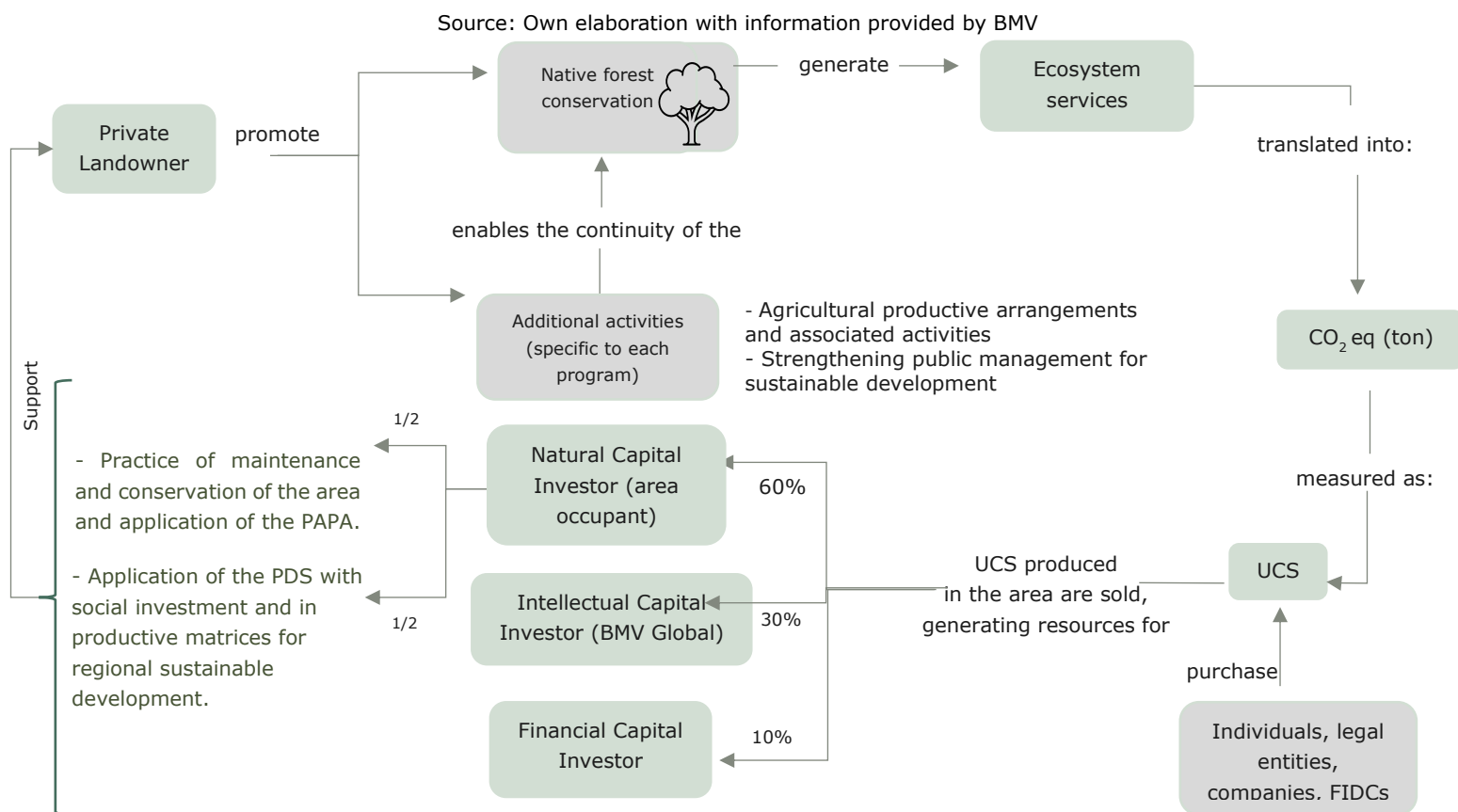
- Beef Cattle;
- Fish farming;
- Production of soy, rice, corn and manioc
- Reforestation of native vegetation;
- Silviculture.

The proceeds are divided as follows: 30% are destined to the BMV Global, 10% destined to investors who finance the start of production and the remaining 60% are destined to the owner of core land, and half of this 60% is aimed at the productive and social arrangement, in the case of private owners.

There are cases in which companies own areas and in this case the producer has a greater role in collective investment decisions for sustainable development. In all cases, the selection is the same for producers who make up the nuclei or productive arrangement.

The functioning arrangement therefore generates environmental and social benefits, as it provides for the maintenance of ecosystem services and local socioeconomic development. This process is depicted in Figure 1, below.

FIGURE 1 – BASIC OPERATIONAL PROCESS OF THE BRASIL MATA VIVA PROGRAM



TESOURO VERDE PROGRAM

The public agencies supported under the Green Treasury GovTech Program are mobilized through specific agreements and legislation. These entities are responsible for managing protected areas

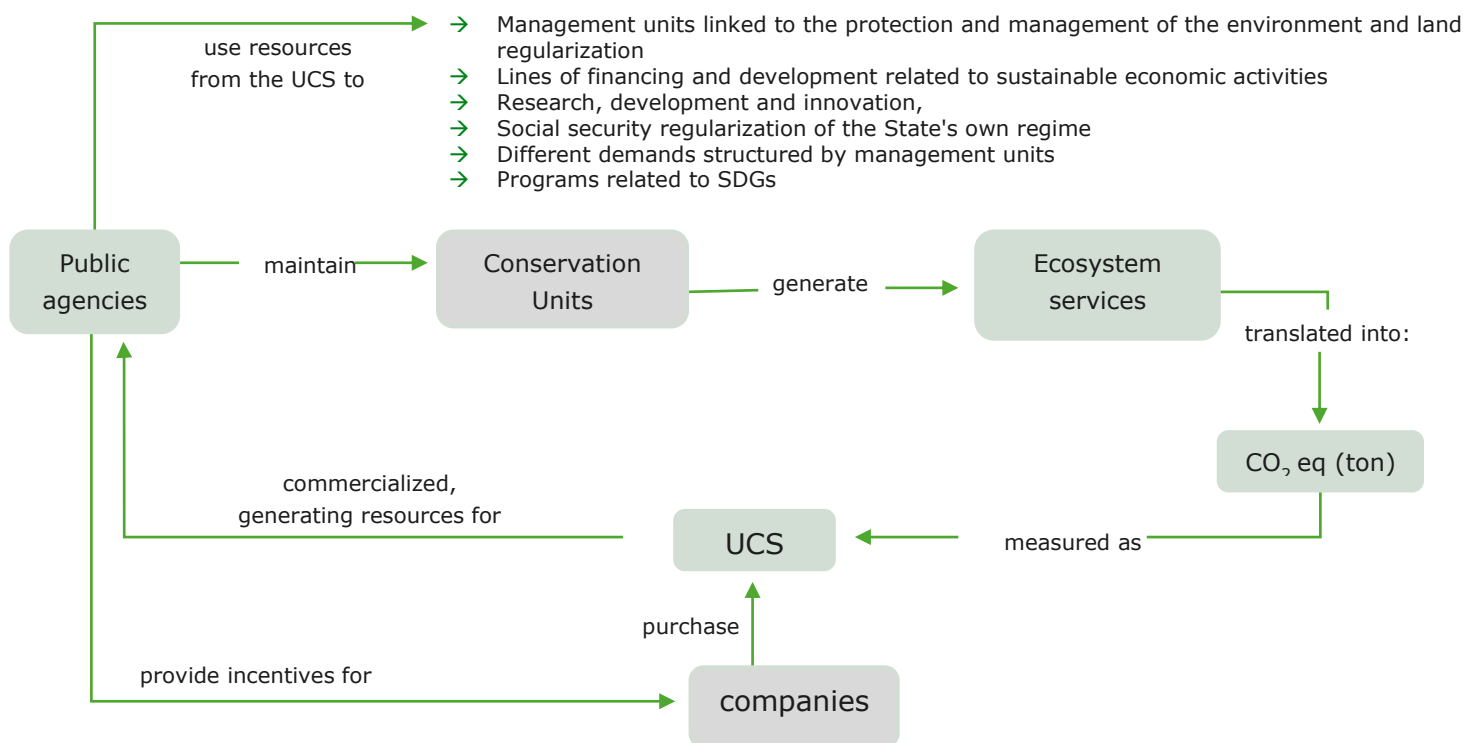
(Conservation Units), promoting ecosystem services through native forest conservation efforts, generating Sustainability Credit Units.

Different from the Brasil Mata Viva Program, the generators of UCS (in this case, public agencies) **encourage the acquisition of such credits by companies established in their respective territories, promoting benefits by granting a "Seal of Sustainability"**. The Seal makes it possible to obtain tax incentives (such as discounts on the ICMS tax), a tie-breaker criterion in public bids (with a provision in the respective public notice) and even eligibility for contracting, if the public agency so determines.

The public power itself is responsible **for regulating the destination of the public** revenue coming from the Program, observing the respective legal instruments.

The basic operational process of the *Tesouro Verde* Program is depicted in Figure 2 below.

FIGURE 2 - BASIC OPERATIONAL PROCESS OF THE TESOURO VERDE PROGRAM



Source: Own elaboration with information provided by BMV

BMV STANDARD USABILITY, SUSTAINABILITY INDICES, SOCIO-ENVIRONMENTAL CERTIFICATION SYSTEM AND EXTERNAL ASSESSMENTS

Usability: Under the BMV Standard, Sustainability Credit Units (UCS) are backed by carbon stocks from native vegetation areas designated for conservation. They function as ownership certificates,

enabling the transfer and trading of credit rights. Due to their legal nature, UCS have diverse usability, extending beyond traditional carbon credit markets. According to the BMV Standard, UCS stand out for their applicability in the following markets:

- Voluntary markets for sustainability, biodiversity, carbon, ecological footprint, socio-environmental and climate responsibility, and Environmental, Social, and Governance (ESG) practices.
- Regulated markets for sustainability and biodiversity credits, including CPR-Verde, in accordance with specific regulations and classifications.
- As a store of value.
- As collateral for public, private, and financial operations.
- For qualification in the issuance of labeled bonds (green, social, sustainability).

It is relevant to highlight that the Sustainable Credit Units (UCS) model, developed based on the BMV Standard, was recognized by the Central Bank of Brazil through the LIFT (Laboratory of Financial and Technological Innovations) initiative, as published in *LIFT Papers* (Issue No. 7, April 2025). The Central Bank highlights the model as a strategic innovation that combines environmental preservation, financial inclusion, and the modernization of the national financial system.

Among the key points emphasized in the publication is the model's ability to leverage technology to transform environmental assets into liquid, traceable, and auditable financial instruments. The initiative contributes to Brazil's transition to a low-carbon economy through the issuance of Green CPRs backed by ecosystem services such as climate regulation, hydrological flow maintenance, and biodiversity conservation.

Notable differentiators include the integration of decentralized finance (DeFi) with traditional regulation, the use of blockchain-based liquidity pools, smart contracts, decentralized oracles, and multi-layer verification systems. These elements ensure transparency, legal certainty, and compliance with environmental and financial regulations. Finally, the model is seen as a promising foundation for the development of new green financial instruments, such as LCAs and CRAs backed by environmental assets.

Sustainability Indices: According to the BMV Global, Sustainability Credit Units (UCS) represent a strategic solution for companies listed on sustainability indices in Brazil and abroad. By integrating UCS into their ESG portfolios, these companies strengthen their environmental positioning, add value to corporate performance, and stand out globally.

Companies listed on indices such as the ISE B3 (Corporate Sustainability Index of B3), the Dow Jones Sustainability Index (DJSI), and others must demonstrate environmental commitment through concrete actions that reduce impacts and promote biodiversity conservation.

The main contributions of UCS include:

- Support for meeting ESG criteria.
- Demonstration of measurable environmental impact.

- Compliance with international standards and regulations.
- Creation of competitive advantage and market value.
- Enhancement of reputation and stakeholder engagement.
- Contribution to climate and biodiversity goals.

BMV Global recognizes sustainability indices as strategic tools for investors seeking to align their capital with responsible practices. These indices serve as benchmarks for evaluating the performance of companies committed to ESG standards.

By adopting UCS, companies not only meet regulatory and market requirements but also assume a leadership role in environmental preservation, reinforcing their relevance and competitiveness on the global stage.

Socio-environmental Certification System: In addition to BMV Certification for projects and nuclei, the BMV Standard allows for the adoption of socio-environmental and/or product certification criteria-such as FSC⁴¹, ISO⁴², among others-especially once a certain level of maturity is reached. Obtaining these certifications can enhance the score of ASE monitoring indicators⁴³ and ratings. These certifications aim to bring greater transparency to the monitoring process by certifying and tracking all products sold through the BMV Local Development Hub.

It is also worth mentioning other globally recognized and widely adopted initiatives where UCS could be used as a strategy to meet sustainability, social, environmental, and climate-related ESG criteria. Some of these include: Corporate Sustainability Reporting Directive (CSRD), Taskforce on Nature-related Financial Disclosures (TNFD), Carbon Disclosure Project (CDP), Deforestation-Free initiatives, and Sustainability Indices of Stock Exchanges.

External assessment: BMV Global has provided ERM with legal technical notes prepared by Strategic and Compliance Coordinators, based on studies and reference reports, including those from the World Bank. These notes highlight the global market potential of the Green CPR linked to Sustainability Credit Units (UCS), considering various segments such as the carbon market, ESG practices, and climate finance, positioning it as an innovative solution for financing land conservation and climate change mitigation. The instrument's versatility is emphasized, both as a vehicle for direct investment and as a form of collateral in commercial and financial operations.

Green CPRs are considered suitable for the pledge of credit instruments, provided they are registered with the local Deeds and Documents Registry, which ensures their validity and enforceability against third parties. Additionally, the potential use of Green CPRs for the settlement

⁴¹ [Home | Forest Stewardship Council](#)

⁴² [ISO - International Organization for Standardization](#)

⁴³ A metric-based scoring system, called the Sustainability Score, for evaluating the environmental, social, and economic performance of a given BMV Nucleus.

of state debts with the Federal Government is noted, further expanding their legal and financial applicability⁴⁴.

Finally, the notes also mention that UCS may qualify as environmental assets eligible for mandatory investment by insurance companies (EFPC), in accordance with Law No. 15,042/2024, which mandates the allocation of resources to environmental assets by insurance companies, open private pension entities, capitalization companies, and local reinsurers.

⁴⁴ Conforme a Lei Complementar nº 212/2021 institui o Programa de Acompanhamento e Transparência Fiscal e o Regime de Recuperação Fiscal dos Estados e do Distrito Federal (PROPAG).

ANNEX III - ELIGIBILITY AND EXCLUSION CRITERIA FOR UCS ORIGINATION

The **eligibility and exclusion criteria** to be followed in the distribution of UCS to private landowners and public agencies are described in the table below.

TABLE 5 - ELIGIBILITY AND EXCLUSION CRITERIA

Type	Eligibility Criteria
Distribution of privately owned UCS	a. Study of feasibility and potential of the region for implementation of the project; b. Voluntary expression of interest and registration of the owners in the Program's online platform c. Evaluation of the documentation of interested private owners with requirements: (i) documentation that legitimizes the ownership of the rural property and its landholding regularization (certificate or deed); (ii) absence of sanctions (embargoes or notices of infraction) issued by the Brazilian Institute of Environment and Renewable Natural Resources (IBAMA); (iii) existence of regularized Rural Environmental Registry (CAR); (iv) absence of involvement with any type of crimes, reinforcing slave labor; (v) compliance with current legislation, including environmental; d. Creation of an associative organization of rural producers (nucleus) interested in participating in the initiative, which should be exclusively for the implementation and maintenance of the project and may be created in the act with this exclusive purpose or even be a previous association, which undergoes the necessary modifications to be dedicated exclusively to the project. The properties of each nuclei must have together a minimum area of 15 thousand hectares of forest; e. Elaboration and validation of a Sustainable Development Plan between the Brasil Mata Viva Program and the association organization of the respective nucleus, to guide the activities to be developed; f. Public hearing attesting to the social interest of the project; g. Collection of documentation from the properties; h. Signing of a term of commitment renouncing the right to suppress the forest and assuming the commitment of "guardian" of the forest for a determined period of time, becoming responsible for the total preservation of the area, starting from the effective beginning of the project. The sustainable supply by the area of at least the same quantity of goods and services as before the implementation of the project should be guaranteed; i. Identification, delimitation and carrying out of forest inventory and recomposition following the forest inventory methodology MCIF02/2011; j. Quantitative definition of stored carbon (ton CO₂ eq/ha) to measure the Sustainability Credit Units and the qualification of other ecosystem services; k. Balancing of the Sustainability Credit Units by means of a "Sustainability Score", including environmental, social and economic aspects; l. Validation and verification of the Sustainability Credit Units by independent external parties; m. Elaboration of the Productive Activity and Environmental Adjustment Plan (PAPA), agreeing on the conditions and activities to be carried out with the proceeds; n. Elaboration of an Environmental Management Plan (PGA, in Portuguese acronym) or each of the foreseen activities, having as a premise the avoidance and minimization of negative socio-environmental impacts, including clear commitments to achieve this goal; o. Execution of the activities foreseen in the PAPA; p. Monitoring of sustainable agricultural and livestock production and forest conservation and restoration activities, by means of (i) private landowners

**Distribution of
UCS from public
agencies**

issuing proceeds allocation statements and (ii) providing information for the socio-environmental benefit assessment indicators.

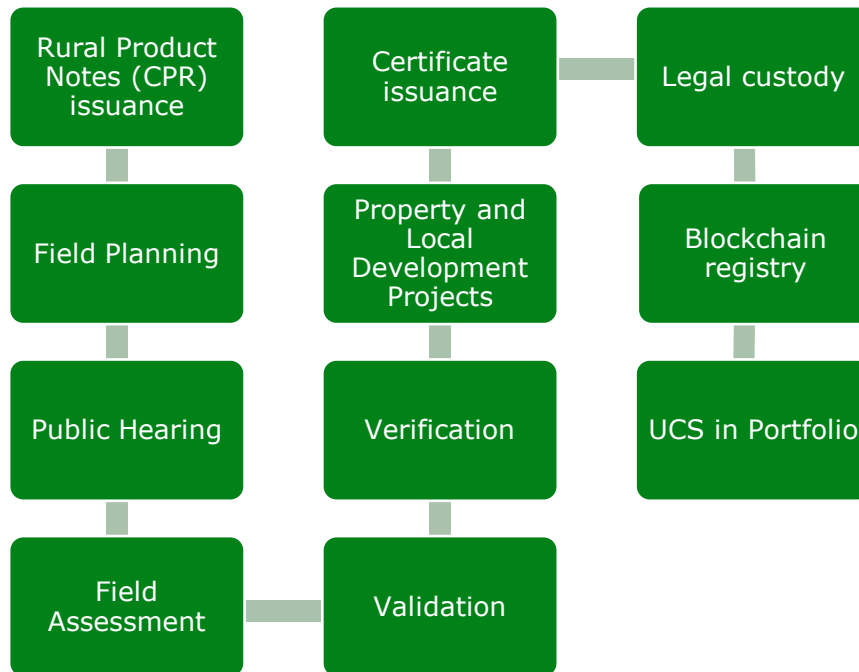
- a. Registration of the public agency, validated by the competent authority, and submitted to the Tesouro Verde Program system, including (i) the context, objective and justification for the program in place and (ii) the incentives foreseen for companies buying UCS;
- b. Conformity of the documentation submitted in the application in relation to the "BMV Standard" methodological standards, ensuring evidence of (i) generation of positive socio-environmental impact and (ii) consistency of the incentive mechanisms for companies buying credits;
- c. Public hearing attesting to the social interest of the project;
- d. Signing of a term of commitment renouncing the right to suppress the forest and assuming the commitment of "guardian" of the forest for a determined period of time, becoming responsible for the total preservation of the area, starting from the effective beginning of the project. The sustainable supply by the area of at least the same quantity of goods and services as before the implementation of the project should be guaranteed;
- e. Identification, delimitation and carrying out of forest inventory of the areas and recomposition, following the forest inventory methodology MCIF02/2011;
- f. Quantitative definition of fixed carbon (ton CO₂ eq/ha) to measure the Sustainability Credit Units and the qualification of other ecosystem services;
- g. Balancing of the Sustainability Credit Units by means of a "Sustainability Score", including environmental, social and economic aspects;
- h. Validation and verification of the Sustainability Credit Units by external independent parties;
- i. Documentation (decree or applicable regulatory framework) that formalizes the participation of the respective public body in the Tesouro Verde Program and the local conditions for its implementation, signed by the competent public authority and published in the official newspaper;
- j. Execution of the activities foreseen in the decree or regulatory framework;
- k. Monitoring of forest conservation and restoration activities and strengthening of public management for local sustainable development, through the issuance, by the public agencies, of a report on the use of proceeds and socio-environmental, socio-economic, and climate-related benefits.

Source: Own elaboration with information provided by BMV

NUCLEI, ASSOCIATION OF PRODUCERS AND SPECIAL PURPOSE COMPANY

The formation of a nucleus considers a coverage area with a maximum radius of 250 km, a minimum of 20 landowners, and a combined minimum of 15,000 hectares of native vegetation across the properties, regardless of individual property size. There are currently eight nuclei, encompassing over 500,000 hectares of preserved areas, all of which have received public recognition. Further details regarding this process are available in Table 6, below. Moreover, Figure 3 illustrates the process by which a nucleus is implemented:

FIGURE 3 - BMV NUCLEI IMPLEMENTATION PROCESS



The following table describes in detail the processes of Formation of the BMV Standard Nuclei and Definition of the Area of Influence, Eligibility and Due Diligence for adhesion to the nuclei.

TABLE 6 – DETAILED DESCRIPTION OF NUCLEI FORMATION

Process	Description of the items performed
Formation of BMV Nuclei and Definition of the Area of Influence Eligibility	- BMV Standard can be used in areas of public or private domain that have preserved native vegetation, whether in Legal Reserve areas and Permanent Preservation Areas (APP), Conservation Units, Parks, remnants whose ownership is legitimate and those responsible have autonomy as to the definition of their use. - Each rural property must have documentation that legitimizes its ownership, considering the registration of the property and related documentation for private properties, and in the case of public areas, or the endorsement of a competent body attesting to ownership. - Each area that is part of the nuclei must have a unique geographical identification. - Only properties that do not contain illegal deforestation or conversion of forest into non-forest after the date of 12/31/2020 will be eligible⁴⁵. - Properties that have Legal Reserve and APP areas that were converted into non-forest areas before 12/31/2020 are eligible to join the program as long as a term of commitment is signed for the restoration of these areas to be initiated from the sale of the first crop of UCS of their respective ownership. - Areas that produce tobacco are not eligible for participation in the program. - Private properties must not be included in official lists of slave labor or have complaints of work analogous to slavery. - Areas in dispute with traditional communities and indigenous territories are not eligible for the program, unless agreements are signed between the parties, with the participation of an independent non-governmental and non-profit organization as mediator.
Due Diligence Process for nuclei adherence	To integrate a new nuclei or participate in an existing nucleus, the owner of private or public areas will undergo a <i>Due Diligence process</i> carried out by BMV's legal and technical team that will verify compliance with the eligibility and feasibility criteria of the property. Membership of BMV is mandatory. To integrate existing nuclei, the association must be notified and record in minutes the approval of the new property. The analyses conducted in Due Diligence are: - Documentary and Background Information - Analysis of land and property documentation: registrations, CAR (rural environmental registry), georeferencing, purchase and sale agreement, CCIR (rural property registration certificate), ITR (Rural Land Tax), CCDRU (contract for the concession of real right of use), management plans of the UC, creation decrees, etc. - Legal analysis of the owner's documentation: If an individual: RG (General Register identification), CPF (Social Security Number), proof of residence, and the spouse when applicable, If a legal entity: CNPJ, Articles of Association, representative documents, RG, CPF and proof of residence. - Legal analysis of the CPF or CNPJ (Company Registration Number): Embargoes, Litigation, TAC (terms of adjustment of conduct), presence on the list of slave labor, land conflicts.

⁴⁵ According to Regulation (EU) 2023/1115 of the European Parliament and of the Council of 31 May 2023. The cut-off date corresponds to the existing international commitments set out in the SDGs and the New York Declaration on Forests, which aim to halt deforestation, restore degraded forests and substantially increase afforestation and reforestation at global level by 2020, and should therefore be set at 31 December 2020.

- Survey of documentation about the production process: which crop and/or creation is produced, annual production, transportation of production, use of inputs and waste generation, number of employees, infrastructure.
- Survey of Certifications, management plans and procedures.
- Technical Analysis and Geoprocessing
 - Analysis of the use and coverage of the area by remote sensing.
 - Analysis of the regional context – productive flow, proximity to conservation units, indigenous lands, production centers, etc.
 - History of deforestation on the property and in the region.
 - Integrity analysis of the RL and APP to define which areas of native vegetation will be part of the project and which areas should be restored.
 - Definition of parcel allocation for pilot inventory.
 - Proximity to an existing nucleus or formation of a new nucleus.
 - Analysis on criteria for Security Buffer.
- Signing of the rural partnership contract and joining BMV Standard

After the completion of the Due Diligence process conducted by BMV, the person responsible for the area that will be part of the project must sign the adhesion documents that are part of the rural partnership contract. In these documents, the person responsible for the areas undertakes to: (i) Pass on all the necessary information to BMV on the use and cover of the land; (ii) Authorize BMV to proceed with inventories, diagnoses and periodic monitoring to ensure the integrity of the program; (iii) Ensure the conservation and preservation of the native vegetation identified in the due diligence, during the term of the contract; (iv) Comply with the environmental and productive adequacy guidelines indicated in the PAPA – Productive and Environmental Adequacy Plan of the property, which includes restoring/recomposing the vegetation of the Legal Reserve and Permanent Preservation Areas that are degraded/deforested; (v) Participate in the meetings of the respective nucleus and comply with the PDS – Sustainable Development Plan, the protocols defined by the producers' association and the Special Purpose Company – SPE; (iv) Implement, whenever possible and feasible, improvements in production techniques, reducing GHG emissions, including obtaining relevant socio-environmental certifications.

Fonte: Elaboração própria a partir de dados fornecidos pelo BMV

Finally, it is important to highlight that each nucleus has a defined duration of twenty-five years. Within this period, UCS crediting occurs in five-year cycles, with annual issuances, and is successively renewed until the end of the term. This timeframe reflects the typical land use cycle observed in agricultural frontier regions, where extensive farming and livestock activities follow a pattern that spans from the initial clearing of the land to the eventual withdrawal of the producer - averaging approximately twenty-five years.

ANNEX IV - PROGRAM RELEVANCE AND IMPACT

Before presenting the relevance and impact of the programs, it is worth noting that payments for ecosystem services under the Programs may be made even for areas of vegetation that would already be preserved — due to environmental legislation — regardless of the financial incentive (as in the case of legal reserves, which are already mandatory).

i) **Forest restoration and conservation increase carbon storage, reducing the impact of deforestation, main responsible for Greenhouse Gas (GHG) emissions in the country**

Between 2001 and 2015, 27% of global forest loss was caused by deforestation – total removal of trees, converting land for agriculture, mining or cities – concentrated in the tropics, while 73% came from forest degradation – reduction of tree cover without land conversion, allowing for natural recovery over time.⁴⁶

In 2023, gross greenhouse gas (GHG) emissions in Brazil totaled **2.3 billion tons of CO₂ equivalent (GtCO₂e)**.⁴⁷ The largest responsible for emissions is the **land use, land use change and forestry (LULUCF)** sector, which in the year was responsible for **48% of gross emissions**, totaling **1.12 billion tons of CO₂e**.⁴⁸ In 2023, some states such as Mato Grosso and Amazonas, where the Brasil Mata Viva and Tesouro Verde programs operate, were among those that deforested the most: with **Amazonas** having deforested an area of approximately 877 km², **Mato Grosso**: 864 km² and **Pará**, where COP-30 will be held in 2025⁴⁹, leading with 1,228 km².

Although **deforestation in the Legal Amazon** fell by 21.8% between August 2022 and July 2023, the **9,064 km²** deforested in 2023 are still considerable given the climate emergency in which the planet finds itself.⁵⁰ In some regions, the numbers seem to be still increasing, contrary to what is expected. In **Cerrado**, for example, consolidated deforestation in 2023 was **11,011 km²**, representing an increase of **3%** compared to the previous period. This panorama shows advances in reducing GHG emissions but also challenges in preserving Brazilian biomes.

According to deforestation data from TerraBrasilis, four of the nine states⁵¹ covered by both programs (PA, MT, RO e AM) are among those with the highest **cumulative deforestation** rate, considering the nine Brazilian states that make up the Legal Amazon, between 1988 and 2024. Between 1990 and 2022, six of the nine Amazonian states are among the twelve largest emitters of carbon dioxide, with Mato Grosso, Pará, and Rondônia among the top five⁵². The table below presents the data on accumulated deforestation in the Legal Amazon for the last 4 years, by state.

⁴⁶ [00_TalanoGraf-Desmatamento.pdf](#)

⁴⁷ [Brazil reduces greenhouse gas emissions by 12% in 2023 | Agência Brasil](#)

⁴⁸ [Relatorio-SEEG_gases-estufa_2023FINAL.pdf](#)

⁴⁹ [COP 30 in Brazil — Planalto](#)

⁵⁰ [Deforestation in the Amazon drops 21.8% in 2023 — Ministry of Science, Technology and Innovation](#)

⁵¹ The nine states in which the two programs operate are: Amazonas (AM), Mato Grosso (MT), Pará (PA), Tocantins (TO), Rondônia (RO), Amapá (AP), Piauí (PI), Goiás (GO) and Rio de Janeiro (RJ).

⁵² [Amazon Panorama: Part 1 – Political conjuncture and what is at stake - Política Por Inteiro](#)

TABLE 7 – DEFORESTATION OF THE LEGAL AMAZON IN SOME OF THE SUPPORTED STATES

Year	Accumulated area (km2)					
State	Amazonas	Amapá	Mato Grosso	Pará	Tocantins	Rondônia
2021	2,306	17	2,213	5,238	37	1,673
2022	2,594	14	1,927	4,162	27	1,480
2023	1,610	17	2,048	3,299	32	867
2024	1,143	0	1,264	2,362	23	325

Source: TerraBrasilis (PRODES)⁵³

The information available in the table suggests a reduction in deforestation rates in recent years. Also, deforestation alerts in February 2025 reached the lowest level ever recorded for the month, with drops of 64.3% on the Amazon. The five states that deforested the most in February 2025 were Amazonas, Mato Grosso, Pará, Roraima, and Maranhão⁵⁴. In other words, three of the nine states in BMV Program are still among the states with the highest deforestation rates, even though the rates are on a downward trajectory.

In relation to the other two states in which the programs operate - Goiás and Piauí - Goiás, in the last five years, there has been a downward trend in deforestation rates, reversing a period of consecutive increase. In 2022, there was a reduction of 18% compared to 2021⁵⁵, which remained in 2023, reaching the lowest percentage value in 15 years. Piauí presents an ambiguous trend in relation to deforestation. Piauí, on the other hand, recorded a 10% drop in deforestation in the Cerrado in 2023, leading the reduction when compared to other Brazilian states⁵⁶, compared to the previous year. However, the state led, simultaneously, the deforestation of the Atlantic Forest in the country, with an increase of more than 2000% between the years 2022 and 2023⁵⁷. More recent data, from February 2025, show that Piauí was one of the states that deforested the most in the Cerrado, with 118 km² of deforested area⁵⁸. Thus, it is possible to observe that the trends vary without a defined pattern. Together with land problems, poor enforcement and high rates of violence in the interior of the country, the issue of deforestation and land conversion is a major challenge for Brazil.

In this context, the **monetization of the ecosystem services** provided by **forest conservation** is an effective alternative to **promote** its conservation. By generating and selling Sustainability Credit Units (UCS), a financial mechanism is provided that enables the maintenance of the forest, thus reducing the economic pressure for deforestation.⁵⁹ Consequently, reducing the negative socio-

⁵³ TerraBrasilis

⁵⁴ 00_TalanoGraf-Desmatamento.pdf

⁵⁵ Deforestation drops 48.8% in Goiás and reaches the lowest number since 2001 - SEMAD

⁵⁶ Piauí leads in reducing deforestation in the Cerrado, with a 10% drop - pi.gov

⁵⁷ Piauí is the state that deforested the most Atlantic Forest in 2023 - 22/05/2024 - Folha Social+ - Folha

⁵⁸ 00_TalanoGraf-Desmatamento.pdf

⁵⁹ PRODES — General Coordination of Earth Observation

environmental impact caused by greenhouse gas emissions, which are the biggest cause of climate change generated by human activities.⁶⁰ Besides, as mentioned earlier, especially in Brazil, the increase in the concentration of GHG in the atmosphere due to deforestation and land use conversion is the main major source of human contribution to climate change.

ii) Forest restoration and conservation are important tools for regulating ecosystem services essential to life

In municipalities where there is a strong dispute regarding land use, there is a permanent conflict due to impacts on **ecosystem services** linked to the native forest ecosystem. Disorderly anthropogenic interference, the process of degradation, changes in the dynamics and structure of ecosystems are threats to the future of forests and native vegetation in the country.⁶¹

The provision of water, for example, a fundamental ecosystem service for **agricultural productivity** and the well-being of the population as a whole, is directly dependent on the presence of vegetation. Forest restoration and conservation, therefore, favors the regulation of the hydrological regime of rivers and the quality of water supply sources. These activities are also fundamental for maintaining the habitat of the enormous diversity (from 15% to 20% of the planet's biological diversity, according to 2023 data⁶²) that Brazil is home to.

In addition, the commercialization of Sustainability Credit Units from protected and restored areas directs financial resources to local public agencies, allowing them to invest in **sustainable development** and the continuity of environmental restoration. The economic viability of these practices becomes even more evident when we consider that, with about 25% of the native vegetation standing, the value of **the carbon stored**, estimated at 20 dollars per ton, can generate significant revenue, making large-scale restoration feasible⁶³.

iii) Sustainable productive agricultural arrangements reduce the effects of climate change and are more competitive

Agribusiness contributes significantly to the Brazilian GDP, representing about 23.2% of the total in 2024. However, agriculture had a retraction in its share of 3.2% - compared to 2023 - due to **climatic adversities** that affected the production and productivity of important crops throughout the year⁶⁴.

In 2024, agriculture was responsible for **28% of** gross greenhouse gas emissions in Brazil. When including emissions resulting from changes in **land use**, such as deforestation and fires, agricultural activity accounted for **74%** of the national total⁶⁵. These conditions make the sector extremely relevant when it comes to the country's positioning in **international markets**, which are increasingly **demanding** in relation to **sustainability practices** and conservation measures that prioritize the mitigation of climate change, aiming at achieving Nationally Determined Contributions

⁶⁰ [Greenhouse Effect and Climate Change | WWF Brazil](#)

⁶¹ [Traditional communities fight against land grabbing and deforestation promoted by agribusiness in the Cerrado region of Piauí - Map of Conflicts Involving Environmental Injustice and Health in Brazil](#)

⁶² [Biodiversity](#)

⁶³ [Restoration at Scale in Brazil: Essential Factors for Its Promotion - CPI](#)

⁶⁴ [Brazilian GDP closes 2024 with a 3.4% increase; Agriculture registers drop due to weather adversities | Confederation of Agriculture and Livestock of Brazil \(CNA\)](#)

⁶⁵ [Climate Observatory Brazil's emissions have the biggest drop in 15 years - OC | Climate Observatory](#)

(NDCs) and, consequently, the effectiveness of the commitments assumed by the country in the Paris Agreement. Through the Brasil Mata Viva Program, with the generation of UCS, sustainable agricultural production is fostered, in line with international market standards that can even bring economic benefits.

iv) Strengthening public management for local sustainable development requires strategic financial mechanisms

The implementation of public policies that encourage sustainable practices is considered essential to ensure environmental preservation, food security, and local economic development. Sustainable agriculture, one of the indirect impacts of sustainable land management, not only promotes the preservation of ecosystems but can also be an effective strategy for improving the quality of life for farmers. The report by the Food and Agriculture Organization of the United Nations (FAO)⁶⁶ points out that the adoption of agroecological practices can increase the **resilience of crops in the face of extreme weather conditions**, such as droughts and floods, common in Brazil. However, the expansion of these practices still faces structural challenges, such as lack of infrastructure, **restricted access to financing** and the low level of information and **technical knowledge** among smallholders.

Regarding government incentive capacity, Brazil has a series of programs such as the Food Acquisition Program (PAA, in Portuguese acronym) and the National School Feeding Program (PNAE, in Portuguese acronym), which encourage **family farming and organic production**, but there is still a need to expand public policies aimed at the **integration of sustainable** production in the large production chains. The creation of more robust public policies, the expansion of education and financial access, and the training of farmers in sustainable techniques are essential to consolidate more sustainable agricultural practices in Brazil. This would not only contribute to environmental preservation but also strengthen the local economy and food security.

The commercialization of UCS from protected areas is destined to local public agencies to invest in the promotion of sustainable development, strengthening environmental conservation, encouraging low-impact economic practices, and promoting the appreciation of biodiversity. In addition, this process contributes to the generation of employment and income for local communities, stimulates environmental education and fosters scientific research, creating a positive cycle of ecosystem protection and responsible economic growth. In this way, conservation units play an essential role in the harmonization between environmental preservation and socioeconomic development.

v) The programs foster local socioeconomic development in vulnerable areas

Eight of the nine states where the programs operate have a Human Development Index (HDI) below the Brazilian average of 0.754, according to the IBGE (2024)⁶⁷. In terms of inequality, all states have a relatively high concentration of income (Gini indices⁶⁸ ranging between 0.452 and 0.552)

⁶⁶ [Food and Agriculture Organization of the United Nations: FAO launches report on The State of Food Security and Nutrition in the World 2021 | FAO in Brazil | Food and Agriculture Organization of the United Nations](#)

⁶⁷ [IBGE | Cidades@ | Brazil | Panorama](#)

⁶⁸ The Gini Index ranges from 0 (highest inequality) to 1 (lowest inequality).

and, therefore, high socioeconomic inequality. In addition, the states have a low educational development, represented by the Basic Education Development Index, ⁶⁹as shown in Table 8.

TABLE 8 – SOCIOECONOMIC CONDITIONS IN THE SUPPORTED STATES

State	Gini Index (2023)	HDI (2024)	Basic education Index (2023)
Brazilian average	0.518	0.754	6.0
Amazonas	0.512	0.700	3.8
Amapá	0.491	0.688	3.8
Goiás	0.473	0.737	4.8
Mato Grosso	0.452	0.736	4.4
Pará	0.501	0.690	4.4
Piauí	0.552	0.690	4.5
Rondônia	0.520	0.699	4.2
Tocantins	0.477	0.731	4.2
Rio de Janeiro	0.540	0.762	3.3

Source: Instituto Brasileiro de Geografia e Estatística, Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira⁷⁰

From the information available in the table above, it is possible to see that the states where the owners supported by the Brasil Mata Verde Program are located have precarious conditions of socioeconomic development. According to the IBGE (2022 Census),⁷¹ 62.5% of the Brazilian population has access to the sewage network, but this coverage is uneven between regions. In the North, only 21.7% of the population is connected to the system, while in the Southeast this number reaches 88.6%. In addition, there are racial disparities, with 70% of whites having access to the sewage system, against 56.7% of blacks and browns. Access to healthcare is also a challenge for many of these municipalities, which need to refer patients to neighboring cities due to lack of

⁶⁹ The Basic Education Development Index ranges from 0 (worst performance) to 10 (best performance) only the index referring to secondary education was considered in the table

⁷⁰ <https://www.ibge.gov.br/estatisticas/sociais/protecao-social/10586-pesquisa-de-informacoes-basicas-municipais.html>

⁷¹ [Overview of the 2022 Census](#)

adequate infrastructure. With regard to education, the illiteracy rate in Brazil fell to 5.6% in 2022, but is still higher among the elderly, the black and brown population, and in the Northeast region.

vi) The support for the Brasil Mata Viva and Tesouro Verde Programs enables the necessary structure to scale the proposed impact

A wide variety of actors are mobilized for the effective functioning of the Brasil Mata Viva and Tesouro Verde Programs: rural producers, associations, companies, public agencies and academia. This mechanism requires a corporate structure that keeps up with the challenges of such complexity. The BMV Global is the key structure to support the other social and environmental, socio-economic, and climate-related benefits already mentioned. The commercialization of UCS also has a direct impact on the support of the programs, given that part of the proceeds of the UCS commercialized is the promotion of sustainable practices in both programs.

ANNEX V – CLIMATE BONDS INITIATIVE'S CRITERIA FOR AGRICULTURE AND FORESTRY ASSESSMENT

The table below presents the alignment of the UCS with the applicable sectoral criteria of the Climate Bonds Initiative.

TABLE 9 -ALIGNMENT WITH CBI'S SECTORAL CRITERIA

For proceeds destined to projects with forested areas involved in conservation for non-commercial purposes or ecosystem restoration		
Criterion	Alignment	Comment
<u>(Mitigation componente):</u> Have the supported areas remained free from landscape conversion since 2010 and do they hold FSC or PEFC certification?	Not aligned	Although the BMV Standard mentions the possibility for hubs and projects to obtain socio-environmental and/or product certifications, such as FSC, this is not a requirement for BMV certification.
<u>(Mitigation component):</u> The maintenance of habitat carbon stocks and general health may be proved by complying with the management plan.	Aligned	The carbon storage quantified through the preservation of native vegetation in the projects is converted into tons of CO ₂ e and priced as UCS. Risks that may impact the carbon storage quantification data are considered in the projects under the BMV Standard.
<u>(Resilience component):</u> The requirement that habitats are managed in-line with maintaining resilience may be proved by complying with the management plan.	Aligned	Analyses of attributes of high conservation value, including ecosystems and habitats, are conducted bimonthly.
<u>(Adaptation and resilience):</u> Are processes in place to assess key risks from a changing climate, both to the asset itself, AND to the broader ecosystem (fire management plan, environmental impact assessment or adaptation plan)?	Not aligned	The plans do not specifically address the main risks arising from climate change to the projects and the ecosystem.
<u>(Adaptation and resilience):</u> A plan has been designed and is being implemented to address the risks identified? Is the plan re-evaluated at least annually?	Not aligned	The plans do not specifically include strategies to address risks resulting from climate change to the projects and the ecosystem.

<u>(Proxy)</u> Supported areas have plans that provide for and ensure: 1. Soil health through management of carbon, soil and biomass retention, and soil structure; 2. Water management through an assessment of the water demand of the forest and its impacts on (i) downstream users and (ii) discharges to water bodies, including risk assessment and measures for ground and surface water protection; 3. Fire management, containing measures developed and implemented for prevention; 4. Management of riparian zones or riparian forests; 5. Biodiversity management; 6. Selection of appropriate tree species for the maintenance of genetic and ecological balance; 7. Prohibition of the use of pesticides listed in the Stockholm Convention and Rotterdam Convention or that are listed as "Ib" or "Ia" in the World Health Organization classification of pesticides, except in cases of emergency or government order. In such cases, a socio-environmental risk analysis is required; 8. Forest protection, including monitoring mechanisms to prevent illegal deforestation and conversion.	Partially aligned	The private properties have their respective Productive Activity and Environmental Adjustment Plans, which establish the activities to be performed. Each of the activities has an Environmental Management Plan, so that they are carried out in a way that minimizes the impact generated. However, there is no evidence these plans mandatorily include the prohibition of all pesticides listed in the Stockholm Convention and Rotterdam Convention or that are listed as "Ib" or "Ia" in the World Health Organization classification of pesticide.
<u>(Proxy)</u> What percentage of the conserved and restored supported areas have evidence of maintenance and enhancement of biodiversity/habitat quality, with the baseline of when conservation began?	Aligned	This aspect is monitored annually by means of a specific indicator as indicated in Table 11 and 15.
<u>(Basic)</u> The supported areas have: 1. Assessment of how climate change will result in significant risks to the forest asset and the ecosystem in which the forest asset is located;	Not aligned	The supported areas don't have such studies and plans.

2. Plans to address and mitigate the identified risks;		
3. Planning to periodically reassess the identified risks.		
<i>(Basic)</i> Do the supported areas have issues related to land rights, removal or relocation of housing, or activities necessary for the livelihood of local communities?	Aligned	The regularization of any land issue is a condition for participating in the Programs.

Projects with forested areas for forestry purposes

Criterion	Alignment	Comment
<i>(Basic)</i> Are the supported areas FSC or PEFC certified?	Not aligned	Although the BMV Standard mentions the possibility for hubs and projects to obtain socio-environmental and/or product certifications, such as FSC, this is not a requirement for BMV certification.
<i>(Basic)</i> Do the supported areas have evidence that no wetland areas have been converted?	Not aligned	There is no evidence.
<i>(Basic)</i> The supported areas have: 1. Assessment of how climate change will result in significant risks to the forest asset and the ecosystem in which the forest asset is located; 2. Plans to address and mitigate the risks identified; 3. Planning to periodically reassess the identified risks.	Not aligned	The supported areas don't have such studies and plans.
<i>(Basic)</i> Do the areas have issues related to land rights, removal or relocation of housing, or activities necessary for the livelihood of local communities?	Aligned	The regularization of any land issue is a condition for participating in the Programs.

Initial wood processing, including manufacturing, processing, pulp or paper production, equipment, and storage

Criterion	Alignment	Comment
<i>(Basic)</i> Are the supported areas FSC or PEFC certified for the forest inputs used?	Not aligned	Although the BMV Standard mentions the possibility for hubs and projects to obtain socio-environmental and/or product certifications, such as FSC, this is not a requirement for BMV certification.

<u>(Basic)</u> Do the supported areas have plywood, paper, pulp or cardboard production activities?	Partially aligned	These activities are eligible.
<u>(Basic)</u> For supported areas that have plywood/plywood, paper, pulp or cardboard production activities, is there evidence that at least 50% renewable energy is used?	Not aligned	There is no evidence of prioritization of renewable energy.
<u>(Basic)</u> The supported areas have: 1. Assessment of how climate change will result in significant risks to the forest asset and the ecosystem in which the forest asset is located; 2. Plans to address and mitigate the risks identified; 3. Plans to periodically reassess the identified risks.	Not aligned	The supported areas don't have such studies and plans.
<u>(Basic)</u> Do the supported areas have issues relating to land rights, removal or relocation of housing or activities necessary for the livelihoods of local communities?	Aligned	The regularization of any land issue is a condition for participating in the Programs.

Agricultural production projects

Mitigation

Criterion	Alignment	Comment
<u>(Basic)</u> Do the supported areas demonstrate deforestation and conversion-free status since 31 December 2010?	Not aligned	Only areas that have not undergone illegal deforestation or forest conversion after December 31, 2020, are eligible for inclusion in the programs. Upon joining the program, all areas commit to refraining from any further deforestation. However, there is no requirement regarding deforestation or conversion prior to December 31, 2010.
Reducing absolute emissions (N ₂ O, CH ₄ , and CO ₂) from farm practices and operations in agriculture production units: - Do the supported areas aim to reduce emissions from N fertiliser use in crops? - Do the supported areas present a farm management plan which evidences the	Not aligned	No evidence provided.

significance of the measure to reduce emissions, through on-farm organic fertiliser production and use, including composting/biochar from farm residues? - Do the supported areas present a rice production management plan that demonstrates a reduction in days of flooding by at least 10% by outlining one or more of the eligible practices? - Do the supported areas present farm management plan which evidences the significance of the measure to reduce herd sizes? - Do the supported areas present an investment plan for R&D in production unit(s) seeking alternatives for reducing herd sizes, e.g. alternative production systems, alternative protein systems and/or lower emission livestock system? - Do the supported areas present improved harvest, post-harvest, and/or storage aim at achieving a level of food loss no higher than 10% of total food production from post-harvest to distribution, except for cereals and grains which should aim towards less than 5% food loss? - Do the supported areas present energy-efficient traction, irrigation, and storage (in the top 25% of energy efficiency rates for equipment available in-country) or use of only renewable energy on-farm? - Do the supported areas present a residue use plan with an estimate of GHG saved: savings required to be at least 10% of baseline residue emissions? - Do the supported areas present estimated improvements with efficiency gains superior to 25% over baseline efficiency?		
Sequestering carbon in agriculture production units:	Not aligned	No evidence provided.

- Do the supported areas present a verified restoration plan including i) Geolocation of land plots and demonstration of historical land use pre-application. And ii) Verified management plan that ensures increased carbon input or carbon sequestration?
- Do the supported areas implement or maintain agroforestry and at a minimum, estimated carbon sequestration potential must be above 0.6 tC ha⁻¹ yr⁻¹ of carbon aboveground?
- Do the supported areas apply biochar to agricultural lands and present a verified farm management plan including: 1) information of the quantity and sourcing of biochar (from DCF residues), 2) application rate, 3) edaphic conditions that secure biochar stability?
- Do the supported areas improve soil carbon management in grasslands and pasturelands with a verified management plan that ensures increased carbon input or carbon sequestration?
- Do the supported areas improve soil carbon management in croplands? For nutrient management, the requirement is for increases in nitrogen use efficiency and/or not additional net N₂O emissions. For reduced or no tillage, the requirement is for at least 30% of crop residues left on the soil surface permanently?

Adaptation

Criterion	Alignment	Comment
<i>(Basic)</i> Do the supported areas have analyses that demonstrate that the activities do not imply imbalances in the resilience of the ecosystem in which they operate, taking into account the identified limits and interdependencies?	Aligned	Private properties have Productive Activity and Environmental Compliance Plans, which define the activities to be carried out. Each activity is accompanied by an Environmental Management Plan to ensure its implementation minimizes potential impacts, including possible implications

		and imbalances in the ecosystem's resilience.
<i>(Basic)</i> Do the supported areas have analyses that consider physical climate risks to which they will be exposed and vulnerable throughout their operation, considering more than one climate scenario? Risks related to temperature, precipitation, water stress, sea level, glacial melt, winds, soil, seasonality, pests and diseases, fires, and CO2 concentration should be considered.	Partially aligned	During the Socio-environmental Diagnostic phase, potential risks are identified and measures are established to address them. However, there is no evidence of analyses based on multiple climate scenarios.
<i>(Basic)</i> Do the supported areas have measures (current or planned) to address the identified risks, ensuring that activities are considered viable throughout their life cycle?	Partially aligned	As mentioned above, while measures are defined during the Socio-environmental Diagnostic phase, the criterion requires the identification of risks associated with physical climate risks under more than one climate scenario. Therefore, there is no evidence of alignment with this criterion.
<i>(Basic)</i> Do the supported areas have ongoing monitoring and evaluation of risks and resilience measures, including a monitoring plan with indicators and a mechanism for stakeholder complaints?	Partially aligned	Monitoring reports are prepared annually, composed of indicators that serve as regulatory mechanisms for project implementation, as they represent management tools for controlling financial flows between project stakeholders. Furthermore, the use of specific monitoring methodologies is foreseen for environmental and socioeconomic aspects within the scope of the Local Development Hub, using more complex tools. Additionally, each producers' association must maintain a communication channel to receive requests, suggestions, and complaints related to activities carried out within the scope of the Hub and the Development Pole.

Safeguard: Biodiversity

Criterion	Alignment	Comment
Do the supported areas define the boundaries of the investment and associated assets and activities, as well as the internal and external interdependencies	Aligned	An extensive assessment is conducted to diagnose the genetic composition of the forest, fauna, biodiversity potential, and Protected Areas, identifying both internal

between the broader system affected by those assets and activities?		and external interdependencies with the broader system that may be affected by project activities.
Do the supported areas a biodiversity risk assessment has been undertaken on the potential impacts from the production unit(s) over its operating life? Moreover, do the supported areas establish measures have or will be taken to: i. address and mitigate those identified biodiversity risks to a level so that the production unit is 'fit for purpose' over its operational life; and ii. to ensure that the production unit does no harm the biodiversity of the defined system it operates within, considering the boundaries and critical interdependencies between that system and the production unit?	Aligned	This aspect is monitored annually through specific indicators, as outlined in Tables 14 and 15.
Do the supported areas commit to ongoing monitoring and evaluation of the relevance of the biodiversity risks and measures, and related project adjustments as needed?	Aligned	Monitoring of biodiversity, biomass and plant species is carried out through continuous inventories in areas of native vegetation and restoration within the hubs, in order to assess the maintenance or increase of carbon stored for UCS generation and the conservation of protected plant species. This monitoring must be conducted during the initial inventory and every five years thereafter.
Safeguard: Water		
Criterion	Alignment	Comment
Do the supported areas identifies boundaries and interdependencies with regards to water use and water quality risks?	Aligned	Following the sale of the first batch of UCS, water quality analyses are conducted in the areas comprising the hubs, through sampling of the main existing water bodies. According to the Sustainable Development Plans submitted to ERM, a comprehensive assessment of water services is included, identifying boundaries and interdependencies related to water use, such as regional water

		distribution and supply, and waste disposal into water bodies.
Do the supported areas elaborate a risk assessment on water use and water quality has been undertaken on the potential impacts from the production unit(s) over its operating life? Moreover, do the supported areas demonstrate that measures have or will be taken to: i. address and mitigate identified water risks to a level so that the production unit is 'fit for purpose' over its operational life; and ii. ensure that the production unit does no harm to the water availability and water quality of the defined system it operates within, considering the boundaries and critical interdependencies between that system and the production unit?	Aligned	The Sustainable Development Plans establish measures to address and mitigate risks and to ensure water quality. For example, in the Sustainable Development Plan (SDP) of the Guariba Mata Viva Hub, one of the measures established was the 'Restoration of native vegetation in spring areas and protection of watercourses, aiming at the conservation and connection of biodiversity corridors.'
Do the supported areas demonstrate that there will be ongoing monitoring and evaluation of the relevance of the water-related risks and measures and related project adjustments as needed, within a water management plan?	Aligned	Continuous monitoring is carried out through water sampling of the main water bodies within the hub areas. This process begins after the sale of the first batch. Monitoring is conducted when water bodies are present within the properties that form the BMV hub, and, on a case-by-case basis, specific technical recommendations are made for water recovery actions, whether in terms of quality or quantity. Regarding quality, chemical analyses are performed on surface water bodies, including rivers, springs, and water reservoirs.
Safeguard: Social		
Criterion	Alignment	Comment
Do the supported areas identifies boundaries and interdependencies with regards to social risks (people's livelihoods).	Aligned	An initial analysis of the social context is conducted during the formation of the hub, allowing for the identification of the region's social complexity. Upon identifying the presence of traditional communities, Indigenous peoples, Quilombola communities, or rural settlements adjacent to or near the

		properties within the hub, it is recommended that an in-depth social assessment be carried out. This social assessment consists of interviews with public agencies, as well as associations and civil society organizations active in the region.
Do the supported areas demonstrate that a risk assessment on social aspects has been undertaken on the potential impacts from the production unit(s) over its operating life? Moreover, do the supported areas demonstrate that measures have or will be taken to: i. address and mitigate identified social risks to a level so that the production unit is 'fit for purpose' over its operational life; and ii. ensure that the production unit does not harm the social aspects/people's livelihoods of the defined system it operates within, considering the boundaries and critical interdependencies between that system and the production unit(s)?	Aligned	In addition to measures aimed at mitigating potential social risks, structural projects are developed with the involvement of the local community (including rural producers organized in associations, public authorities, and civil society at large). The local community is regarded as an agent for promoting sustainable development. Furthermore, monitoring of local communities, traditional populations, and Indigenous territories is carried out, when applicable, through interviews to assess the benefits of the project for these populations.

Safeguard: Animal welfare

Criterion	Alignment	Comment
Are the supported areas required to obtain a certification to schemes that require sufficient high standards of animal welfare?	Not aligned	No evidence provided.

Source: Own elaboration with information provided by BMV and EU Taxonomy's criteria

ANNEX VI – EUROPE UNION TAXONOMY CONSERVATION, RESTORATION OF HABITATS, ECOSYSTEMS AND SPECIES' CRITERIA ASSESSMENT

The table below presents the alignment of the UCS with the sectoral criteria of the European Union Taxonomy. It is important to include a prior disclaimer stating that, although the European Union Taxonomy is adopted as a reference by ERM's methodology for characterizing financial assets with positive environmental impact, the designation of an activity or company as a promoter of positive impact does not necessarily require full compliance with the technical screening criteria, the Do No Significant Harm (DNSH) principles, or the minimum safeguards established by the aforementioned taxonomy. Given the strict technical and regulatory standards of the EU Taxonomy, it is reasonable to assert that, under current conditions, no Brazilian company would fully and entirely meet all the criteria defined therein to be classified as "green" according to its parameters.

TABLE 10 – ALIGNMENT WITH EU'S TAXONOMY SECTORAL CRITERIA

Criteria	Alignment	Assessment
1. General conditions		
1.1 The activity contributes to at least one of the following: a. maintaining good condition of ecosystems, species, habitats or habitats of species; b. re-establishing or restoring ecosystems, habitats or habitats of species towards or to good condition, including through increasing their area or range. Obs: 1.2 The activity may be carried out by any type of operator irrespective of the main domain of activity.	Aligned	The activity contributes to the conservation of native vegetation and, therefore, to maintaining the good condition of ecosystems, species, and habitats.
2. Initial description of the area covered by the conservation activity		
2.1 The activity takes place in an area with a detailed description of its initial ecological conditions which contains the following elements: a. mapping of the current habitats and their condition;	Aligned	The detailed description of the initial ecological conditions of the area(s) includes all the listed elements. This is carried out through the Sustainable Development Plan (SDP) and is evidenced by publicly available information in the 'Projects' section of the BMV website⁷².

⁷² BMV – Brasil Mata Viva

- b. where applicable, the protection status of the area;
- c. characterization of the situation of the main species in terms of conservation relevance present in the area (including list of species, approximate size of the population, approximate size of the habitat of the species and its quality, period during which the area is used by the species);
- d. the importance of the area to reaching good condition of species, habitats or habitats of species at regional, national or international level as appropriate;
- e. where relevant, the potential for improving the condition of species, habitats or habitats of species present on the area or re-establishing habitats or habitats of species in the area or to enhance connectivity between habitats.

3. Management plan or equivalent instrument

3.1 The area is covered by a management plan or by an equivalent instrument, such as a restoration plan⁷³, which is regularly updated and, in any case, at least every ten years, and contains the following information:

- a. a description of the expected contribution of the area to the nature conservation objectives set by the competent nature or environment authority considering the regional, national, Union and international legal and policy context;
- b. the list of species, habitats and habitats of the species that will benefit from the conservation measures (hereafter "targeted habitats and species");
- c. the duration of the plan and a clear description of the conservation objectives for each targeted habitat and species and of the corresponding

Partially aligned

The Sustainable Development Plan (SDP), the Productive Activity and Environmental Adaptation Plan (PAPA), and the Environmental Management Plan (EMP) are prepared. However, there is no evidence to support the assertion that measures are included to ensure compliance with all DNSH (Do No Significant Harm) criteria for this activity.

⁷³ The restoration plan can be part of a management plan. Where the area is covered by a management plan, no additional restoration plan is required.

conservation measures that address identified pressures and threats, including the expected deadline for the achievement of the conservation objectives. In case the deadlines exceed the duration of the management plan, the expected progress (milestones) towards achievement is defined;

- d. a description of the threats and pressures that could hinder the achievement of the conservation objectives, including projected habitat transformations caused by climate change;
- e. the measures to ensure that all DNSH criteria for this activity are achieved;
- f. consideration of societal issues (including preservation of landscape, consultation of stakeholders in accordance with the terms and conditions laid down in national law);
- g. where applicable, a description of enhanced ecosystem services, such as carbon storage, water purification, flood protection, erosion prevention, pollination, recreational opportunities, and wider socio-economic benefits;
- h. a monitoring scheme with specific and relevant indicators, allowing to measure progress towards achieving the conservation objectives and an identification of corrective measures as necessary;
- i. the persons and organisations involved in the management or restoration of the area and, if relevant, the necessary collaborations or partnerships to put in place to achieve the conservation objectives;
- j. the measures taken to ensure transparency about the conservation objectives, the conservation measures and the monitoring and its results;

k. the funding necessary for implementing the conservation measures, for the monitoring of the area and its audit. Obs: 3.2 Where the management plan or the equivalent instrument does not contain all the elements specified in point 3.1, the information is provided by the operator of the activity.		
4. Audit		
4.1. The initial description of the conservation area and the management plan or equivalent instrument specified in points 2 and 3 are verified by an independent third-party certifier at the start of the conservation activity.	Aligned	There is independent verification, annual geospatial monitoring, and the use of the Linkmesh platform, through which sustainability credit units are converted into digital tokens.
4.2. At the end of the duration of the management plan or equivalent instrument and at least every ten years, the achievement of the objectives set at the start of the management plan and the respect of the DNSH criteria are verified. The verification includes an updated detailed description of the ecological conditions of the area as specified in point 2, an evaluation of the effectiveness of the conservation measures, and of the achievement of the conservation objectives, an evaluation of an updated version of the management plan or equivalent instrument, and the recommendations for the next management plan or equivalent instrument.	Partially aligned	A periodic assessment is conducted to evaluate the extent to which the objectives established at the outset of the management plan have been achieved, including an updated, detailed description of the ecological conditions of the area. However, there is no evidence to support the assertion that all DNSH (Do No Significant Harm) criteria are verified.
4.3. The verification in accordance with points 4.1 and 4.2 is carried out by either of the following: a. the relevant national competent authorities; b. an independent third-party certifier, at the request of national authorities or the operator of the activity. In order to reduce costs, audits may be performed together with any forest certification, land-use certification, biodiversity certification, climate certification or other audit. The independent third-party certifier may not have any conflict of interest with the owner or	Partially aligned	The verification is carried out by an independent third-party certifier. However, there is no evidence to support the assertion that all DNSH (Do No Significant Harm) criteria are verified.

the funder and may not be involved in the development or operation of the activity.

As a result of the verification, the certifier issues an audit report.

5. Guarantee of permanence

5.1. In accordance with national law, the area on which the activity takes place is covered by one of the following measures:

- a. the area is classified as a protected area in line with the IUCN Protected Area Categories System⁷⁴ as a Natura 2000 site under Directive 92/43/EEC, or as an Other Effective area-based Conservation Measure (OECM)⁷⁵, by national law or under an international convention to which the country is signatory and is effectively managed to prevent deterioration and enable the recovery of species and habitats or habitats of species;
- b. the area is destined to restoration or conservation in a statutory land, freshwater or maritime use plan approved by the competent authorities;
- c. the area is the subject to a public or private contractual arrangement that can ensure that the conservation objectives can be achieved and maintained.

Aligned

The activity is aligned with measure (c), as it is established through a contractual agreement (public or private) that ensures the conservation objectives are achieved and maintained.

5.2. The operator of the area where the conservation activity takes place commits that a new management plan or equivalent instrument in line with the conservation objectives will be produced before the end of the previous plan.

Aligned

The commitment established extends for the duration of the projects, which is 25 years

6. Additional minimum requirements

6.1. The offsetting of the impacts of another economic activity is excluded under this

Not aligned

The UCS allows for mandatory environmental compensation actions - required by law - such as legal reserve compensation, vegetation suppression compensation through licensing, and compensation for other economic activities.

⁷⁴ [Protected areas and land use | IUCN](#)

⁷⁵ <https://www.cbd.int/doc/decisions/cop-14/cop-14-dec-08-en.pdf>

activity ⁷⁶ . Only net biodiversity gains resulting from conservation/restoration can be accounted for as substantial contribution under this activity ⁷⁷ .		
6.2. The introduction of invasive alien species is prevented or their spread is managed in accordance with Regulation (EU) No 1143/2014.	Not applicable	The activity does not involve the introduction of invasive alien species
Do no Significant Harm (DNSH) Criteria		
Climate Mitigation: The activity does not involve the degradation of land with high carbon stock ⁷⁸ nor the degradation of marine environment with high carbon stock.	Aligned	The activity does not involve any form of land degradation.
Climate Adaptation: The activity complies with the following criteria: The physical climate risks that are material to the activity have been identified through a robust climate risk and vulnerability assessment? ⁷⁹	Not aligned	No assessment of climate risks and vulnerabilities has been conducted.
The activity complies with the following criteria: Environmental Impact Assessment is carried out and includes an assessment of the impact on water. The assessment includes a water use and protection management plan, developed thereunder for the potentially affected water body or bodies, in consultation with relevant stakeholders. The activity does not hamper the achievement of good environmental status of marine waters or does not deteriorate marine waters that are already in good environmental status.⁸⁰	Aligned	Periodic environmental monitoring of water quality is carried out through water samples from the main bodies of water existing within the areas that make up the nuclei. It starts from the sale of the first crop. It is carried out when there are water bodies within the properties that form the BMV nucleups, and, on a case-by-case basis, the specific technical recommendation for water recovery is carried out, whether in terms of quality or quantity. Regarding quality, chemical analyses of the waters are carried out at the "Surface Water" level, that is, rivers, springs and water mirrors. Internal or interior bodies should be analyzed through the appropriate openings, such as natural and artificial wells and outcrops

⁷⁶ Biodiversity offsets are measurable conservation outcomes resulting from measures designed to compensate for residual, unavoidable, adverse biodiversity impacts arising from an activity or project after appropriate prevention and mitigation measures have been taken. The goal of biodiversity offsets is to conserve the same biodiversity values (habitats, species or ecosystems) that are negatively impacted by the activity or project.

⁷⁷ This can include additional conservation/restoration outcomes beyond offsetting measure.

⁷⁸ Land with high-carbon stock' means wetlands, including peatland, and continuously forested areas within the meaning of Article 29(4)(a), (b) and (c) of Directive (EU) 2018/2001.

⁷⁹ Adapted by ERM according to APPENDIX A: GENERIC CRITERIA FOR DNSH TO CLIMATE CHANGE ADAPTATION. Available at: [Microsoft Word - EN Annex IV biodiversity](#)

⁸⁰ Adapted by ERM according to APPENDIX B: GENERIC CRITERIA FOR DNSH TO SUSTAINABLE USE AND PROTECTION OF WATER AND MARINE RESOURCES. Available at [Microsoft Word - EN Annex IV biodiversity](#)

		Thus, ERM understands that it includes a management plan for the use and protection of water.
Pollution Prevention: The use of pesticides is minimised and alternative approaches or techniques, which may include non-chemical alternatives to pesticides are favoured, in accordance with Directive 2009/128/EC, with exception of occasions where the use of pesticides is needed to control outbreaks of pest and diseases. The activity minimises the use of fertilisers, including manure, to ensure it does not go beyond what is necessary to achieve the conservation and restoration objectives of the area and complies with the Codes of Good Agricultural Practices and with the Nitrates Action Plans in Nitrates Vulnerable Zones established in accordance with Council Directive 91/676/EEC⁸¹. The activity complies with Regulation (EU) 2019/1009 or national rules on fertilisers or soil improvers for agricultural use. Well documented and verifiable measures are taken to avoid the use of active ingredients that are listed in Annex I, part A, of Regulation (EU) 2019/1021⁸², the Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade, the Minamata Convention on Mercury, the Montreal Protocol on Substances that Deplete the Ozone Layer, and of active ingredients that are listed as classification Ia ('extremely hazardous') or Ib ('highly hazardous') in the WHO recommended Classification of Pesticides by Hazard⁸³. Pollution of water and soil is prevented and cleaning up measures are undertaken when pollution occurs.	Not aligned	The activity is in compliance with Brazilian legislation and focus on sustainable management. Although sustainable agriculture practices aim to minimize the use of fertilizers, they are not necessarily aligned with the Directives, Classifications, and Regulations according to the European Union's standards.

⁸¹ Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (OJ L 375, 31.12.1991, p. 1).

⁸² Which implements in the Union the Stockholm Convention on persistent organic pollutants (OJ L 209, 31.7.2006, p. 3.).

⁸³ The WHO Recommended Classification of Pesticides by Hazard (version 2019): <https://apps.who.int/iris/bitstream/handle/10665/332193/9789240005662-eng.pdf?ua=1>

The activity complies with the relevant national law on active ingredients.



Source: Own elaboration with information provided by BMV and EU Taxonomy's criteria

ANNEX VII - EVALUATION AND MONITORING INDICATORS

The indicators adopted to evaluate the alignment of the programs with their respective purposes are depicted in The methodologies mentioned below are part of the BMV Standard: Standard for the Generation of Assets Based on Nature Conservation and was made available to ERM. As mentioned earlier, all stages of the process are audited by an independent party for validation and verification, from the origination of credits, through their use and until retirement, also according to the Standard BMV document.

Table 11 and Table 12 are monitored annually.

The methodologies mentioned below are part of the BMV Standard: Standard for the Generation of Assets Based on Nature Conservation and was made available to ERM. As mentioned earlier, all stages of the process are audited by an independent party for validation and verification, from the origination of credits, through their use and until retirement, also according to the Standard BMV document.

TABLE 11 – INDICATORS FOR BRASIL MATA VIVA PROGRAM

For the acquisition of UCS from private landowners supported by the <i>Brasil Mata Viva</i> Program	
Indicator	Unit of measure/Description
Economic	
Allocation of proceeds	Percentage (%) of proceeds allocated to activities supported with UCS proceeds by category of expected impact (Conservation and forest restoration, sustainable productive agricultural and livestock arrangements, local socioeconomic development, and support for the Brasil Mata Viva Program)
	Description of the main activities developed with the proceeds in each category
Environmental	
Sustainability Credit Units purchased	Number (#) of UCS Average of UCS generated / property
Distributed Sustainability Credit Units	Number (#) of UCS Average of marketed UCS /property
Avoided Greenhouse Gas Emissions	Tons of carbon equivalent (BMV Methodology for Inventory of Forest Stocks)
Sustainable Agriculture Technique	Description of the techniques used to promote sustainability on the properties generating the UCS
Fertilizer use	Description of fertilization technique used (e.g. organic fertilization, biological nitrogen uptake)

	Name of the fertilizers
	Kg / ha of each fertilizer for the farms that use them
	Description of the pest control technique
Use of agrochemicals	Name of the pesticides
	Liters / ha of each pesticide for the farms that use them
Agroforestry systems	Percentage (%) of agroforestry systems on the property in relation to the total land area
	Number of burnings and fires throughout the year on the properties
Burning and forest fires	Number of focus of fires and wildfires during the year on the farms per total hectares
	Percentage (%) - (Number of fires/ha of the properties) / (Number of fires/ha of the properties outside of the Brasil Mata Viva Program)
	Deforested area (ha) on properties supported by the program
Deforestation	Deforested area (ha) on properties supported by the program/total of ha
	Percentage (%) - (Deforested area/ha of the properties included in the program)/(Deforested area/ha of the properties outside of the Brasil Mata Viva Program)
	Area restored (ha) of the properties included in the program
Forest restoration	Area restored (ha) on the properties supported by the program/total of ha
	Percentage (%) - (Area restored/ha of the properties included in the program) /(Area restored/ha of the properties outside of the Brasil Mata Viva Program)
Social	
Average education	Average years of schooling of families supported by the program
	Percentage (%) - (Average years of schooling of the families supported by the program) / (Average years of schooling of the municipality)
Property ownership	Percentage (%) - (properties with a woman as holder/ total supported properties)
Participation in the Bolsa Família Program	Percentage (%) of family households supported by the program receiving Bolsa Família assistance
Participation in the National School Meals Program (PNAE, in Portuguese acronym) or the National Program for the	Percentage (%) of properties contributing to the supply of food from family agriculture, through participation in PNAE or PRONAF, in relation to the total number of supported properties

**Strengthening of
Family Farming
(PRONAF, in
Portugues acronym)**

Income generation	Revenue from properties supported by the program (BRL/ha/year)
	Revenue of the property / total revenue through UCS (BRL)

Source: Own elaboration with information provided by BMV

TABLE 12 - INDICATORS FOR THE TESOURO VERDE PROGRAM

For acquisition of UCS from public agencies supported by the <i>Tesouro Verde</i> Program	
Indicator	Unit of measure/Description
Economic	
Allocation of proceeds	% of proceeds allocated to activities supported with UCS proceeds by category of expected impact (Conservation and forest restoration, sustainable productive agricultural and livestock arrangements, local socioeconomic development, and support to the Tesouro Verde Program)
	Description of the main activities developed with the proceeds in each category
Environmental	
Sustainability Credit Units purchased	Number (#) of UCS
	Average of SCU generated / area (ha)
Distributed Sustainability Credit Units	Number (#) of UCS
	Average of commercialized SCU / area (ha)
Avoided Greenhouse Gas Emissions	Tons of carbon equivalent (BMV methodology for forest inventory)

Source: Own elaboration with information provided by BMV



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