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Annex B - D5.3 Evaluation Results of CSLs Against the Final Outcome Level Indicators

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BMT Outcome Level Testing Results for Better Biomass

Overview of Better Biomass Results

Figure 1 provides an overview of the indicators that are fully addressed, partially addressed, or not covered in the analysis of Better Biomass. These results are based on a benchmarking exercise against the BMT outcome-level indicators. The reference documents used to evaluate Better Biomass's fulfilment are listed in the References section.

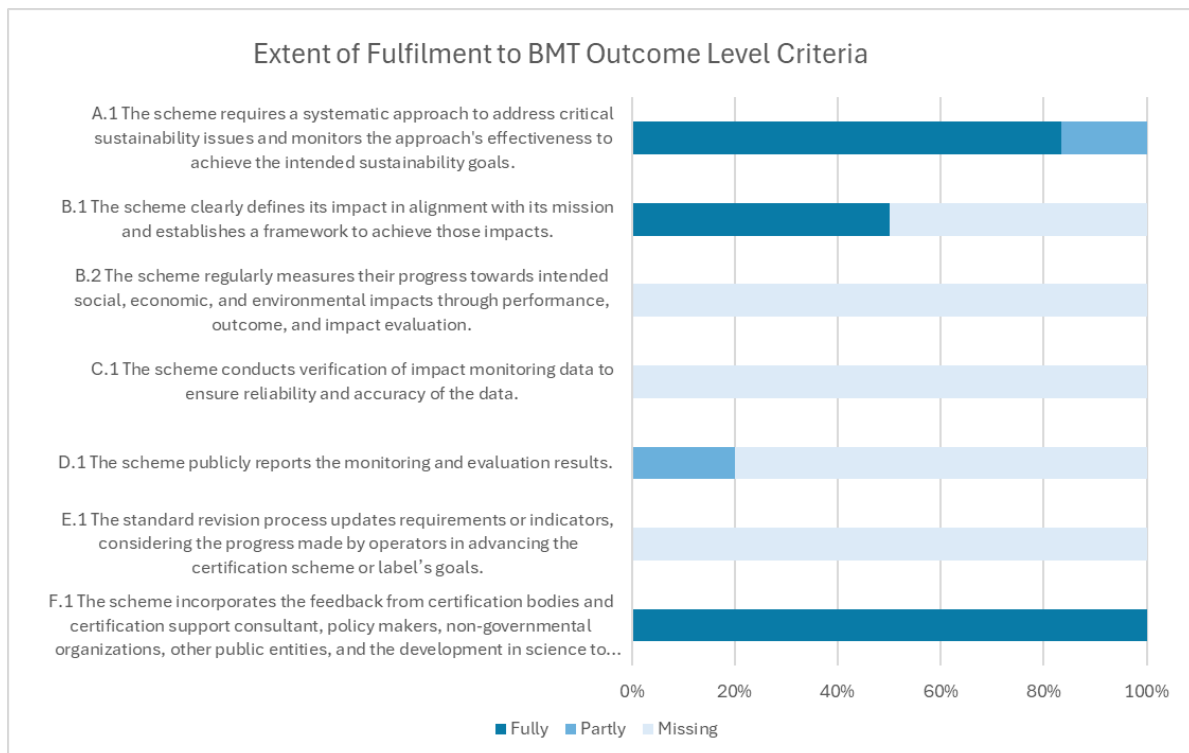


Figure 1 Overview of Better Biomass results

This assessment highlights both the strengths and areas for improvement in Better Biomass's approach to monitoring their outcomes and demonstrating measurable progress.

Strengths:

- Clear definition of intended impacts in line with mission of the scheme
- The scheme incorporates inputs from different stakeholders

Areas for improvement:

- The scheme could establish a monitoring and evaluation system to assess its impacts

- The monitoring and evaluation system could contribute to the standard revision process to better define the future mission of the scheme

Impact definition and approaches

The scheme defines the impacts it wants to achieve in terms of improving value chains sustainability, but does not measure progress towards those impacts.

The goal of Better Biomass is to improve the sustainability of biobased products and value chains. According to the scheme, the best way to achieve this is through a people, profit, and planet approach, where the unintended impacts of steps taken towards replacing fossil fuels with biomass are also considered. However, the scheme does not define specific qualitative or quantitative targets in terms of desired impacts.

Demonstrating Measurable Progress

Better Biomass does not set up tools to quantitatively or qualitatively measure progress towards impact. They collect data from certified entities on the annual volumes of output produced, the number of certificates issued, and the sector. This information, and especially the number of certificates issued, is used as an indirect indicator of the positive impacts achieved by the scheme. The assumption is that the more certificates, the more positive impacts on value chains sustainability.

Feedback From Better Biomass

Better Biomass recognised the importance of defining impacts and measuring progress towards it, and are open to implementing this in the future. A point that was raised during the interview was that to measure progress towards sustainability, it is important to not only focus on certified companies, but also appreciate the efforts of those that do not have the resources to get certified but still try to improve their sustainability impacts.

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BMT Outcome Level Testing Results for Better Cotton

Overview of Better Cotton Results

Figure 1 provides an overview of the indicators that are fully addressed, partially addressed, or not covered in the analysis of Better Cotton. These results are based on a benchmarking exercise against the BMT outcome-level indicators. The reference documents used to evaluate Better Cotton's fulfilment are listed in the References section.

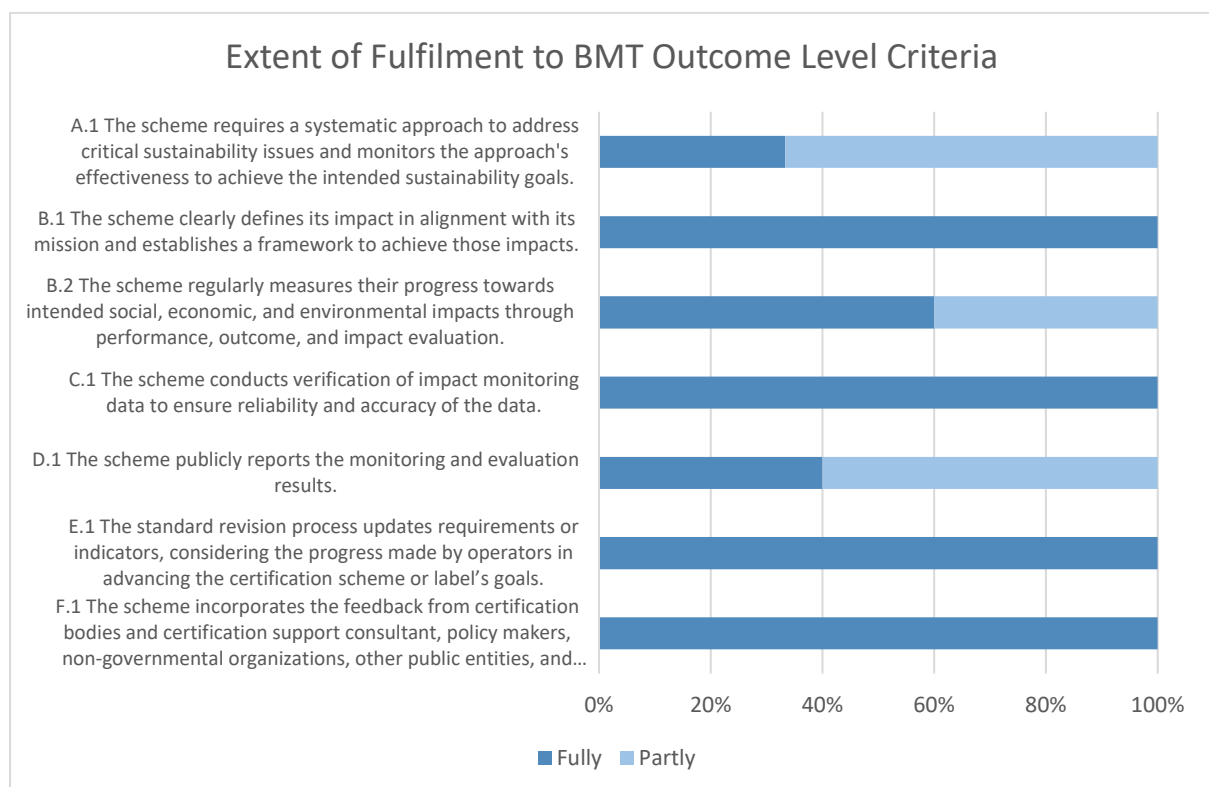


Figure 2 Overview of Better Cotton results

This assessment highlights both the strengths and areas for improvement in Better Cotton's approach to monitoring their outcomes and demonstrating measurable progress.

Strengths:

- Clear definition of their intended impacts as part of the Better Cotton Theory of Change, Better Cotton Standard System, Better Cotton Principles and Criteria.
- Detailed Evidence Framework is published and outlines which indicators will be used to measure each output, outcome and impact.
- A Monitoring and Evaluation System is in place and constantly updated.
- Third-party literature on Better Cotton is available.

Areas for improvement:

- The existing reports are limited to certain contexts or regions.
- A regular impact/outcome reporting not yet established.

Impact definition and approaches

Better Cotton (BC) applies the ISEAL Impact Code impact definition: *“By ‘impact’, BC means the positive and negative long-term effects resulting from the implementation of the Better Cotton Standard System, either directly or indirectly, intended or unintended”*. BC defines two levels of impact, the farm level and the market level. At the farm level, BC promotes more sustainable practices in cotton production, whereas at the market level, they try to increase the demand for sustainable cotton. The primary users of Better Cotton are the producers (smallholders, medium-farms and large-farms) and traders/retailers/brands.

The Better Cotton Standard System (BCSS) is their holistic approach and guide, encompassing all three dimensions of sustainable cotton production: environmental, social and economic. BC has numerous indicators covering these three dimensions, ranging from climate change mitigation to women empowerment.

BC has established a Theory of Change which describes Better Cotton's vision, intended impacts, outcomes, outputs, and the types of activities and approaches it uses to bring about those intended effects. The Better Cotton Principles and Criteria (P&C) are another critical component as they lay out the global definition of Better Cotton through six guiding principles (Management, Natural Resources, Crop Protection, Fibre Quality, Sustainable Livelihoods, Decent Work).

Demonstrating Measurable Progress

The data-driven Better Cotton Monitoring, Evaluation and Learning (MEL) Programme is the central monitoring and evaluation system of Better Cotton. The MEL focuses on farm-level results, to measure the most important aspects according to their Theory of Change: The continuous improvement of environmental, social and economic conditions in cotton cultivation.

The Better Cotton Evidence Framework is fundamental in the context of monitoring and evaluation as it outlines which indicators are used to measure the respective output, outcome and impact results. Furthermore, the Evidence Framework describes the unit of analysis (smallholders, medium-farms and large-farms), the frequency of data collection (mostly annual) and how exactly the indicator will be measured (unit of measure). Accordingly, the monitoring and evaluation targets vary according to context and contract.

Better Cotton measures their sustainability impact via the systematic collection of field-level data, including self-reporting by farmers through a standardised survey. The Better Cotton Farm Data Requirements (BCFDR) aims to ensure a good quality of data (Completeness,

consistency, accuracy, validity, etc.). The Evidence Framework supplements the BCFDR. While the programme partners are responsible for collecting and cleaning the data provided by the farmers, BC further refines data cleaning to ensure the quality of the data. Depending on the context (as listed in Better Cotton Evidence Framework), third parties are verifying/assessing impact monitoring data.

Better Cotton measures their performance indicators (as listed below in Table 1) annually and reports them in the Better Cotton Annual Report and the Farmer Results. An overview of impact monitoring indicators is presented in Table 2. In terms of reporting of measurable progress/impact, Better Cotton has published their first Impact Report in 2020. In addition to only reporting performance indicators, the Better Cotton 2020 Impact Report also compares certified Better Cotton farmers to non-Better Cotton farmers. Samples of the two groups are compared in relative numbers for a certain year and different sustainability parameters (e.g. BC-farmers used 30% less pesticide than non-BC-farmers in the same year).

In 2023 Better Cotton has published an Impact Report specifically for India. This report enables the analysis of trends and can be categorized as outcome/impact evaluation as it compares data over a period of 10 years. In addition, this report contains an independent study that examined the impact in two sample regions for India.

In conclusion, publicly available reporting on outcomes and impacts remains limited compared to what BC is monitoring. The current monitoring and evaluation system provides only partial insights into their outcomes and overall impacts.

Better Cotton's feedback regarding this aspect will be discussed in the "Feedback from Better Cotton" section.

Table 1 Performance Indicators of Better Cotton

Indicators	Reported as	Regularly monitored	Regularly reported
Number of Better Cotton licensed farmers	Aggregated per country and total	Yes	Yes
Volume of Better Cotton Grown	Aggregated per country and total	Yes	Yes
Total Better Cotton Members	Aggregated per region	Yes	Yes
Share of Better Cotton of global cotton production	Aggregated on CSL level	Yes	Yes

Table 2 Impact Monitoring Indicators Used by Better Cotton (Green indicates 'Yes'; Red, 'No'; and Grey, 'Not Applicable')

BMT Sustainability Principle	Impact monitoring indicators	Data from CSL owners			Data from independent parties	
		Regularly monitored	Regularly reported	Trend identified ?	Evidence from third party	Consensus reached?

available ?						
ENVIRONMENTAL						
Climate change	Greenhouse Gas emissions per tonne of Better Cotton produced					
Chemical use	1. Volume of pesticide active ingredient applied. 2. Toxic Load of pesticide active ingredient applied. 3. Volume of highly hazardous pesticides (HHPs) applied. 4. % of Better Cotton Farmers using highly hazardous pesticides (HHPs).					
Soil management	1. Increased nitrogen use efficiency 2. Increased uptake of non-synthetic fertilizer application					
Water quality and conservation	Amount of water used for irrigation					
SOCIAL						
Protection of labour rights	Numbers of workers protected by the LCS standard					
Working conditions						
Wellbeing of the local community						
Wellbeing of consumers	Women Empowerment: Composite Indicator					
ECONOMIC						
Productivity	Yield seed/lint cotton					
Long-term economic viability	Gross margin earned from cotton crop					
	Input costs					

Case Studies

Independent case studies of Better Cotton are available. The literature review found results for 22 impact monitoring indicators. Overall, it can be said that the third-party literature tends to be dominated by studies that attribute a positive impact to Better Cotton on the relevant impact indicators. However, this depends very much on the specific indicator that the study is looking at: For pesticide and herbicide use, there are more studies indicating a positive impact of Better Cotton in terms of reduced use.

Feedback from Better Cotton

Better Cotton's feedback helped in clarifying uncertainties. They specifically pointed out to the Principle 1 of their Principles & Criteria and their Evidence Framework, making the Initial Assessment results of the desk research more reliable.

Regarding publishing of results, BC is planning to improve and publish results more frequently. Regarding the identified lack in reporting medium or long-term effects in the context of outcome/impact evaluation, Better Cotton is planning to change their method of reporting, as stated in the in-depth interview. The plan is to evolve their measuring process with a new approach that should enable the analysis of results over time through a "longitudinal cohort analysis" approach instead of the current comparison approach (BC-farmers vs. non-BC-farmers). More generally speaking, Better Cotton stated the plan to publish results at shorter intervals.

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BMT Outcome Level Testing Results for Bonsucro

Overview of Bonsucro results

Figure 1 provides an overview of the indicators that are fully addressed, partially addressed, or not covered in the analysis of Bonsucro. These results are based on a benchmarking exercise against the BMT outcome-level indicators. The reference documents used to evaluate Bonsucro's fulfilment are listed in the References section.

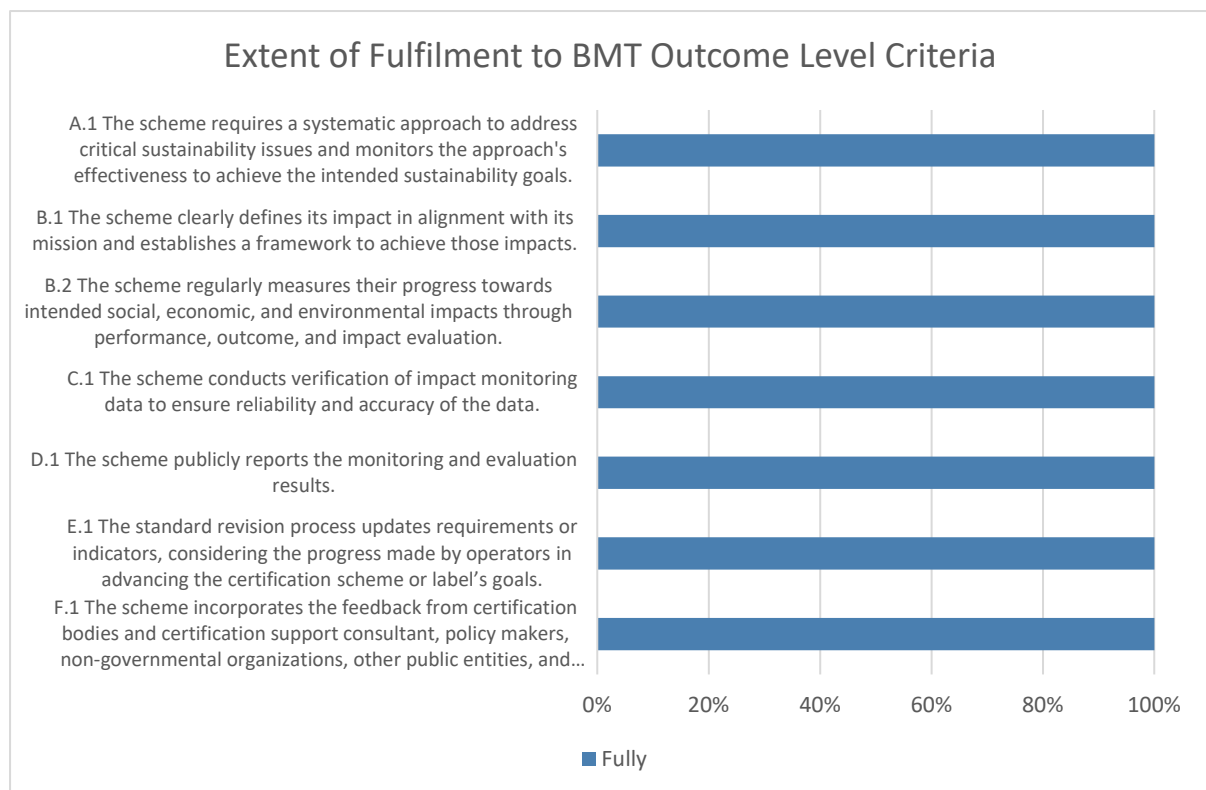


Figure 3 Overview of Bonsucro results

This assessment highlights both the strengths and areas for improvement in Bonsucro's approach to monitoring their outcomes and demonstrating measurable progress.

Strengths:

- Bonsucro has consistently monitored and systematically reported its outcomes. Outcome evaluations are conducted through quantitative assessments, incorporating year-by-year data that allow for comparisons across the certification period. These assessments are presented with contextual information to enhance their interpretability.

Areas for improvement:

- CSL requirements regarding standard updates could be improved by clarifying whether the inclusion of specific stakeholder groups (e.g., certification bodies) in standard updates is mandatory, and by explaining how progress evaluation results are used to inform revisions. This would improve transparency in how monitoring and evaluation results are utilized to raise standards, ultimately leading to measurable progress in CSLs.

Impact definition and approaches

Bonsucro defines impact through three areas: environmental performance, strengthening human rights and decent work, and creating value in the supply chain. These are central to Bonsucro's direction for a critical period in shaping their sector's contribution to the UN Sustainable Development Goals and providing the basis for future annual operational plans.

Main Documents such as Bonsucro Strategic Plan (BSP) 2021-2026 and the Bonsucro Outcome Reports (BOR) which also include the Theory of Change outline the ways in which the respective activities and the actions of the members contribute to the respective impact and purpose.

Demonstrating Measurable Progress

Bonsucro uses outcome data and insights from all areas of work to help them focus on their commitments and resources going forward. The certification data gathered so far has shown them, for example, that over years of certification, there was not as much change in agrochemical application as it was anticipated. This prompted further exploration to understand dynamics of this indicator in relation to the Standard.

Bonsucro's monitoring relies mainly on certification data via the Bonsucro Calculator, an Excel-based tool used by mills and farms to input and calculate GHG emissions and water efficiency. Data is verified through audits; their completeness is a precondition for getting certified. Additionally, the Bonsucro Assurance Team conducts a double check, as the CSL explains.

Main data taken from Bonsucro Calculator Tool includes the following information and data which helps to measure the different impact categories as follows: Annual Input Data (including Social-, Management-, Workers Health & Safety- GAP-, Energy-, Production-, Biodiversity Data), LUC Data, Output Data, GHG Dashboard, EU RED GHG Savings.

Information on Targets to be found also in Bonsucro Strategic Plan (BSP) 2021-2026, that again is compared with the annually gathered information and published in the annual Bonsucro Outcome Reports (BOR).

A list of performance and impact monitoring indicators used by Bonsucro is presented in Table 1 and Table 2. Indicators in Table 2 are linked to the Bonsucro Strategic Plan, publicly available online, and some are also included in the Outcome Report.



Table 3 Performance Indicators of Bonsucro

Indicators	Reported as	Regularly monitored	Regularly reported
Number of certified mills	Number of certified mills	Yes	Yes
Hectares of certified sugarcane annually	Hectares of certified sugarcane annually	Yes	Yes
Tonnes certified sugar & m³ certified ethanol produced (or equivalent)	Tonnes certified sugar & m³ certified ethanol produced (or equivalent)	Yes	Yes
Number of Bonsucro raw sugar credits (or equivalent) sold annually	Number of Bonsucro raw sugar credits (or equivalent) sold annually	Yes	Yes
Tonnes of certified physical products sold ex-mill	Tonnes of certified physical products sold ex-mill	Yes	Yes
Number of independent farmers & smallholders reached by Bonsucro certification and/or impact projects over 5 years	Number of independent farmers & smallholders reached by Bonsucro certification and/or impact projects over 5 years	Yes	Yes
Tonnes of certified physical products sold ex-mill	Tonnes of certified physical products sold ex-mill	Yes	Yes

Table 4 Impact monitoring indicators of Bonsucro (Green indicates 'Yes'; Red, 'No'; and Grey, 'Not Applicable')

BMT Sustainability Principle	Impact monitoring indicators	Data from CSL owners			Data from independent parties	
		Regularly monitored	Regularly reported	Trend identified?	Evidence from third party available?	Consensus reached?
ENVIRONMENTAL						
Climate change	GHG emissions					
	% Reduction in Scope 1 and 2 emissions of certified mills and farms					



	after 5 years' certification					
	Number of collective commitments & actions on climate change mitigation and adaptation					
Biodiversity	Hectares High Conservation Value Area protected and maintained					
Chemicals use	Average agrochemical and fertiliser application (nitrogen, potassium, phosphorus fertiliser), by number of years certified					
	% increase in water-use efficiency after 5 years certification					
Water quality and conservation	Number of collective commitments & actions on sustainable water management					
SOCIAL						
Working conditions and labour rights	% reduction in accidents in certified farms & mills after 5 years' certification					



	Increase in average % differential between wages paid above legal minimum wage after 5 years of certification					
	Number of collective commitments & actions on Living Wage †					
	Number of collective commitments and actions to promote UN Guiding Principles on Business & Human Rights, & OECD-FAO Guidance for Responsible Agricultural Supply					

Case studies

During the testing phase, a case study with Bonsucro was not conducted. However, Bonsucro's Outcome Reports provide quantitative results across various indicators, demonstrating measurable progress achieved at the certificate-holder level over time. For example, the reports present average GHG emissions of certificate holders from year one to year five of certification, further disaggregated to identify key contributors to emissions. Additionally, the Outcome Reports include qualitative narratives explaining potential drivers of change.

Feedback from Bonsucro

Bonsucro noted that it monitors more indicators than those included in the Outcome Report. The scheme also emphasised the importance of consistent metrics and methodologies across standards to enhance comparability and ensure long-term data reliability. Additionally, incorporating qualitative context enriches insights from metric data, providing a more comprehensive understanding of trends and outcomes.



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BMT Outcome Level Testing Results for EU Ecolabel for Detergents and Cleaning Products

Overview of EU Ecolabel results

Figure 1 presents an overview of the indicators that are fully addressed, partially addressed, not covered, or not applicable in the analysis of the EU Ecolabel for Detergents and Cleaning Products. It is important to note that the EU Ecolabel encompasses a broad range of product groups. While this analysis focuses specifically on detergents and cleaning products, the outcome-level assessment primarily refers to the scheme's generic principles and criteria, as outlined in the References section.

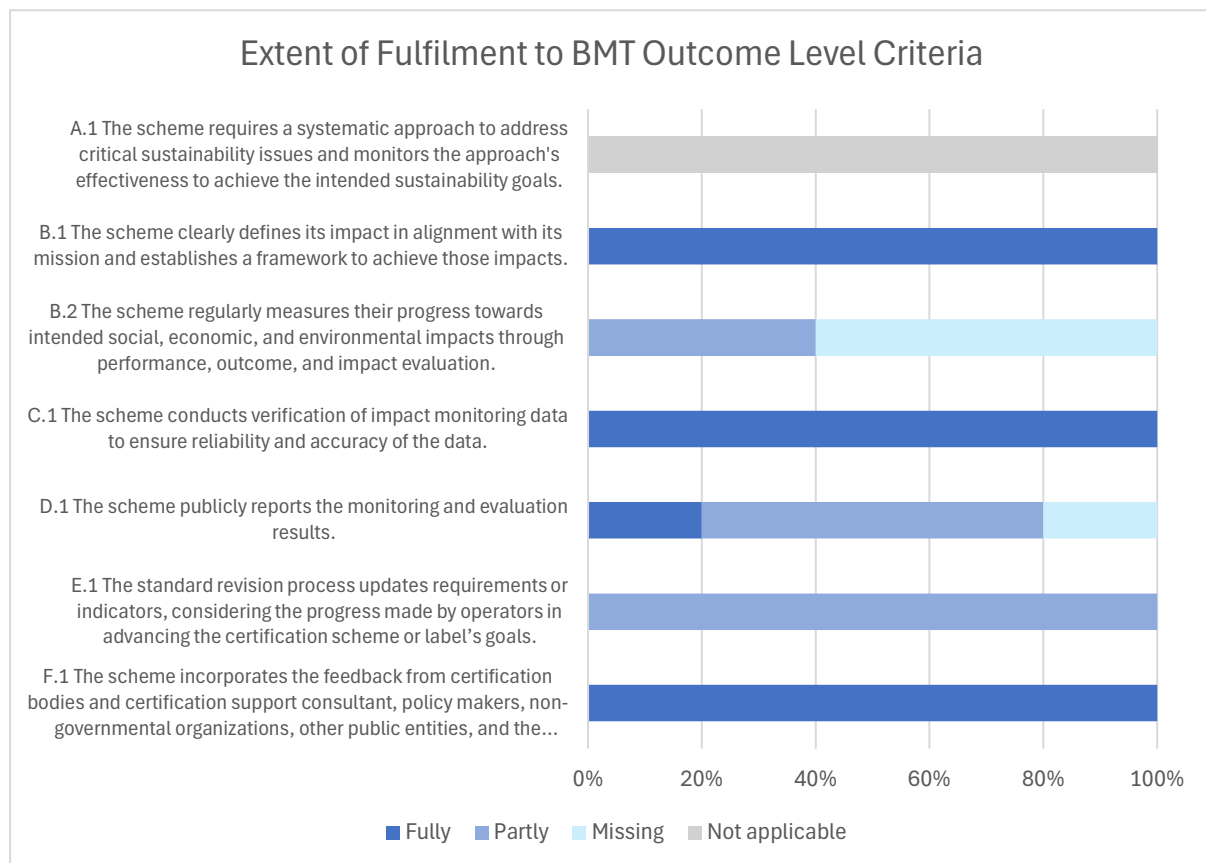


Figure 4 Overview of EU Ecolabel results

This assessment highlights both the strengths and areas for improvement in the EU Ecolabel's approach to monitoring their outcomes and demonstrating measurable progress.

Strengths:

- The scheme's environmental objectives are clearly defined, as evidenced by specific criteria developed for various product categories¹.
- Application of the Life Cycle Assessment (LCA) methodology to identify environmental hotspots within product groups, incorporating findings into criteria development processes.
- A well-established system for periodic review of criteria, including multi-stakeholder consultations through Ad Hoc Working Groups established for the criteria revision process and through the EU Ecolabel Board (EUEB), which includes also feedbacks from certificate holders.

Areas for improvement:

- Lack of a formal monitoring system to evaluate the overall environmental impact of the scheme (e.g., water savings or CO₂ emissions reduction).
- Although reference market data is considered in the development of the criteria, there are instances where such reference data is rather limited, making it challenging to assess certified products' performance against non-certified products.
- Dependence on sustainability performance data from license holders and competent authorities in Member States, with limited access to systematic data collection.

Impact definition and approaches

The EU Ecolabel was established to promote products with reduced environmental impacts throughout their lifecycle. It defines impact as reducing products' environmental impacts throughout their lifecycle and providing transparent environmental information. However, at the moment, it lacks specific quantifiable targets or a comprehensive monitoring system to verify these impacts. Such verification is expected to be possible when criteria are developed using the same methodology applied under the Ecodesign for Sustainable Products Regulation.

Environmental criteria form the core of the scheme, with some social criteria integrated for specific product categories (e.g., textiles). Although no explicit economic pillar exists, economic feasibility is considered during the development of certain testing procedures.

The monitoring approach relies mainly on identifying environmental hotspots during preliminary studies for criteria development. These findings are used to establish environmental requirements and guide improvements in product groups. However, the lack of a benchmark limits the ability to quantitatively assess progress.

¹ EU Ecolabel covers a wide range of product categories (Cleaning, Clothing and textiles, Coverings, Do it yourself, Electronic equipment, Furniture and mattresses, Gardening, Tourist accommodation, Lubricants, Paper and Personal and animal care products) for different product groups (e.g. Cleaning includes detergents product groups). More info: [EU Ecolabel Product Groups and Criteria](#))

Demonstrating Measurable Progress

The EU Ecolabel currently does not have a dedicated system for monitoring measurable progress of its impacts. Instead, progress is primarily assessed through indirect indicators, including:

- Number of licenses issued: Used as an indirect indicator of scheme adoption.
- Coverage of environmental criteria: Evaluated through an internal matrix that tracks the scheme's contribution to European Green Deal objectives (e.g., criteria addressing water savings or climate change mitigation).

Despite these indicators, several challenges hinder the ability to track measurable progress effectively:

- Difficulty in collecting market comparison data, making it difficult to assess the scheme's relative impact
- Lack of readily accessible, independently verified data on the performance of products (goods and services) holding the EU Ecolabel
- Absence of indicators based on direct measurements or Life Cycle Assessment to monitor overall scheme effectiveness.

Despite the absence of a formal monitoring system, the scheme has highlighted significant cases where EU Ecolabel criteria influenced policies and industry standards, such as the ban on microplastics in certain product categories. This underscores the scheme's role as a catalyst for legislative change and improved production practices.

Feedback from EU Ecolabel

The scheme specified that the EU Ecolabel is a Type I ecolabel, which uses "pass/fail" criteria. This means that a product or service must meet specific environmental requirements to obtain certification, with no intermediate levels or gradations (it either meets the criteria or it does not). The aim is to identify best-in-class products in terms of environmental performance, promoting the most sustainable options.

In this sense, the EU Ecolabel does not function as an environmental management scheme (e.g., ISO 14001), which focuses on reducing an organisation's environmental impacts over time through continuous improvement. Instead, the EU Ecolabel focuses on verifying that products or services meet pre-established environmental criteria.

Finally, the scheme highlighted that for certain service categories, such as tourist accommodation criteria, the implementation of an environmental management system is required. This means that the service must adopt systematic procedures to monitor and improve its environmental performance.



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[bureau/sites/default/files/contenttype/product_group_documents/1581681262/Technical%20background%20report.pdf](#)

BMT Outcome Level Testing Results for ISCC

Overview of ISCC results

Figure 1 provides an overview of the indicators that are fully addressed, partially addressed, or not covered in the analysis of ISCC. These results are based on a benchmarking exercise against the BMT outcome-level indicators. The reference documents used to evaluate ISCC's fulfilment are listed in the References section.

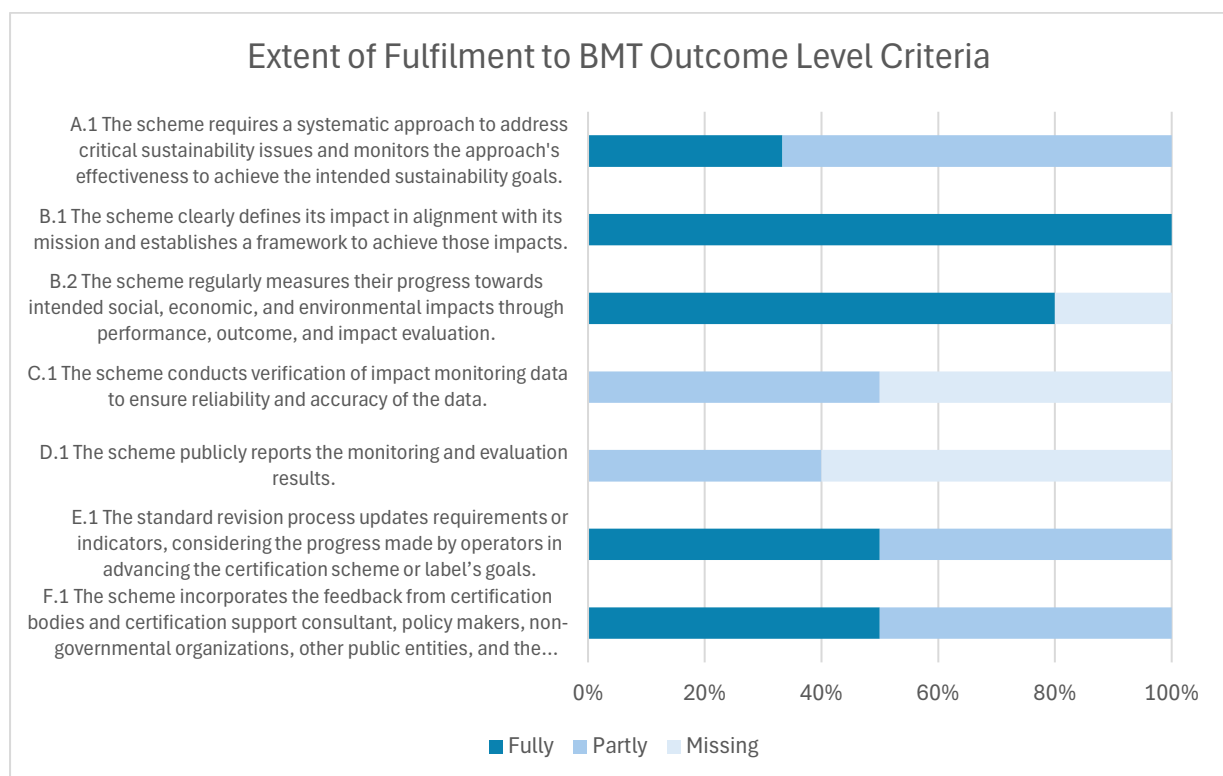


Figure 5 Overview of ISCC results

This assessment highlights both the strengths and areas for improvement in ISCC's approach to monitoring their outcomes and demonstrating measurable progress.

Strengths:

- The CSL has practice in reporting (e.g. ISCC Impact Reports 2018 and 2022)
- The CSL is updating the Monitoring & Evaluation System as a procedure for assessing their impacts

Areas for improvement:

- While the scheme has collected relevant data to demonstrate progress in certain sustainability areas, these data have not yet been reported. In addition, there is currently no regular practice for evaluating long-term impacts. Strengthening these aspects would support more robust demonstration of the scheme's measurable progress.
- The sustainability plan requirements are only applied to the ground-level operators (forests, farms).

Impact definition and approaches

The ISCC certification scheme defines “impact” as the measurable outcomes derived from its certification system, aligning with its mission and vision. The mission focuses on using certification to reduce GHG emissions, establish sustainable production practices, and ensure traceable supply chains from origin to end-user. The vision expands upon this by aspiring to eliminate deforestation, foster a circular economy, and promote sustainable bioeconomy practices that protect biodiversity and high-carbon lands and uphold human and labour rights. These goals collectively aim to create a resilient economic system and mitigate climate change.

As commented during the interviews, ISCC categorises its impact under three primary pillars:

- Environmental impact: Establish climate-friendly supply chains
- Social impact: Improve the quality of life for present and future generations
- Economic impact: Empower business to operate responsibly.

The certification covers a wide range of global markets, including food, feed, energy, and circular economy sectors. By applying its standards across all levels of the supply chain, from raw material production to final trading, ISCC ensures a collective and wide-reaching impact. Transparency serves as a core guiding principle, with measurable metrics including the volume of certified materials, the number of certificates issued, and hectares under certification. These metrics support tracking progress toward both intermediate and long-term goals as defined in its Theory of Change. Key objectives include reducing GHG emissions, protecting biodiversity, and fostering awareness and adoption of sustainable practices throughout the value chain.

Demonstrating Measurable Progress

According to feedback from ISCC, the existing Monitoring and Evaluation (M&E) system (Version 1.0) is considered outdated and no longer actively implemented. ISCC is in the process of updating their M&E system to better measure and assess the effectiveness of its certification program. Accordingly, the analysis below reflects the anticipated updates to their revised M&E system.

The benchmarking exercises indicated that while critical areas such as material certifications and GHG emissions are effectively tracked, gaps remain in impact evaluation practices and

regular reporting of the monitoring results. Although a set of performance and impact indicators had been published in the earlier M&E document (Version 1.0), these are no longer in use. A revised set of indicators is currently being developed as part of the updated monitoring framework. According to information obtained through the in-depth interview with ISCC, the updated system is expected to include key indicators across environmental, social, and economic dimensions:

- Environmental monitoring: Number of certificates that apply GHG calculations, hectares of certified land, and compliance with deforestation prevention measures;
- Social monitoring: Indicators cover corrective measures implemented in regards to compliance with human and labour rights (including improving living and working conditions, work safety, among others).
- Economic monitoring: Metrics include the number of new certifications, volumes of certified products, and corrective measures implemented related to increased transparency and traceability of sustainable material throughout the supply chain.

ISCC has reported on its impacts and measurable progress in key publications issued in 2018 and 2022. These reports documented progress on some indicators such as hectares of certified farming areas, number of members, quantities of certified waste and residues, and others. Some indicators, such as the number of ecosystems protected or certified waste and residue materials, are presented as charts with annual data, while others are reflected only partially or as opinions of auditors in the Impact Reports. While quantitative results are available in these reports, they fall outside the scope of the new M&E system. Since the recent development of the new monitoring and evaluation system, no additional reports have been issued, indicating a transition period where updates to the reporting framework are still ongoing.

The truthfulness of the CSL's claims can be evaluated based on the verifiability of data, which will be presented in future impact reports. However, the absence of recent reporting limits the ability to independently verify current claims. Maintaining transparency in the reporting process, engaging stakeholders, and upholding third-party verification practices will be essential to reinforcing the trustworthiness of the scheme's claims in the future.

Feedback from ISCC

The CSL commented that efforts to address gaps in qualitative data include introducing advanced data collection tools, standardising metrics, and increasing stakeholder involvement to improve data accuracy. For example, certain requirements aimed at GHG reduction show partial fulfilment. Challenges include inconsistent data collection across different regions and sectors. However, steps are being taken to improve this process, such as incorporating trend analysis and sampling methodologies to refine data collection and assessment. Another example for environmental monitoring, such as the number of ecosystems protected through conservation measures and for economical monitoring, such as certified amounts of waste and residue in one year shows good existing good attitude and framework. As further commented by the CSL, these measures are part of an evolving approach to enhance the robustness of its monitoring framework.



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BMT Outcome Level Testing Results for FSC

Overview of FSC results

Figure 1 presents an overview of the indicators that are fully addressed, partially addressed, absent or not applicable from the FSC analysis. These results are based on a benchmarking exercise against the BMT outcome-level indicators. The reference documents used to evaluate FSC's fulfilment are listed in the References section.

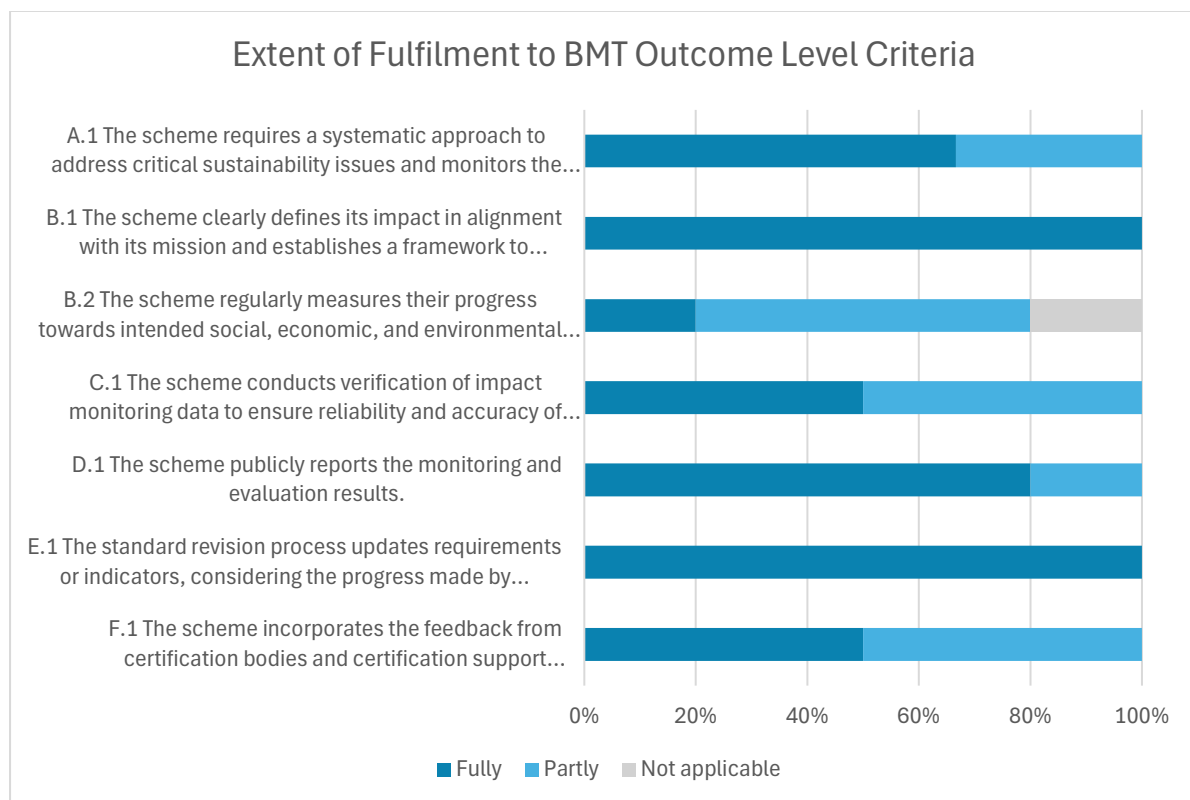


Figure 6 Overview of FSC results

This assessment highlights both the strengths and areas for improvement in the FSC's approach to monitoring their outcomes and demonstrating measurable progress.

Strengths:

- FSC actively leverages the use of technology to enhance its monitoring capabilities, allowing for a more data-driven approach to assessing progress.
- FSC demonstrates measurable progress through a structured approach that considers both short-term and long-term outcomes, providing a more comprehensive perspective on their impact over time.

Areas for improvement:

- The current evaluation framework focuses on specific regions and indicators, which may limit the ability to capture broader, global impacts. Expanding the scope of evaluation to include a more diverse set of regions and indicators could strengthen the overall assessment and enhance comparability across different contexts.

Impact definition and approaches

FSC defines impacts as the differences observed between certified and non-certified entities, as well as the progress made by certificate holders over time. FSC's intended impacts are outlined in its Roadmap to Forest Certification Impacts (i.e., Theory of Change), which links intended outcomes to broader sustainability goals and the necessary pathways and strategies to achieve FSC's vision. These intended outcomes are structured around three sustainability pathways:

- Environmental Pathway: Ensuring forests provide long-term benefits to local communities and society while incentivizing sustainable forest management.
- Social Pathway: Promoting economically viable forest operations without compromising ecosystems, forest resources, or affected communities.
- Economic Pathway: Maintaining or enhancing forest integrity, ensuring continued support for biodiversity, goods, and ecosystem services.

FSC's monitoring and evaluation (M&E) framework is governed by three pillars:

1. Global Strategy Alignment – ensuring FSC's mission is reflected in its monitoring efforts.
2. Outcome Orientation – focusing on measurable sustainability outcomes.
3. Impact Evaluations and Performance Monitoring – assessing both short-term performance and long-term sustainability impacts.

Demonstrating Measurable Progress

FSC is a frontrunner in demonstrating measurable progress in sustainability certification. Its M&E team collaborates with the technology unit to integrate digital tools into impact monitoring. In 2023, FSC launched a digital audit reporting project to standardise data collection from certification bodies. These data are stored in the FSC FM Digital Audit and the FSC GIS Portal.

FSC employs both performance monitoring and impact evaluations within its M&E system:

- Performance Monitoring: Uses remote sensing tools to track certified areas and certificate holders over time. The current indicators include forest cover, health, indigenous communities, and non-timber forest products across multiple regions. A recent pilot project is also enabling the collection of shapefiles from all certificate holders which allows progress demonstration at the certificate holder level.
- Impact Evaluation: Focuses on assessing specific regional impacts, often conducted by external researchers. Recent evaluations include a biodiversity impact study in Gabon, comparing FSC-certified and non-certified areas. Future evaluations, such as an upcoming CIFOR study in Brazil, will assess worker rights. FSC is also adopting new technologies such as environmental DNA to improve field data collection for impact evaluations.

FSC publicly shares monitoring and evaluation results through two dashboards:

- Remote-Sensing Dashboard
- FSC Impact Dashboard – synthesises external research evaluating long-term FSC outcomes, indicating whether impacts are positive, neutral, or negative, the robustness of statistical methods, and the geographical scope of the studies. The FSC Impact Dashboard covers three key impact areas:
 1. Environmental Outcomes: Biodiversity (flora and fauna), conservation, deforestation, tree cover loss, carbon storage, and forest degradation.
 2. Social Outcomes: Indigenous and local community engagement (participation, empowerment, land access, benefit-sharing, conflict resolution), infrastructure, jobs, rights, wellbeing, working conditions, and living standards.
 3. Economic Outcomes: Forest management efficiency, harvesting intensity, market access, price premiums, and profitability.

Additionally, Evidensia provides further evidence of FSC's long-term outcomes, covering areas such as climate change, ecosystem conservation, and sustainable pesticide and soil management.

Case studies

During the testing phase, no case study was conducted with FSC. However, a recent study by researchers from Utrecht University and the Wildlife Conservation Society examined FSC's impact on biodiversity conservation. Their study assessed the effectiveness of conservation measures implemented in FSC-certified forest concessions to protect wildlife and demonstrated that FSC-certified forest management provides greater benefits to large mammals compared to non-FSC-certified forests.

Feedback from FSC

As of now, no feedback has been received from the scheme regarding the BMT outcome level methodology.

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BMT Outcome Level Testing Results for Nordic Swan Ecolabel

Overview of Nordic Swan results

Figure 1 provides an overview of the indicators that are fully addressed, partially addressed, or not covered in the analysis of Nordic Swan Ecolabel. In the analysis of the Nordic Swan Ecolabel for Grease-proof Papers and Cosmetics. It is important to note that the Nordic Swan Ecolabel encompasses a broad range of product groups. While this analysis focuses specifically on grease-proof papers and cosmetics products, the outcome-level assessment primarily refers to the scheme's generic references, as outlined in the References section.

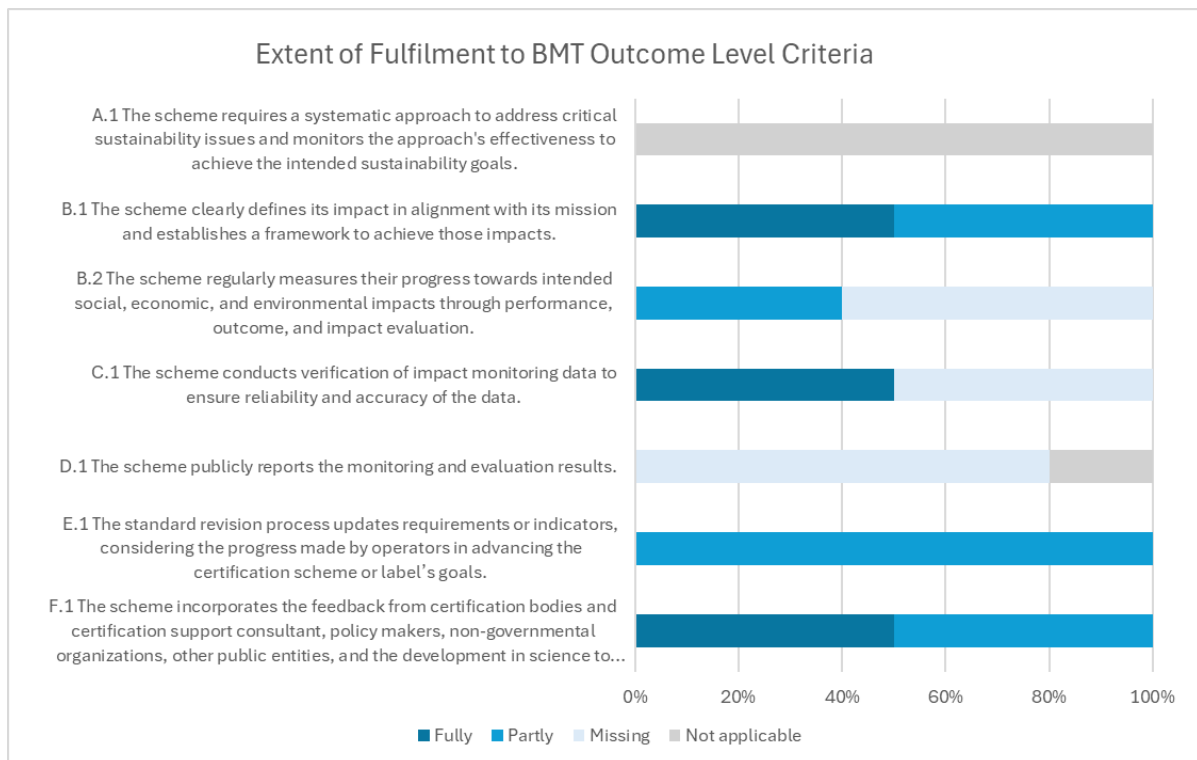


Figure 7 Overview of Nordic Swan results

This assessment highlights both the strengths and areas for improvement in the Nordic Swan Ecolabel's approach to monitoring their outcomes and demonstrating measurable progress.

Strengths:

- The Nordic Swan Ecolabel adopts a targeted approach to addressing environmental hotspots, ensuring that improvements are directed toward areas with the most significant impact.
- The evaluation criteria for updating standards – relevance, potential, and steerability – demonstrate a structured and strategic methodology for continuous enhancement.
- Criteria updates are conducted on a regular basis, with more frequent revisions for product categories subject to rapidly evolving legislation, ensuring alignment with

market and product/technical development, new knowledge and regulatory advancements.

Areas for Improvement:

- While the Nordic Swan Ecolabel has a structured process for updating its criteria, including documented changes across criteria generations, demonstrating measurable environmental outcomes from these updates remains challenging, primarily due to limited market data on non-ecolabelled products. Enhancing strategies to collect or estimate such comparative data could support more transparent communication of the real-world impact of criteria improvements.

Impact definition and approaches

Within the Nordic Swan Ecolabel framework, impact is identified through environmental hotspots across a product's lifecycle. Nordic Swan Ecolabel is multicriterial, meaning that it does not focus solely on one type of environmental impact, such as climate change, but considers all relevant environmental impacts for the product type. The main focus areas are energy/climate, chemicals/pollution, raw materials/circular economy and biodiversity. Other issues, such as microplastics, can also be addressed when relevant for the product group. These areas dictate requirements, which are reviewed every five years to ensure progress or stricter standards. The standards are more frequently updated for product categories where the legislation is fast moving forward. The revision considers market, product/technical development and new knowledge, and criteria are strengthened where gains are feasible.

Demonstrating Measurable Progress

Nordic Swan Ecolabel evaluates impacts by reviewing criteria before revisions and assessing achievements using license data compared to available market data. This evaluation follows a structured template with predefined parameters, including relevance, potential, and steerability. Hotspots are prioritized, and mandatory levels are assessed for potential adjustments to enhance stringency. Key indicators, such as carbon emissions, content of chemical substances and type of resources are monitored, and criteria are revised when improvements are identified. These indicators may vary across standards. For the grease-proof paper standard, quantitative data collected is emissions and energy use in pulp and paper production. In the case of the cosmetics standard, data collected focus on raw material composition, degradability, and toxicity. Quantitative data on key indicators are gathered from license holders during both the application and licensing periods.

Evaluation reports provide publicly available data, including market overviews and qualitative insights on environmental hotspots and improvement potential. When available, quantitative market data are used. In some cases, such as chemical products, data is obtained from the manufacturers or providers. Certification bodies may assist in data collection. Nordic Swan Ecolabel conducts MECO analysis for mapping hotspots based on scientifically recognized sources, such as quantitative life cycle studies, reports and articles.

In addition, Nordic Swan Ecolabel conducts case studies on specific parameters based on license holder data or requirement levels compared to market average data where available. To date, case studies have been conducted for thirteen product and service categories within three different environmental dimensions (i.e. climate impact, circular economy, and unwanted chemicals). However, greaseproof paper and cosmetic products have not yet been addressed. The categories covered include: textile detergents, dishwasher safe, hand washing, care products for vehicles, hand soap, remanufactured toner cartridges, textiles, textiles containing microfibers, furniture, cleaning services, textile service, disposable diapers for children, and new buildings.

Case studies

During the testing stage, no case studies were conducted with Nordic Swan. A literature review via Evidensia did not yield evidence of case studies evaluating its impacts. However, third-party evidence may be available through broader searches using Google Scholar, Web of Science, or Scopus.

Feedback from Nordic Swan

Nordic Swan Ecolabel criteria are fixed, so the focus is less on improvements during their validity and more on future enhancements. When the criteria are revised, the license holder needs to fulfil the new requirement again. Legislative changes, industry advancements, and emerging environmental issues like PFAS and microplastics also influence the frequency of updates to criteria.

Nordic Swan Ecolabel identified limited data on non-eco-labelled products as the main challenge in assessing overall market impact. Despite this, the label recently evaluated the effects of its requirements across 13 product and service groups, focusing on three environmental dimensions: climate impact, circular economy, and unwanted chemicals. An effect was found within at least one environmental dimension for all 13 groups, and in most cases within all three dimensions.

Nordic Swan Ecolabel also highlighted that the wording of some indicators could be improved, noting that clearer wording would help improve their interpretability and applicability in the context of ecolabel assessments.

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BMT Outcome Level Testing Results for RSB

Overview of RSB results

Figure 1 presents an overview of the indicators that are fully addressed, partially addressed, or absent from the RSB analysis. These results are based on a benchmarking exercise against the BMT outcome-level indicators. The reference documents used to evaluate RSB's fulfilment are listed in the References section.

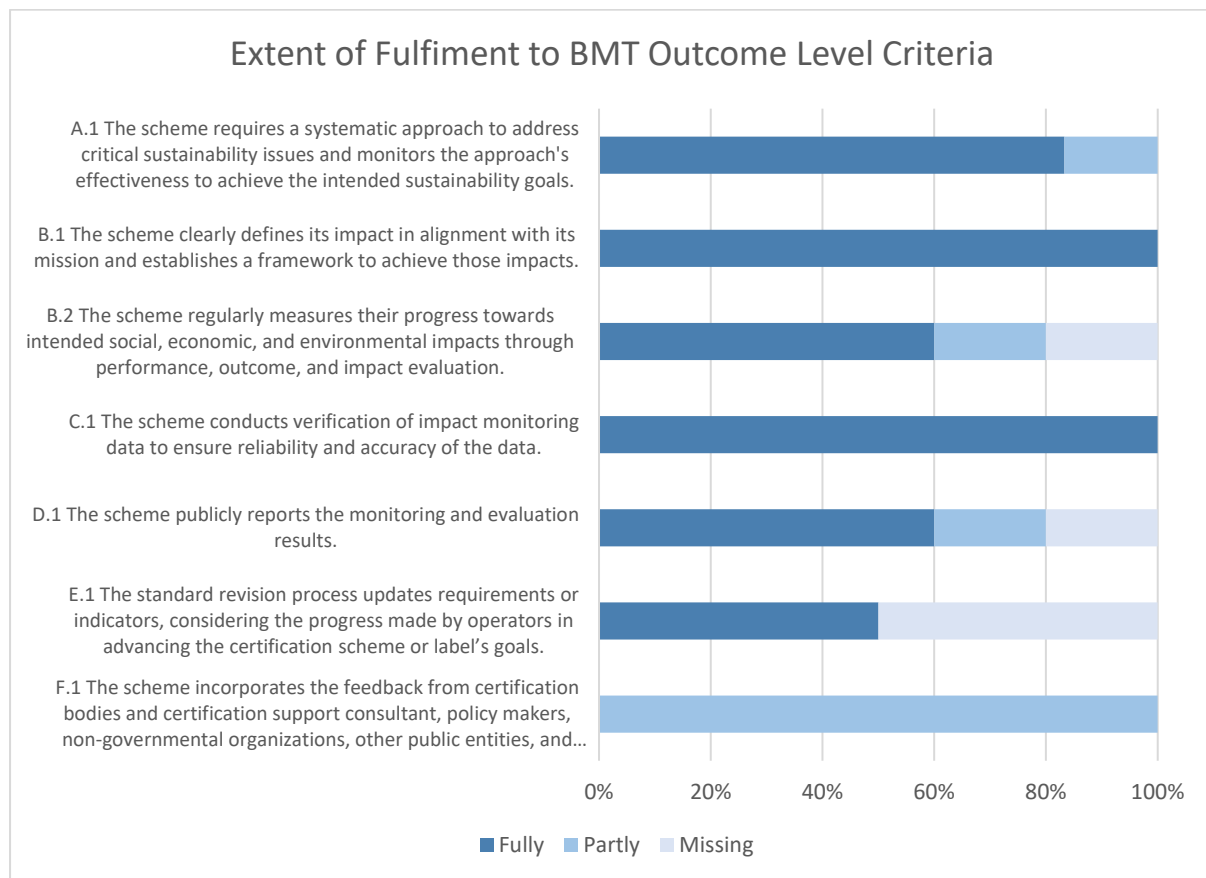


Figure 8 Overview of RSB results

This assessment highlights both the strengths and areas for improvement in the RSB's approach to monitoring their outcomes and demonstrating measurable progress.

Strengths

- RSB regularly monitors greenhouse gas (GHG) outcomes through certification bodies and can quantitatively assess avoided GHG emissions.
- RSB has consistently reported the same indicators in its Annual Impact Reports, allowing for year-over-year comparisons and a clearer assessment of progress.

Areas for improvement

- A comprehensive evaluation of RSB's long-term impacts is currently lacking.
- RSB could further utilize existing certification data, such as impact assessment results, to highlight progress on a broader range of sustainability indicators beyond GHG emissions.

Impact definition and approaches

RSB defines its impact as the increased sustainability of the bio-based economy. This impact is pursued by promoting the broader adoption of sustainable practices as outlined in the RSB Principles and Criteria. These practices are integrated into supply chains through chain of custody mechanisms and collaboration with strategic partners.

RSB's vision is articulated in its Theory of Change, which outlines the pathways to achieving impact. It explains how and where change is expected to occur and defines measurable indicators to track progress.

Demonstrating Measurable Progress

RSB monitors its performance by analysing data collected from its certified operators using a set of outcome indicators. These data points are gathered through the ongoing certification process, typically three to four times per year, and are primarily derived from audit reports submitted by auditors to RSB. Both public audit reports and certain confidential reports—such as those containing specific details on residue stream locations—are required. RSB then aggregates and anonymises the data to ensure confidentiality. Apart from auditors, no third parties are involved in this process.

A list of impact monitoring indicators is presented in the [RSB Monitoring and Evaluation Impact Indicators](#) document. The RSB Secretariat discloses only aggregated and anonymised data, ensuring that individual-level information cannot be linked to specific operations. Since 2019, RSB has published an Annual Impact Report, which highlights key sustainability outcomes, including:

- Avoided GHG emissions
- Number of workers protected by sustainability requirements for human and labour rights
- Certified cultivated area where responsible and sustainable practices are implemented as per RSB's criteria

As part of the screening or initial assessment process, economic operators are required to fill out a screening tool, develop an environmental and social monitoring plan, and conduct impact assessments related to key sustainability aspects such as soil health, air quality, and water management.

Case studies

A literature search conducted through Evidensia and the RSB website did not yield any relevant evidence. However, we are currently exploring a potential collaboration with RSB to conduct case studies assessing the progress of RSB certificate holders.

Feedback from RSB

RSB highlighted the time-intensive process of translating data from auditors' reports into an impact report. Additionally, RSB certifies a diverse range of feedstocks and covers multiple stages of the value chain, making outcome measurement more complex compared to single-commodity or single-sector schemes.

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BMT Outcome Level Testing Results for SBP

Overview of SBP results

Figure 1 provides an overview of the indicators that are fully addressed, partially addressed, or not covered in the analysis of SBP. These results are based on a benchmarking exercise against the BMT outcome-level indicators. The reference documents used to evaluate SBP's fulfilment are listed in the References section.

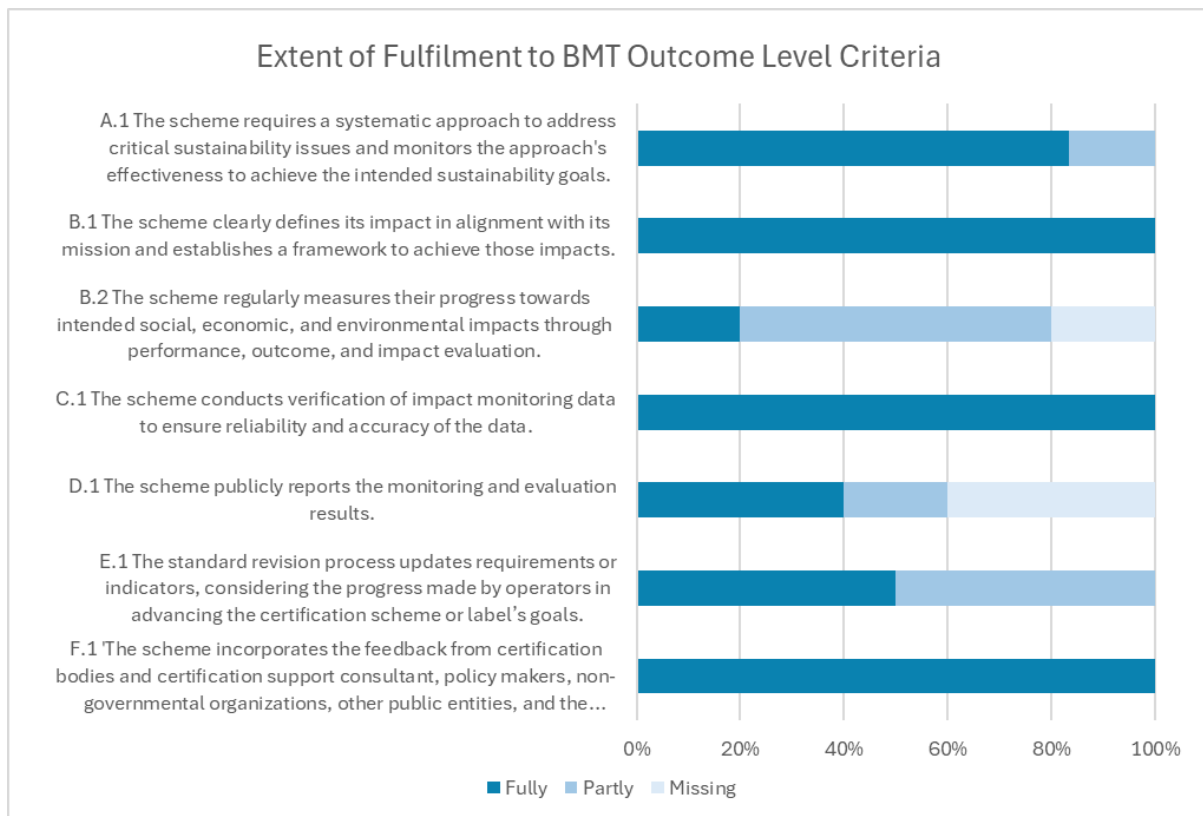


Figure 9 Overview of SBP results

This assessment highlights both the strengths and areas for improvement in SBP's approach to monitoring their outcomes and demonstrating measurable progress.

Strengths

- SBP clearly articulates their strategic aims, input and activities directly aligned with those aims, the resultant outputs, and intended outcomes and impacts.
- SBP has established a regular data collection process through audit process which enables them to track GHG emissions of their economic operators
- SBP's Annual Impact Reports provide contextual explanations for observed changes

Areas for improvement

- SBP'S annual Impact Report currently does not include quantitative results on sustainability outcomes.
- A comprehensive evaluation of SBP's longer-term impacts is currently lacking.

Impact definition and approaches

SBP defines impacts through a high-level, value chain-focused approach, emphasizing sustainability, legality, and long-term value creation beyond certification. SBP's strategies aim to define and certify good biomass, grow acceptance of its Standards, support Certificate Holders' sustainability goals, and diversify certified material sources and uses. SBP-certified biomass must be deforestation-free, protect biodiversity, maintain water and soil quality, stabilize or increase carbon stocks, and safeguard workers, local communities, and Indigenous Peoples' rights

SBP has established a Theory of Change which links its strategic aims, activities, and outputs to intended outcomes across five focus areas: standard development, certification, data traceability, stakeholder collaboration, and market development.

The primary users of SBP are biomass producers, traders, and energy generators. SBP is also increasingly engaging with civil society organizations, providing a platform for stakeholders to collaborate on projects and address implementation challenges. Additionally, SBP aims to work with regulators, particularly in Europe, Japan, and potentially Korea, to provide objective information on biomass and the value of certification, helping them design and enforce effective sustainability schemes.

SBP adopts a risk-based approach, requiring Certificate Holders to identify, implement, and document measures to reduce risks in the Supply Base Evaluation (SBE). Furthermore, SBP continuously revises its standards based on stakeholder feedback, audits, scientific and legislative updates, and impact evaluations.

Demonstrating Measurable Progress

SBP is currently developing a monitoring and evaluation system to systematically evaluate its impacts. Nonetheless, since 2017, SBP has published annual reviews featuring case studies on six key impacts and quantitative performance indicators related to their market footprints (see Table 2). The annual reviews also highlight certification suspensions and terminations, as well as feedback from certificate holder surveys on SBP's standard development process and plans for expanding into new geographies, end-uses, and feedstocks.

Impact data are primarily collected through audits. Under SBP Standard requirements, certificate holders must:

- Record energy, carbon, and feedstock data for each batch of biomass along the supply chain, as outlined in SBP Instruction Document 5E.
- When actual data are unavailable, provide verifiable estimates using recognized methodologies and calculations from qualified technical experts.
- Biomass Producers (BPs) must document this data in one of the three SBP Audit Report (SAR) templates, capturing contributions to energy and carbon balance during their legal ownership of the biomass.

A list of performance indicators monitored by SBP is presented in Table 1. Impact indicators are not yet publicly reported by SBP.

Table 5 Performance Indicators of SBP

Indicators	Reported as	Regularly monitored	Regularly reported
Number of Certificate Holders	Aggregated on CSL level	Yes	Yes
Total certified biomass produced and sold	Aggregated per region	Yes	Yes
Total SBP-controlled biomass produced and sold	Aggregated per region	Yes	Yes
Total SBP-certified biomass consumed in Europe	Aggregated per region	Yes	Yes
Share of industrial pellet consumption	Aggregated on CSL level	Yes	Yes
Number of transactions recorded in the Data Transfer	Aggregated on CSL level	Yes	Yes

Case studies

During the testing phase, we conducted a case study examining GHG emissions from SBP's economic operators. The evaluation assessed emissions across various regions, with a more detailed analysis of selected certificate holders in the United States. The assessment included a hotspot analysis and an evaluation of GHG performance trends over the past five years. Our findings also covered comparisons with the GHG emissions saving threshold in the RED as well as recommendations for enhancing data quality and reporting.

Feedback from SBP

SBP noted that quantifying GHG performance is feasible but can be challenging for many schemes due to lack of necessary data infrastructure. Establishing reliable data collection may

take years, and external factors like technical efficiency and energy costs complicate assessments. Reporting GHG trends does not always reflect impact accurately, so careful consideration is needed to ensure data serves the intended purpose. Instead of focusing solely on impact-level data, it may be more practical to evaluate outcomes or outputs that schemes can directly influence, such as compliance or material flows. Additionally, impact attribution is difficult due to external influences, and schemes are relatively small compared to larger global issues.

SBP further highlighted that the methodology for presenting results should be flexible enough to accommodate various approaches while effectively conveying the narratives behind the gaps. Although stakeholders often focus on high-level outcomes, such as whether criteria are met or unmet, the nuances and contextual factors are equally important. To ensure the ongoing relevance of the BMT, SBP recommended establishing an annual check-in to update CSL results and maintain proactive engagement with certification schemes.

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