

Beyond Carbon Intensity

Building a Credible Sustainability Certification Framework
for Maritime Fuels

Global Biofuels Alliance Webinar

Rafael Marques Seixas | Head of Membership, Bonsucro

29 September 2026



What I'll cover in 20 minutes

01 What is Bonsucro and why sugarcane?

02 Fuel Certification and What CORSIA and the EU Renewable Energy Directive already teach us

03 Our asks for upcoming IMO sessions

Sugarcane is everywhere

- Grown in 100+ countries
- Produces 80% of world's sugar
- Powers food, fuel, beverage and biochemical supply chains
- Supports millions of livelihoods
- Extremely versatile



but is under pressure



Environmental



Social



Regulatory

A driver of change

We collectively accelerate the sustainable production and sourcing of sugarcane.



Global platform and standard for more sustainable sugarcane



Bringing stakeholders together, **connecting the entire sugarcane value chain**



Unlocking **opportunities to invest** in sustainability



A world map illustrating the global distribution of human skin pigmentation. The map is color-coded into three categories: dark skin (black), intermediate skin (dark grey), and light skin (light grey). Dark skin is predominantly found in sub-Saharan Africa, parts of South Asia (including India), and Oceania (Australia and New Zealand). Intermediate skin is concentrated in Europe, North Africa, and parts of Central and East Asia. Light skin is most prevalent in North America, Europe, and Northern Asia (Russia).

Countries with Bonsucro members*

A system of standards you can rely on



Bonsucro Production Standards

Comprehensive metric standards for sustainable sugarcane farming and milling.



EU-RED III

Bonsucro is recognised by the European Commission, enabling members to demonstrate regulatory compliance for biofuels and renewable energy.



CORSIA (coming soon)

Bonsucro is recognised under CORSIA, the Carbon Offsetting and Reduction Scheme for International Aviation.



Chain of Custody Standard

Tracks sustainability claims along the supply chain — from certified producer to end product, enabling credible claims.



✓ **Clear sustainability criteria**

✓ **Independent certification**

✓ **Recognised across the sector**

✓ **Make verified sourcing claims**

✓ **Demonstrate regulatory compliance**

✓ **Meet customer & investor expectations**

Our collective impact

Both certification and collective action are needed to create a stronger and more resilient sugarcane supply chain



Source: Results from 12 completed Bonsucro Impact Fund projects



Up to 37%
reduction in chemical
fertiliser use



25-50%
water use efficiency
improvements



6000
farmers trained



40+
mills participated across
4 human rights projects



Up to 68%
yield increases



2200+
workers impacted
by RESAFRA

Source: Bonsucro Outcome Report 2024-25



13%
lower GHG emissions by
certified producers*



31%
lower water use by
farms*



285,000
workers covered by BPS
human rights measures



45%
fewer accidents on certified
farms and 42% fewer in mills*



26%
more land growing
certified sugarcane



14,000~
smallholders are
Bonsucro certified

*within 5 years of certification



Sugarcane: a near-term option for maritime fuel

- International shipping is ~3% of global GHG emissions and among the hardest sectors to decarbonise at scale.
- Sugarcane ethanol is produced at scale in 100+ countries (~25% of global ethanol), fits existing infrastructure, and is increasingly viable as a direct marine fuel via dual-fuel alcohol engines (70 vessels operating, 400 planned)
- Sugarcane residues also feed methanol — already the second-largest alternative marine fuel pathway in the global fleet.



Why certification is key for maritime fuels?

- Sustainability isn't a property of the feedstock. It's a property of how, where, and under what conditions it was produced.
- Certification enables transparency, traceability, and verified data sharing, to substantiate impacts and claims.
- Carbon-intensity scores are necessary but not sufficient on their own — the IMO's own 2024 LCA Guidelines recognise that sustainability risks can't be reduced to a single lifecycle number. That's precisely the gap certification is built to close.



A system built across the whole value chain

From many origins,
with different realities



To many markets, with different
needs



Farmers



Mills



Logistics

Producers



Different realities:

- Scales and resources
- Technologies and practices
- Climate and soil



GAP

Buyers need to understand
production risks:



Human rights



Climate



Land use and biodiversity



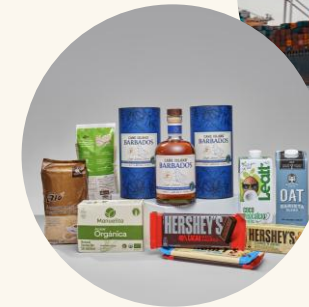
Environmental performance



Data visibility reduced beyond
the first tier



Buyers



Different needs:

- Sustainability due diligence
- Regulatory requirements
- Climate goals
- Traceability obligations



Traders



Processors



End users

What CORSIA and the EU RED already teach us



A combined approach where sustainability certification complements regulation and supports policy objectives

Regulation

Sets the methodology for GHG lifecycle intensity, at the regulatory level.

Provides the legitimacy, consistency, comparability and scientific rigour that regulation affords.

Handles indirect effects like ILUC through a risk-based approach.

Sustainability certification

Verifies compliance at production and supply-chain level, across diverse geographies, translating international requirements into local action.

Covers what lifecycle accounting cannot: land-use change, biodiversity, water stewardship, labour rights, and social impacts.

Provides independent assurance, traceability and data integrity.

A robust, technically-driven and independent recognition process

- Schemes apply directly against published, technical criteria.
- Expert selection prioritises technical competence and freedom from conflicts of interest.
- Publicly available information about the process and assessment



Proportionate traceability requirements combined with strong oversight

- Both EU-RED and CORSIA are adapted to the realities of biofuel production and trading by applying Mass Balance as Chain of Custody model
- Appropriate for global supply-chains, with fungible material and pooled resources and infrastructure. Flexible yet maintaining rigorous controls against over-claiming.
- Recognised certification schemes required to share data and feedback, and to report periodically to the framework authority.



The immediate opportunity: Part E of the Fuel Lifecycle Label

- Every fuel delivery under the IMO Net-Zero Framework must carry a Fuel Lifecycle Label — Part E is dedicated to sustainability certification.
- The criteria for Part E are still being shaped.
- A narrowly drawn Part E, limited to carbon accounting, would undermine the sustainability architecture the IMO has already adopted in its own LCA Guidelines.
- This is the most consequential near-term decision point for certification schemes in the whole process.



The goal: One credible system, trusted by Member States, markets and civil society, to ensure alternative maritime fuels not only reduce emissions, but contribute to thriving communities and ecosystems.

- Keep certification and lifecycle accounting as two distinct roles, as CORSIA and the EU RED do.
- Make the SFCS recognition process technically driven, independent, and consistently applied.
- Draw Part E of the Fuel Lifecycle Label from the full set of Section 7 sustainability themes, but don't let perfection beat progress.
- Apply a Mass Balance Chain of Custody model (already operational and suited to the sector).
- Engage in the ISWG-GHG 23 /MEPC 85 consultations while Part E criteria are still being shaped

Reach out to Bonsucro's team for technical input: we stand ready to support Member States, the IMO Secretariat, and other stakeholders.

Thank you



Scan to join our
community

