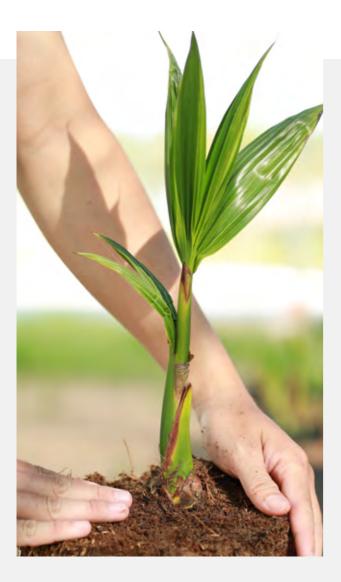


# CARBON FOOTPRINT IN OPERATIONS

Betrimex understands that accurately measuring and actively reducing environmental impact is essential to achieving sustainable development goals. This report presents Betrimex's operational carbon footprint and highlights key efforts and commitments aimed at reducing greenhouse gas emissions.



# OPPORTUNITIES AND CHALLENGES

In the face of accelerating global climate change and increasing international commitments, businesses are under growing pressure to control and reduce greenhouse gas emissions. Vietnam has pledged to achieve Net Zero emissions by 2050 under the COP26 Declaration and has enacted a range of regulations and policies to promote sustainable development, most notably the 2020 Environmental Protection Law and the National Strategy on Climate Change to 2050.

These legal regulations and trends present both opportunities and challenges as Betrimex advances our Zero Waste strategy. On one hand, they open doors for Betrimex to enhance our competitive edge through low-carbon products, expand into green markets, and forge deeper partnerships with stakeholders who share the same vision of sustainable development. On the other hand, these opportunities are accompanied by challenges, such as high capital investment in clean technologies, complexity in measuring and monitoring emissions in a transparent and consistent manner, and the ongoing need for improvements in carbon accounting.

Organic coconut cultivation spans

10,581 hectares

Resulting in a reduction of 210 tCO<sub>2</sub>e/ year compared to conventional farming practices<sup>(\*)</sup>

14,705<sub>tCO2e/year</sub>

Reduction in emissions achieved by using biomass fuel for boiler operations instead of fossil fuels (\*\*\*)

1,478 tCO2e/year

Reduction in emissions achieved by using solar energy instead of grid electricity(\*\*)

Eliminating the use of

23,254 paper docum

A pioneer in adopting innovative digital solutions for electronic documentation

**55**%

Water regeneration rate

Packaging waste recycled through professional

recycling service

**13** types

Eco-friendly secondary packaging materials developed

(\*) Reference: IPCC 2019, FAO (Food and Agriculture Organization) Emission factor for conventional coconut farming: 0.05-0.11 tCO₂e/ha/year. Emission factor for organic coconut farming: 0.02-0.04 tCO₂e/ha/year.

(\*\*) Reference: Vietnam's Third Biennial Update Report (BUR3) to UNFCCC (2023)

Emission factor for Vietnam grid electricity: 0.4826 kg CO₂e/kWh

(\*\*\*) Reference: IPCC 2006, suppliers' data

Emission factor for coal: 2.67 kg  $CO_2e/kg$  fuel. Emission factor for husk: 1.63 kg  $CO_2e/kg$  fuel

#### **SUPPLY CHAIN AND PRIMARY EMISSION SOURCES**

# Supply chain overview

Betrimex's supply chain spans the entire value chain, from raw material sourcing and production to packaging, transportation, and distribution. As part of the 2024 greenhouse gas (GHG) emissions inventory, Betrimex identified primary emission sources as follows:

Scope 1

Emissions from on-site fuel combustion at factories (boilers, backup generators) and company-owned transportation vehicles.

Scope 2

Emissions from electricity purchased from the national grid, primarily used at factories and offices at Phong Nam Factory.

# 2024 greenhouse gas emissions inventory results(\*)



Scope 2

Indirect emissions from purchased energy

10,956 tco.e

In 2024, Betrimex completed our first comprehensive GHG emissions inventory to assess the actual impact of the value chain on the environment. This marks a significant milestone in our transition towards carbon neutrality and alignment with international standards. **GHG emissions data are calculated with reference to the 2006 IPCC Guidelines and have been independently verified by a third party.** 

For further details, please refer to the 2024 Sustainable Development Report - Section I.2 Independent Assurance Report. (\*) Assured indicators



#### **CARBON FOOTPRINT IN OPERATIONS**

#### CARBON EMISSION REDUCTION ACROSS THE VALUE CHAIN

In pursuit of sustainable development and reduced environmental impact, Betrimex has implemented a comprehensive suite of ESG initiatives since 2019 to cut carbon emissions across our entire value chain. These initiatives span consistently from raw material sourcing and production to supporting activities, contributing to resource optimization and transition to the circular economy model.

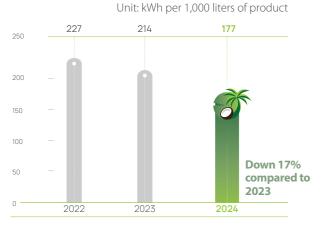
#### Scope 1 & 2

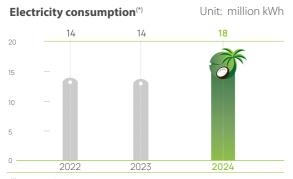
EMISSIONS FROM FACTORIES - TOWARDS CARBON NEUTRALITY AND OPERATIONAL EFFICIENCY



- 816.85 tCO<sub>2</sub>e/year reduction in emissions achieved by using solar energy instead of grid electricity (\*\*)
- 14,705 tCO2e/year reduction in emissions achieved by using biomass fuel for boiler operations instead of fossil fuels (\*\*\*)
- 67% of LED light usage in the factory.
- Ongoing improvements in production processes optimize energy efficiency and reduce overall energy consumption, leading to lower direct emissions from production activities and indirect emissions from electricity usage.
- Waste heat recovery and reuse during production help minimize additional energy demand, resulting in lowered direct fuel consumption at factories.
- Reducing raw material loss contributes to resource optimization by minimizing material waste and lowering emissions across production processes. Efficient material usage also reduces the need for new resource extraction and cuts down energy consumption in both production and waste treatment.

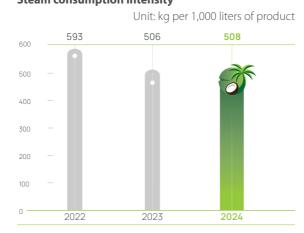
### Electricity consumption intensity (grid electricity and solar power)





#### (\*) Assured indicators

#### Steam consumption intensity





#### Scope 1, 2 & 3

# EMISSIONS FROM SUPPORTING ACTIVITIES - RESOURCE OPTIMIZATION



- Betrimex implements waste segregation systems throughout the entire factory, including cafeteria areas.
- In cafeterias, organic waste is separated at source and repurposed as fertilizer. This practice not only reduces landfill waste but also lowers methane (CH<sub>4</sub>) emissions - a greenhouse gas significantly more potent than CO<sub>2</sub>
- Additionally, in 2024, Betrimex **partnered with professional recycling service provide**rs to process 60 tons of packaging waste generated during production.
- The use of electric or biofuel-powered vehicles for internal logistics helps reduce CO<sub>2</sub> emissions from fossil fuel vehicles, directly contributing to greenhouse gas emission reductions.
- Upgrading office equipment to **energy-efficient alternatives** helps reduce electricity consumption, which in turn lowers the demand for electricity generation a significant source of greenhouse gas emissions, especially when the electricity is sourced from the national grid, which still relies heavily on fossil fuels.

#### Scope 3

# EMISSIONS FROM RAW MATERIAL AREAS - CUTTING EMISSIONS FROM THE SOURCE



- Betrimex has applied high-tech agricultural models over 10,581 hectares of organic coconut plantations. These practices enhance soil regeneration, boost carbon sequestration, and significantly reduce greenhouse gas emissions from cultivation activities. Additionally, they promote biodiversity conservation and restore natural ecosystems, laying a sustainable foundation for the coconut supply chain.
- With organic coconut plantations covering 10,581 hectares, Betrimex achieved a reduction of 210 tCO<sub>2</sub>e per year compared to conventional farming methods.<sup>(\*)</sup>
- Betrimex is actively expanding our raw material areas to 15,000 hectares and gradually transitioning towards regenerative farming practices. Coconut trees naturally act as carbon sinks, absorbing CO<sub>2</sub> from the atmosphere and improving ambient air quality. Scaling up organic farming not only accelerates carbon removal from the environment but also fosters eco-resilient landscapes for farming communities.



#### **GOVERNANCE SYSTEM AND STRUCTURE**

To realize our sustainable development goals and comply with evolving greenhouse gas regulations, Betrimex has established a robust governance framework for the measurement, management, and reporting of emissions. This system not only ensures transparency and accuracy in information disclosures but also optimizes governance efficiency by strengthening oversight from management to leadership and relevant departments.

# Organizational structure and key participants

**ESG Section** 

Primary coordinator in strategy development, measurement methodology establishment, and data collection.

Manufacturing Division
Agro Department

Propose and execute emissions reduction initiatives at factories, and monitor energy use and operational efficiency.

System Management Division Risk Management - Process -Compliance Department

Ensure accurate collection of emissions data from factories while overseeing compliance with environmental standards.

**Procurement Department** 

Collaborate with suppliers to collect emissions data across the supply chain and promote solutions aimed at reducing emissions from input materials.

Administration Section Logistics Section

Oversee emissions-related activities across internal operations, including energy management, fleet operations, and green office initiatives.

# Responsibility for monitoring and reporting to leadership

#### Oversight responsibility

The leadership team holds direct responsibility for overseeing and guiding the company's greenhouse gas reduction strategy.

#### Internal reporting

- Emission data is collected every quarter, then reported to the Board of Management.
- Betrimex conducts a comprehensive GHG emissions inventory each year, based on international standards (e.g., IPCC methodology), and develops updated emission reduction roadmaps.

### External reporting mechanisms to authorities and stakeholders

Recognizing the importance of clear and transparent information disclosure, Betrimex is fully committed to reporting environmental data in a manner that is both transparent and compliant with greenhouse gas emissions regulations. The following reporting mechanisms are currently implemented at Betrimex:



**Betrimex** reports our GHG emissions in line with Decree No. 06/2022/NĐ-CP and related guidelines on emissions inventory. Reports are submitted to the Ministry of Natural Resources and Environment.



**Report:** Emission measurement results and reduction efforts are publicly disclosed in the company's Annual Sustainable Development Report.



#### Reports to international partners:

For customers and investors focused on ESG, Betrimex provides emissions data in alignment with sustainability standards such as GRI, CDP, and criteria established by green finance institutions and sustainability frameworks.

#### MEDIUM AND LONG-TERM DIRECTION

# Advancing towards a more robust emission management system

Betrimex is working towards finalizing our emissions measurement and monitoring system through digitalization, utilizing emissions data management software to improve accuracy and streamline reporting. At the same time, Betrimex is accelerating carbon reduction initiatives, with a long-term vision of achieving carbon neutrality. Key strategic directions include:



- Transition 100% of internal transportation vehicles to electric or biofuel-powered alternatives.
- · Reduce emissions from forklifts and other vehicles used to move materials across the factory.
- Adopt energy-saving technologies and utilize biomass from coconut shells as an alternative fuel to replace fossil fuels.



- Scale up renewable energy usage, targeting an 80% share of clean energy in total electricity consumption.
- Expand solar power systems to reduce emissions from electricity consumption.
- Replace conventional systems with LED lighting, energy-efficient HVAC systems, and high-performance electric motors to reduce electricity consumption.







- Enhance packaging sustainability by increasing the proportion of recycled and recyclable
- Promote the processing of coconut fiber, activated carbon, and coconut oil byproducts to avoid resource waste and reduce emissions from organic waste.

#### INFORMATION TRANSPARENCY AND COMMITMENT

Betrimex maintains a firm commitment to transparent disclosure of greenhouse gas emissions and reduction efforts. Progress on key initiatives, including GHG inventory results, the Zero Waste roadmap, and carbon offset projects, will be consistently and transparently disclosed in the company's Annual Sustainable Development Report.