



07

**ZERO/LOW CARBON FUELS**, such as renewable natural gas and green hydrogen, provide a significant future opportunity to reduce carbon emissions in processes that have traditionally consumed natural gas. Natural gas is the primary fuel utilized in our global manufacturing sites. Our procurement team continues to scout for suppliers with the capability to provide renewable natural gas at cost parity to conventional natural gas. Our customers are focusing on cost competitive ingredient formulations, and maintaining a competitive cost is an important consideration for them. Green hydrogen is a potential long-term solution, and we continue to monitor technology opportunities for it to become cost competitive.

A portion of our sites utilize anaerobic wastewater treatment processes, which produce biogas, a sustainable option to conventional natural gas. In our Kalasin, Thailand, facility, we invested in biogas storage infrastructure to enable our site to consume all biogas produced locally.

70%

**of the produced biogas at our sites globally is already being used in other areas of the process, such as energy for product dryers.**



08

**ELECTRIC VEHICLES** present a very low magnitude impact for Ingredion's Scope 1 and 2 emissions because our supply chain model almost exclusively includes third-party transportation suppliers. The majority of our transportation-related emissions are reported in Scope 3. Ingredion only has a small number of leased vehicles for employee transportation globally, and our procurement team is working with local vendors to evaluate options along with electrical charging infrastructure requirements.

09

**PROCESS ELECTRIFICATION**, when coupled with renewable electricity, also creates a pathway for carbon emissions reductions. Deployment of this pathway is best suited for greenfield builds, plant expansions or the replacement of obsolete equipment. We continue to evaluate new technologies that could be applied to our process as an economic alternative to conventional natural gas fueled equipment.





LEVER: **Capture CO<sub>2</sub>**

## 10 CARBON CAPTURE, SEQUESTRATION AND UTILIZATION

technologies have been evaluated for Ingredion's corn wet milling processes with a third-party consultant. The flue gas streams from our corn wet mill operations that are potential targets for carbon capture possess a relatively low CO<sub>2</sub> concentration compared to other processes, such as fermentation that produce a high concentration CO<sub>2</sub> stream. The low CO<sub>2</sub> concentration stream impacts the economic feasibility of utilizing the current carbon capture technology available, but we continue to monitor the technological advances in this area.

LEVER: **Offset**

## 11 PURCHASED OFFSETS

are not a priority for Ingredion at this time because we have prioritized reducing our physical emissions in our operation.

Ingredion's existing STBi Scopes 1 and 2 GHG reduction goal aligns with Well-below 2°C and the Paris Agreement. We remain focused on trying to identify a pathway to a Scope 1 and 2 SBTi 1.5°C target, which is required before we can have a validated Net Zero target as well. We believe that the SBTi methodology establishes criteria aligned with our own beliefs that reducing physical emissions in our value chain is essential to mitigating climate change.

2024

Our strategy to reduce Scope 3 emissions is focused on the categories that are most relevant to our supply chain emissions. The pathways to reductions in these high priority categories include:

CATEGORIES

**Purchased Goods and Services**

**Transportation**

**Processing of Sold Product**

PATHWAYS

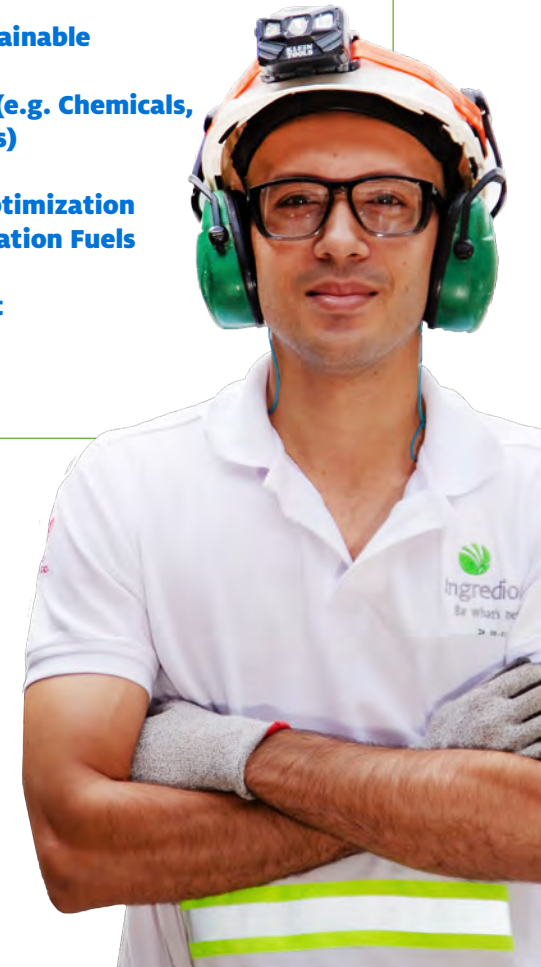
**1. Regenerative and Sustainable Agriculture**

**2. Supplier Engagement (e.g. Chemicals, Packaging, Ingredients)**

**3. Mode and Logistics Optimization**

**4. Alternative Transportation Fuels**

**5. Customer Engagement**





## 01 SUSTAINABLE AND REGENERATIVE AGRICULTURE

is a foundational component of Ingredion's All Life Sustainability strategy. In 2024, we achieved approximately 85% of our Tier 1 crops (corn, tapioca, potato, stevia, pulses) as sustainably sourced.

**74K**

acres of crops are in regenerative programs, covering corn sourced for Brazil, Mexico and the US.



In our grower engagements, we work with farmers to collect farm-level information related to issues such as fertilizer use in applications like the Cool Farm Tool. Through our partnership with HowGood, we are evaluating integration of on-farm sustainability data with our global GHG reporting using their new FieldScope tool.



In 2024, we focused on improving the quality of our FLAG (forest, land and agriculture) Scope 3 calculations. We transitioned to using HowGood emissions data for agriculture raw materials, such as corn, tapioca, and stevia, that comprehensively include farm-to-farm gate emissions, land use change and carbon removals estimates.

## 02

**SUPPLIER ENGAGEMENT** related to GHG emissions reductions associated with the materials we purchase is an important lever for reducing our Scope 3 emissions. We have completed a supplier segmentation to better understand which suppliers are estimated to be the highest contributors to Ingredion's Scope 3 emissions on a spend-based analysis. In 2024, we evaluated several software vendors with solutions for Scope 3 calculations and supplier engagement. System implementation will start in 2025, and we look forward to scalable supplier data collection and engagement being enabled by this new capability.

### CATEGORIES **Transportation**

## 03

**MODE AND LOGISTICS OPTIMIZATION** are avenues to optimize our carbon footprint and delivery costs. Air freight is an extremely carbon-intensive form of transportation compared to other modes (e.g. truck, rail, ocean). Our Global Supply Chain team leads a Sales and Operations Planning process that aims to accurately forecast customer demand and optimize production globally to meet on-time customer deliveries. In 2024, the global spend on air freight was minimal, and does not provide a significant current opportunity to reduce emissions. Our Global Supply Chain team is also working to deploy technologies and processes to optimize loads and routings.

## 04

**ALTERNATIVE TRANSPORTATION FUELS**, such as advanced biofuels for ocean freight or electric truck transportation, are in their early stages of adoption. We have piloted electric trucks in Brazil and China where the routes align with this technology and its current cost and range. Our procurement team continues to work with potential vendors to identify viable use cases to pilot this technology.



**05 CUSTOMER ENGAGEMENT** related to the GHG emissions associated with the process of our product in their facility has not yet started. We aim to begin the initial engagement process with our customers with similar sustainability objectives as Ingredion. This will enable further product collaborations related to GHG reductions and primary data that can be utilized in our Scope 3 calculations.

## Making Significant Strides Toward Our Renewable Energy Commitment

As indicated in our carbon transition plan, renewable energy plays a strategic role in our global carbon reduction strategy. 2024 saw our renewable electricity increase to approximately 32% of our global purchased electricity, with the largest year-over-year increases occurring in our LATAM segments. In addition to purchased electricity, we also expanded our use of on-site renewable energy throughout the year. We commissioned floating and land solar panels at two facilities in Thailand, and these join existing renewable electricity infrastructure in Colombia and Pakistan. We also had a full year of operations at our two biomass plants in Brazil with our partner ComBio.



## Maintaining Water Stewardship Across Our Operations

Water is a critical resource for our operations, and we are committed to responding to current and future water risks in the communities where we operate. Our global operations network uses a Manufacturing Excellence team to recommend best practices in our operational routines, equipment and technologies. This allows us to share learnings across our global organization and adapt quickly. We identified Mexico as an extremely high water-stress region that needs strong focus. In the previous decade, our Mexico team has already executed on the easier opportunities to reduce water use intensity.

In 2024, our Mexico operation had flat progress to our 2019 baseline. This represents a 2% increase in water consumption compared to the previous year. Early in the year, there were some operational issues which led to higher water use that was later resolved. In 2024, we completed an anaerobic wastewater treatment project at our San Juan del Rio plant that will enable more water recovery for cooling starting 2025.







## Reducing Waste Across Our Operations

In 2024, we continued to work across our global operations to drive avoidance of waste to landfill.

92%

of total waste is diverted from going to landfills or incinerations without energy recovery (an improvement from 90% in 2023).



At our North Kansas City plant, we made improvements to the manufacturing and wastewater processes that reduced the amount of liquid waste and solid waste going to landfill. This project was achieved through multi-functional collaboration, resulting in a 75% reduction in solid waste to landfill versus 2019 base year.



2024

## 17 Plants Achieving Zero Waste to Landfill

Ingredion defines Zero Waste as <0.5% of the plant's solid waste going to landfill or waste incineration without energy recovery.

