



Certificate in ESG Management Program by SET & Sasin

Self-paced online learning program

M1 Module 1 ESG Fundamentals

- S1** Session 1 Introduction to ESG
- S2** Session 2 ESG Management: Environment
- S3** Session 3 ESG Management: Social
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M2S2

Module 2 ESG Integration Management Session 2 Integration - Case Studies



แผนผังบทเรียน



M1S1

Module 1 ESG Fundamentals
Session 1 Introduction to ESG

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Module 1 ESG Fundamentals
Session 2 ESG Management: Environment

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Module 1 ESG Fundamentals
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Session 4 ESG Management: Governance

M2S1

Module 2 ESG Integration Management
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Module 2 ESG Integration Management
Session 2 Integration - Case Studies

M3S1

Module 3 ESG Disclosure
Session 1 ESG Disclosure

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Module 3 ESG Disclosure
Session 2 Data Management

M3S3

Module 3 ESG Disclosure
Session 3 ESG Performance Assessment and Indices

วัตถุประสงค์การเรียนรู้

โครงสร้างหลักสูตร	วัตถุประสงค์การเรียนรู้
Module 2 ESG Integration Management Session 2 Integration - Case Studies	
Integration - Case Studies	อธิบาย บทเรียนจากกรณีศึกษาที่เกี่ยวข้องกับ ESG Integration อาทิ ปัจจัยสำคัญที่นำไปสู่ความสำเร็จหรือล้มเหลวในการบูรณาการ ESG และผลกระทบที่มีต่อผู้มีส่วนได้ส่วนเสีย เป็นต้น เพื่อประยุกต์ใช้กับองค์กรของตนเอง

แนะนำวิทยากร

M2S2

Module 2 ESG Integration Management
Session 2 Integration - Case Studies

วิทยากร

คุณบุษยดา ยิ่งเฟื่องมนต์



M2S2

Module 2 ESG Integration Management

Session 2 Integration - Case Studies

1. **Case Study 1 (Indorama Ventures)**
2. Case Study 2 (The Coca-Cola Company)
3. Key Takeaways



DILIP KUMAR AGARWAL

- Deputy Group CEO and Group Chief Financial Officer
- Member of the Sustainability and Risk Management Committee

“Business strategic imperative requires ESG action and commitment to turn our vision and purpose into values and impacts that can make a difference”



Purpose: Reimagining chemistry together to create a better world.

Vision: To be a world-class sustainable chemical company producing indispensable chemistry that touches billions of lives every day.

Indorama Ventures Materiality Topics



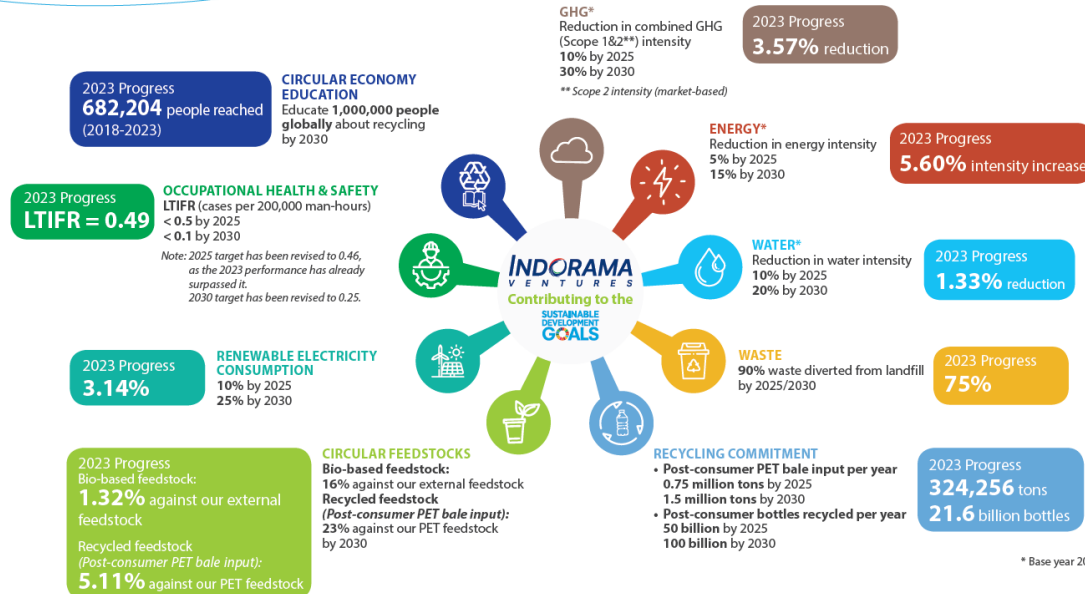
Indorama Ventures Sustainability Ambitious

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PERFORMANCE IN OUR SUSTAINABILITY AMBITIONS

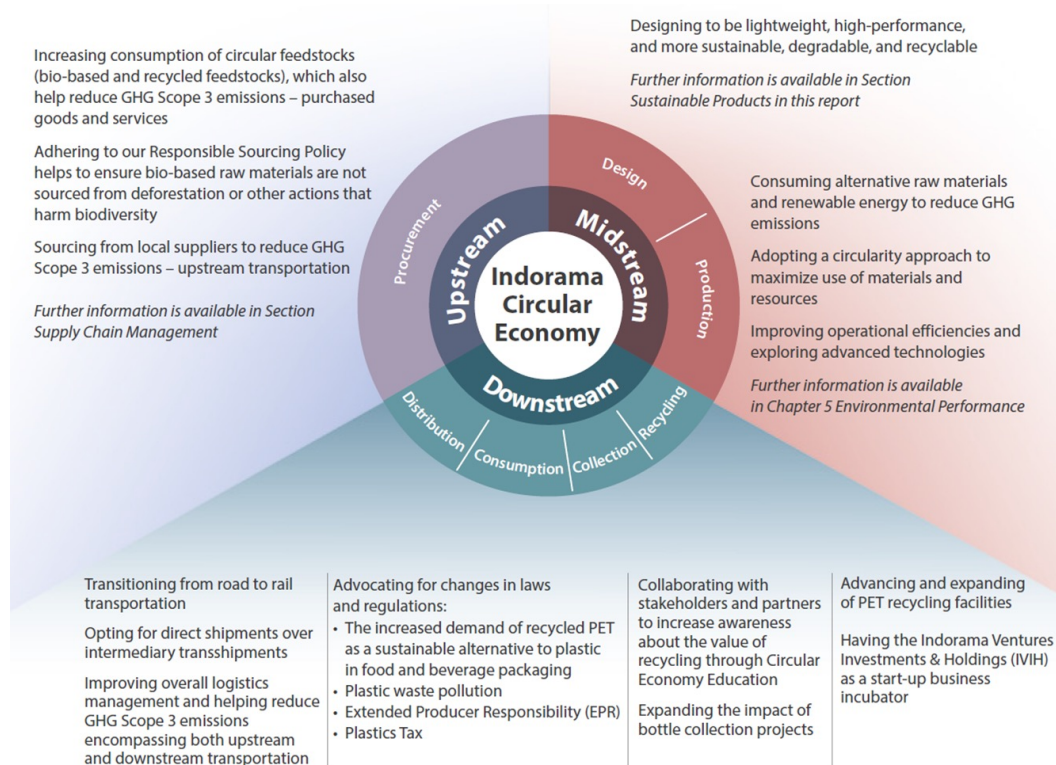


FOR MORE INFORMATION



* Base year 2020

Overview of Circularity Across Value Chain



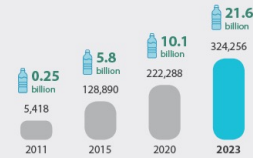
Overview of Circularity Across Value Chain

CIRCULAR ECONOMY - RECYCLING



Post-consumer PET bale input for recycling

• Unit: Tons
• Unit: Bottles

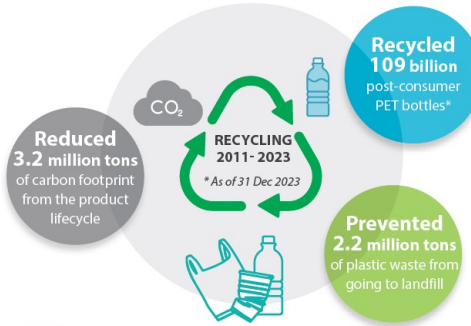


The PET bottles figure uses an average weight and an overall height of on-the-go PET water and soda bottles, equivalent to the volume recycled at Indorama Ventures recycling sites between February 2011-December 2023. Weighting shall be referenced to The International Bottled Water Association.

Circular Feedstock

Target
Recycled feedstock (Post-consumer PET bale input): **23%** against our PET feedstock by 2030

Performance
In 2023, we recorded **5.11%** against our PET feedstock.



CELEBRATE WITH US

As of September 25, 2023, we successfully recycled 100 billion post-consumer PET bottles (since 2011) - and counting



Our real-time bottle recycling counter is available on our website.

2023 HIGHLIGHTS

Joint effort with Everts and AMB through the 'Tray-to-Tray Recycling' program to produce recycled PET (rPET) flakes for food packaging trays

Expansion of PET Recycling Capacity in Brazil, (from 9,000 tons to 25,000 tons per year), supported by a 'Blue Loan' from the International Finance Corporation (IFC), a member of the World Bank.

WHAT IS THE IMPACT OF RECYCLING 100 BILLION PET BOTTLES ?

Between February 2011 and September 2023, Indorama Ventures, a sustainable global chemical company, has now reached the milestone of recycling 100 billion PET bottles.

HERE ARE THE KEY NUMBERS IN THIS JOURNEY

2.1 MILLION TONS
of waste diverted from the environment

2.9 MILLION TONS
carbon footprint reduction.

1 MILLION PEOPLE
to be educated on recycling by 2030, by Indorama Ventures.

26+ TRIPS TO MOON & BACK
equivalent length of 100 billion PET bottles stacked end to end.

HOW WE ARE MAKING THIS POSSIBLE

US\$1 BILLION+
spent by Indorama Ventures in the last 10 years towards waste collection systems for used PET bottles, helping the circular economy.

608
PET bottles recycled per second by 20 Indorama Ventures recycling sites.

THANK YOU FOR RECYCLING!
PET, made to be remade.

www.indoramaventures.com



Visit our real-time recycling counter here



Overview of Circularity Across Value Chain

CIRCULAR ECONOMY EDUCATION



2023 HIGHLIGHTS

Indorama Ventures, in collaboration with Yunus Thailand, has introduced the Waste Hero Education program, a free-to-use teaching resource. This global resource for teachers includes 19 meticulously crafted lesson plans focused on Recycling Fundamentals, Creating Zero Waste, and Building the Circular Economy.

Predominantly, over 7,236 educators applied the Waste Hero teaching resources in the classroom that reached to 413,056 students in more than 83 countries, and 26 international organizations engaged and still counting.

We cooperate in disseminating the program with strategic partners for global implementation and localization:



Scale up the 15 promotional campaigns and engage with 10 influencers and 5 affiliates.



Promote the utilization of education resources at more than 1,000 schools across Southeast Asia.



Reach more than 4 million educator communities throughout the United States



Southeast Asia Waste Hero has a Social Return 4.49 times* the social value.

* This calculation is based on the social impact data gathered from teachers in Indonesia and the Philippines who participated in the Southeast Asia Waste Hero Training Session in 2023.



Indorama Ventures, in partnership with the Education Bureau under the Bangkok Metropolitan Administration (BMA), organized training sessions on sustainable plastic waste management at 100 BMA schools, reaching 11,593 students and teachers. We also hosted a school model competition, with 87 BMA schools participating. These schools showcased their practical application of knowledge in managing plastic waste within their schools.

2023 PERFORMANCE



437,465
people reached



860
schools and universities engaged



141
training sessions



15
events to promote Circular Economy



525
teaching hours



6
Thai companies joined the Circular Economy program



26
international organizations received Waste Hero Education materials and knowledge

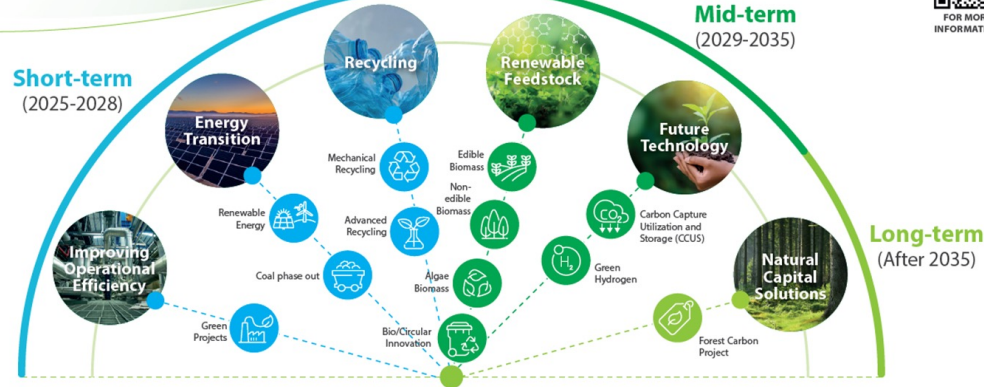
Decarbonization in Operations

DECARBONIZATION

Short-term
(2025-2028)

Mid-term
(2029-2035)

Long-term
(After 2035)



Decarbonization Strategies - Driving Towards Sustainable Future



2023 HIGHLIGHTS

In 2023, IVL Dhunseri Petrochem Industries Private Limited in India successfully converted a hot oil coal heater to natural gas, resulting in an estimated **GHG savings of 35,000 tCO₂e annually**. This marks a significant step towards our overarching goal of achieving a **100% coal phase-out by 2030**.

From 2020 to 2023, we achieved a **reduction of 264,000 tCO₂e**, which equates to **3.8% of our Scope 1 baseline emissions**, through decreased coal usage. Our journey to phase out coal from our operations is underway and we have initiated several coal reduction projects. We are actively evaluating fuel transition technologies, with site readiness and alternative fuel availability being key factors under thorough examination.



Indorama Ventures has been awarded by CDP:

- a "B" rating for Climate Change Management
- a "B-" rating for the first year of assessment on Water Security

Decarbonization in Operations

ENERGY MANAGEMENT

- Reducing energy consumption is one of IVL's key efforts in decarbonizing our portfolios as IVL strive towards a sustainable future
- The commitment involves pursuing efficient energy consumption and management across all operations within IVL's business segments, aiming to significantly reduce carbon footprint.

RENEWABLE ENERGY AND ELECTRICITY

[GRI 3-3, 302-4, 305-5]

To reduce GHG emissions, we are driving a shift towards renewable energy by strategically increasing its consumption at operations with reliable supply and grid compatibility. Our solar energy generation projects, coupled with exploring Virtual Power Purchase Agreements (VPPAs) in the U.S. and Europe, remain our focus in order to achieve our 2030 renewable electricity consumption target. With this in mind, our renewable electricity consumption in 2023 was 3.14% of our total electricity consumption.



Renewable Electricity Consumption
(2020 baseline)

Target
10% by 2025 and 25% by 2030

Performance
In 2023, Indorama Ventures consumed **3.14%** of renewable electricity against total electricity consumption.

HIGHLIGHTS
From 2014 to 2023

16 Onsite / Offsite solar installations in China, India, Indonesia, Thailand, Lithuania, USA, Italy, and Egypt	98,878 MWh of solar based renewable electricity generated and used in plants	49,162 tCO₂e of total cumulative GHG reduction from renewable electricity consumption
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GHG (SCOPE 1 & 2) MANAGEMENT

[GRI 3-3, 305-1, 305-2, 305-4, 305-5]

2023 HIGHLIGHTS

138,750 tCO₂e GHG reduction from renewable energy consumption, including renewable electricity and biomass (Location-based)	GHG emissions for Scopes 1, 2, and 3 (9 categories) were verified by an external auditor	\$ 13.1 million CAPEX investments for GHG reduction projects
100% GHG accounting, verification, and assurance in accordance with ISO 14064-1 and ISO 14064-3	GHG emissions reduction projects 11 Completed in 2023 6 Ongoing as of year-end 2023	

GHG (Scope 1 & 2*) Intensity Reduction
(2020 baseline)

Target
10% by 2025 and 30% by 2030

*Scope 2 intensity (market based)

Performance
In 2023, we recorded an intensity of **0.5911 tCO₂e/ton**, a **3.57%** reduction against 2023 target.

Our absolute GHG emissions (Scope 1 & 2) were recorded at 9.6 million tCO₂e, with 74% coming from processes (Scope 1) and 26% from electricity, heat, and steam procurement (Scope 2). In 2023, our focus regarding GHG management was to drive green projects to reduce overall GHG emissions through improving operational eco-efficiency and transitioning to low-carbon intensive fuels such as natural gas. However, due to the energy price crisis, we had to retain conventional fuels to maintain the cost of operations. Consequently, our GHG emissions intensity decreased by 3.57% compared to 2020, resulting in 0.5911 tCO₂e/ton of production (Market-based).



Decarbonization in the Supply Chain

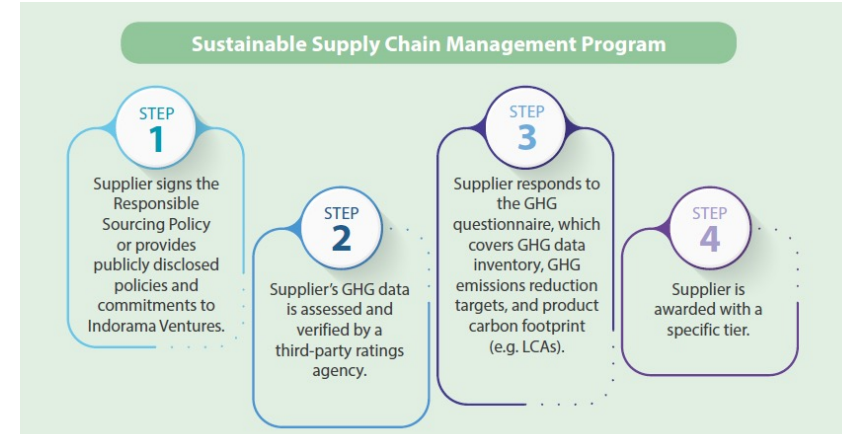
Applying GHG Scope 3 accounting also helps IVL to reduce the carbon footprint of products in the supply chain. This is done by

- Sourcing local feedstocks
- Utilizing the most efficient transportation modes and patterns for upstream and downstream activities
- Reducing waste generated in company's own operations

Company engage with suppliers for value chain decarbonization including collection of necessary GHG data at the product level as part of **Sustainable Supply Chain Management Program**.

Scope 3 Category	tCO ₂ e in 2023
Purchased goods and services (including Nitrogen)	22,881,050
Capital goods	533,387
Emissions from electricity (T&D, WTT)	843,938
Emissions from fuels (WTT)	841,191
Upstream transportation	665,855
Waste generated in operations	214,770
Business travel	24,488
Employee commuting	42,965
Downstream transportation	1,670,940
Use of sold products	1,807,773

Sustainable Supply Chain Management Program



M2S2

Module 2 ESG Integration Management

Session 2 Integration - Case Studies

1. Case Study 1 (Indorama Ventures)
- 2. Case Study 2 (The Coca-Cola Company)**
3. Key Takeaways

The Coca-Cola Company

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“

Our strategy is clear. It's centered around people—our consumers and employees—and driving sustainable solutions that build resilience into our business to respond to current and future challenges, while creating positive change for the planet.”



The Coca-Cola Company's purpose is to refresh the world and make a difference.

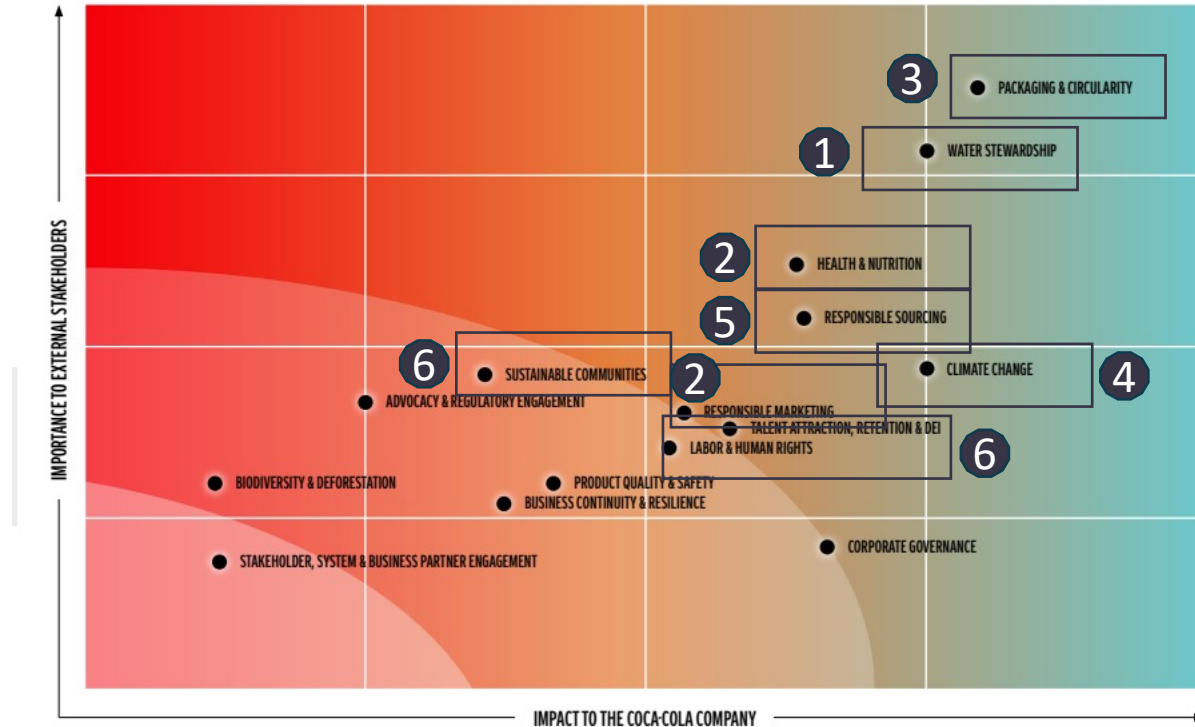


James Quincey
Chairman and CEO

The Coca-Cola Company

Priority Topics







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The Coca-Cola Company

Goals and 2022 Progress

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1	2	3	4	5	6
WATER LEADERSHIP 	PORTFOLIO 	PACKAGING 	CLIMATE 	SUSTAINABLE AGRICULTURE 	PEOPLE & COMMUNITIES 
<p>Achieve 100% regenerative water use across 175 facilities identified as facing high levels of water stress by 2030</p> <p>Work with partners to help improve the health of 60 watersheds identified as most critical for the system's operations and agricultural supply chains by 2030</p> <p>Aim to return a cumulative total of 2 trillion liters of water to nature and communities globally, between 2021-2030</p>	<p>Offering drinks with reduced added sugar</p> <p>Offering more drinks with nutrition and wellness benefits</p> <p>Providing clear nutrition information on packaging and in our communications</p> <p>Marketing our drinks responsibly</p>	<p>Make 100% of our packaging recyclable globally by 2025</p> <p>Use at least 50% recycled content in our packaging by 2030</p> <p>Collect and recycle a bottle or can for each one we sell by 2030</p> <p>Reduce our use of virgin plastic derived from non-renewable sources by a cumulative 3 million metric tons between 2020-2025¹</p> <p>By 2030, we aim to have at least 25% of our beverages worldwide by volume sold in refillable/returnable glass or plastic bottles or in fountain dispensers with reusable packaging</p>	<p>Reduce absolute emissions by 25% by 2030 against a 2015 baseline</p> <p>Ambition to achieve net zero emissions by 2050</p>	<p>Sustainably source 100% of priority agricultural ingredients over time</p>	<p>Mirror the markets we serve by 2030</p> <ul style="list-style-type: none"> • Aspire to be 50% led by women globally • Align U.S. race/ethnicity representation to U.S. census data across all job levels
<p>Replenished 159% of the water we use in our finished beverages</p> <p>291 billion liters of water returned to nature and communities in 2022</p>	<p>~68% of the products in our beverage portfolio have less than 100 calories per 12-ounce serving</p> <p>29% of our volume sold in 2022 was low- or no-calorie</p>	<p>90% of our packaging is recyclable</p> <p>15% of PET used is recycled PET (rPET)</p> <p>61% of our packaging collected for recycling²</p>	<p>7% decline in absolute emissions since 2015 toward a 25% science-based reduction target by 2030</p> <p>Renewable electricity usage increased from 12% in 2021 to 21% in 2022</p>	<p>64% of priority ingredients sustainably sourced to Leader standard in line with our Principles for Sustainable Agriculture</p>	<p>39% of senior leadership positions held by women⁴</p>

The Coca-Cola Company

Water Leadership

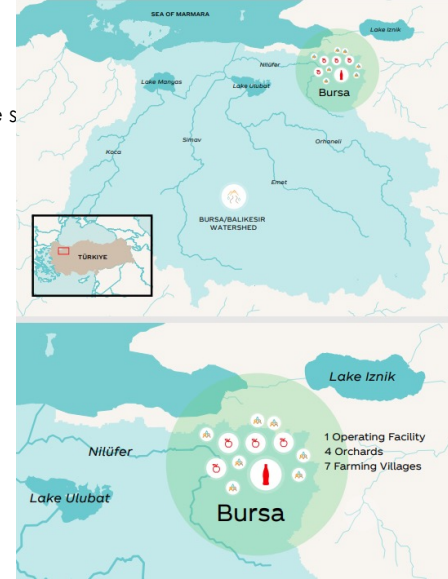
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- Water is a priority for The Coca-Cola Company because it is essential to life, Coca-Cola beverages and the communities we serve.
- 159% of the water used in Coca-Cola finished beverages returned to nature and communities in 2022.

Making the Greatest Impact Where It Matters Most by Doing What Matters Most

- An operating facility in Türkiye, in the city of Bursa in the north-west of the country, is located in a water stressed area.
- The Bursa/Balikesir watershed is priority because it serves as a water source for the facility.
- Also, it supports the growing of apples, peaches and nectarines that are sourced as ingredients in Coca-Cola products.
- **Operation:** Working with a third-party consultancy to screen options for improving water efficiency in operations
- **Watershed:** Developing a watershed stewardship plan which includes:
 - Supporting farmers to improve irrigation efficiency and reduce water contamination,
 - Reforestation efforts to help filter water pollution and regulate precipitation and evaporation flows, and
 - Helping communities to install rainwater harvesting systems
- **Communities:** Improving 500 acres of land growing apples, peaches, nectarines and tomatoes, which are major water users, by installing sensors and drip irrigation:
 - Estimated 20% increase in water efficiency for apple, peach and nectarine production and a 50% increase for tomato growing
 - Reduce costs and increase profitability for the farmers
 - Replenishment of approximately 500 million liters of water per year
 - Traceability is an opportunity for improvement



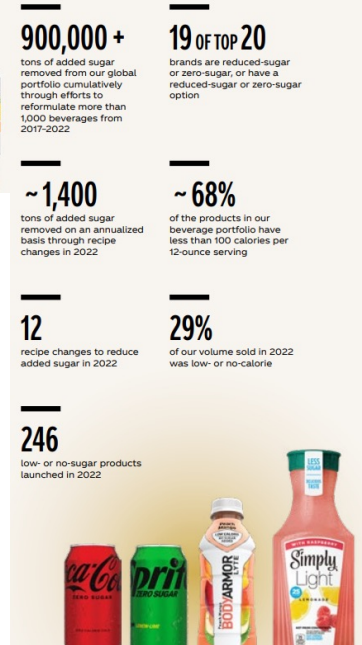
The Coca-Cola Company Portfolio

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- Currently offer ~200 master brands worldwide in five beverage categories:
 - Offering drinks with reduced added sugar and more brands with nutrition and wellness benefits;
 - Providing small package options and clear nutrition information on packaging and in Coca-Cola communications;
 - Marketing Coca-Cola drinks responsibly

- **Smartwater and Zendaya** are helping address the water crisis in communities across the world—starting with the star's hometown of Oakland, Calif.—by partnering with the Global Water Challenge's Women for Water platform focused on mobilizing clean water access for every woman and her community.
- Over two years, smartwater will donate \$200,000 in grants to the Global Water Challenge, starting with a \$100,000 grant for the community water challenge. Funding will support a range of activities including efforts to improve community water access, restore and protect water quality, build community climate resilience and promote economic empowerment opportunities through water.



The Coca-Cola Company

Packaging

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- Launched in 2018, an ambitious strategy called **World Without Waste** to drive systemic change through a circular economy for Coca-Cola packaging.
- Coca-Cola packaging accounts for approximately 30% of total carbon footprint.
- Nearly all of World Without Waste efforts align with 2030 science-based climate target and net zero ambition by:
 - Lightweighting Coca-Cola packaging,
 - Incorporating more recycled and bio-based material,
 - Investing in local recycling programs and
 - Increasing the use of reusable packaging.
- **In Latin America**, the "Let's Be Different" campaign kicked off on World Environment Day 2022, inviting consumers to trade any recyclable PET bottle for a refillable bottle of Coca-Cola Zero Sugar. In Brazil, returnable, refillable PET bottles of Coca-Cola, Fanta and Sprite can be returned, cleaned and refilled up to 25 times. The package gives shoppers an affordable option and drives repurchase rates.
- **In France**, a 250-ml returnable glass bottle (RGB) launched in hotels, restaurants and cafes for Fuze Tea, Tropicana, Sprite, Fanta and Minute Maid. Additionally, Coca-Cola and Coca-Cola Zero Sugar are now offered in RGBs nationwide, eliminating more than 15 million single-use glass bottles in 2022.
- **In Sweden**, we are collaborating with Reitan Convenience on a reusable packaging pilot in Stockholm. Shoppers who visit the sustainability focused PDX store can choose from more than 60 fountain beverages, many of which are not available in bottles or cans. Shoppers are encouraged to bring their own refillable vessels or purchase a reusable stainless steel tumbler.
- **In Scotland**, Costa Limited ("Costa") carried out a 14-store pilot of an on-the-go reusable cup scheme, which invited consumers to rent a cup by scanning a QR code before enjoying their drink and then returning the cup for it to be washed and reused. The effort supports Costa's global goal for 25% of its drinks to be served in reusable or refillable packaging by 2030.
- Eight markets in Europe (**Austria, Belgium, Iceland, Luxembourg, Netherlands, Norway, Sweden, Switzerland**) offer their entire locally produced portfolios in 100% rPET.

The Coca-Cola Company

Packaging

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PACKAGING



CLIMATE



Coca-Cola's technology is being licensed for a 30% plant-based plastic bottle to a company building a commercial facility in Germany, which is scheduled to deliver material in 2024. A 100% plant-based plastic bottle prototype has been developed with plans to explore scalability of a 100% biobased PET resin and bottle (bottle, not cap and label). Biobased plastic packaging can have a lower carbon footprint than petroleum-based packaging.



Bottles with tethered caps, which enable bottles and caps to be collected together for recycling, are being piloted for company's entire portfolio in Germany, Bulgaria and Italy. Additionally, a new lightweighted bottle neck finish in Europe will save an estimated 9,100 tons of plastic per year by 2024.

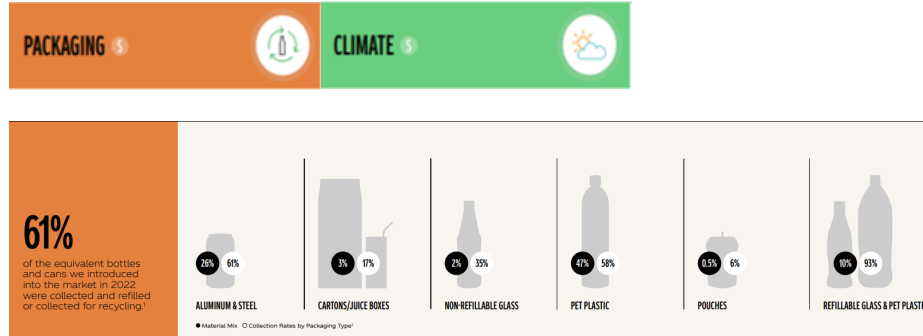


The KeelClip®1 packaging solution made from recyclable cardboard replaces plastic rings for multi-packs. Following a successful rollout across Europe, the first-of-its-kind solution is being piloted in select U.S. markets.

The Coca-Cola Company

Packaging

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- In emerging markets, we advocate for government regulations permitting the use of rPET in food and beverage packaging, and we seek ways to empower the informal waste collection sector in the circular economy.
- In developed markets, we are working with industry peers to build collection infrastructures—including company's more than 40 years of experience operating 40+ local Deposit Return Systems (DRS). Countries with a well-designed DRS scheme, like Germany, can achieve high levels of collection (approximately 97% collection for non-refillable packages in Germany)
- **In Brazil**, SustentaPET collection centers take in more than 700,000 PET bottles a day to produce recycled resin that ultimately becomes new packaging. In its first three years, the program has recycled more than 83,000 metric tons of PET—and will expand to additional states in 2023.
- **In Egypt**, we partner with BariQ, the largest bottle-to-bottle recycling plant in the Middle East, to recycle 14,000 metric tons of plastic waste annually to food-grade product compatible with the European Food Safety Authority (EFSA), Food and Drug Administration (FDA) and Egyptian Organization for Standardization (EOS)

M2S2

Module 2 ESG Integration Management

Session 2 Integration - Case Studies

1. Case Study 1 (Indorama Ventures)
2. Case Study 2 (The Coca-Cola Company)
- 3. Key Takeaways**

1. ผนวกความยั่งยืนเข้ากับกลยุทธ์ของบริษัท โดยไม่แยกออกเป็นกลยุทธ์แยกต่างหาก
2. ผนวกความคิดริเริ่มด้านความยั่งยืนตลอดห่วงโซ่คุณค่า ไปจนถึงในลำดับความสำคัญของความยั่งยืนเฉพาะด้าน
3. ผนวกลำดับความสำคัญของความยั่งยืนในแต่ละหน้าที่เป็นโครงการเดียว โดยไม่แยกทำงานเป็นส่วน ๆ
4. โครงการหนึ่งสามารถบรรลุเป้าหมายด้านความยั่งยืนหลายข้อ พร้อมทั้งช่วยประหยัดทรัพยากรและเสริมสร้างลำดับความสำคัญของบริษัทได้อย่างรวดเร็ว

You have successfully completed
Module 2, Session 2.

[Go to Session 3 Part 1](#)