# Boundless Impact

Natural Capital



HAYCARB PLC | Annual Report 2024/25







#### **BRAHMAN BALARATNARAJAH**

Deputy Managing Director

#### **MANAGEMENT APPROACH**

Our approach to managing natural capital focuses on the sustainable use and conservation of natural resources critical to our operations. We prioritise responsible sourcing, particularly of coconut shell, coconut shell charcoal, responsible management of our energy consumption, effluent management and implement practices that conserve water, and biodiversity. Through community engagement, continuous monitoring, and innovative environmental strategies, we aim to reduce our ecological footprint and enhance resilience against climate risks, supporting long-term environmental sustainability.

**44,554**Carbon Footprint (tCO,e)

10,366
Sea Turtle Hatchlings

>75,000
Trees planted

#### **OUR STRATEGIC PRIORITIES IN 2024/25**



Strengthening energy resilience through renewable energy investments



Sustainable water consumption



Sustainable Material Sourcing



Reducing our carbon footprint



Minimising waste and effluents

# PROGRESS MADE IN 2024/25 TOWARDS ACHIEVING OUR ESG ASPIRATIONS

Energy Intensity (GJ/rev Rs. Mn) (+33%) MISSED





Water Intensity (m³/rev Rs.Mn) (+51%) MISSED

Emission Intensity (tCO<sub>2</sub>e/rev Rs. Mn) **MISSED** 





Sustainable water sourcing from total water consumed (m³)
ACHIEVED

#### **WAY FORWARD**

#### **Short Term**

- Implement initiatives to drive progress towards our 2030 ESG goals.
- Extend the coverage of our scope 3 emissions assessment.
- Monitor progress made on our ESG commitments through internal ESG audits and regular reviews.
- Capacity enhancement of Recogen

#### Medium to long term

- Expand solar energy usage across our operations to support long-term sustainability goals
- ESG audits and staff training programs will be strengthened to enhance compliance and performance





|      | Short-<br>term | Long<br>term |
|------|----------------|--------------|
| FC   | $\downarrow$   | <b>1</b>     |
| S&RC | <b>^</b>       | <b>1</b>     |
| МС   | -              | <b>1</b>     |

#### Link with material topics

M1, M2, M7, M11, M12

#### Link with key risks and opportunities / SRROs / **CRROs**

R1, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22

#### Alignment with strategic priorities

- Market growth
- Innovation led growth
- ESG mindset
- Strengthen global supply chains

#### **Contribution to SDGs**











#### **VALUE CREATED IN 2024/25**

- Extended our Scope 3 emissions assessment to include 4 new categories as defined by the GHG Protocol.
- Obtained external verification of our GHG emissions.
- Commenced solar power generation.
- Invested in a reverse osmosis plant to purify wastewater of production processes.
- Ongoing emphasis on sourcing coconut charcoal sustainably.

#### **DIGITALISATION**

At Haycarb, we leverage our digital capital to strengthen the stewardship of our natural capital. The fusion of digital insight and environmental responsibility supports our mission to drive sustainable innovation while preserving the natural ecosystems that sustain our business.



Energy requirement are met through renewable sources



Reduction in water withdrawal



Coconut charcoal requirements sourced sustainably



Invested in environment-related CSR initiatives



OUR PRIMARY RAW MATERIAL COMPRISES COCONUT SHELLS AND CHARCOAL PRODUCED FROM COCONUT SHELLS, ACCOUNTING FOR MORE THAN 70% OF OUR TOTAL RAW MATERIAL INPUTS. OVER 60% OF COCONUT SHELLS IN SRI LANKA ARE DISCARDED BY HOUSEHOLDS AND OUR HARITHA ANGARA PROGRAM HAS ENABLED ITS RECOVERY, PROMOTING CIRCULARITY.

#### **GOVERNANCE**

The 'Restore' pillar of Activate, articulates our commitment to sustainable natural capital management through clearly defined policies and time-bound goals aimed at minimising our environmental impacts across materials, waste, energy, emissions, water and effluents. This structured framework has enabled a strategic approach to enhancing the sustainability of our operations and facilitated the effective allocation of resources to deliver on our environmental commitments.

### MANAGEMENT OF THE LEGAL AND REGULATORY FRAMEWORK

GRI 2-23, RT-CH-530a.1

UNGC Principle 7,8

The prevailing regulatory requirements for environmental impact management in Sri Lanka, Indonesia and Thailand, focus on water, effluent and waste (hazardous and non hazardous) discharge. While specific regulations on energy and emissions management also have been enacted in some of the countries we operate in or export to, increasing global focus on the implications of climate change, pollution and ecosystem degradation could lead to new and more stringent environmental regulations over the medium to long term.

Considering this, we have proactively and strategically integrated sustainable practices into our business operations through the development and implementation of our ESG framework. Activate is driven

by a robust governance structure which has supported reductions in our environmental footprint during the year under review. This proactive approach places us in a strong position to meet potential future regulatory requirements while also positioning us to capture emerging opportunities in a world more focused on environmental sustainability.

While we ensure our operations comply with all relevant environmental laws and regulations, we have also aligned our operations with international best practice through numerous voluntary certifications including ISO 14001:2015 Environmental Management Systems and WQA Sustainability Certification. During the year under review, we also received the Sri Lanka Eco label and Ethical Trading certifications. We conduct environmental audits quarterly to monitor our environmental performance against the milestones set out in Activate and action plans are developed to address areas of concern. Our environmental management system is externally verified annually through surveillance / re-certification audits by the relevant certification bodies. No instances of non-compliance with any environmental related

**70** 9

of raw material inputs are sourced from renewable sources

regulations were reported during the year under review.

#### **RAW MATERIALS**

GRI 301-1, RT-CH-410b

Our production process involves converting a renewable waste material into a range of products that contribute to advancing global environmental priorities. Our primary raw material comprises coconut shells and charcoal produced from coconut shells, accounting for more than 70% of our total raw material inputs. Over 60% of coconut shells in Sri Lanka are discarded by households and our Haritha Angara program has enabled its recovery, promoting circularity.

Our non-renewable material consumption consisted primarily of packing materials and chemicals. Chemicals accounts for less than 0.5% of total input costs. Our products do not contain any substances classified under Category 1 or 2 for health or environmental hazards according to the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals. We have implemented stringent processes and practices in line with the Hayleys Lifecode Chemical Management Policy to ensure safe storage and use of chemicals and prevent spills. Emphasis was also placed on



Our material footprint in 2024/25 is given below. GRI 301-2,3

| Raw material                | 2024/25   | 2023/24   | Y-o-y % change |
|-----------------------------|-----------|-----------|----------------|
| Renewable materials         |           |           |                |
| Coconut shells (MT)         | 52,600    | 50,468    | 4%             |
| Coconut shell charcoal (MT) | 93,963    | 101,753   | -8%            |
| Packing materials* (Nos)    | 308,733   | **353,762 | -13%           |
| Non-renewable materials     |           |           |                |
| Packing materials* (Nos)    | 691,542   | **518,431 | 33%            |
| Chemicals (Mt)              | 1,629     | 1,903     | -14%           |
| Chemicals (Litres)          | 1,343,804 | 1,826,121 | -26%           |

<sup>\*</sup>Only bags and sacks were taken into account

process reformulations to minimise the consumption of chemicals.

Consumption of coconut shells and coconut shell charcoal declined by 4% during the year under review reflective of challenges in sourcing. Resultantly, emphasis was placed on increasing resource efficiency and minimising waste to support production volumes. This included, the re-use of by-products after subjecting it to cleaning and separation processes. Alternative raw materials such as palm

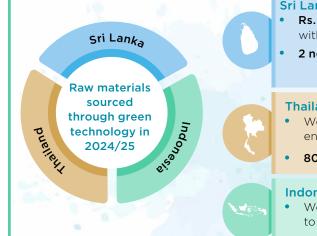
shell, candle nut and wood also considered for certain applications.

Conscious efforts to promote sustainable packaging alternatives led to the use of sustainable packaging solutions and reuse of raw material packaging in alignment with the "Activate" milestone.

We did not utilise any recycled materials within our production processes while no incidents of product reclaims or their packing materials took place during the year under review.

#### **SOURCING COCONUT CHARCOAL SUSTAINABLY**

Sourcing coconut charcoal sustainably remained a key strategic priority for the Group. We continued to promote our proprietary green charcoaling technology within our supply chains in Sri Lanka, Indonesia and Thailand with aspirations of increasing the total percentage sourced through sustainable methods to more than 75% by 2030.



#### Sri Lanka

- Rs. 20.6 Mn invested in promoting green charcoaling practices within the supply chain.
- 2 new closed pits established in 2024/25

#### **Thailand**

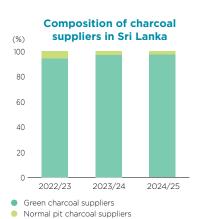
- We continued to provide technical support to suppliers to enhance green charcoaling practices.
- 80% vertical kiln capacity utilisation enhancement in 2024/25

#### Indonesia

We continued to provide technical support to suppliers to enhance green charcoaling practices.

<sup>\*\*</sup>Comparative figures recalculated to align with the actual quantity based on targets set in our ESG roadmap





We continued to enhance the resilience of our raw material base through sustainable agricultural initiatives, including our coconut planting program (For more details refer page 170), which supports the expansion of Sri Lanka's coconutgrowing regions.

#### PROPRIETARY GREEN CHARCOALING TECHNOLOGY RT-CH-130a.1, UNGC Principle 9

#### Haritha Angara closed pits

This technology converts open pit charcoaling to a closed pit unit.



#### Vertical kiln charcoaling

Vertical kilns convert coconut shells into charcoal by heating them in an enclosed, upright structure with limited air.



- As a result, greenhouse gases and harmful gases produced during the process are combusted within the system and are not released into the environment.
- These systems require energy only for initiation with subsequent energy requirements fulfilled through the exothermic energy generated during the process. As a result, this technology optimises energy consumption.



#### Recogen

- Recogen utilises a patented technology to convert coconut shells to charcoal while producing electricity from the thermal energy produced during the process.
- The greenhouse gases and harmful gases produced during the charcoaling process are combusted within the closed system preventing its release into the environment.
- The heat generated during the process is utilised to operate a boiler and steam turbine to generate electricity, a portion of which is consumed internally, with the excess supplied to the National Grid.
- 1.219.549 kWh of electricity was supplied to the national grid in 2024/25.

**75** %

Of energy requirements fulfilled through renewable energy sources in 2024/25

#### ENERGY MANAGEMENT GRI 302-1

Consistent process innovations have enabled the Group to significantly reduce its reliance on non-renewable energy sources over the years. Approximately 75% of our energy requirements in 2024/25 were fulfilled through renewable energy

2030 "Activate" Aspiration

Increase in renewable energy (Electricity) usage

Our performance in 2024/25

Increase in electricity supplied to the national grid through Recogen in 2024/25

sources comprising primarily exothermic energy generated from our production process. Recent investments in solar power generation has also contributed to reducing our grid-based electricity consumption. Aligning with our commitment to increasing our

Invested in solar power generation in 2024/25

renewable electricity reliance to 50% by 2030, we invested an additional Rs. 600 Mn during the year under review to expand our solar power generation capacity. This contributed to a 4% of renewable electricity power consumption during the year under review.

**Electricity generated** 

Solar power capacity and power generated in 2024/25

Location Solar power Ulracarb - Madampe, Sri Lanka 900 Ulracarb - Badalgama, Sri Lanka 672 Haycarb - Madampe, Sri Lanka 2,000 Haycarb - Badalgama, Sri Lanka 2,076 Total 5,648

and supplied to the **National Grid through** Recogen increased by Coconut 17% in 2024/25 Conveyor Pyrolysis Column Electricity Stack ID fan Shell dryer Steam Generator Transforme turbine Steam boiler Conveyor Elevato Conveyor Coconut Surface shell condenser Stack ID fan Cooling charcoal tower

Process of converting coconut shells to charcoal while operating a boiler and producing electricity from the thermal energy produced during the process.

Furthermore, consistent commitment to improving the energy intensity of our operations led to numerous process innovations in 2024/25. These included,

- Dryer upgrades to reduce fuel consumption during the drying operation.
- Experiments to ascertain the possibility of using waste heat for drying operations.
- Energy audits to identify opportunities to enhance energy efficiency.
- Lean projects to enhance energy efficiency.

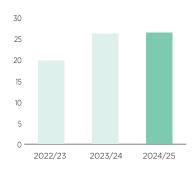
During the year under review, nonrenewable energy reliance increased by 18% compared with the previous year, primarily given an increase in furnace oil consumption. Boiler operations across our facilities were halted for periodic safety checks and increased washing requirements resulting in the need for standby boilers, which led to the increase in furnace oil consumption.

The Group's key energy metrics for the year under review are given below. GRI 302-2 to 5

| Energy consumption (GJ)                              | 2024/25   | 2023/24   | Y-o-y % change |
|--|-----------|-----------|----------------|
| Non-renewable sources                                | 290,821   | 247,352   | 18%            |
| Furnace oil  | 84,784    | 65,923    | 29%            |
| Electricity  | 120,800   | 113,477   | 6%             |
| Diesel   | 34,659    | 33,449    | 4%             |
| LPG  | 49,404    | 34,207    | 44%            |
| Petrol   | 771       | 292       | 164%           |
| Kerosene   | 403       | 4         | 9975%          |
| Renewable sources                                    | 850,874   | 885,612   | -4%            |
| Solar  | 4,466     | -         | -              |
| Electricity generated through waste heat (Recogen)   | 5,584     | 5,915     | -6%            |
| Self-generated energy (Recovered through waste heat) | 840,824   | 879,697   | -4%            |
| Total energy consumption                             | 1,141,695 | 1,132,964 | 1%             |
| % grid electricity consumed                          | 11%       | 10%       | 6%             |
| % renewable sources                                  | 75%       | 78%       | -4%            |
| Energy intensity (GJ/revenue Rs. Mn)                 | 26.43     | 26.24     | 1%             |
| Energy intensity (GJ/revenue USD Mn)                 | 7,864.95  | 8,294.58  | -5%            |

<sup>\*</sup>Energy consumption was calculated based on type of energy source consumed quantity,density & net calorific value

#### Energy intensity (GJ/Revenue Rs. Mn)



The Group's energy intensity also ticked up to 26.43 GJ/Rs. Mn in 2024/25 compared with 26.24 GJ/ Rs. Mn in 2023/24. The energy intensity of our operations is directly linked to the proportions of standard

#### **Energy intensity (GJ/Revenue USD Mn)**



and value-added carbons produced during the year. Resultantly, an increase in the proportion of valueadded carbons in the product mix contributed to the increase in energy intensity.

#### **EMISSIONS MANAGEMENT**

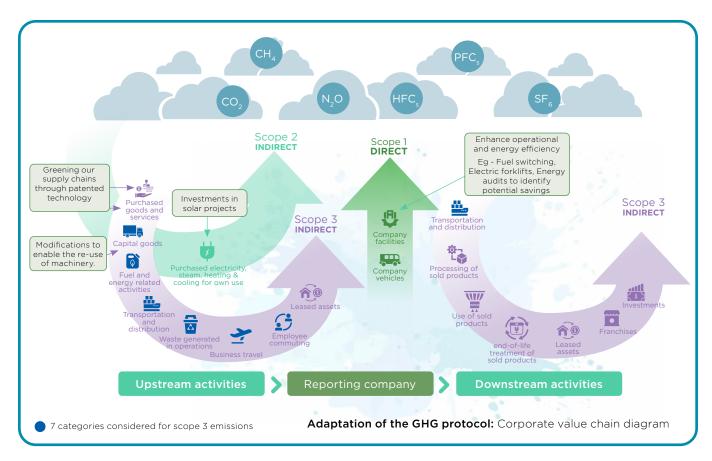
GRI 305-1 to 3, , RT-CH-110a, RT-CH-120a.1

Our emission management strategy has been developed in alignment with our short, medium and longterm emission reduction aspirations



defined in "Activate". We measure our GHG emissions in accordance with the Greenhouse Gas (GHG) Protocol Corporate Standard and ISO 14064 Greenhouse Gases and utilising emission conversion factors from the UK DEFRA 2024 guidelines, the GHG Protocol cross sector tools, and locally relevant data sources

including the Sri Lanka Energy Balance 2019 and the CEB Statistical Digest 2020 to ensure accuracy and regional relevance. During the year under review, we obtained independent external verification of our Scope 1 and 2 emissions while expanding our Scope 3 emissions assessment to include an additional four categories. Consequently, our Scope 3 emissions assessment now covers 7 of the 15 categories specified by the Greenhouse Gas (GHG) Protocol Corporate Standard



The Group is committed to reducing its carbon footprint by 25% by 2030 and maintained focus on increasing its renewable energy reliance while improving energy efficiency.

# Increase renewable energy reliance Increased investments in renewable energy sources. Focused efforts to harness waste heat generated. Enhance energy efficiency Lean projects to enhance energy savings Efforts to promote employee awareness. Efforts to promote employee awareness.

However, during the year under review, the Group's Scope 1 and Scope 2 emissions increased by 15%,

reflective of the increase in nonrenewable energy consumption. Meanwhile, Haycarb's emission

intensity also rose by 15% given the tilt towards value added activated carbon production.

Our carbon footprint metrics for 2024/25 are given below. GRI 303-4 to 7

| Carbon footprint (tCO,e)                                 | 2024/25 | 2023/24 | Y-o-Y % change |
|--|---------|---------|----------------|
| Scope 1 emissions  | 13,741  | 10,903  | 26%            |
| Scope 2 emissions  | 14,356  | 13,485  | 6%             |
| Scope 3 emissions  | 16,457  | 2,308   | 613%           |
| Total emissions  | 44,554  | 26,696  | 67%            |
| GHG emission intensity tCO₂e/MT of made activated carbon | 0.58    | 0.51    | 14%            |
| GHG emission intensity tCO₂e/revenue Rs. Mn              | 0.65    | 0.56    | 15%            |
| GHG emission intensity tCO₂e/revenue USD Mn              | 193.56  | 178.54  | 8%             |
| Biogenic emissions                                       | 31,429  | 48,658  | -35%           |



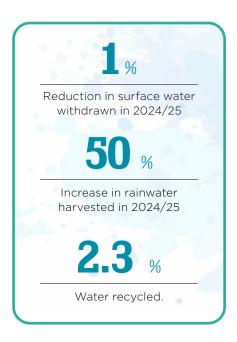


Haycarb's manufacturing process complies with all relevant environmental regulations and has been verified through continuous monitoring and third-party audits. Air pollutants such as VOCs, POPs,



Third-Party Verification for GHG Emissions (2024/25)

and HAPs are thermally destroyed at high temperatures. Dust extractors are installed to capture particulate matter, while appropriate emission control systems are used to manage NOx and SOx levels. These measures ensure that emissions remain within regulated limits and significant pollution is prevented. Further, we do not engage in importing or exporting ozone-depleting substances.



#### WATER AND EFFLUENT **MANAGEMENT**

**GRI** 303-1, 2, **RT-CH-**140a

We utilise water primarily for our production process, employee consumption and the general upkeep of our premises. Operations in water-stressed locations in Sri Lanka (classified as highly stressed by the Food and Agriculture Organisation) and medium-to100%

Water requirements at the Shizuka factory in Thailand fulfilled through harvested rainwater in 2024/25





high stress regions in Thailand and Indonesia (as classified by the World Resource Institute's Aqueduct Water Risk Atlas), have necessitated an increased emphasis on the sustainable consumption of this valuable resource.

During the year under review, total surface water withdrawn by the Group reduced by 1% compared to 2023/24

supported by substantial increases in rainwater harvested and waste water recycled. Surface water withdrawn also declined by 5% compared to the baseline defined in "Activate".

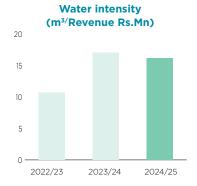
Capacity enhancements made at the Shizuka factory in Thailand and our Badalgama factory in Sri Lanka during 2023/24 contributed to a 50% increase in rainwater harvested during 2024/25. Furthermore, recycled water used for the general upkeep of our premises increased by 33% during the year under review as our PT Mapalus Makawanua factory in Indonesia, obtained the necessary government approvals to do so.

Additional investments were made during the year under review to establish a 120 m³ Reverse Osmosis plant at the Badalgama factory to recycle wastewater for production purposes.

The water assessment initiated in 2023/24 across all Sri Lankan factories was also completed during the year. This assessment included detailed water audits at each manufacturing plant and led to the development of water pumping diagrams to enhance our understanding of our water interaction at each location while strengthening the verification and validation of data flows.

Details of our water consumption in 2024/25 is given below. GRI 303-3,5

| Water withdrawal and consumption (m <sup>3</sup> ) | 2024/25  | 2023/24  | Y-o-Y % change |
|--|----------|----------|----------------|
| Surface water                                      | 423,776  | 429,191  | -1%            |
| Ground water                                       | 196,142  | 250,156  | -22%           |
| Rainwater  | 68,827   | 45,839   | 50%            |
| Municipal water                                    | 7,849    | 7,448    | 5%             |
| Total water withdrawn/consumed                     | 696,595  | 732,634  | -5%            |
| Water intensity - (m³/revenue Rs. Mn)              | 16.12    | 16.97    | -5%            |
| Water intensity - (m³/revenue USD Mn)              | 4,798.73 | 5,363.71 | -11%           |





WASTEWATER TREATMENT PLANTS LOCATED AT ALL MANUFACTURING SITES ARE UTILISED TO TREAT EFFLUENTS GENERATED FROM OUR OPERATIONS PRIOR TO RESPONSIBLE DISCHARGE. EFFLUENT TREATMENT ALIGNS WITH ALL RELEVANT ENVIRONMENTAL STANDARDS IN THE COUNTRIES WE OPERATE IN.

Wastewater treatment plants located at all manufacturing sites are utilised to treat effluents generated from our operations prior to responsible discharge. Effluent treatment aligns with relevant environmental standards in the countries we operate in. We monitor the quality of treated wastewater on an

ongoing basis and discharged water consistently met all parameters specified by the environmental authorities in Sri Lanka and overseas in 2024/25. No incidents of noncompliance regarding discharged water quality during the year under review were reported.



| Effluents (m³)              | 2024/25 | 2023/24 | Y-o-Y % change |
|-----------------------------|---------|---------|----------------|
| Total wastewater discharged | 365,812 | 269,079 | 36%            |

#### **WASTE**

**GRI** 306-1 to 5, **RT-CH**-150a.1

Our waste management approach is guided by the 7R principle of Reduce, Reuse, Reclaim, Replace, Repair, Recycle and Reject. Waste generated from our operations is segregated based on type and

re-purposed and re-used where possible. Waste that cannot be recycled or reused is segregated and disposed in compliance with all regulatory requirements. Given a more accurate waste assessment which included the consolidation of hazardous waste generated across all manufacturing facilities,

hazardous waste generated from our operations shows significant increase during the year under review, due to improvement in reporting processes. Concurrently, non-hazardous waste generated from our operations declined by 9% in 2024/25.

Our waste related metrics for the year under review are given below.

| Waste (Kg)                              | 2024/25   | 2023/24   | Y-o-Y % change |
|---|-----------|-----------|----------------|
| Amount of non-hazardous waste generated | 4,922,346 | 5,401,984 | -9%            |
| Waste diverted from disposal            |           |           |                |
| Composting                              | 1,371,788 | 60,813    | 2156%          |
| Recycled                                | 797,393   | 1,504,027 | -47%           |
| Reused                                  | 2,292,267 | 3,178,731 | -28%           |
| Waste directed to disposal              | 460,898   | 658,413   | -30%           |
| Amount of hazardous waste generated     | 189,721   | *101,160  | 88%            |
| % recycled                              | 16%       | 28%       | -42%           |

<sup>\*</sup>Comparative figures restated due to improved measurement methods

#### BEHOLD THE TURTLE - SEA TURTLE CONSERVATION INITIATIVE

**GRI** 304-2

We continued to support the conservation of sea turtles, an endangered species in Sri Lanka during the year under review. This initiative is carried out at the Kumana National Park in collaboration with

the Wildlife Department of Sri Lanka. The project involves,

- Protecting sea turtle eggs
- Assisting hatchlings' return to the sea
- Counting and record keeping of the different species of sea turtles and their eggs
- Maintaining the hatchery and lodge.

10,366

sea turtle hatchlings returned to the sea in 2024/25





