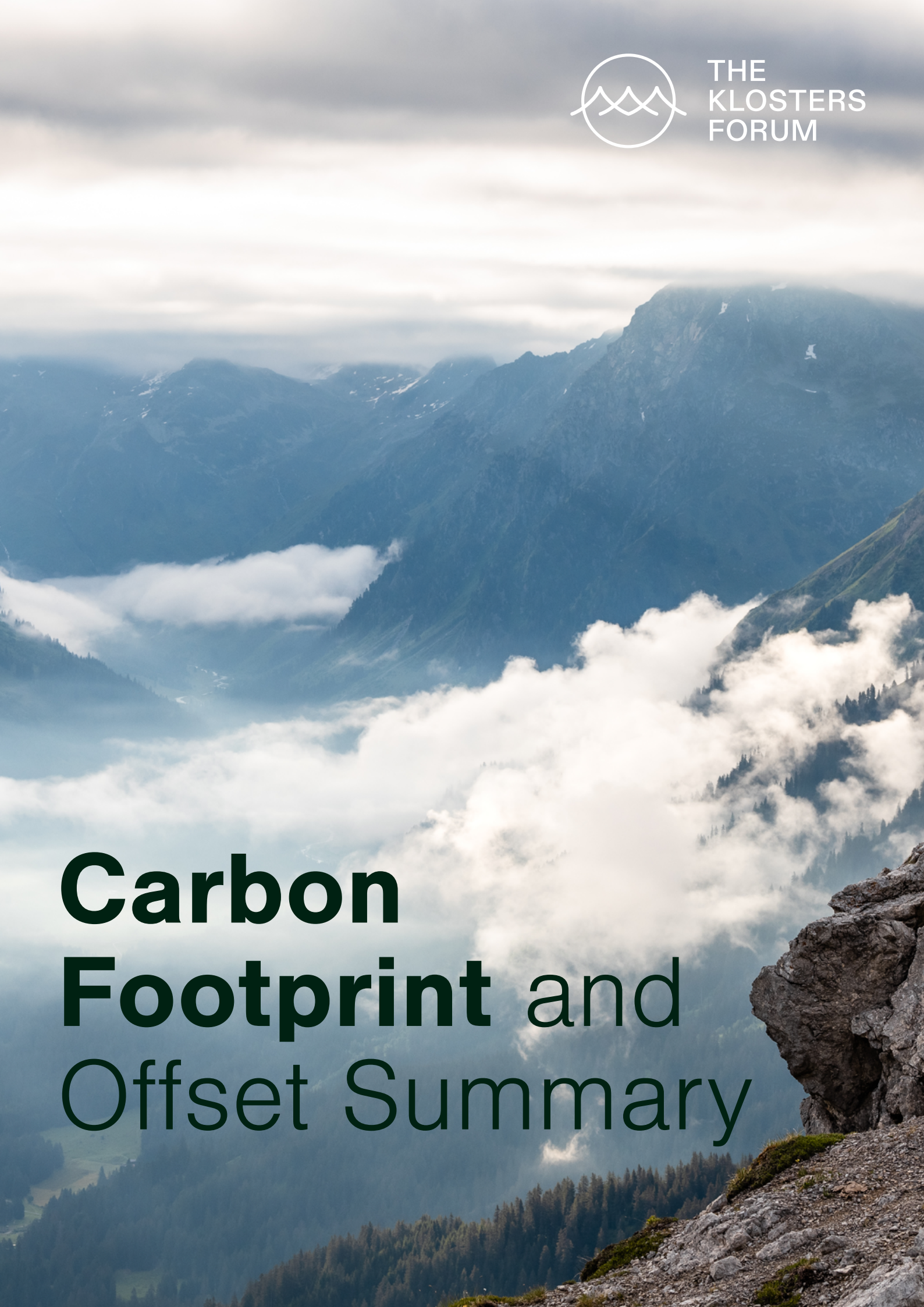

Carbon Footprint and Offset Summary

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Carbon Footprint and Offset Summary

1. Purpose

The Klosters Forum is committed to understanding and addressing the environmental impact of its activities. This report summarises the results of a carbon footprint assessment of the 2025 Forum (TKF25), providing a transparent view of the event's greenhouse gas (GHG) emissions and identifying priority areas for reduction, as well as an overview of the carbon offsets purchased.

2. Organisational and Operational Boundary

- Boundary definition: The footprint was defined as an event-specific, cradle-to-gate operational boundary, covering all direct and indirect activities necessary to stage the Forum.
- In scope:
  - Participant travel: Long-haul flights, short-haul flights, car travel (combustion and electric), and public transport at the event.
  - Accommodation: 2–3 star and 4 star hotels used by participants.
  - Venue operations: Electricity consumption at the main venue (based on actual consumption data).
  - Catering: Meals (vegetarian and non-vegetarian, where applicable) and beverages (wine, beer, coffee, water/soft drinks, spirits).
  - Waste: Mixed residual waste generated during the event.
- Out of scope: Embodied emissions from construction or maintenance of the venue, production of delegate materials (non-existent), and digital/IT services.

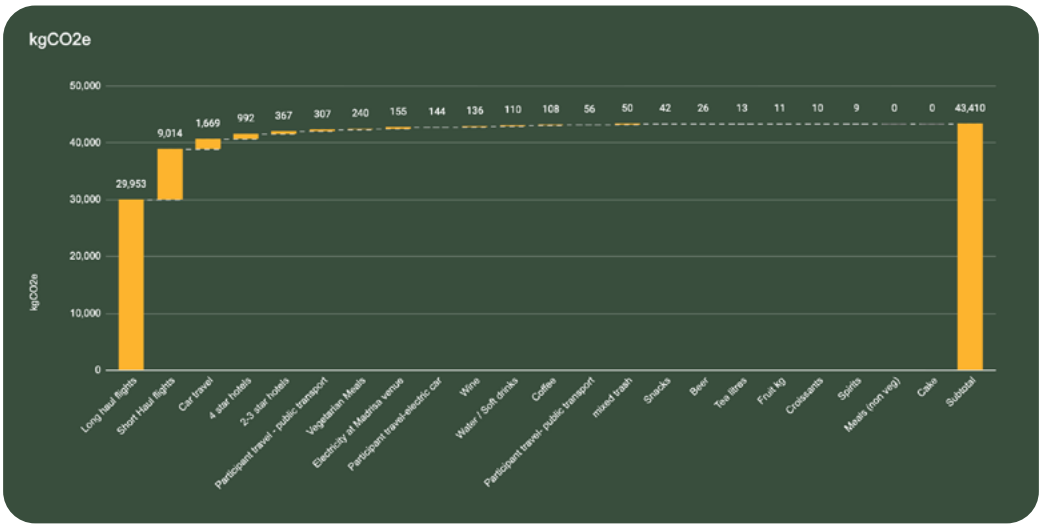
This approach aligns with best practice guidance for event footprinting (GHG Protocol Corporate Standard and GHG Protocol Event Guidance).

3. Methodology

- **Approach:** An **activity-based calculation** was applied, with activity data collected directly from participants, venue operators, and caterers. Emissions were then calculated using:
  - Emissions ($kgCO_2e$)=Activity data×Emission factor
- **Data sources:**
  - **Flights & ground transport:** Participant travel data collected via mandatory registration survey (self-reported points of origin and mode of transport).
  - **Accommodation:** Nights spent in 2–3 star and 4 star hotels, matched with emission factors from the Hotel Impact Model Consortium (HIMC).
  - **Venue energy:** Actual electricity consumption provided by the venue.
  - **Meals & beverages:** Total meals served and litres of beverages consumed, multiplied by average lifecycle emission factors (ETH, SFOE).
  - **Waste:** Volume of mixed residual waste multiplied by the BEIS (2025) emission factor for municipal disposal.
- **Emission factors:** BEIS 2025, ETH, HIMC, and SFOE datasets.
  - **Result basis:** Gross emissions only; no offsets or compensatory measures are included.

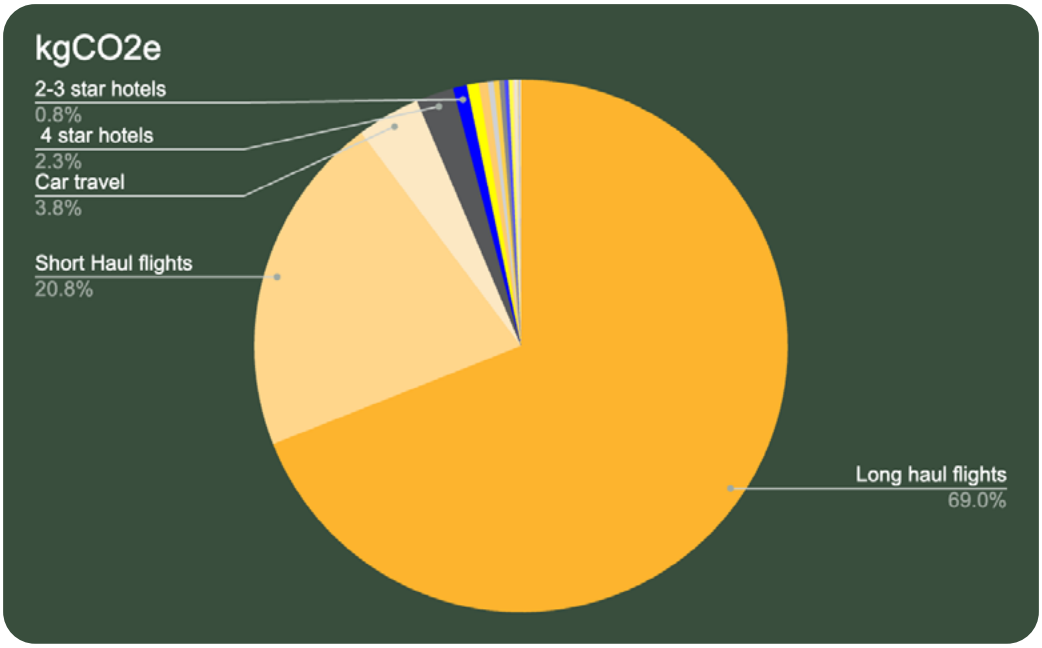
4. Results

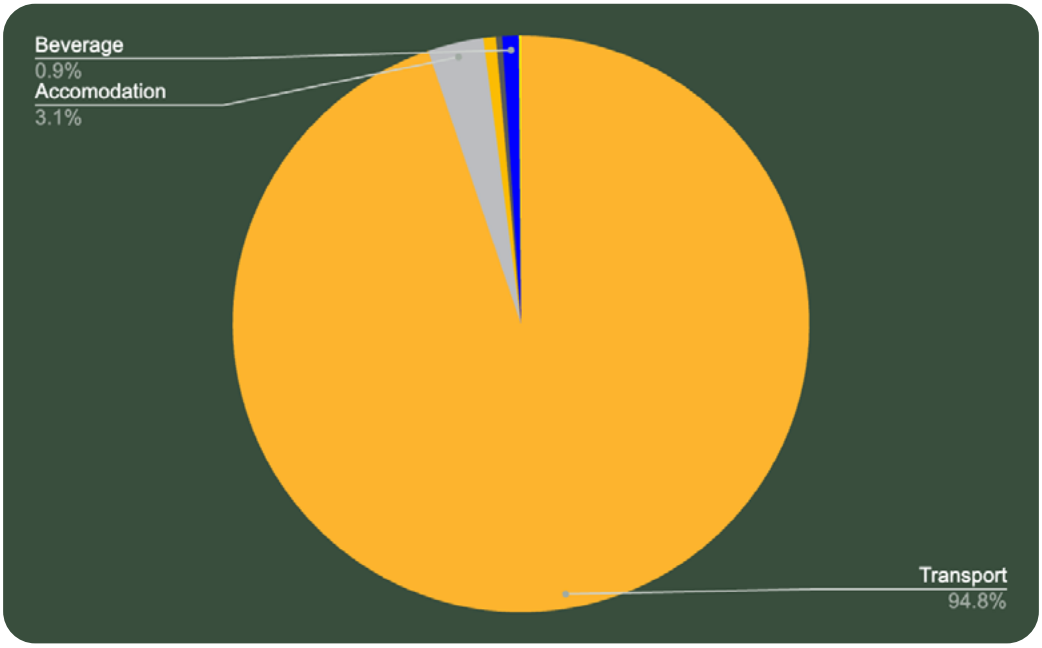
- Total footprint: 43,410 $kgCO_2e$
- Participants: 90
- Average footprint per participant: 482 $kgCO_2e$



Breakdown by category:

Category	$kgCO_2e$	Share of total	Key drivers
Transport	41,583	94.8%	Dominated by long-haul flights (69% of total alone)
Accommodation	1,359	3.1%	Primarily 4-star hotels
Food	305	0.7%	Vegetarian meals dominant
Energy (venue)	155	0.4%	Based on actual consumption
Beverages	393	0.9%	Wine, coffee, and water most significant
Waste	50	0.1%	Mixed municipal waste


kgCO2e
2-3 star hotels
0.8%
4 star hotels
2.3%
Car travel
3.8%
Short Haul flights
20.8%
Long haul flights
69.0%


Beverage
0.9%
Accomodation
3.1%
Transport
94.8%

5. Interpretation

- **Transport is the overwhelming contributor** (94.8%), with air travel alone responsible for almost 90% of the footprint.
- **Per-participant emissions (482 kgCO_2e)** are typical for international events requiring long-haul travel and considerably higher than footprints from regional conferences.
- Venue energy, meals, beverages, and waste collectively account for <5% of the footprint.

6. Limitations & Assumptions

- **Survey reliance:** Flight and travel data were based on participant self-reporting. This may introduce under- or over-estimation bias.
- **Lifecycle averages:** Meals and beverages are based on average lifecycle values, not supplier-specific data.
- **Exclusions:** Embodied carbon of venue, IT services, and material procurement excluded.
- **Waste treatment:** Assumed average disposal route using BEIS factors; no facility-specific breakdown available.

7. Recommendations & Next Steps

- **Travel reduction levers:**
  - Encourage train travel for European participants.
  - More exact data reporting by participants
- **Supplier engagement:** Request hotel and catering providers to supply primary emissions data and improve questionnaire.
- **Future cycles:** Establish annualised tracking to monitor trends and effectiveness of reduction measures.
- **Offsetting**: Purchasing high quality offsets to compensate GHG emissions

8. Offsets

The Klosters Forum bought 44 tons of high quality carbon offsets, 22 removal offsets and 22 avoided emissions offsets from Wren. The certificate can be found here.

i. Landfill Methane Abatement

This project addresses methane abatement by installing and operating a landfill gas collection system that utilizes and destroys methane.

The Ecoparque João Pessoa landfill receives about 2,000 tonnes of municipal solid waste daily from nearby cities. Without the project, the landfill would release about 240,000 tonnes of carbon dioxide equivalent (CO_2e) annually. In 2008, the João Pessoa landfill installed gas collection wells, a pipeline network to connect the wells to centrifugal blowers, flaring mechanisms, and gas flow meters. This system allows the facility to extract methane from the landfill and convert it to less harmful gases, while monitoring and measuring the amount of gas flowing through the system. In 2019, four engine electricity generator sets were installed on-site, with a combined capacity of 7.13 MW.

How did Wren vet this project?

Using the Wren due diligence scorecard, Wren evaluated the project's quality against 230+ indicators.

Wren's partner, BeZero, helped provide fundamental insights used to compare key project data against 200+ other landfill projects utilizing the same methodology. Additionally, Wren accounted for credible third-party recognition—this project received a BBB Calyx carbon credit rating and was independently assessed against Rubicon Carbon's Integrity Framework.

Verification

This project is listed on the Gold Standard public registry and uses an Integrity Council for the Voluntary Carbon Market (ICVCM) Core Carbon Principles approved methodology. ISO-accredited third parties verify the project's calculations and activities, with the most recent completed by Applus Certification in 2024. Emissions calculation files, verification reports, and performance reviews are publicly available.

j. Mangrove Planting in Pakistan

This project restores degraded tidal wetlands and conserves mangrove ecosystems in the Indus Delta region in Sindh Province, Pakistan. It enhances biodiversity, protects coastal communities, and sequesters carbon dioxide from the atmosphere.

How does it work?

The project leverages scientific research, community engagement, and practical restoration activities in its efforts to help restore 225,000 hectares of mangroves. By following a systematic approach that includes assessment, restoration, monitoring, and verification, the project enhances the carbon storage capacity of the mangroves and generates social and economic benefits for local communities.

How did Wren vet this project?

Thanks to Wren's partnership with BeZero, it accessed expert analysis of this project and assessed risks to additionality, over-crediting, leakage, non-permanence, and policy. BeZero has awarded this project with a BBB rating, placing it in the top 20% of all projects rated by the agency (at the time Wren conducted its assessment, in September 2024). In addition, Wren reviewed an open-source analysis by Renoster, which scored the project 0.947 out of 1, one of the highest reviews the agency has conducted to date. Wren's own analysis found the project has low additionality risk due to reliance on carbon finance and low leakage risk thanks to mitigation efforts such as promoting alternative livelihoods for local communities. The project's impact on nearby carbon stocks is deemed negligible due to limited prior vegetation and harvesting.

Verification

The project uses the Verified Carbon Standard's VM0033 Methodology for Tidal Wetland and Seagrass Restoration, v2.1. This includes protocols for eligibility, baseline and project scenarios, leakage assessment, and net emissions and carbon removal calculations. The project undergoes rigorous verification processes, including third-party audits to check greenhouse gas data accuracy, mangrove ecosystem health, and socio-economic benefits delivered to local communities. The verification process is transparent and publicly accessible, ensuring the project's claims are credible and backed

by robust evidence. Auditors also evaluate the socio-economic benefits claimed by the project, such as job creation and community engagement. These audits ensure transparency and accountability, providing confidence to carbon credit buyers and stakeholders.