**Dataset Overview**

**Time Span**: 36 months (January 2022 - December 2024)  
**Geographic Coverage**: 5 regions, 40 facilities worldwide  
**Data Structure**: Monthly transactional records (1 row = 1 month's data per entity)  
**Total Records**: 6,300 across all tables

**1. Primary Transactional Dataset (environmental\_sustainability\_transactional\_data.csv)**

**1,440 records** - Core facility-level monthly sustainability data

* **Granularity**: 1 row = 1 facility per month
* **Key Metrics**: Scope 1/2/3 emissions, water usage, energy consumption, waste generation, ESG scores, financial metrics

**2. Supply Chain Analytics (supply\_chain\_category\_data.csv)**

**1,080 records** - Supply chain emissions by category

* **Categories**: Raw Materials, Transportation, Manufacturing Partners, Packaging, Distribution, End-of-Life
* **Metrics**: Category emissions, supplier risk assessment, certification coverage

**3. Waste Management Performance (waste\_category\_breakdown\_data.csv)**

**1,080 records** - Waste diversion by material type

* **Categories**: Organic Waste, Paper & Cardboard, Plastics, Electronics, Metals, General Waste
* **Metrics**: Diversion rates, recycling revenue, processing costs

**4. Employee Engagement Analytics (employee\_commuting\_breakdown\_data.csv)**

**1,080 records** - Green commuting adoption tracking

* **Methods**: Electric Vehicle, Hybrid, Public Transport, Cycling/Walking, Car Sharing, Conventional
* **Metrics**: Adoption rates, CO₂ per employee, incentive program costs

**5. Carbon Offset Investment Portfolio (carbon\_offset\_projects\_data.csv)**

**180 records** - Carbon offset project performance

* **Project Types**: Reforestation, Renewable Energy, Methane Capture, Soil Carbon, Direct Air Capture
* **Metrics**: Investment amounts, CO₂ offset tonnes, cost efficiency

**6. Detailed ESG Performance (esg\_performance\_detailed\_data.csv)**

**1,440 records** - Comprehensive ESG category scoring

* **Categories**: Carbon Footprint, Water Stewardship, Waste Management, Supply Chain, Employee Wellbeing, Community Impact, Governance, Innovation
* **Metrics**: Current vs target vs industry benchmark scores

**7. Country:Region Mapping (countries\_regions.csv)**

**199 records** – Mapping of individual countries to world regions

**Tableau Implementation Instructions**

**Step 1: Data Connection Setup**

1. Connect to CSV files in Tableau Public
2. Create relationships between tables: Main table ↔ All other tables on Date + Region

**Step 2: Individual Chart Creation**

1. **Header KPI Cards**

**Carbon Emissions**

Type: Text table

Value: SUM([Total\_Emissions\_Tonnes])

**Avg. Supply Chain Risk**

Type: Text table

Value: AVG([High Risk Suppliers Pct])

**Water Efficiency**

Type: Text table

Value: AVG([Water Efficiency Score])

**Carbon Intensity**

Type: Text table

Value: AVG([Carbon Intensity Tonnes per M Revenue])

**Total Carbon Offset**

Type: Text table

Value: SUM([CO2 Offset Tonnes])

**Waste Diversion Rate**

Type: Text table

Value: AVG([Diversion Rate Pct])

1. **Carbon Offset Tonnes vs Investment**

Type: Dual axis chart

Columns Axis: Year (Discrete)

Rows Axis 1 (column) Value: SUM([Investment USD])

Rows Axis 2 (line) Value: SUM([CO2 Offset Tonnes])

Color: Measure Names

1. **Scope Emissions**

Type: Donut chart

\* create new parameter “Zero” with value = 0

\* create new calculated fields:

* “Scope 1 %” = sum([Scope1 Emissions Tonnes])/total([Scope 1 Total]+[Scope 2 Total]+[Scope 3 Total])
* “Scope 2 %” = sum([Scope2 Emissions Tonnes])/total([Scope 1 Total]+[Scope 2 Total]+[Scope 3 Total])
* “Scope 3 %” = sum([Scope3 Emissions Tonnes])/total([Scope 1 Total]+[Scope 2 Total]+[Scope 3 Total])

Columns Axis: N/A

Rows Axis 1 (pie) Value: SUM(Zero)

Size: Bigger than Rows Axis 2

Color: Measure Names

Angle: Measure Values (only Scope 1 %, Scope 2 %, and Scope 3 %)

Rows Axis 2 (pie) Value: SUM(Zero)

Size: Smaller than Rows Axis 1

Color: Same as chosen dashboard background color

1. **ESG Score**

Type: Circle views chart

Shape: Circle

Columns Axis: Year (Discrete)

Rows Axis Value: AVG([Current Score])

Color: ESG Category

1. **Supply Chain Risk**

Type: Treemap

Size: SUM([Emissions Tonnes])

Color: AVG([High Risk Suppliers Pct])

1. **Carbon Offset Projects**

Type: Circle views chart

Shape: Filled diamond

Columns Axis: Project Type

Size: SUM([CO2 Offset Tonnes])

Color: SUM([Project Count])

1. **Regional Emissions**

Type: Filled map

Detail: Country

Color: SUM([Total Emissions Tonnes])

* + 1. **Waste Diversion %**

Type: Line chart

Columns Axis: Year

Rows Axis: AVG([Diversion Rate Pct])

Color: Waste Category

* + 1. **Waste Diversion Trends**

Type: Stacked column chart

Columns Axis: Year

Rows Axis: SUM([Processing Facilities Count])

Color: Waste Category

* + 1. **Waste Recycling**

Type: Area chart

Columns Axis: Year

Rows Axis: SUM([Recycled Waste Tonnes])

Color: Waste Category

* + 1. **Global Filters**
* Add Region and Year to the filters pane
* Right click each filter and select “Apply to Worksheets”/”All Using This Data Source”

**Step 3: Dashboard Assembly**

1. **Header KPIs**

* Add all header KPIs into a single horizontal container
* Add Region and Year filters to the same container
* Select “Distribute evenly” in the container options

1. **Bottom left area**

* Add Scope Emissions, ESG Score, and Supply Chain Risk charts into a single vertical container
* Select “Distribute evenly” in the container options

1. **Map**

* The Regional Emissions map occupies its own container

1. **Bottom middle area**

* Add Carbon Offset Tonnes vs Investment and Carbon Offset Projects charts into a single horizontal container
* Select “Distribute evenly” in the container options

1. **Bottom right area**

* Add Waste Diversion %, Waste Diversion Trends, and Waste Recycling charts into a single vertical container
* Select “Distribute evenly” in the container options

1. **General Dashboard Attributes**

* All charts listed above should have the same border specifications (color and thickness)
* All charts listed above have an outer padding of 4px.
* Right click dashboard tab and select “Hide all sheets”

**Other Dashboard Notes**

1. **Technical Sophistication**

* Multi-dimensional data modeling across 6 interconnected tables
* Time-series analysis with seasonal variations and improvement trends
* Geographic analytics with regional performance variations
* Financial correlation modeling linking sustainability investment to performance gains

1. **Business Domain Expertise**

* ESG framework knowledge covering Environmental, Social, and Governance metrics
* Supply chain analytics with vendor risk assessment and certification tracking
* Regulatory compliance indicators
* ROI quantification for sustainability programs

1. **Strategic Analytical Thinking**

* Cross-metric relationships
* Multi-stakeholder dashboard design serving executives, operations, and compliance needs
* Industry-authentic metrics following actual ESG reporting standards

1. **Holistic Sustainability Story**

* Input metrics: Energy consumption, water usage, raw materials
* Process metrics: Operational efficiency, waste generation, employee behavior
* Output metrics: Emissions, waste diversion, sustainability ROI
* Impact metrics: ESG scores, regulatory compliance, stakeholder satisfaction

1. **Cross-Metric Intelligence**

* The unified design reveals critical relationships between sustainability dimensions

1. **Executive-Ready Intelligence**

* Single dashboard eliminates the need for multiple sustainability reports
* C-Suite Overview: Immediate access to all ESG performance indicators
* Operational Details: Drill-down capability for facility managers
* Investor Relations: Complete ESG story for stakeholder communications
* Regulatory Compliance: All required metrics in standardized format