



## **Data Governance and Security Project**

Tools used: Tableau, Microsoft Word

From raw data to business insights a full cycle analysis project

# *Comprehensive Analysis of Country, Region, Series Code, Indicator, Category and Yearly Trends*

## **Dataset Overview:**

- **Data Coverage**
- **Regional Coverage**
- **Fields Analysed:** Country (Code, Currency unit), Region, Series Code & Description, Indicator & Code, Category, Years, Income Group, Latest Industrial, Trade, Population and Agricultural Census, National accounts base and reference year and Lending Category.
- **New Features Created:** Category %, Regional Coverage, Total Countries, Total Indicators, Indicators reported %, % per Indicator, Reported Country.

## **Key Highlights & Insights**

### ◊ **1. Data Coverage:**

- Total Countries : **239**
- Total Indicators : **67**
- Indicators Reported % : **97%**

### ◊ **2. Regional Coverage:**

- Europe & Central Asia (19%) has the **highest** coverage.
- North America (1%) has the **lowest** coverage.

### ◊ **3. Indicators are reported at varying levels, with Top 5 Indicators showing the highest completeness.**

### ◊ **4. Country By Groups:**

- Majority of Countries are in the **High-Income** group.
- **Europe & Central Asia Region** has broad coverage among all groups.
- **Sub-Saharan Africa Region** stands out with the highest share of **low-income** countries.

### ◊ **5. ESG Category By Year:**

- **Infrastructure: Technology** show a significant share in later years, highlighting growing importance.
- Strong reporting recent decades (2000s onward), with 100% coverage in many years.
- Data Gaps: Certain years show lower reporting percentages compared to others.

❖ **6. ESG Country By Indicators:**

- **Access to clean fuels and Technologies for Cooking, Access to Electricity** is reported by the largest number of countries.
- **Children in employment** moving from minimal participation to full coverage over two decades.

❖ **7. Industrial and Trade Data:**

- Coverage for **high-income** countries is the strongest, particularly in the **East Asia & Pacific region** by 2014.
- Even distribution of trade data reporting globally without major gaps between Income groups.

❖ **8. Population and Agricultural Census:**

- Both censuses are reported mainly as **Actual** data, particularly linked to the **IBRD** lending group.
- Only Isolated cases appear as **Estimate**(2007) and **Preliminary** (2016), showing census reporting is largely stable and reliable.

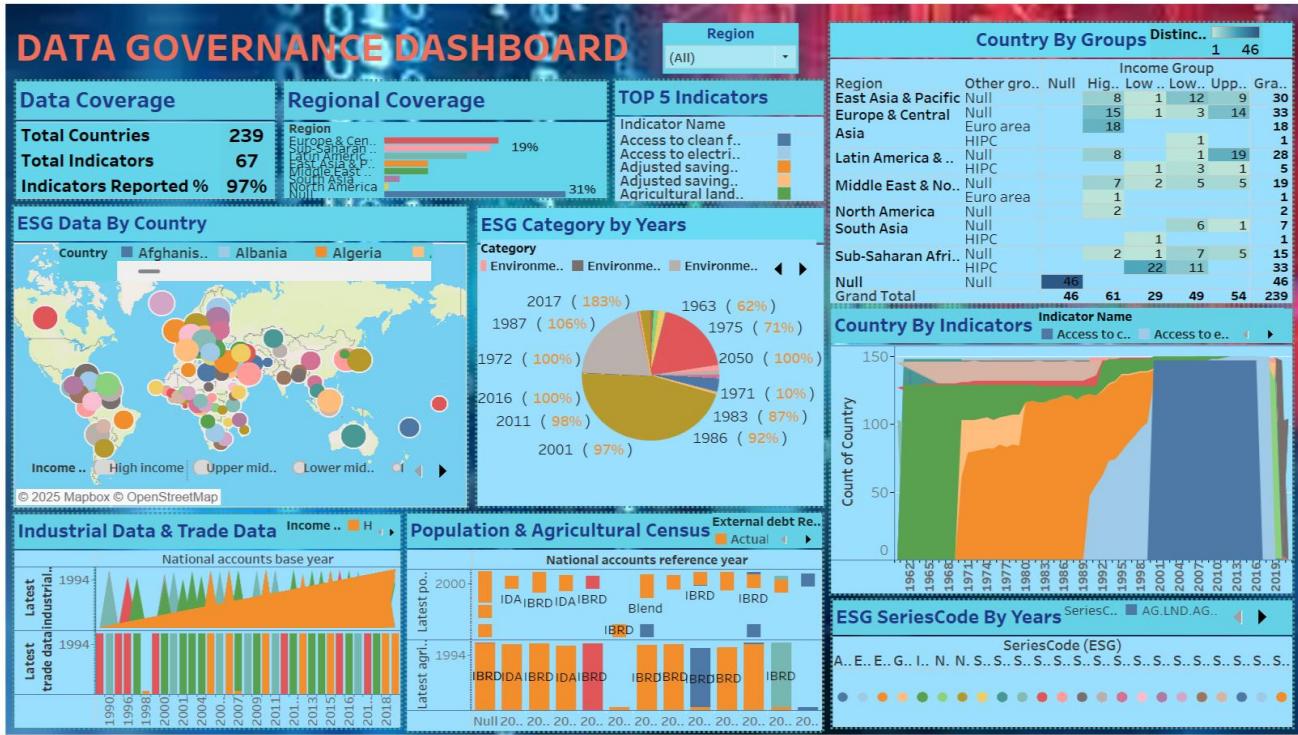
❖ **9. Visuals Used Across Tableau Page:**

| Visuals   | Usage Areas  |
|-----------|--|
| Map       | ESG Data By Country                                |
| Pie Chart | ESG Category By Year                               |
| Table     | Country By Group                                   |
| Dual Axis | Industrial & Trade Data                            |
| Polygon   | Country By Indicator                               |
| Dual Axis | Population and Agricultural census                 |
| Pie Chart | ESG Series Code by Year                            |
| Bar Chart | Regional Coverage                                  |
| KPI Cards | Data Coverage, Regional Coverage, Top 5 Indicators |

**Deliverables:**

- \* Tableau.twb dashboard
- \* Project screenshots for LinkedIn / Resume
- \* GitHub-ready README
- \* PDF export for offline presentation

# Tableau Dashboard



This dashboard page analyzes data governance metrics such as Country, Regional coverage, Income groups, Indicators, Category-wise analysis and census data to provide overall data quality and governance performance.

# Data Governance Tableau Calculations

## A.KPI's

### 1. Regional Coverage:

tableau code:

```
{FIXED [Region]: COUNTD ([Country Name])}
```

```
/
```

```
{FIXED : COUNTD ([Country Name])}
```

### 2. Data Coverage:

tableau code:

```
Total Countries = COUNTD ([Country Name])
```

```
Total Indicators = COUNTD ([Indicator Name])
```

```
Indicators Reported % = AGG (Reported Indicators %)
```

## B. Chart Requirements:

### 1. Reported Country:

tableau code:

```
IF NOT ISNULL([Values]) THEN [Country Name] END
```

### 2. Category %:

tableau code:

```
{FIXED [Years], [Category]: SUM([Values])}
```

```
/
```

```
{FIXED [Years]: SUM([Values])}
```

### **3. Reported Indicators %:**

tableau code:

```
COUNTD(IF NOT ISNULL([Values])THEN  
[Indicator Name ] END )  
/  
COUNTD([Indicator Name])
```

### **4. % per Indicator:**

tableau code:

```
COUNTD (   
IF NOT ISNULL([Values]) AND [Values]<> 0 THEN [Country Name] END  
)  
/  
WINDOW_SUM( COUNTD (   
IF NOT ISNULL([Values]) AND [Values]<> 0 THEN [Country Name] END  
) ,0, IIF(FIRST()=0, LAST(), LAST()))
```