

# CO<sub>2</sub> Emission

## 1 INTRODUCTION

### 1.1 Overview

Petroleum products are the leading source of CO<sub>2</sub> emissions from energy use. In 2025, petroleum is projected to account for 971 million metric tons carbon equivalent, a 43% share of the projected total. Coal is the second leading source of CO<sub>2</sub> emissions and is projected to produce 73 million metric tons carbon equivalent in 2025, or 34% of the total. In 2025, natural gas use is projected to produce a 23% share of the total CO<sub>2</sub> emissions with 512 million metric tons carbon equivalent. The use of fossil fuels in the electric power industry accounted for 39% of total energy-related CO<sub>2</sub> emissions in 2001, and the share is projected to be 38% in 2025. Coal is projected to account for 50% of the power industry's electricity generation in 2025 and to produce 81% of electricity-related CO<sub>2</sub> emissions. In 2025, natural gas is projected to account for 27% of electricity generation and 18% of electricity-related CO<sub>2</sub> emissions. CO<sub>2</sub> emissions in Mozambique are related to two important sources: the use of wood fuels and wildfires. The rural and a large part of the urban population remain dependent on wood fuels. In total, approximately 84% of the population relies on traditional biomass, making Mozambique the country with the fifth largest proportion of the population in this situation. The industrial production of CO<sub>2</sub> is still much smaller than in most countries. Electricity is mainly generated by the Cahora Bassa dam and hence carbon-free. The percentage of thermal energy in all electricity sold by the national utility EDM is merely 0.23%. As a result, per capita CO<sub>2</sub> emissions of 0.1 metric tons are much lower than the average for Sub-Saharan African developing countries (SSA) and low-income countries (LIC).

### 1.2 Purpose

Tableau Public is a free platform to explore, create and publicly share data visualizations online. With the largest repository of data visualizations in the world to learn from, Tableau Public makes developing data skills easy. It helps us to learn and analyze CO<sub>2</sub> emissions data more easily. Here are some examples.

Pie chart - The Pie Chart is one of the simplest and easy-to-understand CO<sub>2</sub> emission control Charts in Tableau. It simply organizes data in the form of a pie and divides it into slices. It is a 360-degree graphical view here; we added one more attribute region along with item continent name, area with CO<sub>2</sub> emission percentage.

Map-The Map in Tableau is a geographical representation of the latitude and longitude coordinates where each pair of coordinates is treated as a

Continent/Country/Region/State. Now, let us use the Tableau SuperStore dataset and find out which country in the World is bringing the maximum amount of Co2 emission.

Bar charts -The Bar Chart represents the data in the form of bars. The length of the bar is proportional to the variable value. Now, let us use the Bar Charts in Tableau to find top Co2 emitting countries in the world.

Area charts -An Area chart is similar to a line chart. Except the difference is, here, the partitions are done based on the categories /regions/nation. Now, we will use the Area Charts in Tableau to find the amount of co2 emission in selected regions

Text table - Text table is one of the simplest and most straightforward charts representing data in rows and columns. Text Tables are also called pivot tables by placing one dimension on the Rows shelf and another dimension on the Columns shelf.

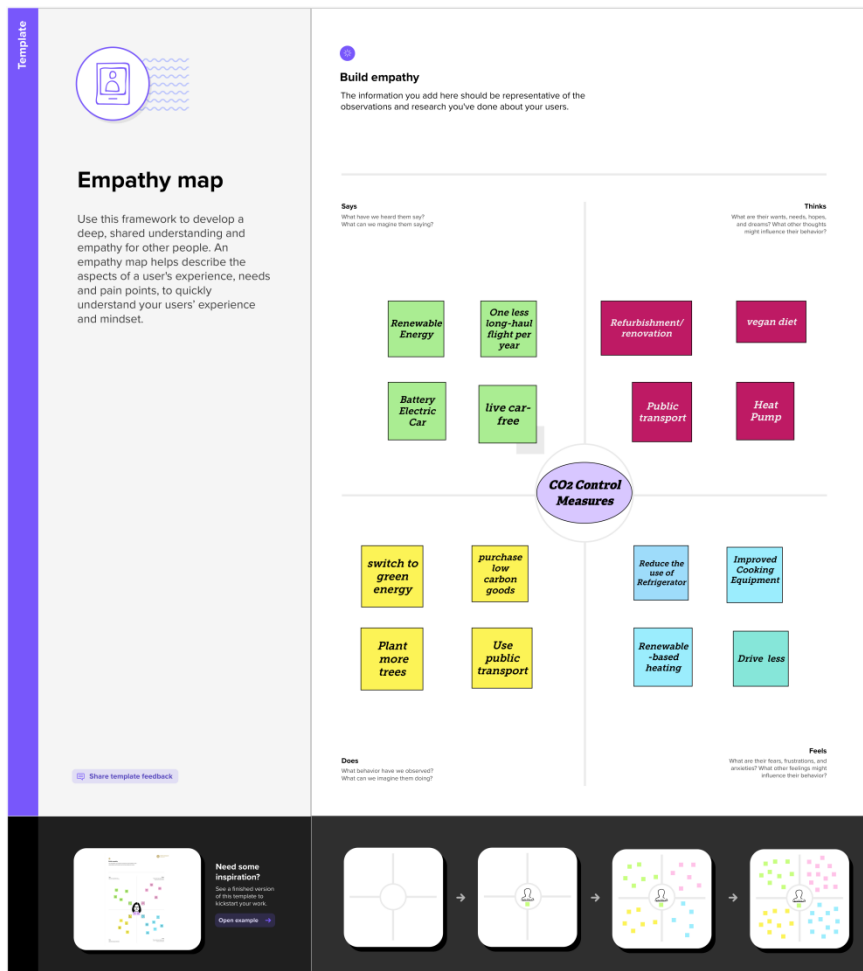
Histogram - A histogram is similar to a bar chart, but it groups the values into continuous ranges. Each bar in the histogram represents the height of the number of values present in that range. Now, we will use Histogram Charts in Tableau to draw Co2 emission increasing values

Data visualization in tableau is the graphical representation of information and data. By using visual elements like charts, graphs, and maps, data visualization tools provide an accessible way to see and understand trends, outliers, and patterns in data. Additionally, it provides an excellent way for students to understand co2 emission.

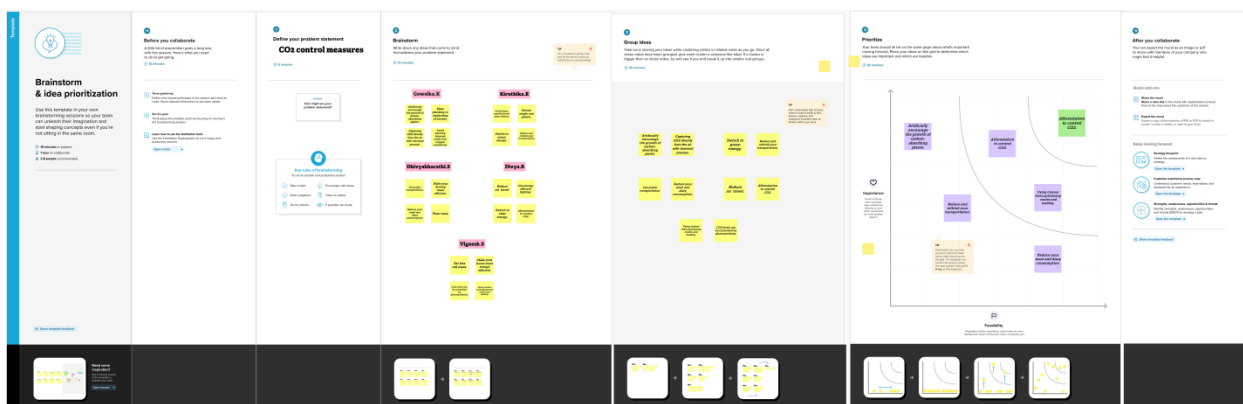
In the world of Big Data, data visualization tools and technologies are essential to analyze massive amounts of information and make data-driven decisions.

## 2. Problem Definition & Design Thinking

### 2.1 Empathy Map

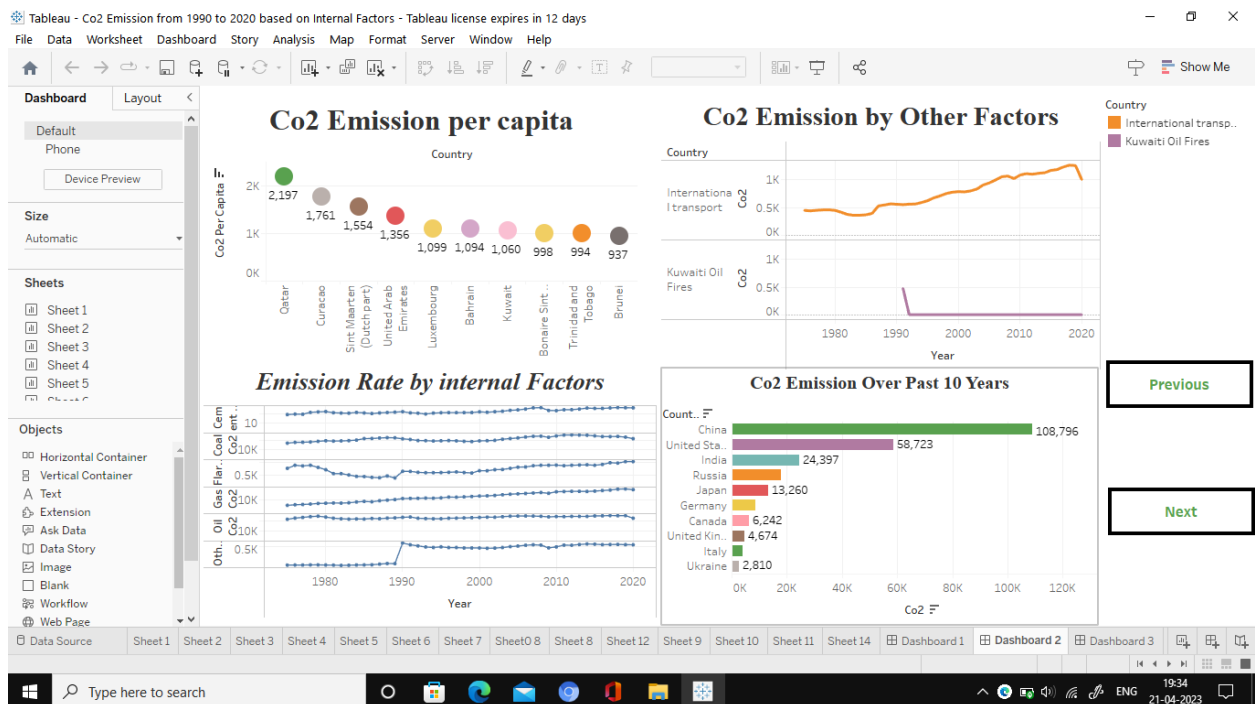
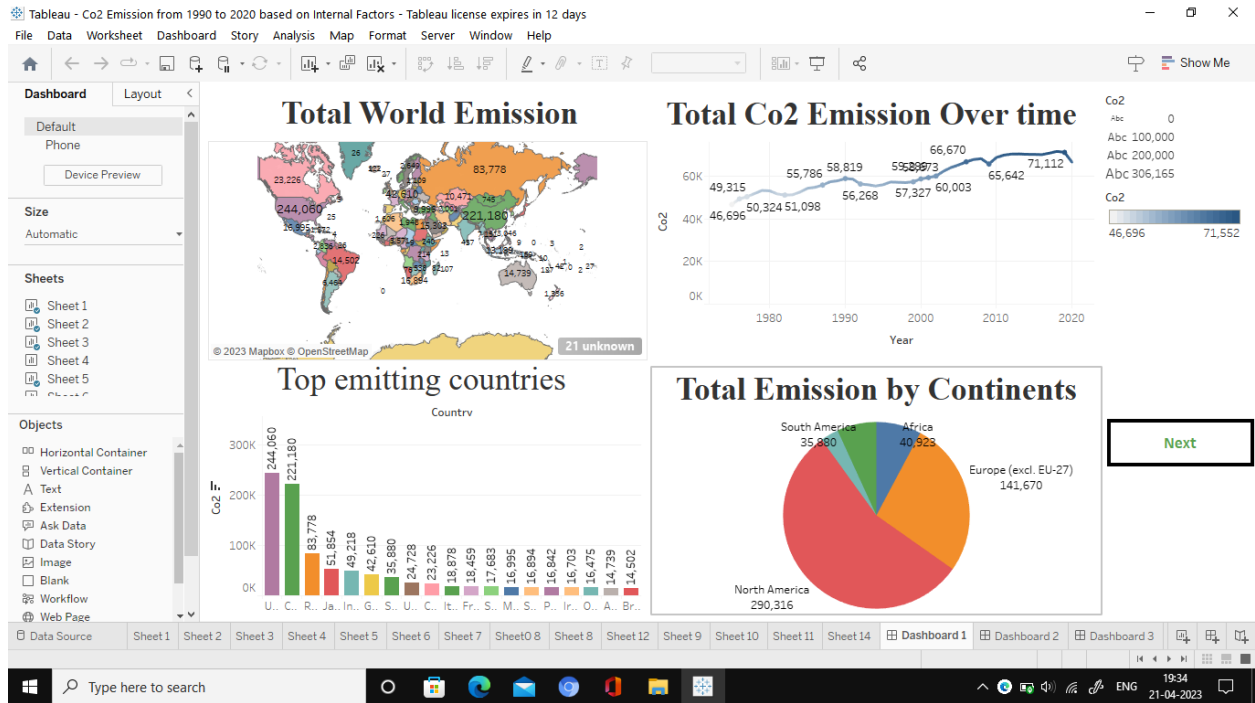


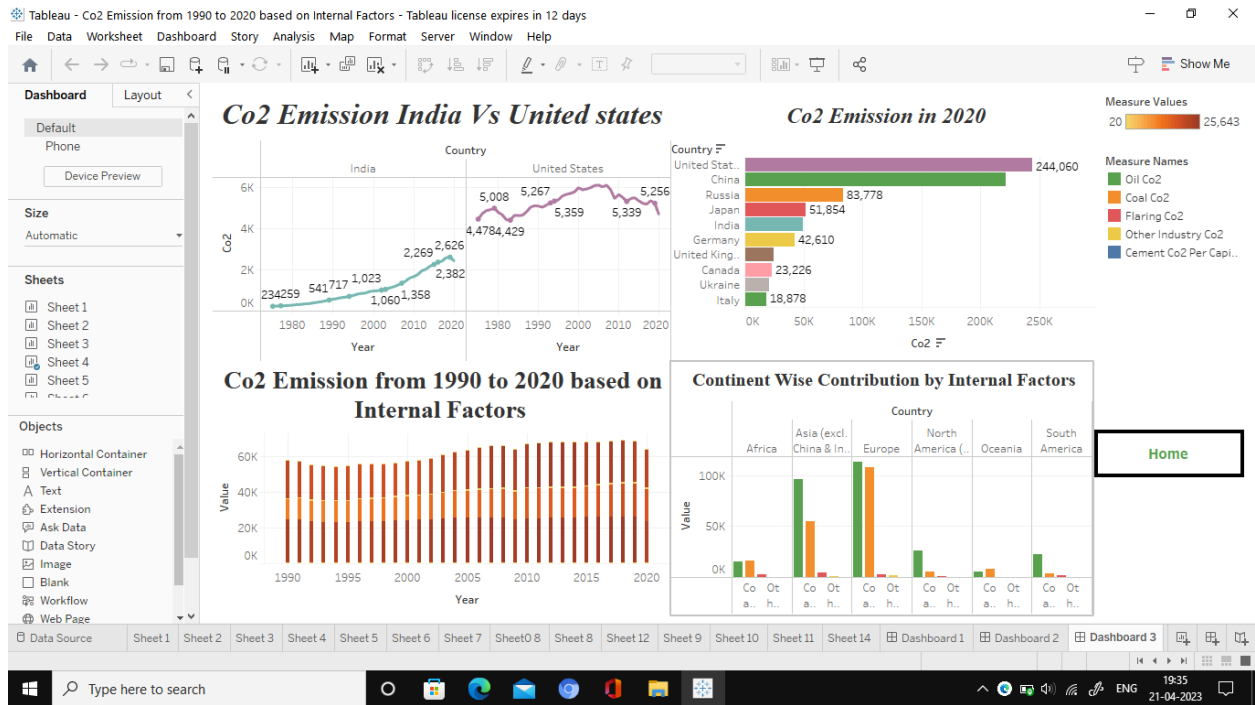
### 2.1 Ideation & Brainstorming Map



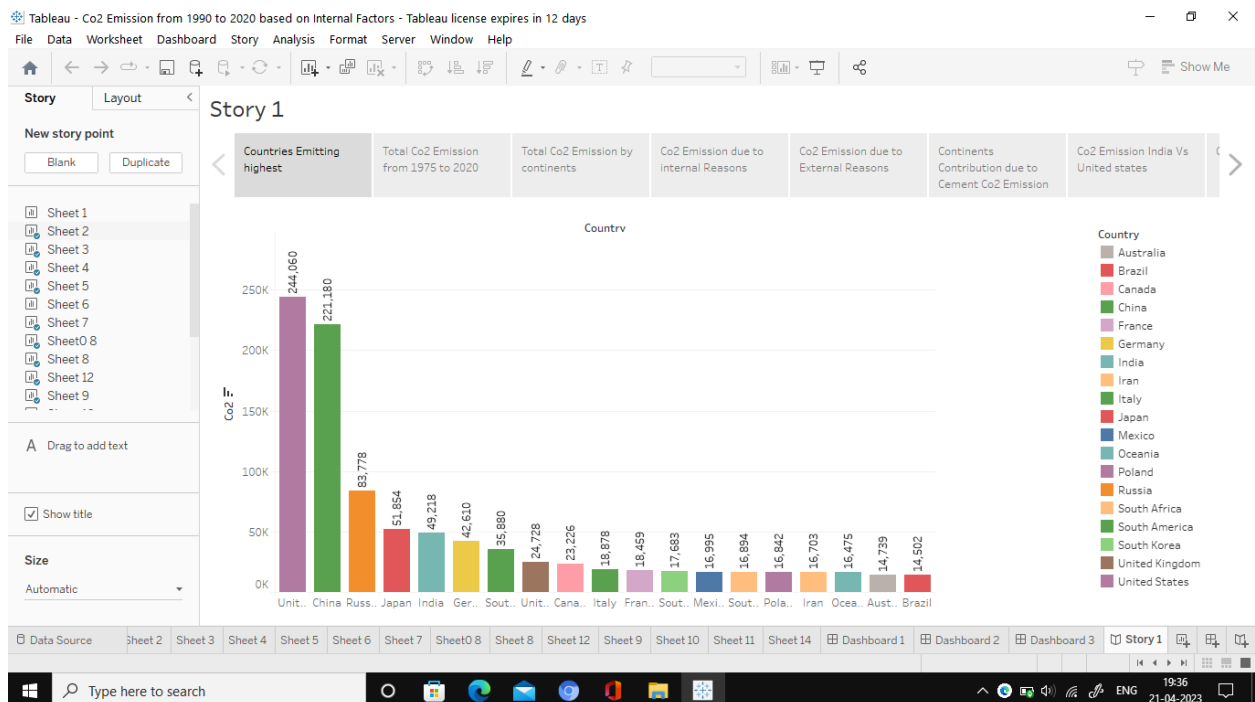
## 3 Result

### 3.1 Dashboard

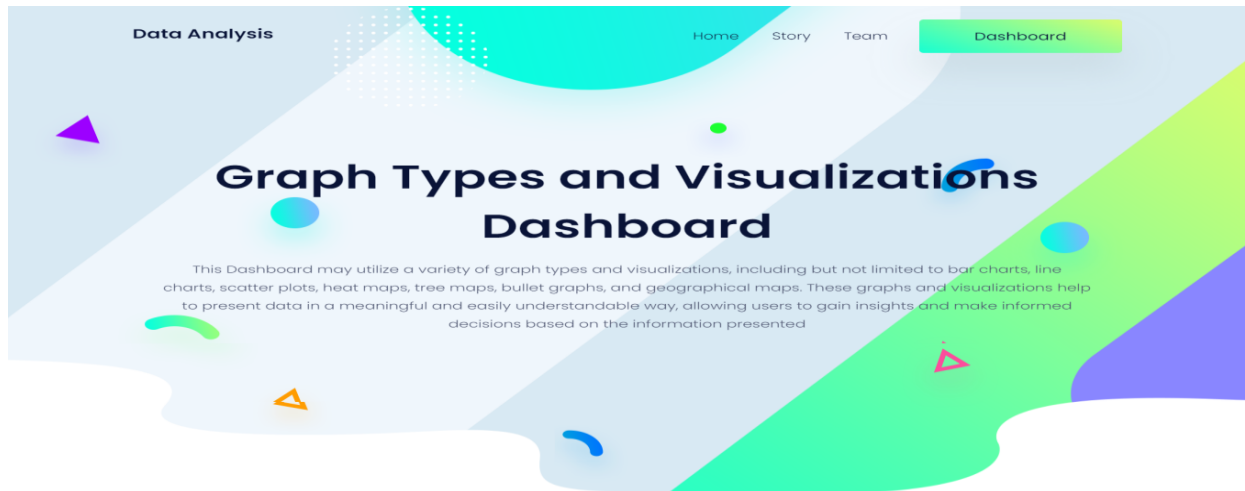




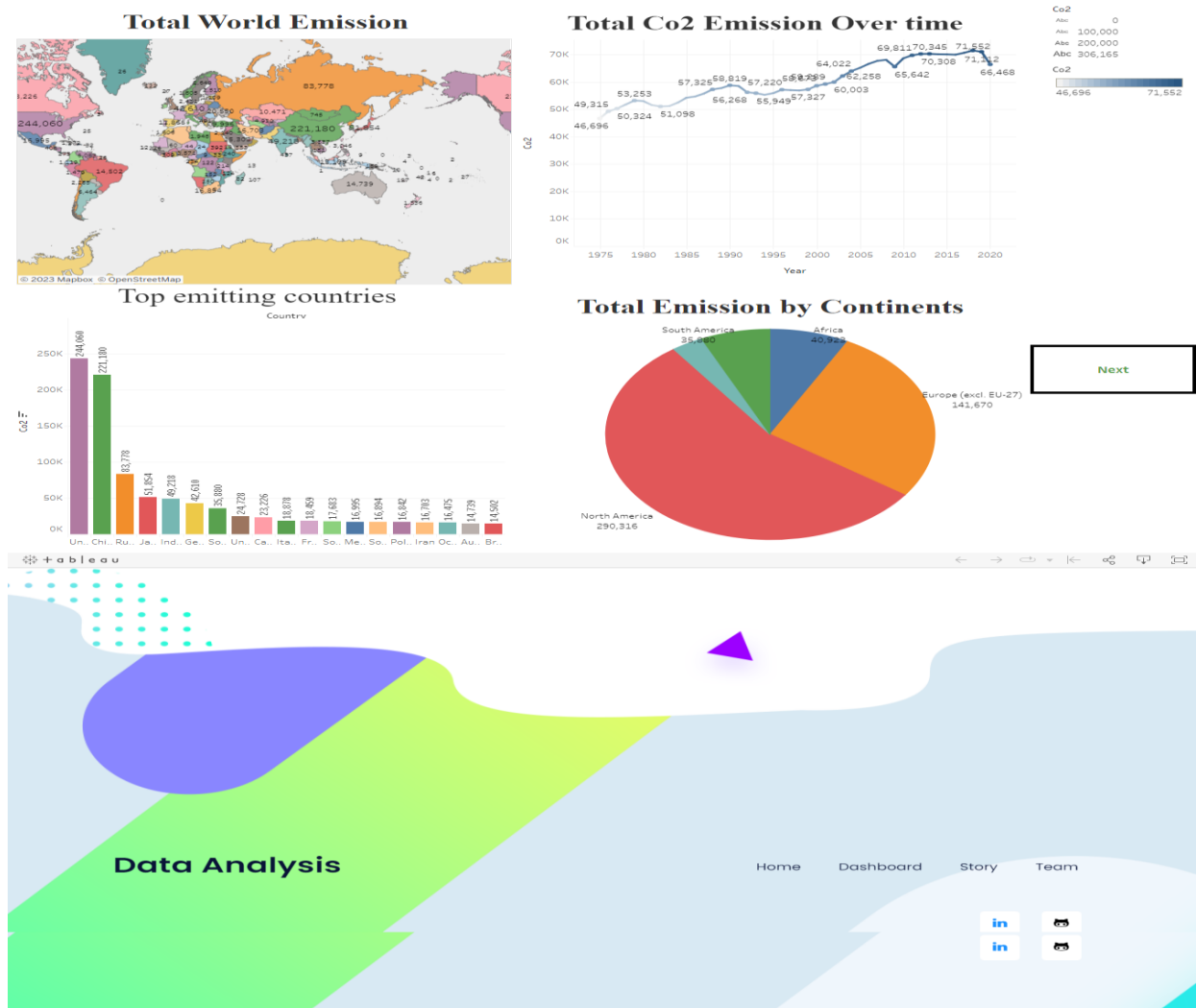
## 3.2 Story



### 3.3 Dashboard Web



#### CO2 Emission Analysis

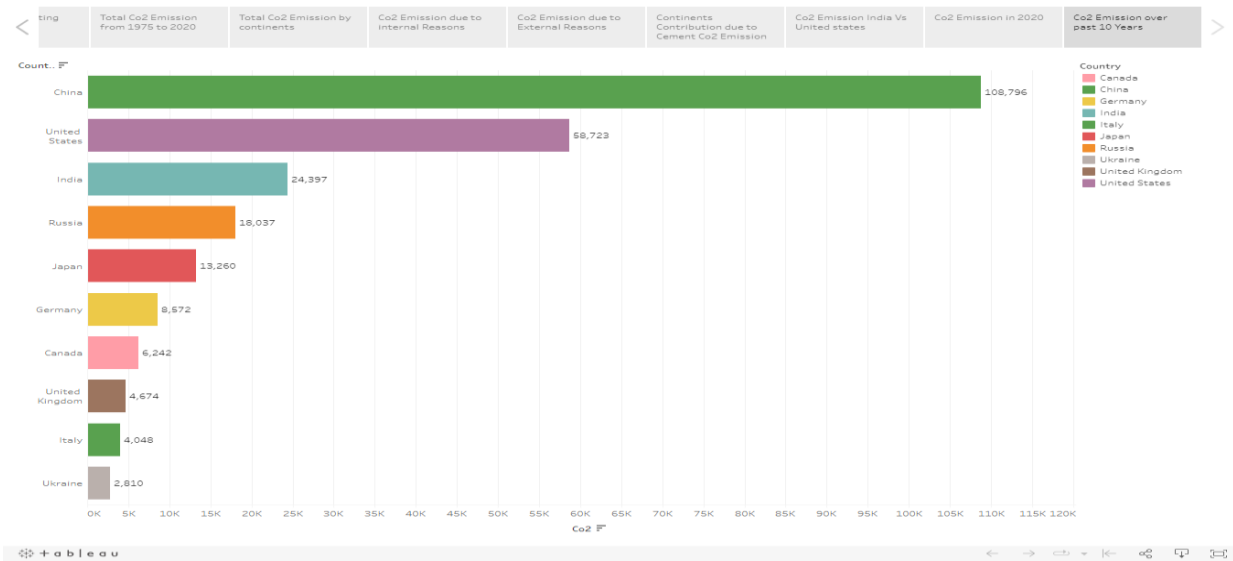


### 3.4 Story Web



## CO2 Emission Analysis

### Story 1



## 4 ADVANTAGES & DISADVANTAGES

### Advantages of co2 emission

Carbon dioxide (CO<sub>2</sub>) is an essential component of photosynthesis (also called carbon assimilation). Photosynthesis is a chemical process that uses light energy to convert CO<sub>2</sub> and water into sugars in green plants. These sugars are then used for growth within the plant, through respiration.

#### Multi-Industry Uses for Carbon Dioxide (CO<sub>2</sub>):

Carbon dioxide in solid and in liquid form is used for refrigeration and cooling. It is used as an inert gas in chemical processes, in the storage of carbon powder and in fire extinguishers.

#### Metals Industry:

Carbon dioxide is used in the manufacture of casting molds to enhance their hardness.

#### Manufacturing and Construction Uses:

Carbon dioxide is used on a large scale as a shield gas in MIG/MAG welding, where the gas protects the weld puddle against oxidation by the surrounding air. A mixture of argon and carbon dioxide is commonly used today to achieve a higher welding rate and reduce the need for post weld treatment.

Dry ice pellets are used to replace sandblasting when removing paint from surfaces. It aids in reducing the cost of disposal and cleanup.

#### Chemicals, Pharmaceuticals and Petroleum Industry Uses:

Large quantities are used as a raw material in the chemical process industry, especially for methanol and urea production.

Carbon dioxide is used in oil wells for oil extraction and to maintain pressure within a formation.. When CO<sub>2</sub> is pumped into an oil well, it is partially dissolved into the oil, rendering it less viscous, allowing the oil to be extracted more easily from the bedrock. Considerably more oil can be extracted from through this process.

#### Rubber and Plastics Industry Uses:

Flash is removed from rubber objects by tumbling them with crushed dry ice in a rotating drum.



#### Food and Beverages Uses for Carbon Dioxide:

Liquid or solid carbon dioxide is used for quick freezing, surface freezing, chilling and refrigeration in the transport of foods. In cryogenic tunnel and spiral freezers, high pressure liquid CO<sub>2</sub> is injected through nozzles that convert it to a mixture of CO<sub>2</sub> gas and dry ice "snow" that covers the surface of the food product. As it sublimates (goes directly from solid to gas states) refrigeration is transferred to the product.

Carbon dioxide gas is used to carbonate soft drinks, beers and wine and to prevent fungal and bacterial growth.

Liquid carbon dioxide is a good solvent for many organic compounds. It is used to decaffeinate coffee.

It is used as an inert "blanket", as a product-dispensing propellant and an extraction agent. It can also be used to displace air during canning.

Supercritical CO<sub>2</sub> extraction coupled with a fractional separation technique is used by producers of flavors and fragrances to separate and purify volatile flavor and fragrances concentrates.

Cold sterilization can be carried out with a mixture of 90% carbon dioxide and 10% ethylene oxide, the carbon dioxide has a stabilizing effect on the ethylene oxide and reduces the risk of explosion.

#### Health Care Uses:

Carbon dioxide is used as an additive to oxygen for medical use as a respiration stimulant.

#### Environmental Uses:

Used as a propellant in aerosol cans, it replaces more environmentally troublesome alternatives.

By using dry ice pellets to replace sandblasting when removing paint from surfaces, problems of residue disposal are greatly reduced.

It is used to neutralize alkaline water.

#### Miscellaneous Uses for Carbon Dioxide (CO<sub>2</sub>):

Liquid carbon dioxide's solvent potential has been employed in some dry cleaning equipment as a substitute for conventional solvents. This use is still experimental - some types of soil are more effectively removed with traditional dry cleaning equipment, and the equipment is more expensive.

Yields of plant products grown in greenhouses can increase by 20% by enriching the air inside the greenhouse with carbon dioxide. The target level for enrichment is typically a carbon dioxide concentration of 1000 PPM (parts per million) - or about two and a half times the level present in the atmosphere.

### **Disadvantages of CO2 Emissions:**

The challenge in sustainably advancing the building sector is the increasingly large outflows of CO<sub>2</sub> due to the utilization of non-sustainable energy sources in the planning, construction, and operations of buildings .

CO<sub>2</sub> is also emitted from the broad utilization of land in the urbanization process . The energy sourced from fossil fuels is non-sustainable, and yet it accounts for a large percentage of the energy used in the construction and operation processes.

Sustainable or renewable energy sources only account for 6% of the total energy used in the sector, while fossil fuel used in construction activities accounts for 40% of worldwide greenhouse gas emissions. Although numerous novel methods have been proposed to lessen the CO<sub>2</sub> footprint of buildings, particularly in high-density urban communities, the challenge has yet to be solved appreciably .

The utilization of a non-sustainable energy source directly affects the environment, and it is directly proportional to the amount used. The construction of a building emits CO<sub>2</sub>, both directly and indirectly. Direct CO<sub>2</sub> emissions originate from the burning of natural gas, diesel, light fuel oil, and other oil-based commodities, while indirect CO<sub>2</sub> emissions come from the application of electricity.

Globally, the indirect CO<sub>2</sub> emission accounts for 85% of the total CO<sub>2</sub> emitted, while only 14% is from direct emissions.

The 2030 Climate and Energy Framework states that 27% of energy should be sourced from sustainable energy sources, while energy efficiency or productivity should increase by 27% . However, there are challenges in finding sustainable solutions to low productivity and efficiency.

One solution is to itemize the processes of construction and operation so that detailed evaluations can be carried out. Construction includes the assembly of the building material, the development of the structure and foundation, and the transportation and operation of machinery. The procedure comprises the maintenance aspect of the building and its infrastructure. The evaluation of the life cycle requires a detailed inventory of these processes in all phases of the building's life. The assessment would highlight strategies that could be made more productive and efficient.

It is well-known that CO<sub>2</sub> emissions contribute to global warming and climate change, which can significantly cause severe impacts and consequences for humans and the environment. CO<sub>2</sub> emissions act like a blanket in the air, trapping heat in the atmosphere, and warming up the Earth.

This layer prevents the Earth from cooling, and thus raises global temperatures.

Global warming would affect environmental conditions, food and water supplies, weather pattern, and sea levels. Based on the National Oceanic and Atmospheric Administration (NOAA) Global Climate Summary, it stated that combined land and ocean temperature since 1880 has increased with an average rate of 0.07 °C per decade. The temperature continues rising since 1981, with an average rate of 0.18 °C, which is over twice as massive as previous times.

The release of CO<sub>2</sub> alters water supplies and changes harvesting seasons. For instance, climate change undermines coastal and marine regions with rising ocean levels, which triggers a rising demand for food crops. CO<sub>2</sub> also causes acid rain, which physically damages trees and the built environment. These impacts and consequences of CO<sub>2</sub> emissions can be seen now. They extend well beyond the rising global temperatures, which is affecting ecological systems and communities across the world.

## **5 APPLICATIONS**

Coal, oil, and natural gas are the top three highest emitters of greenhouse gas emissions. Reducing your consumption of these, in turn, reduces your carbon footprint, which has huge impacts on environmental, economic, and public health.

### **Mitigates the Effects of Global Climate Change**

Reducing GHG emissions slows the rate of temperature rise, sea-level rise, ice melting, and ocean acidification.

### **Improves Public Health**

Reducing GHG emissions lessens the likelihood and severity of extreme weather events, improves air and water quality, maintains biodiversity, and supports a healthy food supply.

### **Boosts the Global Economy**

Reducing GHG boosts the economy, especially when it becomes economically rewarding to innovate solutions that help protect our planet, fight climate change, and are based on clean energy.

## Maintains Plant and Animal Diversity

Reducing GHG slows the effects of climate change, thereby reducing the adaptation pressure placed on plants and animals.

One of the best ways we can aid in the fight against global climate change is to reduce our carbon footprint. Once we do this we can begin to reap the benefits of improved public health, a stable economy, and maintenance of biodiversity.

## 6 CONCLUSION

In conclusion, as discussed earlier, any sort of data is easily accessible to Tableau. So in the procedure of tableau, Co2 emission analysis gets connected and extracted to data for visualization.

Tableau can extract a Co2 data from a database like pdf, excel, text documents, R, Hadoop, Python, or SAS to cloud databases like Flipkart, Google sheet, Netflix, Amazon.

The data is dragged off to the data engine of Tableau, also called the Tableau desktop. Here, the business analyst works on data, generates a dashboard, and shares it with the user, where the user reads this on the screen called Tableau Reader. It helps us to understand co2 emission control methods more easily .

The Co2 emission data is published with various supported features like collaboration, models of security, automation, distribution, etc.

In the end, the we will be able to download a visualized data file of Co2 control measures on emails, desktop, or mobile.

## 7 FUTURE SCOPE

Heavy industries are embracing carbon capture's potential

Heavy industries are embracing carbon capture as a realistic pathway to decarbonization and making significant investments, with more than 100 new facilities announced in 2021.

HeidelbergCement, a global cement manufacturer, is developing eight carbon capture initiatives across the globe.

Aramco, the world's largest oil company, is developing one of the largest carbon capture facilities of its kind to support hydrogen production. ArcelorMittal, the largest steel manufacturer in the Americas and Europe, is relying on carbon capture as one lever of its multi-

billion-dollar investment programme. All three companies have committed to achieving net-zero emissions by 2050

The facilities are following in the footsteps of demonstration facilities that capture more carbon dioxide than anticipated while attaining better than expected reliability, cost and storage performance – demonstrating they can be operated economically. Owners are scaling up carbon capture technology and moving from pilot projects that capture 400 tons of carbon a day to up to 13,000 tons and more.

Governments across the globe are supporting carbon capture

This summer, the United States passed the Inflation Reduction Act of 2022, which increases carbon capture tax credits by 70%. Canada is accepting grant proposals to advance the viability of carbon capture technologies, as part of a \$319 million investment. Carbon capture tax credits have also been proposed. Governments like Australia, the European Union, the Netherlands and the United Kingdom have launched similar incentives.

However, while these government incentives are crucial, the economic models for carbon capture are often still challenged.

Industry collaboration is creating innovative, more economic solutions

The carbon capture value chain has launched a united effort to mitigate these financial headwinds on a previously unseen scale. Rather than the traditional, transactional contracting model, every member of the value chain is collaborating to develop solutions to move these projects forward. From owners, technology licensors, engineering, procurement and construction (EPC) contractors, to suppliers, it's a new level of partnership.

Contractors are engaging with owners and investors at projects' early stages on best uses of government incentives and helping to secure funding. Cognizant of financing requirements, owners and EPC contractors are working together to mitigate risks through innovative contracting models that yield realistic performance guarantees and schedule terms to reduce overdesign and better control costs.

True engagement and collaboration are also extending further down the value chain. EPC contractors and licensors are engaging with material suppliers and subcontractors in a project's early stages on economic paths forward for materials and design.

For example, technology licensors are sharing amine, a key chemical used in carbon capture, compositions with piping and pump suppliers to determine the most fit-for-purpose gaskets to reduce costs. This type of collaboration is also yielding innovative solutions that reduce project footprints by 30% and require less material to purchase and install.

In addition to reducing material costs, this upfront planning also results in a more fully developed design that mitigates risks and removes unnecessary contingency costs that can often reach to 30% of a total budget. The result is more accurate estimates for both private and government grant financing and economically viable projects.

What's needed to enable carbon capture?

With strong industry engagement, government support and innovative supply chain solutions, carbon capture can buck the financial headwinds and deliver a competitive solution for achieving net-zero targets. The future is more promising than ever for this technology.

## 8 APPENDIX

In appendix we are attached,

**Home, Dashboard, Story** pages **HTML** Source Code

**Home page HTML**

```
<!DOCTYPE html>
<html lang="zxx">

<head>
  <meta charset="utf-8">
  <title>Home</title>

  <!-- mobile responsive meta -->
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <meta name="viewport" content="width=device-width, initial-scale=1, maximum-
scale=1">

  <!-- ** Plugins Needed for the Project ** -->
```

```

<!-- Bootstrap -->
<link rel="stylesheet" href="plugins/bootstrap/bootstrap.min.css">
<!-- themefy-icon -->
<link rel="stylesheet" href="plugins/themify-icons/themify-icons.css">
<!-- slick slider -->
<link rel="stylesheet" href="plugins/slick/slick.css">
<!-- venobox popup -->
<link rel="stylesheet" href="plugins/Venobox/venobox.css">
<!-- aos -->
<link rel="stylesheet" href="plugins/aos/aos.css">

<!-- Main Stylesheet -->
<link href="css/style.css" rel="stylesheet">

<!--Favicon-->
<link rel="shortcut icon" href="images/favicon.ico" type="image/x-icon">
<link rel="icon" href="images/favicon.ico" type="image/x-icon">

</head>

<body>

<!-- navigation -->
<section class="fixed-top navigation">
  <div class="container">
    <nav class="navbar navbar-expand-lg navbar-light">
      <h4>Data Analysis</h4>
      <button class="navbar-toggler border-0" type="button" data-
toggle="collapse" data-target="#navbar" aria-controls="navbar"
      aria-expanded="false" aria-label="Toggle navigation">
        <span class="navbar-toggler-icon"></span>
      </button>
      <!-- navbar -->
      <div class="collapse navbar-collapse text-center" id="navbar">
        <ul class="navbar-nav ml-auto">
          <li class="nav-item">
            <a class="nav-link" href="dashboard.html">Dashboard</a>
          </li>
          <li class="nav-item">
            <a class="nav-link" href="story.html">Story</a>
          </li>
          <li class="nav-item">
            <a class="nav-link page-scroll" href="#team">Team</a>
          </li>
        </ul>
      </div>
    </nav>
  </div>

```

```

        </ul>
        <a href="index.html" class="btn btn-primary ml-lg-3 primary-
shadow">Home</a>
    </div>
</nav>
</div>
</section>
<!-- /navigation -->

<!-- hero area -->
<section class="hero-section hero" data-background="" style="background-image:
url(images/hero-area/banner-bg.png);">
    <div class="container">
        <div class="row">
            <div class="col-lg-12 text-center zindex-1">
                <h1 class="mb-3">CO2<br>
                Emission</h1>
                <p class="mb-4">To reduce CO2 for your healthy life</p>
                <a href="dashboard.html" class="btn btn-secondary btn-lg">explore us</a>
                <!-- banner image -->

            </div>
        </div>
    </div>
</div>
<!-- background shapes -->
<div id="scene">
    
    
    
    
    
    
    
    
    
</div>

```



```

</section>

<!-- team -->
<section class="section-lg team" id="team">
  <div class="container-fluid">
    <div class="row">
      <div class="col-lg-12 text-center">
        <h2 class="section-title">Our Team</h2>
        <p class="mb-100"></p>
      </div>
    </div>
    <div class="col-10 mx-auto">
      <div class="team-slider">
        <!-- team-member -->
        <div class="team-member">
          <div class="d-flex mb-4">
            <div class="align-self-center">
              <h4>Gowsika.K</h4>
            </div>
          </div>
          <p>B.Sc Maths<br>Final year<br>J.K.K.Nataraja College of Arts &
Science</p>
        </div>
        <!-- team-member -->
        <div class="team-member">
          <div class="d-flex mb-4">
            <div class="align-self-center">
              <h4>Kiruthika.R</h4>
            </div>
          </div>
          <p>B.Sc Maths<br>Final year<br>J.K.K.Nataraja College of Arts &
Science</p>
        </div>
        <!-- team-member -->
        <div class="team-member">
          <div class="d-flex mb-4">
            <div class="align-self-center">
              <h4>Dhivyabharathi.S</h4>
            </div>
          </div>
          <p>B.Sc Maths<br>Final year<br>J.K.K.Nataraja College of Arts &
Science</p>
        </div>
        <!-- team-member -->
        <div class="team-member">

```

```

        <div class="d-flex mb-4">
            <div class="align-self-center">
                <h4>Vignesh.S</h4>
            </div>
        </div>
        <p>B.Sc Maths<br>Final year<br>J.K.K.Nataraja College of Arts &
Science</p>
    </div>
    <!-- team-member -->
    <div class="team-member">
        <div class="d-flex mb-4">
            <div class="align-self-center">
                <h4>Divya.B</h4>
            </div>
        </div>
        <p>B.Sc Maths<br>Final year<br>J.K.K.Nataraja College of Arts &
Science</p>
    </div>
</div>
<!-- background image -->

<!-- background shapes -->




</section>
<!-- /team -->

<!-- footer -->
<footer class="footer-section footer" style="background-image:
url(images/backgrounds/footer-bg.png);">
    <div class="container">
        <div class="row">
            <div class="col-lg-4 text-center text-lg-left mb-4 mb-lg-0">
                <!-- logo -->
                <h3>Data Analysis</h3>
            </div>

```

```

    <!-- footer menu -->
    <nav class="col-lg-8 align-self-center mb-5">
        <ul class="list-inline text-lg-right text-center footer-menu">
            <li class="list-inline-item active"><a href="index.html">Home</a></li>
            <li class="list-inline-item"><a
href="dashboard.html">Dashboard</a></li>
            <li class="list-inline-item"><a href="story.html">Story</a></li>
            <li class="list-inline-item"><a class="page-scroll"
href="#team">Team</a></li>
        </ul>
    </nav>
    <!-- footer social icon -->
    <nav class="col-12">
        <ul class="list-inline text-lg-right text-center social-icon">
            <li class="list-inline-item">
                <a class="linkedin" href="#"><i class="ti-linkedin"></i></a>
            </li>
            <li class="list-inline-item">
                <a class="black" href="#"><i class="ti-github"></i></a>
            </li>
        </ul>
    </nav>
</div>
</div>
</footer>
<!-- /footer -->

<!-- jQuery -->
<script src="plugins/jquery/jquery.min.js"></script>
<!-- Bootstrap JS -->
<script src="plugins/bootstrap/bootstrap.min.js"></script>
<!-- slick slider -->
<script src="plugins/slick/slick.min.js"></script>
<!-- venobox -->
<script src="plugins/Venobox/venobox.min.js"></script>
<!-- aos -->
<script src="plugins/aos/aos.js"></script>
<!-- Main Script -->
<script src="js/script.js"></script>

</body>
</html>

```

## Dashboard page HTML

```
<!DOCTYPE html>
<html lang="zxx">

<head>
  <meta charset="utf-8">
  <title>Dashboard</title>

  <!-- mobile responsive meta -->
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <meta name="viewport" content="width=device-width, initial-scale=1, maximum-
scale=1">

  <!-- ** Plugins Needed for the Project ** -->
  <!-- Bootstrap -->
  <link rel="stylesheet" href="plugins/bootstrap/bootstrap.min.css">
  <!-- themefy-icon -->
  <link rel="stylesheet" href="plugins/themify-icons/themify-icons.css">
  <!-- slick slider -->
  <link rel="stylesheet" href="plugins/slick/slick.css">
  <!-- venobox popup -->
  <link rel="stylesheet" href="plugins/Venobox/venobox.css">
  <!-- aos -->
  <link rel="stylesheet" href="plugins/aos/aos.css">

  <!-- Main Stylesheet -->
  <link href="css/style.css" rel="stylesheet">

  <!--Favicon-->
  <link rel="shortcut icon" href="images/favicon.ico" type="image/x-icon">
  <link rel="icon" href="images/favicon.ico" type="image/x-icon">
</head>

<body>

<!-- navigation -->
<section class="fixed-top navigation">
  <div class="container">
    <nav class="navbar navbar-expand-lg navbar-light">

      <h4>Data Analysis</h4>
      <button class="navbar-toggler border-0" type="button" data-
toggle="collapse" data-target="#navbar" aria-controls="navbar"
      aria-expanded="false" aria-label="Toggle navigation">
```

```

        <span class="navbar-toggler-icon"></span>
    </button>
    <!-- navbar -->
    <div class="collapse navbar-collapse text-center" id="navbar">
        <ul class="navbar-nav ml-auto">
            <li class="nav-item">
                <a class="nav-link" href="index.html">Home</a>
            </li>
            <li class="nav-item">
                <a class="nav-link" href="story.html">Story</a>
            </li>
            <li class="nav-item">
                <a class="nav-link page-scroll" href="index.html#team">Team</a>
            </li>
        </ul>
        <a href="dashboard.html" class="btn btn-primary ml-lg-3 primary-shadow">Dashboard</a>
    </div>
</nav>
</div>
</section>
<!-- /navigation -->
<!-- header-->
<section class="hero-section hero" data-background="" style="background-image:
url(images/hero-area/banner-bg.png);">
    <div class="container">
        <div class="row">
            <div class="col-lg-12 text-center zindex-1">
                <h1 class="mb-3">Graph Types and Visualizations<br>Dashboard</h1>
                <p class="mb-4">This Dashboard may utilize a variety of graph types and
visualizations, including but not limited to bar charts, line<br>charts, scatter
plots, heat maps, tree maps, bullet graphs, and geographical maps. These graphs
and visualizations help<br>to present data in a meaningful and easily
understandable way, allowing users to gain insights and make
informed<br>decisions based on the information presented</p>
                <!-- banner image -->

            </div>
        </div>
    </div>
</div>
<!-- background shapes -->
<div id="scene">
    

```

```

        
        
        
        
        
        
        
        
    </div>
</section>
<!-- /header -->
<div class="row">
    <div class="col-lg-12 text-center zindex-1">
        <h3 class="mb-3">CO2 Emission<br>
        Analysis</h3>
        <p class="mb-4"></p>
        <!-- banner image -->

    </div>
</div>
<!-- dashboard -->
<div class='tableauPlaceholder' id='viz1682067638668' style='position:
relative'><noscript><a href='#'><img alt='Dashboard 1 '
src='https://public.tableau.com/static/images/Co/Co2Emiss
ionAnalysisDashbord1/Dashboard1/1_rss.png' style='border: none'
/></a></noscript><object class='tableauViz' style='display:none;'><param
name='host_url' value='https%3A%2F%2Fpublic.tableau.com%2F' /> <param
name='embed_code_version' value='3' /> <param name='site_root' value='' /><param
name='name' value='Co2EmissionAnalysisDashbord1/Dashboard1' /><param
name='tabs' value='no' /><param name='toolbar' value='yes' /><param
name='static_image'
value='https://public.tableau.com/static/images/Co/Co2Emi
ssionAnalysisDashbord1/Dashboard1/1.png' /> <param
name='animate_transition' value='yes' /><param name='display_static_image'
value='yes' /><param name='display_spinner' value='yes' /><param
name='display_overlay' value='yes' /><param name='display_count' value='yes'
/><param name='language' value='en-US' /></object></div>
</script>

```

```

type='text/javascript'>                                var divElement =
document.getElementById('viz1682067638668');            var vizElement =
divElement.getElementsByTagName('object')[0];           if (
divElement.offsetWidth > 800 ) {
vizElement.style.width='100%';vizElement.style.height=(divElement.offsetWidth*0.7
5)+'px';} else if ( divElement.offsetWidth > 500 ) {
vizElement.style.width='100%';vizElement.style.height=(divElement.offsetWidth*0.7
5)+'px';} else {
vizElement.style.width='100%';vizElement.style.height='1427px';}
    var scriptElement =
document.createElement('script');                      scriptElement.src =
'https://public.tableau.com/javascripts/api/viz_v1.js';      vizEle
ment.parentNode.insertBefore(scriptElement, vizElement);    </script>

<!-- /dashboard -->

<!-- footer -->
<footer class="footer-section footer" style="background-image:
url(images/backgrounds/footer-bg.png);">
    <div class="container">
        <div class="row">
            <div class="col-lg-4 text-center text-lg-left mb-4 mb-lg-0">
                <!-- logo -->
                <h3>Data Analysis</h3>
            </div>
            <!-- footer menu -->
            <nav class="col-lg-8 align-self-center mb-5">
                <ul class="list-inline text-lg-right text-center footer-menu">
                    <li class="list-inline-item active"><a href="index.html">Home</a></li>
                    <li class="list-inline-item"><a
href="dashboard.html">Dashboard</a></li>
                    <li class="list-inline-item"><a href="story.html">Story</a></li>
                    <li class="list-inline-item"><a class="page-scroll"
href="#team">Team</a></li>
                </ul>
            </nav>
            <!-- footer social icon -->
            <nav class="col-12">
                <ul class="list-inline text-lg-right text-center social-icon">
                    <li class="list-inline-item">
                        <a class="linkedin" href="#"><i class="ti-linkedin"></i></a>
                    </li>
                    <li class="list-inline-item">
                        <a class="black" href="#"><i class="ti-github"></i></a>
                    </li>

```

```

        </ul>
    </nav>
</div>
</div>
</footer>
<!-- /footer -->

<!-- jQuery -->
<script src="plugins/jquery/jquery.min.js"></script>
<!-- Bootstrap JS -->
<script src="plugins/bootstrap/bootstrap.min.js"></script>
<!-- slick slider -->
<script src="plugins/slick/slick.min.js"></script>
<!-- venobox -->
<script src="plugins/Venobox/venobox.min.js"></script>
<!-- aos -->
<script src="plugins/aos/aos.js"></script>
<!-- Main Script -->
<script src="js/script.js"></script>

</body>
</html>

```

## Story page HTML

```

<!DOCTYPE html>
<html lang="zxx">

<head>
    <meta charset="utf-8">
    <title>Story</title>

    <!-- mobile responsive meta -->
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <meta name="viewport" content="width=device-width, initial-scale=1, maximum-
scale=1">

    <!-- ** Plugins Needed for the Project ** -->
    <!-- Bootstrap -->
    <link rel="stylesheet" href="plugins/bootstrap/bootstrap.min.css">
    <!-- themefy-icon -->
    <link rel="stylesheet" href="plugins/themify-icons/themify-icons.css">
    <!-- slick slider -->
    <link rel="stylesheet" href="plugins/slick/slick.css">

```



```

<!-- venobox popup -->
<link rel="stylesheet" href="plugins/Venobox/venobox.css">
<!-- aos -->
<link rel="stylesheet" href="plugins/aos/aos.css">

<!-- Main Stylesheet -->
<link href="css/style.css" rel="stylesheet">

<!--Favicon-->
<link rel="shortcut icon" href="images/favicon.ico" type="image/x-icon">
<link rel="icon" href="images/favicon.ico" type="image/x-icon">

</head>

<body>

<!-- navigation -->
<section class="fixed-top navigation">
  <div class="container">
    <nav class="navbar navbar-expand-lg navbar-light">

      <h4>Data Analysis</h4>
      <button class="navbar-toggler border-0" type="button" data-
toggle="collapse" data-target="#navbar" aria-controls="navbar"
      aria-expanded="false" aria-label="Toggle navigation">
        <span class="navbar-toggler-icon"></span>
      </button>
      <!-- navbar -->
      <div class="collapse navbar-collapse text-center" id="navbar">
        <ul class="navbar-nav ml-auto">
          <li class="nav-item">
            <a class="nav-link" href="index.html">Home</a>
          </li>
          <li class="nav-item">
            <a class="nav-link" href="dashboard.html">Dashboard</a>
          </li>
          <li class="nav-item">
            <a class="nav-link page-scroll" href="index.html#team">Team</a>
          </li>
        </ul>
        <a href="story.html" class="btn btn-primary ml-lg-3 primary-
shadow">Story</a>
      </div>
    </nav>

```

```

    </div>
</section>
<!-- /navigation -->
<!-- header-->
<section class="hero-section hero" data-background="" style="background-image:
url(images/hero-area/banner-bg.png);">
    <div class="container">
        <div class="row">
            <div class="col-lg-12 text-center zindex-1">
                <h1 class="mb-3">Graph Types and Visualizations<br>Story</h1>
                <p class="mb-4">This Story may utilize a variety of graph types and
visualizations, including but not limited to line charts,<br>scatter plots, bar
charts, heat maps, and geographical maps. These graphs and visualizations help to
present data in a<br>narrative format, allowing users to explore and analyze data
in a structured and meaningful way. Additionally, a This<br>Story may include
text, images, and other interactive elements to further enhance the<br>narrative
and provide context to the data presented</p>
                <!-- banner image -->

            </div>
        </div>
    </div>
<!-- background shapes -->
<div id="scene">
    
    
    
    
    
    
    
    
    
</div>
</section>
<!-- /header -->

```

```

<div class="row">
  <div class="col-lg-12 text-center zindex-1">
    <h3 class="mb-3">CO2 Emission<br>Analysis</h3>
    <p class="mb-4"></p>
    <!-- banner image -->

  </div>
</div>
<!-- story -->

<div class='tableauPlaceholder' id='viz1682086110133' style='position:
relative'><noscript><a href='#'><img alt='Story 1 '
src='https://public.tableau.com/static/images/Co/Co2Emiss
ionAnalysisStory/Story1/1_rss.png' style='border: none'
/></a></noscript><object class='tableauViz' style='display:none;'><param
name='host_url' value='https%3A%2F%2Fpublic.tableau.com%2F' /> <param
name='embed_code_version' value='3' /> <param name='site_root' value='' /><param
name='name' value='Co2EmissionAnalysisStory/Story1' /><param name='tabs'
value='no' /><param name='toolbar' value='yes' /><param name='static_image'
value='https://public.tableau.com/static/images/Co/Co2Emi
ssionAnalysisStory/Story1/1.png' /> <param name='animate_transition'
value='yes' /><param name='display_static_image' value='yes' /><param
name='display_spinner' value='yes' /><param name='display_overlay' value='yes'
/><param name='display_count' value='yes' /><param name='language' value='en-US'
/></object></div>
    <script
type='text/javascript'>
      var divElement =
document.getElementById('viz1682086110133');
      var vizElement =
divElement.getElementsByTagName('object')[0];
      vizElement.style
.width='100%';vizElement.style.height=(divElement.offsetWidth*0.75)+'px';
      var scriptElement =
document.createElement('script');
      scriptElement.src =
'https://public.tableau.com/javascripts/api/viz_v1.js';
      vizEle
ment.parentNode.insertBefore(scriptElement, vizElement);
    </script>

<!-- /story -->
<!-- footer -->
<footer class="footer-section footer" style="background-image:
url(images/backgrounds/footer-bg.png);">
  <div class="container">
    <div class="row">
      <div class="col-lg-4 text-center text-lg-left mb-4 mb-lg-0">
        <!-- logo -->
        <h3>Data Analysis</h3>
      </div>
      <!-- footer menu -->
    </div>
  </div>

```

```

        <nav class="col-lg-8 align-self-center mb-5">
            <ul class="list-inline text-lg-right text-center footer-menu">
                <li class="list-inline-item active"><a href="index.html">Home</a></li>
                <li class="list-inline-item"><a
href="dashboard.html">Dashboard</a></li>
                <li class="list-inline-item"><a href="story.html">Story</a></li>
                <li class="list-inline-item"><a class="page-scroll"
href="#team">Team</a></li>
            </ul>
        </nav>
        <!-- footer social icon -->
        <nav class="col-12">
            <ul class="list-inline text-lg-right text-center social-icon">
                <li class="list-inline-item">
                    <a class="linkedin" href="#"><i class="ti-linkedin"></i></a>
                </li>
                <li class="list-inline-item">
                    <a class="black" href="#"><i class="ti-github"></i></a>
                </li>
            </ul>
        </nav>
    </div>
</div>
</footer>
<!-- /footer -->

<!-- jQuery -->
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<!-- venobox -->
<script src="plugins/Venobox/venobox.min.js"></script>
<!-- aos -->
<script src="plugins/aos/aos.js"></script>
<!-- Main Script -->
<script src="js/script.js"></script>

</body>
</html>

```