



# San Francisco's Climate Action

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11/6/2017



**SF**Environment

**Our home. Our city. Our planet.**

A Department of the City and County of San Francisco

# Is Climate Change Fake News?



GLOBAL  
WARMING  
WAS CREATED  
by AND for  
THE CHINESE

Trump



# A House of Denial





As They Step Back, We Must Step Forward









# Drought of Historic Proportions





# Santa Rosa and Napa County Fires



Photo: Rafe Tomsett

# Air Quality



National Parks/Monuments

**Good**

**Moderate**

**USG**

**Unhealthy**

**Very Unhealthy**

**Hazardous**

**! Action Day**





Photo: Amy Craff

PM 2.5 = N95





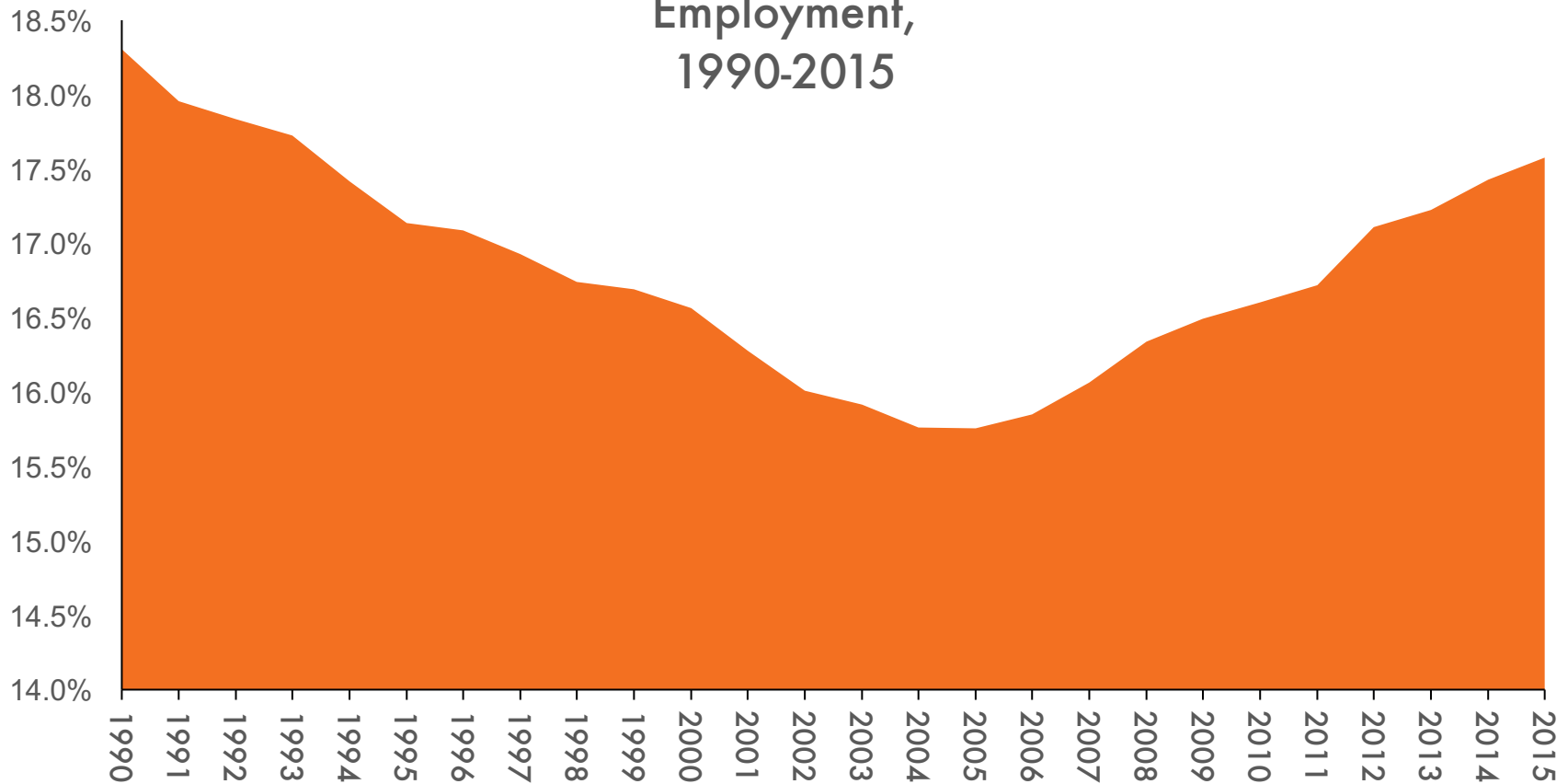
# San Francisco, California





# The Region's Economic Center

City of San Francisco's Share of Bay Area Total Employment, 1990-2015



Source: Ted Egan, Chief Economist City of San Francisco



# Our Challenge

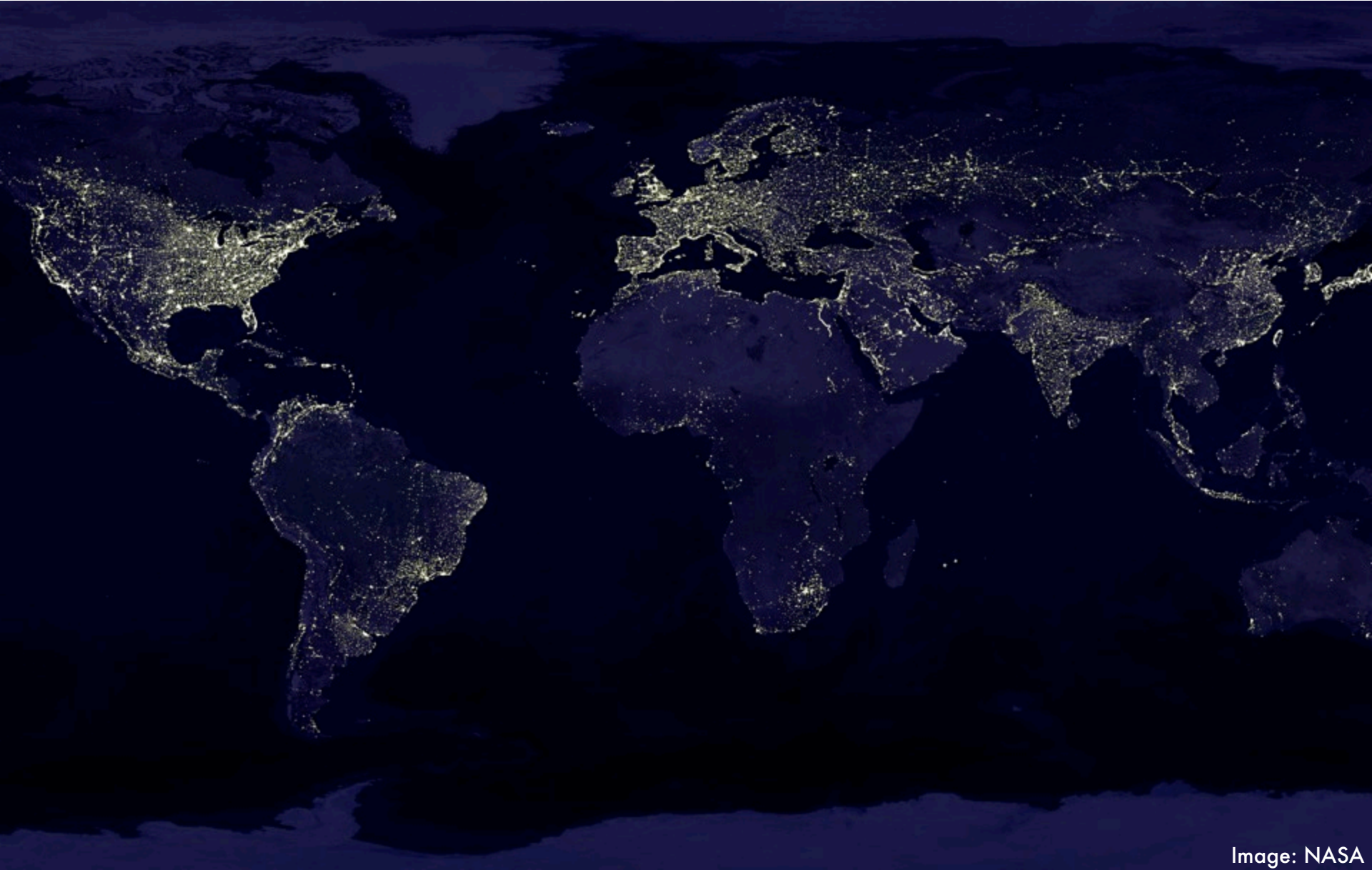


Image: NASA



# Aggressive Emissions Reduction Targets

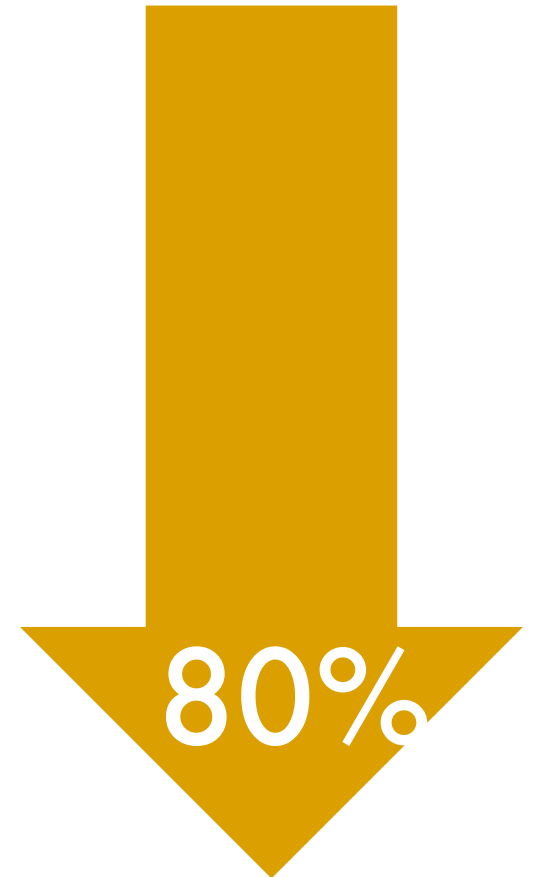
2017



2025



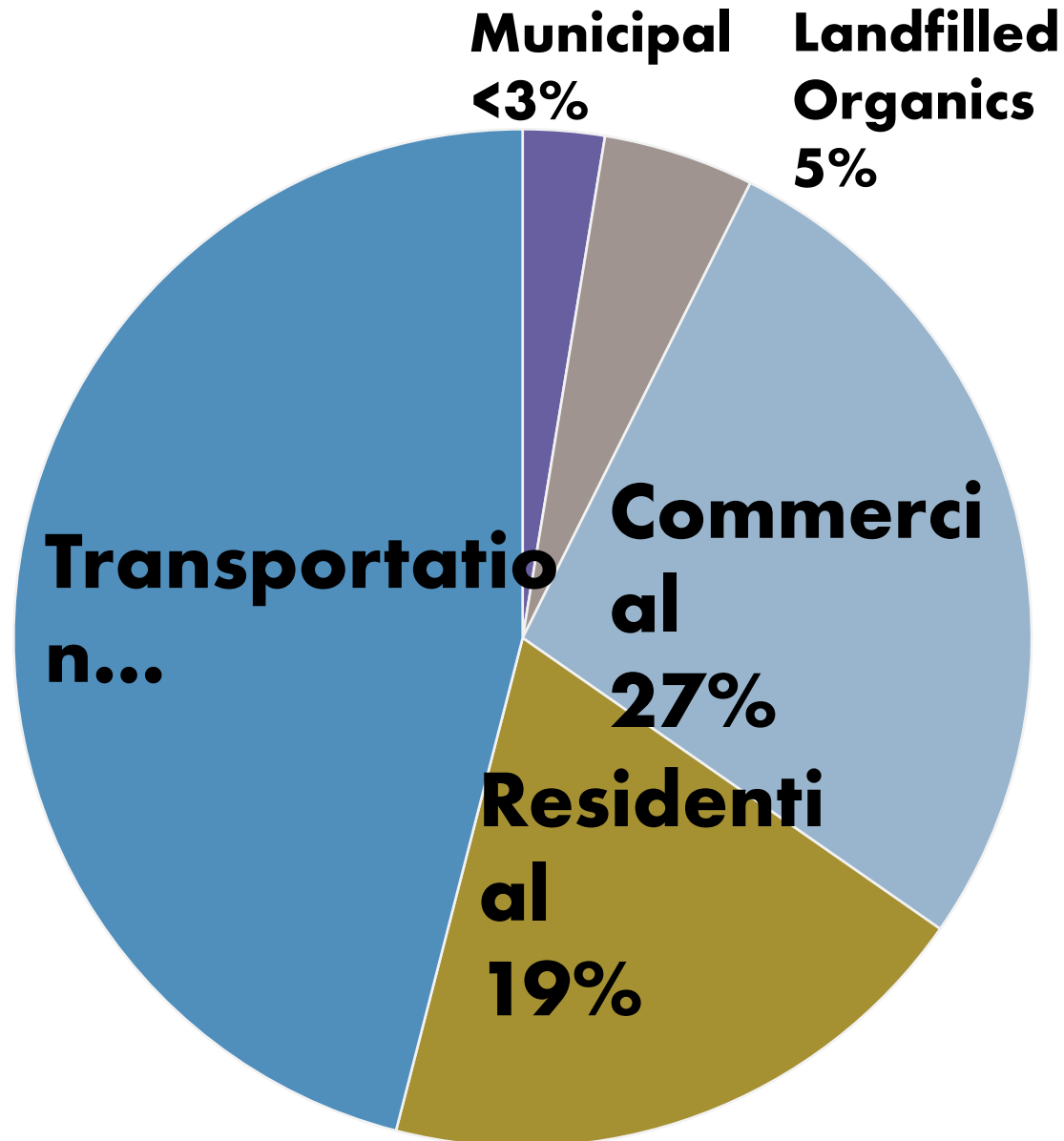
2050







# 4.4 Million Metric Tons of CO<sub>2</sub>e



# Hitting our 2017 Target . . . Two Years Early



Photo credit: Merri, Flickr

19.5%  
Population

78.0  
GDP  
%

28.4%





# A City Committed to Climate Action





# Zero Waste



SAN FRANCISCO  
CLIMATE ACTION

0 50 100 ROOTS



# San Francisco's Zero Waste Program



Photo courtesy of



50



Sustainable Transit



SAN FRANCISCO  
CLIMATE ACTION | 0 50 100 ROOTS



# Transit First – Bike - Walk





# 100



## Renewable Energy



SAN FRANCISCO  
CLIMATE ACTION

0 50 100 ROOTS



# Renewable Energy Strategy: “Three Pillars”



# ENERGY: Green Buildings



**106 M<sup>2</sup> of property has  
been LEED certified in SF**



# ENERGY: GHG-Free Electricity





# ENERGY: Renewable Diesel





# ENERGY: Electric Vehicles





# ROOTS

## Capturing Carbon



SAN FRANCISCO  
CLIMATE ACTION

0 50 100 ROOTS

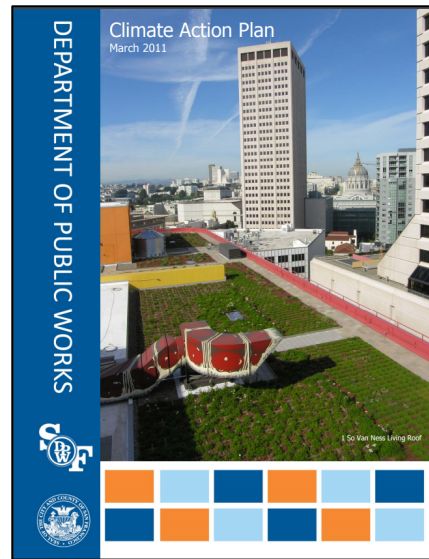
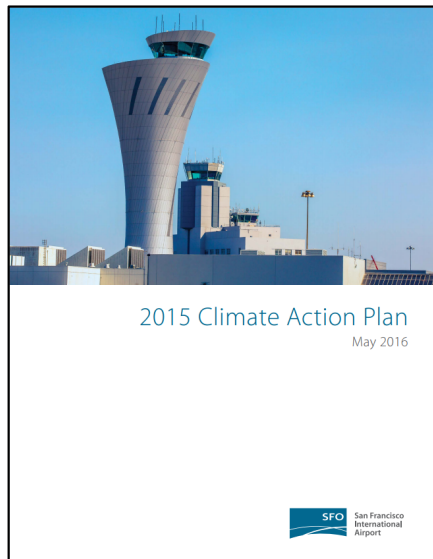
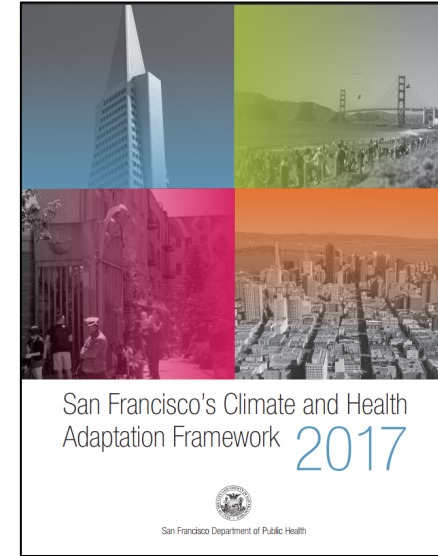
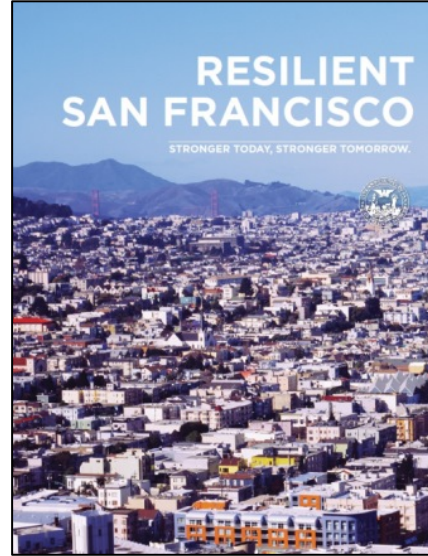
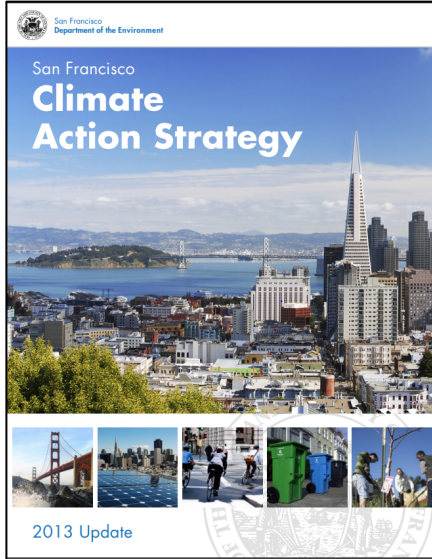


# ROOTS: Urban Forest





# SF Climate Action Planning: Many Efforts and Many Plans





# Greenhouse Gas Accounting in Cities





# San Francisco Boundary







# Where are GHG emissions generated?

## Transportation



**Fossil**  
**Bio + Renewable**

## Commercial/Industrial



**Natural gas**  
**Electricity**

## Residential



**Natural gas**  
**Electricity**

## Municipal



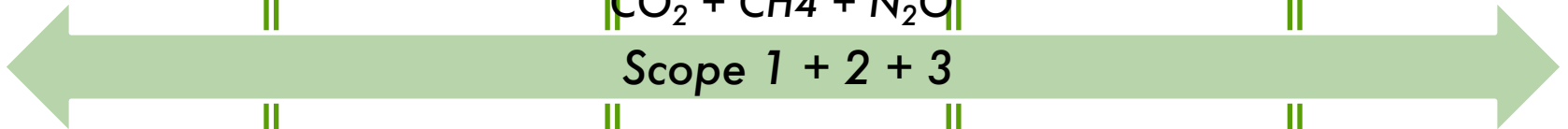
**Natural gas**  
**Electricity**  
**Fossil**  
**Bio + Renewable**

## Waste

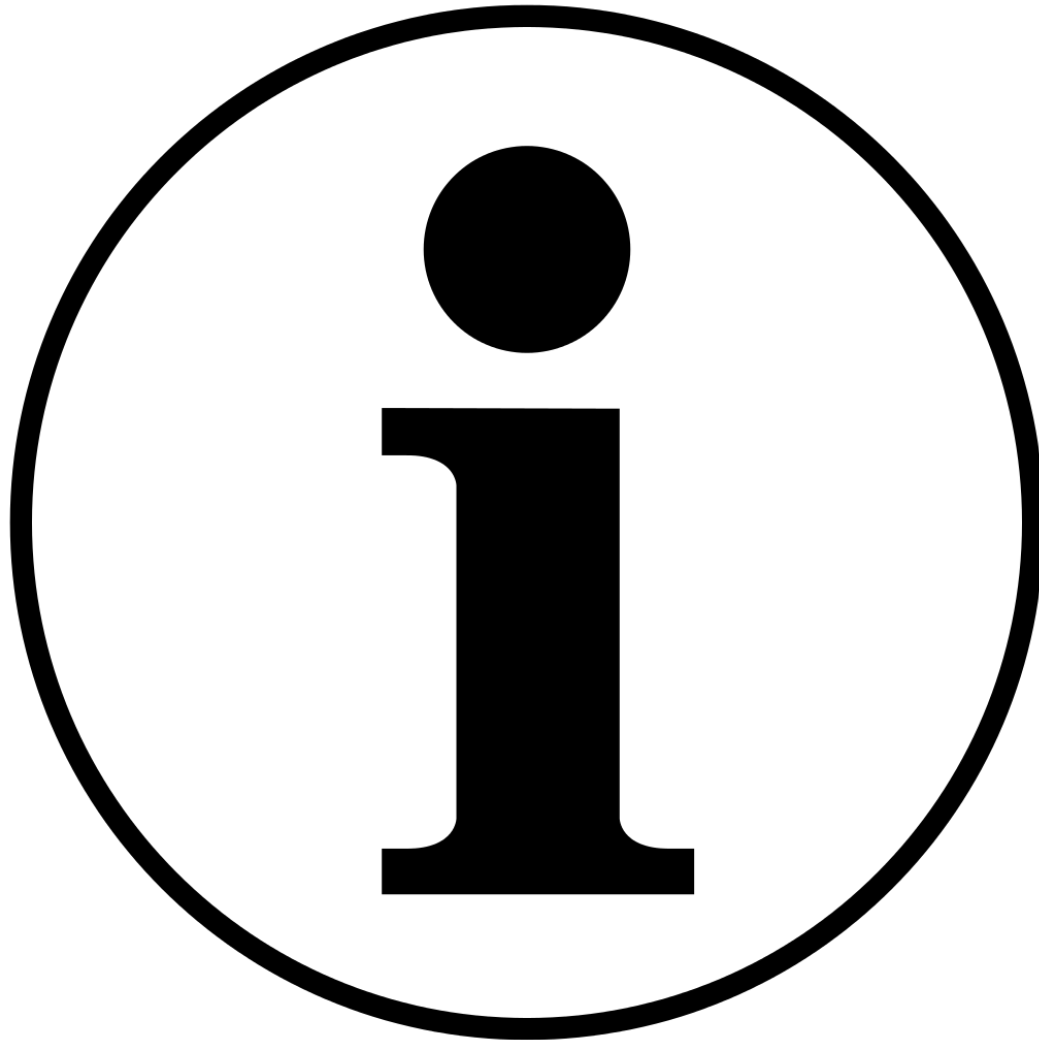


**Landfilled**  
**Organics**  
**Wastewater**

$\text{CO}_2 + \text{CH}_4 + \text{N}_2\text{O}$   
Scope 1 + 2 + 3



# Not Just Information





# Blind Spots



# Data and Measurement Needs





# The Future?



# Data Governance and Data Architecture



The screenshot shows the DataSF website interface. At the top, there is a dark blue navigation bar with the 'DataSF' logo on the left and links for 'SFGov', 'Coordinator's Portal', 'About', and 'Help' on the right. Below this is a secondary navigation bar with 'OPEN DATA', 'SHOWCASE', 'PUBLISHING', 'ACADEMY', 'RESOURCES', and 'BLOG'. A search bar is located below the navigation, with a 'Sign In' button. The main content area features a large background image of the Golden Gate Bridge. The headline reads 'Find the data you need' in white text. Below the headline, a sub-headline says 'Search hundreds of datasets from the City and County of San Francisco. Or browse on the [data catalog](#)'. A search input field contains the text 'Search for things like Crime, 311 cases, lobbyists, etc.' and has a magnifying glass icon. Below the search bar is a grid of ten light blue boxes, each containing an icon and a department name: 'Economy & Community' (mug icon), 'City Management & Ethics' (classical building icon), 'Transportation' (map icon), 'Public Safety' (shield icon), 'Health & Social Services' (cross icon), 'Geographic Locations & Boundaries' (stacked layers icon), 'Energy & Environment' (leaf icon), 'Housing & Buildings' (house icon), 'City Infrastructure' (wrench icon), and 'Culture and Recreation' (picture frame icon). At the bottom center, there is a green button with the text 'View data by department'.



# Consumption-based Emissions Inventory



Photo courtesy of Edgar



# CBEI: Track Flow of Dollars

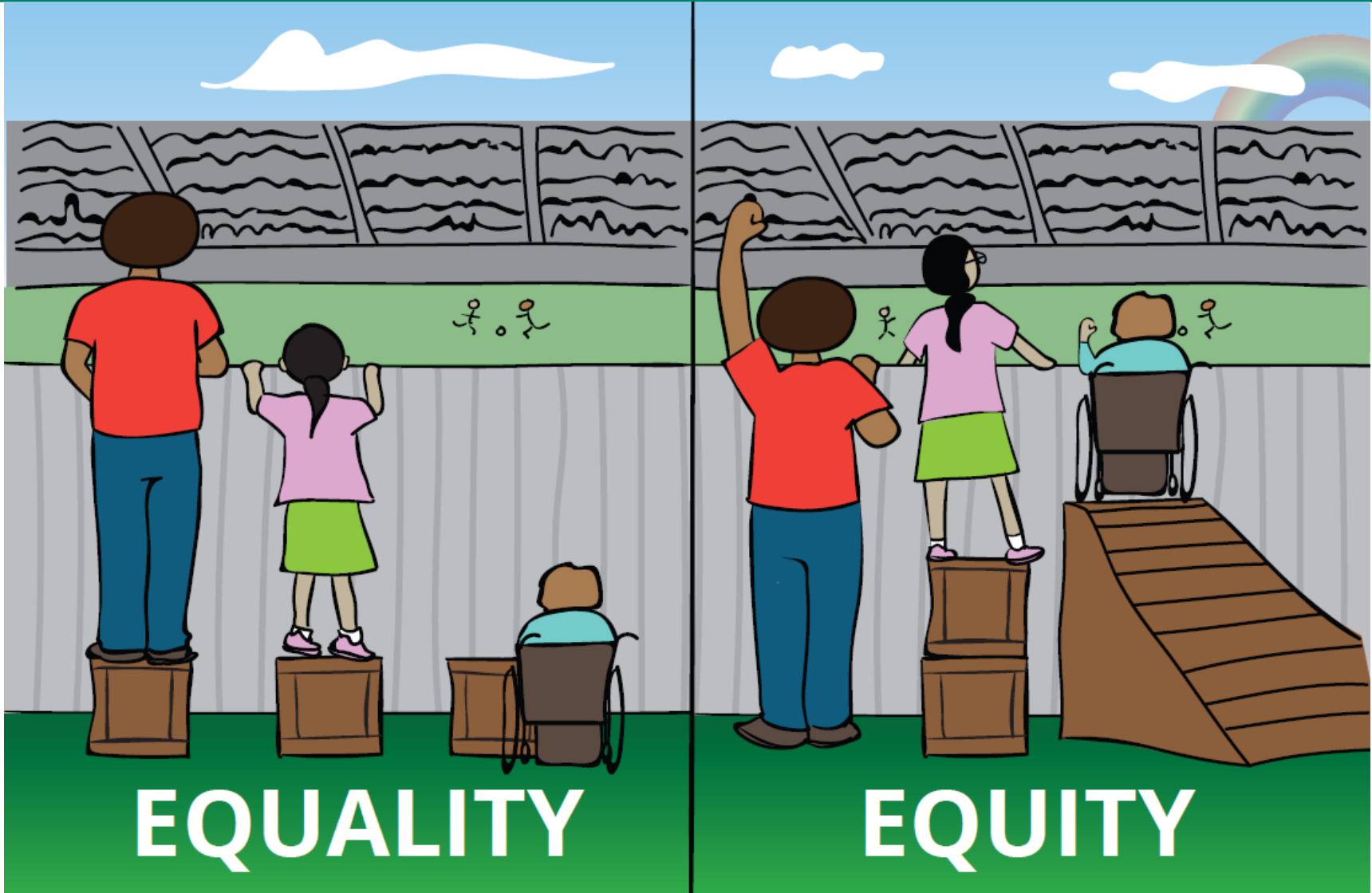




# Net Positive Projects



# Climate Change through an equity lens





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