

# Making data meaningful



Finding the right **Climate** numbers,  
telling your **Climate** story

# The Beginning: Idea



**1. A single idea can be the source of many stories.  
Which one do you want to tell?**

**Example: Waste management**

**Different paradigms**

**a. Political**

**b. Social**

**c. Human interest**

**d. Economic etc.**

# What is your story?



## 2. Finding the hidden story

- Talking about things that people overlook
- New interpretations
- Our take – **CLIMATE**

## What is your story (contd.)



Who manages and monitors solid waste: in India Solid waste management in urban areas is a **state subject**. It is managed by municipalities or urban local bodies. (**Political**)

Its monitoring is done by the **State Pollution Control Boards** (SPCBs). (**Environment**)

# Telling the story



## **3 (a). Different stories**

**I The same data/idea can tell many different stories**

**II What is your perspective?**

**III Who is the story for?**

**IV What is the aim of the story?**



**3 (b) One of the ways of categorising stories:**

**Outliner stories**

**Trend stories**

**Correlation stories**

# Outliner stories



**A value that is different from all the others**

- **Which city has the highest air pollution levels?**
- **Why farmers from a particular area are more susceptible to suicides or mortgages**

**Eg: Rankings**

# Trend stories



**A trend is a pattern through time**

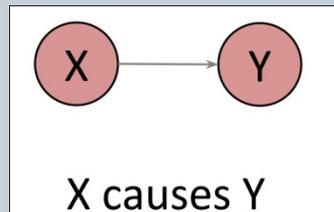
- **Has the use of public transport declined over the last ten years?**
- **What is the change in hospitalization charge over the last five years?**

# Correlation stories



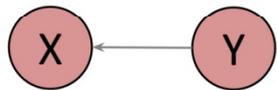
A correlation is when two variables change together

- More smoking causes more cancer.
- People buy more umbrellas when it's raining.

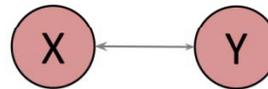


Most popular type of correlation

# Correlation stories (contd.)



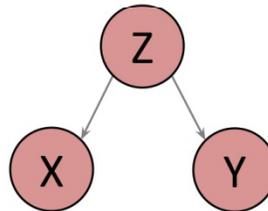
Y causes X



they cause each other

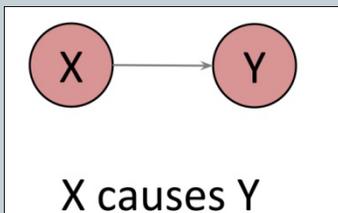
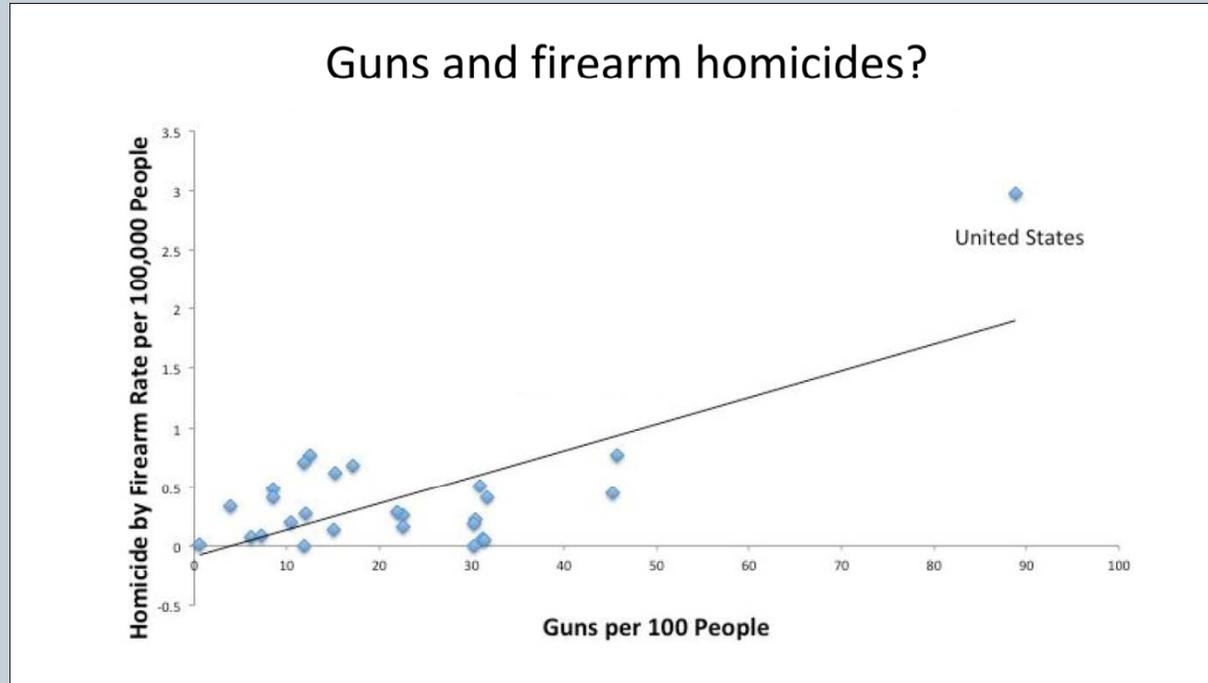


random chance



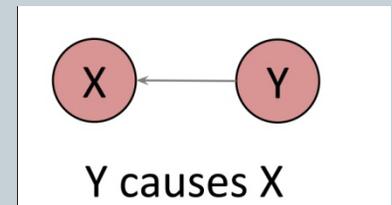
Z causes X and Y

# Correlation stories (contd)



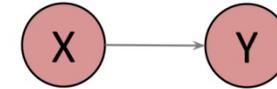
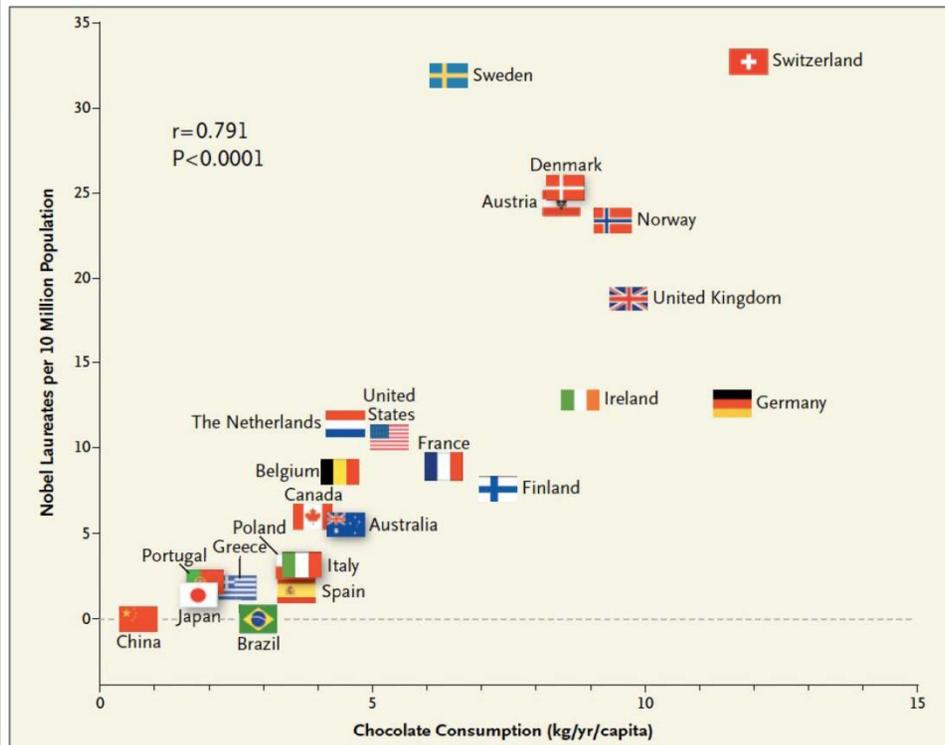
If you have a gun, you are likely to use it

If it is a dangerous locality, you will buy a gun



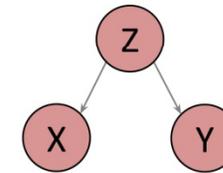
# Correlation stories (contd)

## Chocolate and Nobel prizes



X causes Y

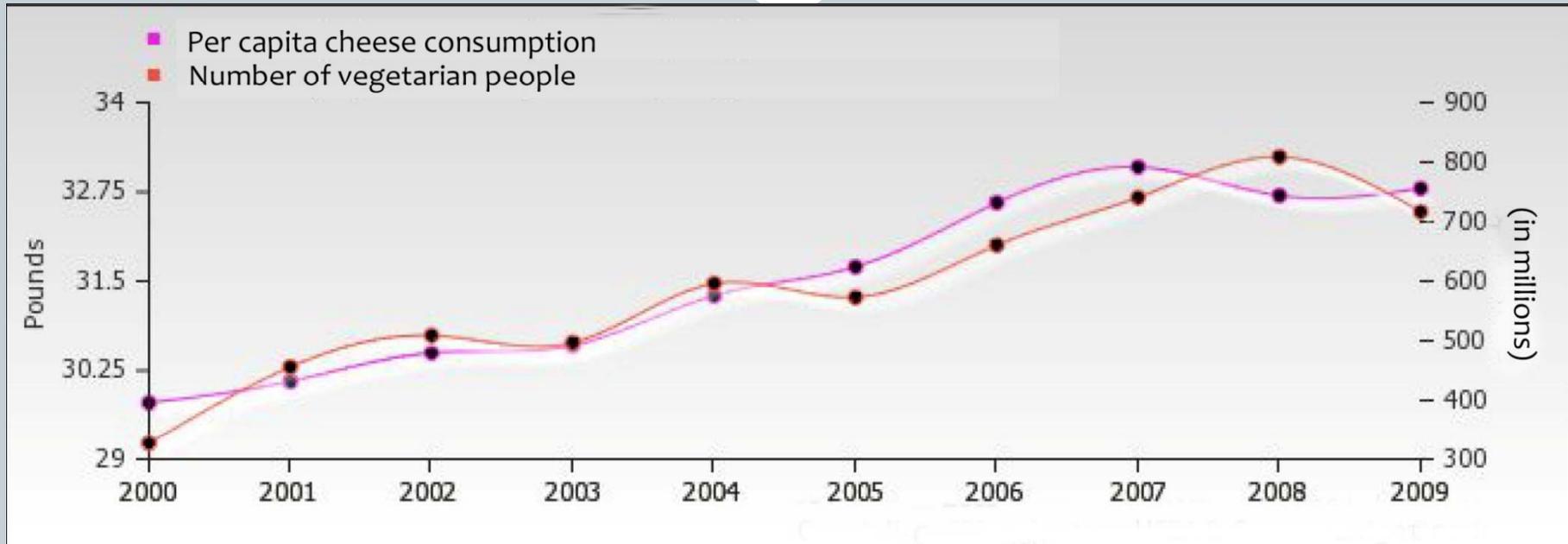
Chocolates make you smarter



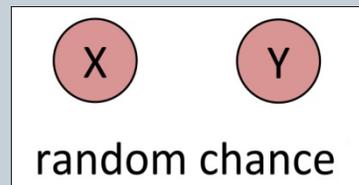
Z causes X and Y

- 1) Higher income makes you eat more chocolate
- 2) Higher incomes can fund better education

# Correlation stories (contd)



There is no way to  
correlate the to  
parameters

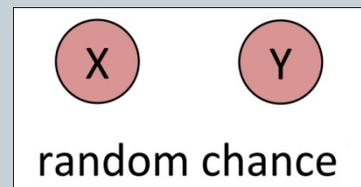


# Correlation stories (contd)



**The number of drowning cases increases in town X  
when the consumption of ice cream increases**

There is no way to  
correlate the to  
parameters



# Source it!



**Finding the right sources for your story – which is the relevant data?**

**Through the use of flowcharts, note-making, mind-mapping**

# Flowcharts



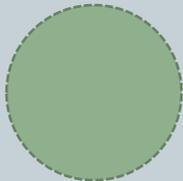
**Central idea/ premise**



**Logical progression**

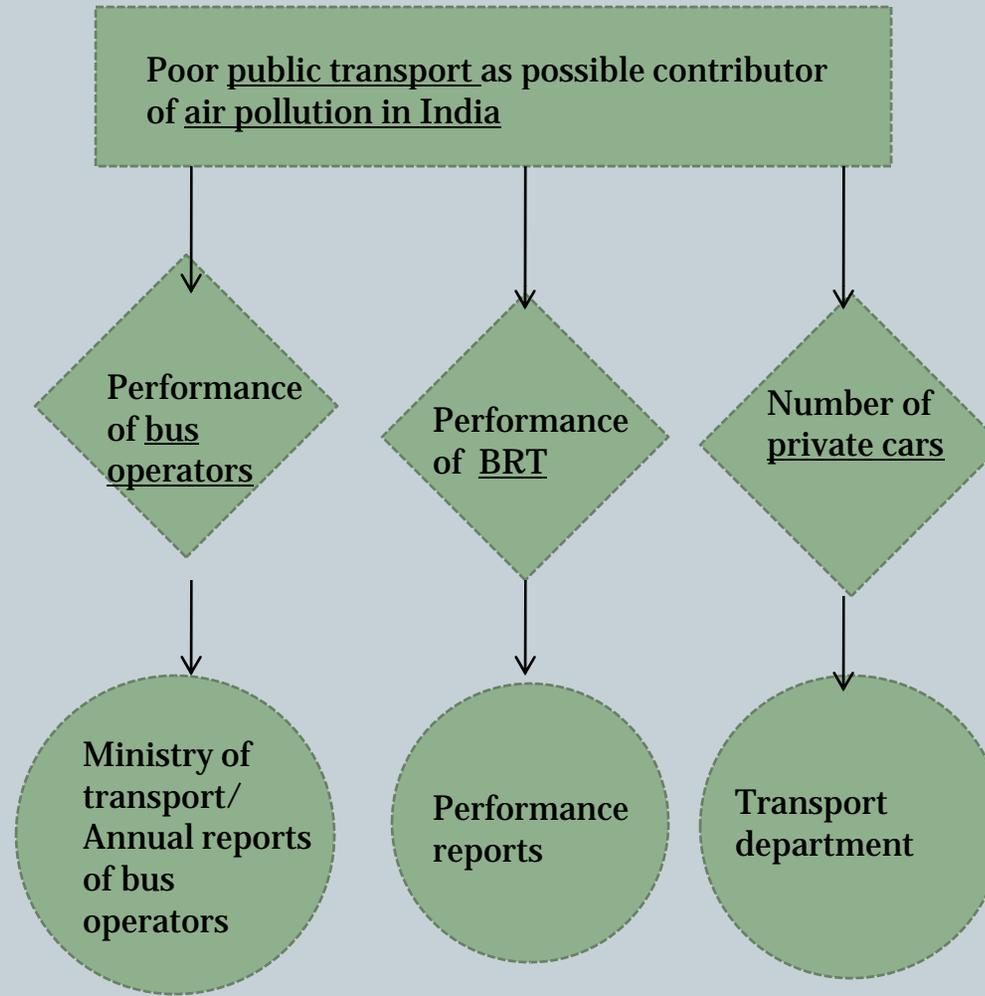


**Contextualised data for the story/  
What you want the data to say**



**Data sources**

# Flowcharts



# Class exercise



**Why are farmers committing suicides in India?**

**Draw a flowchart**

# Hard truths



- Only a small amount of raw data will be used finally for your story
- You will have to prioritise (choose between) raw data
- Always give a context... even if it 'seems' unnecessary
- Whenever you are using big numbers, try to give a reference for correlation (1,484 km<sup>2</sup>)
- Places to look for side stories:  
Money, operation size, outreach, impact  
Court judgements, laws  
Case studies, geographical locations

# Analysis contd



- **Look at percentages**
- **Look at comparable data to see the aberration**
- **Mean (average), median (middle value) and mode (most frequent value)**

# Analysis contd



- **Always double check your final analysis... especially to ensure that no biases have crept in**
- **Also try to answer the WHY of the final analysis**



# Thank You

**Rajit Sengupta**

**Down To Earth, Centre for Science and Environment, New  
Delhi, India**

**[rajit@cseindia.org](mailto:rajit@cseindia.org)**