

## Week 1:

### What Is Meant By “Governing” And “Environments

- **Governing/Governance** is “to exercise a directing or restraining influence over”.
  - It has political and property rights dimensions
- An **environment** is “the space in which plants and animals live”.
  - This has a massive scale problem to it.

### **MORE INTERESTED IN ‘GOVERNANCE’ AND ‘POLICY’**

**NOT INTERESTED IN INDIVIDUAL ACTS- WE THINK ABOUT THE COLLECTIVE UNIT OF PEOPLE – HOW WE ALL EFFECT THE ENVIRONMENT TOGETHER**

### Why Does The Environment Need To Be Governed?

- The environment is meant to change – we’re trying to make it stay the same
- 2 views: let’s protect the environment and let’s make it better
- COLLECTIVELY PEOPLE THINK AND DO THINGS TO THE ENVIRONMENT AND SO WE NEED TO RESTRAIN THE IMPACT
- Individual impacts may be small but collectively as humanity, we can have an influence way beyond the environment’s capacity to respond and fight it

### Different Views Of The Need To Govern The Environment

- Australians used to feel the natural environment was something dangerous that needed to be tamed and bent to humanities needs (**exploitative**)
- People think the environment requires looking after (**stewardship**)
- The alternative is to leave it be (**anarchy**= state of disorder from having no authority)

**3 approaches to environment= anarchy, stewardship and exploitative**

### What Are We Trying To Do?

People look to the government to try and get the economy to fit into the environment (square peg in a round hole)

Environment people want more regulation than economy people

### How Do Governments Make Good Decisions Regarding The Environment?

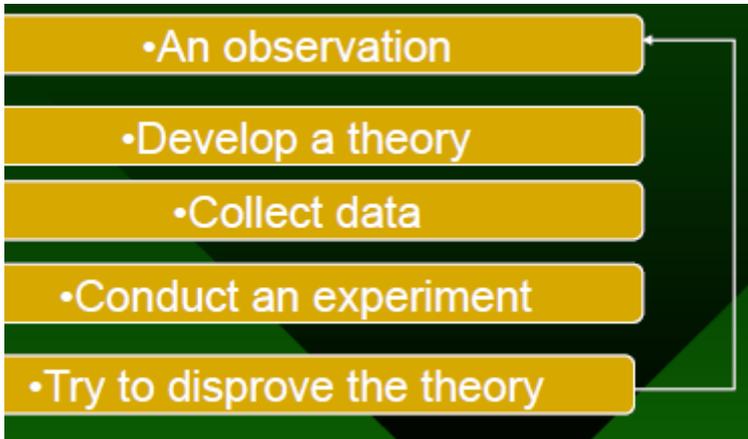
- Assessing all the information in a comprehensive and systematic manner
- Allowing for error correction
- Having a transparent system that encourages criticism.

**BE ABLE TO JUDGE POLICIES ACORDING TO A CRITERIA**

## Bias

- We all need to start by recognising our own prejudices and then question them – to do this we can use the scientific approach
- Bias is different to truth and lies – they're the pre-judgements we make

## Scientific Method



### What is the scientific method?

- It is a dispassionate study of how the world works
- You need to be concerned about:
  - Can you always conduct an experiment?
  - What assumptions underlie the theory?
  - The depression associated with being a sceptic

i) **An observation**-The scientific method starts when you ask a question about something that you observe:  
How, What, When, Who, Which, Why, or Where?

ii) **Develop a theory/hypothesis** – Push the **null hypothesis** idea. A hypothesis is an educated guess about how things work. Your hypothesis should be constructed in a way to help you answer your original question.

**NULL HYPOTHESIS = a hypothesis the researcher tries to disprove**

iii) **Collect data** - Rather than starting from scratch in putting together a plan for answering your question, you should be using library and Internet research to help you find the best way to do things and insure that you don't repeat mistakes from the past

iv) **Conduct an experiment** - Your experiment tests whether your hypothesis is true or false.

v) **Try to disprove the theory** - Once your experiment is complete, you collect your measurements and analyse them to see if your hypothesis is true or false. Scientists often find that their hypothesis was false, and in such cases they will construct a new hypothesis starting the entire process of the scientific method over again. Even if they find that their hypothesis was true, they may want to test it again in a new way.

**The scientific method never means certainty/absolute truth, but it's about obtaining the highest form of truth that you can**

## Defining a System

- A system is “an **organised unitary whole** which is **composed** of two or more **interdependent parts** and delineated by an **identifiable boundary** from the environment.”
- A system is a set of **elements**, each of which is **related**, either directly or indirectly, to every other element and no subset of which is unrelated to any other subset.

## Systems Thinking

1. Systems approaches are an all-encompassing way of looking at things.
2. Systems are pervasive (can see how one thing relates to another), complex and realistic.

## Systems Analysis

The ‘systems approach’ can be compared with the ‘marginal approach.’ (Scientific Method)

- The marginal approach involves **reductionism** and mechanism. This leads to determinism – using the independent variable to find the dependent variable – trying to simplify
- **Systems rely on expansionism**- trying to make it more complicated but still explainable
- In *systems* individual components, the links between them and the whole system are analysed.
- It is not just the sum of the parts. Consequently, individual disciplinary approaches do not apply.

## Constructing the System

1. Setting the *boundary* (this is about scale)
2. Identifying the *components*
3. *Isolating the influences* from outside and inside the system
  - The links can be backward (retrospective) and forward (prospective)
4. Accounting for the *resources*
5. Formalising the *goals*- having a *purpose*
6. *Describing* the system
7. *Evaluating* the performance