Session 1. Building a National Environmental System

Brendan Freeman
Australian Bureau of Statistics
Centre of Environment Statistics
brendan.freeman@abs.gov.au
Manila, The Philippines
18-21 February 2014

Introduction

- Why collect environmental data?
  - understand interactions between the natural environment and human systems
  - identify environmental issues and to provide a basis for the development of actions, strategies and policies aimed at addressing these issues
  - measure the effectiveness and efficiency of interventions and investments related to the environment




Why collect environmental data?

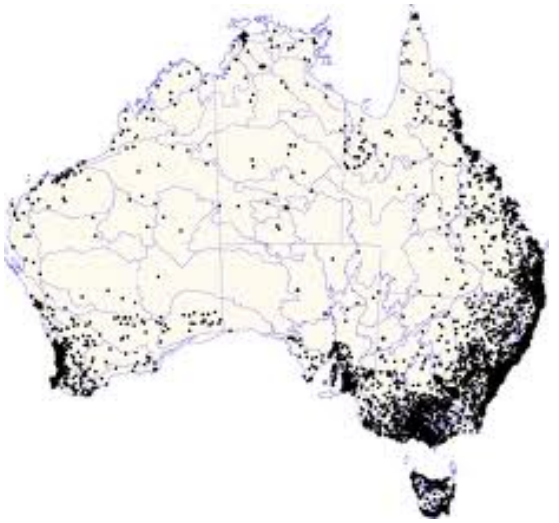
- benchmark environmental performance (for example, by companies and government)
- report on the current state of the environment and monitor spatial, movements and temporal changes
- to meet international reporting obligations
- Tasmanian Tiger (Thylacinus Cynocephalus) a good example of why

Who wants environmental data?

- governments,
- landholders,
- science agencies,
- businesses, industry
- community

Australian context

- Australia is a large continent with outstanding natural heritage and a relatively small human population.



Australian situation

- **Commonwealth agencies** compile data and information and use it to develop and implement national policy, programmes and legislation.
- **State and territory agencies** retain the responsibility for much of the collection and maintenance of environmental data in Australia,
- **local governments, industry, independent agencies and science agencies** are also important sources of information.

What sort of information does this include?

- There is a wide range of information about the environment:
  - scientific observation and measurement
  - specific/targetted research studies
  - Statistics - both official and not
  - stocks and flows of environmental resources
  - quality or 'state' of environmental assets
  - environmental related practices of businesses and people
  - economic use of environmental resources

Australian situation *cont…*

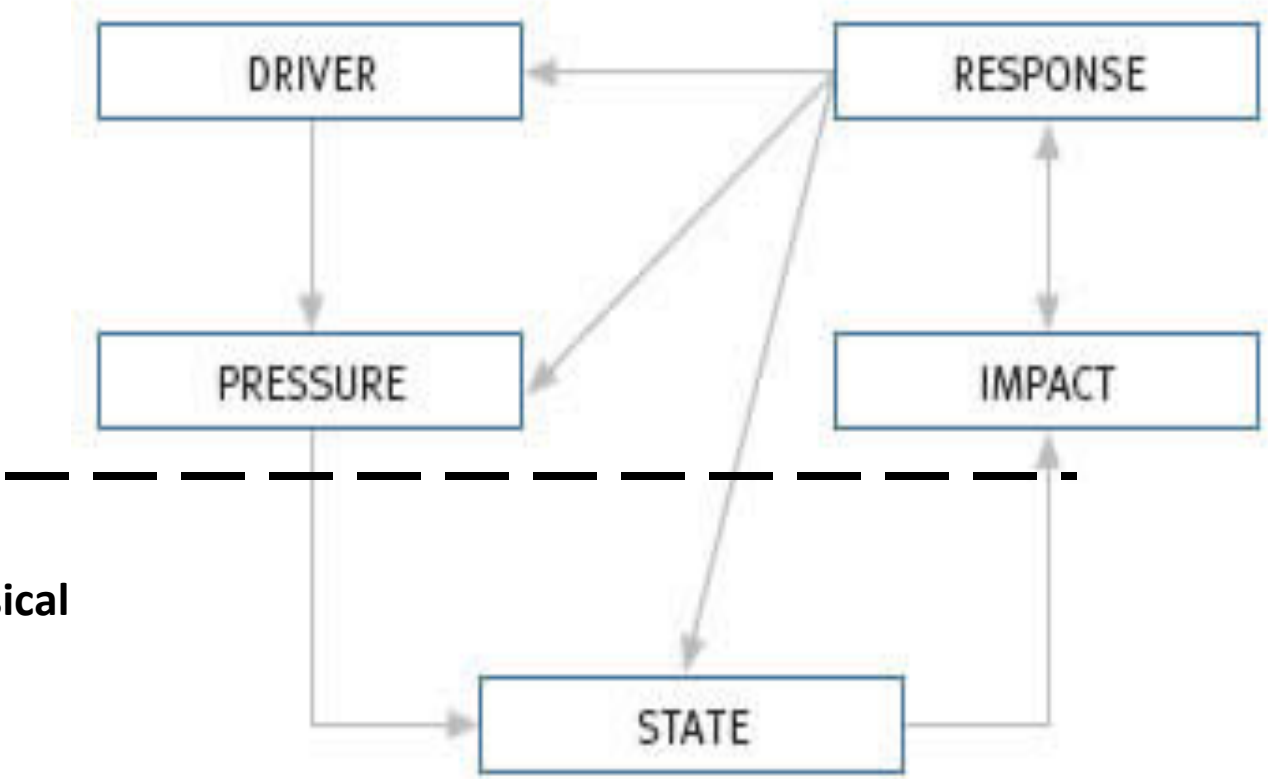
- **A more systematic approach to environmental data collection and monitoring required**

- This involves
  - communication and collaboration between all jurisdictions
  - develop cooperative frameworks for information collection, access and use
  - support by investment in a national data and information infrastructure.

Components of an environmental information

ABS

Biophysical



The information base

- Physical science is mainly concerned with **state**, as well as certain **pressures** and **impacts**
  - This is the realm of scientific information
- **Drivers** and many **pressures** are economic and social in nature
- Many **impacts** are also of a social and economic nature
  - The ABS is well placed to measure the economic and social dimensions of environmental issues
- Many **responses** are affected through the actions of businesses and people
  - The ABS is also well placed to measure these

What is Australia doing?

- The quality and extent of bio-physical information on environmental issues is mixed.
- Comprehensive and good quality information exists for some aspects, such as climate, and , recently, water.
- In other areas, particularly those relating to ecosystems, the scientific information base is patchy, lacks integration and 'national' data sets are typically unavailable.
- As a result, the Australian Government has identified a high priority need for additional investments in bio-physical information.

NPEI

- On 11 May 2010 the Minister for Environment Protection, Heritage and the Arts announced the *National Plan for Environmental Information*
  - "first step on a long-term commitment to reform Australia's environmental information base and build this critical infrastructure for the future".

NPEI

- The plan will coordinate and prioritise the way the Australian Government collects, manages and uses environmental information.
- It represents a long-term approach to building and improving our environmental information base.

- In the first four years, the initiative will:
  - Establish the **Bureau of Meteorology (BoM)** as the Australian Government authority for environmental information
  - **Formalise arrangements** to coordinate priorities and activities across government
  - **Review existing information resources**, and environmental information activity
  - Begin building priority national environmental datasets and the infrastructure to deliver them.

How will the plan be delivered?

- The plan is a whole-of-government initiative implemented jointly by the Department of the Environment and the Bureau of Meteorology.

- BoM will:
  1. Introduce legislation
  2. Identify opportunities for cooperation, consolidation, improvement or efficiencies
  3. Provide whole-of-government direction and prioritise environmental information activities
  4. Further develop the national plan
  5. Develop Environmental Accounts

How does environmental accounting fit in?

- Delivering national environmental accounts has specifically been identified as part of the solution
- Within Australia, and in many countries, responsibilities for environmental and economic policies are institutionally separated. So are the information systems that inform those policies.
- Given that socio-economic policies have environmental impacts and vice versa, policy-making suffers from the absence of an information system that can articulate these linkages.

How does environmental accounting fit in?

- Policy focus continues to shift away from considering the economy, society and the environment as separate issues, to a more integrated approach aimed at sustainable development.
- Environmental accounting has arisen from the corresponding demand for an integrated information system to support this shift in policy focus.

ABS role

- A comprehensive set of regular, integrated, environmental economic accounts
  - Underpinned by a statistical program to collect the necessary input information
  - Integrated with the BOM bio-physical information
  - Information provided at a range of geographical levels
    - Integrated with GISs




How does environmental-economic accounting help?

- Provide a conceptual framework to integrate the environmental and economic information systems.
- Increase the capacity of the economic information system to account for the environment.
- Help to organise data, enabling gaps and deficiencies to be identified and through the application of consistent standards allow comparisons over time and between different areas.

Building a national environmental information system – ABS & others

- Environmental accounts are a bridge between environmental data (largely collected outside the ABS) and socio-economic data (largely collected by the ABS).
- As a result, they fill a crucial information void - they do not seek to reproduce work done by other orga

Australian Bureau of Statistics

Questions?