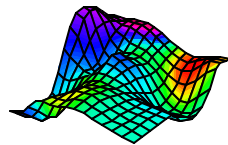

Market Based Instruments: Introduction

National Conservation Incentives Forum
Melbourne 5 – 8 July 2005

Drew Collins



BDA Group
Economics and Environment

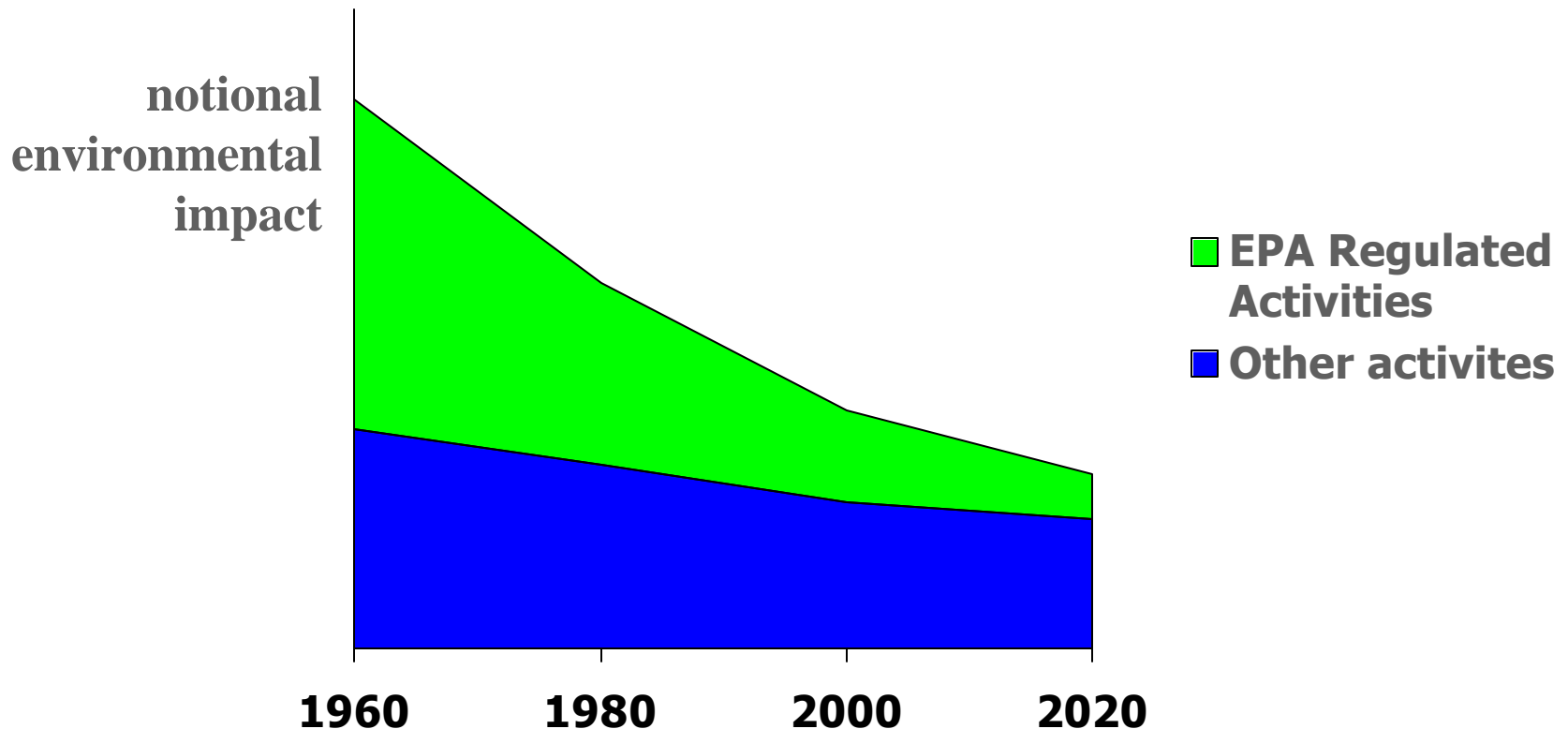
Public policy responses

- **Suasive** – information provision, education.
eg: riparian management guidelines
- **Public provision** – gov't owns, develops, protects
eg; Parks & reserves Covenants, revolving funds
- **Regulation** – 'command and control' approaches
eg: development approval conditions
- **Economic** – or market-based instruments
eg: taxes, grants, environmental markets

Increasing interest in MBIs in Australia

- Failure of traditional policy approaches to efficiently allocate resources and protect the environment
 - especially from cumulative & diffuse sources
- Public budget concerns
- Success of trading schemes internationally, particularly the US Acid Rain Scheme & enthusiasm for carbon trading
 - Success of domestic competition reforms in water, electricity & gas
- Remove Gov't from day-to-day regulation

Diffuse source impacts increasing focus of market instruments



Problems reflect incentive structures



water . . . between 11 million and 14 million tonnes of sediment is carried by rivers each year into the reef, says the Australian Institute of Marine Science. Photo: GBRMPA

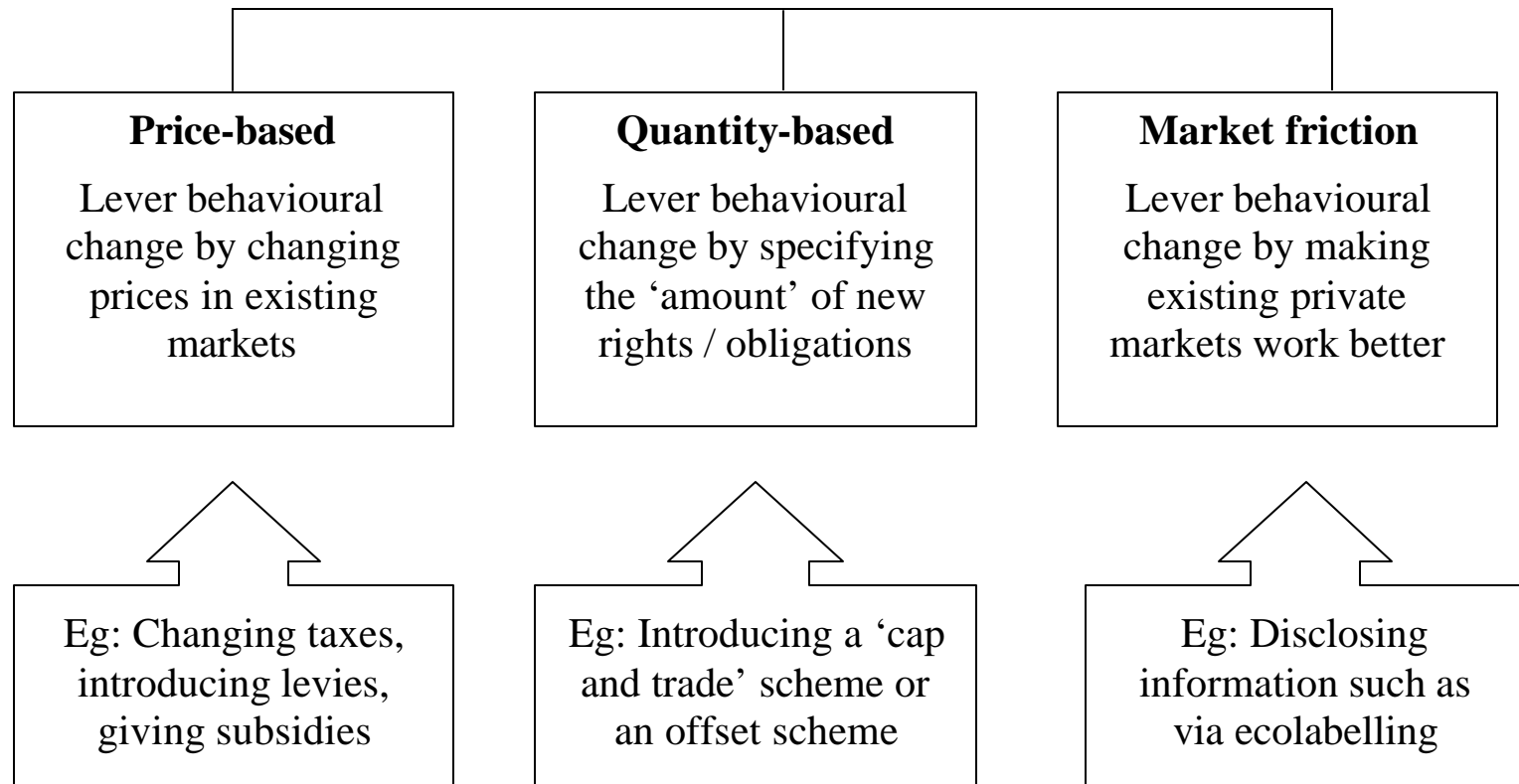
Market instruments are powerful in reducing environmental management costs

- most relevant where variation in compliance costs is expected
 - ... as they use the 'market' to target low cost action to meet the policy goal
- detailed information of who & what action does not need to be known in advance
 - ... by bringing market participants together, the opportunities for low cost actions are revealed

What are market instruments?

MBIs

'encourage behaviour through market signals rather than through explicit directives'



Environmental MBIs becoming common eg:



\$100 REBATE
on selected water-efficient **WASHING MACHINES***

Sydney
WATER

For a limited time**, Sydney Water is offering customers a \$100 rebate to purchase a 4A- or 5A-rated[†] water-efficient washing machine.

Washing machines are one of the largest users of water in your home.

By choosing a water-efficient model, you will help save water, money and protect the environment.

For more information and an application form, ask in-store or visit Water Conservation & Recycling at www.sydneywater.com.au

GO SLOW
on the **H₂O**

* Terms and conditions apply. For details ask in-store or visit our website at www.sydneywater.com.au

** Offer valid from 5 June 2003 to 31 July 2003.

† As rated under the National Water Conservation Labelling and Rating Scheme.

100% WATER-PROOF
it's living thing

The advertisement features a white front-loading washing machine with its door open, set against a dark blue background with a wavy water effect. A green water-saving label with 'AAA' and 'AA' ratings is visible on the machine's door. The Sydney Water logo is in the top right corner.

Australian Price-based MBIs include;

■ Subsidies

- Input subsidies – NHT, NAP, tax concessions
- Outcome subsidies – BushTender
- Product subsidies – water and energy efficient appliances, ULP excise exemption

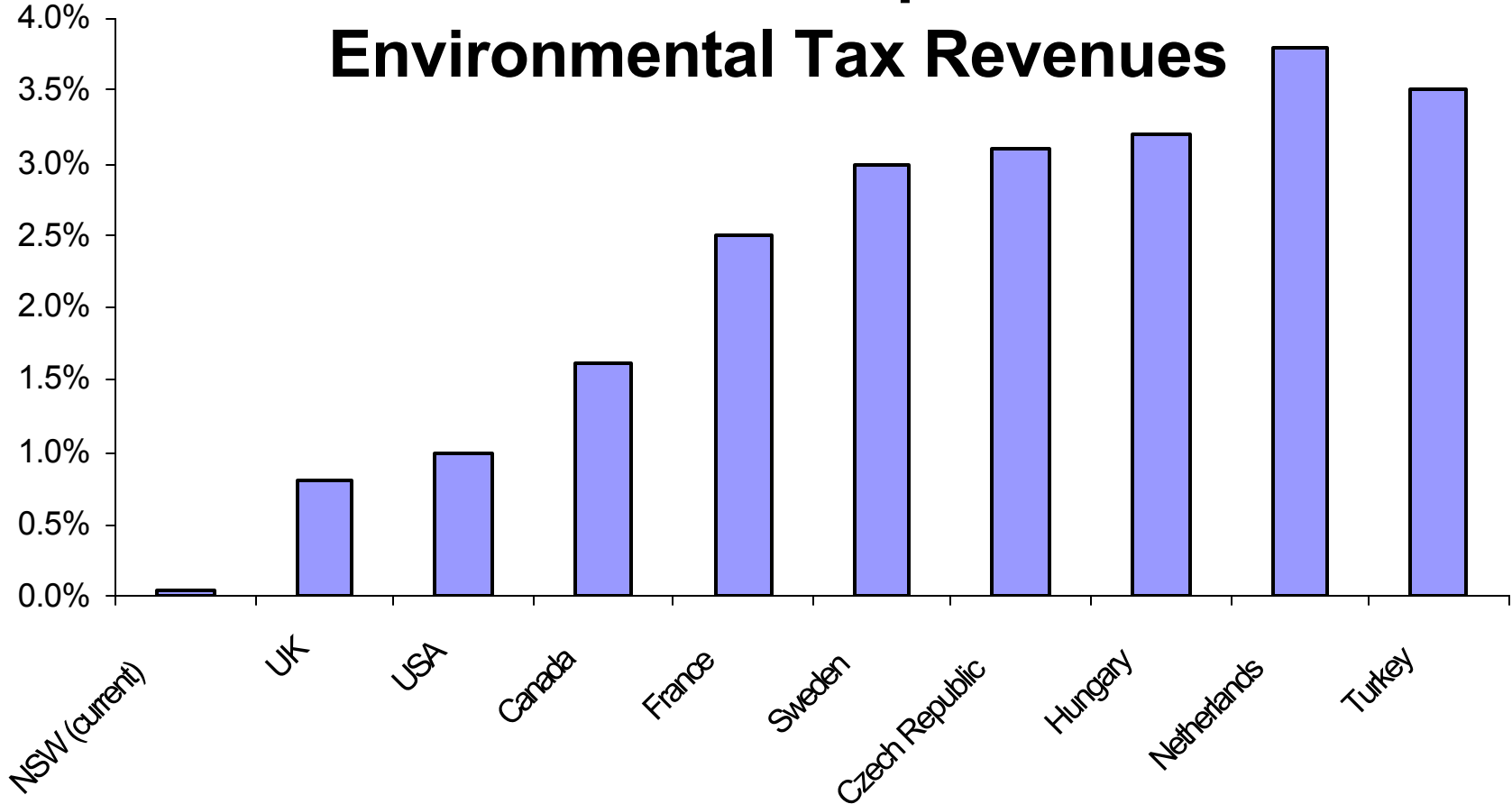
■ Taxes

- Pollution, development & waste disposal fees
- Parking and toll charges, noise levies
- Product taxes – lubricating oils, tyres, fuels

→ But Australian environment tax levels are low

% of GDP

International Comparison of Environmental Tax Revenues

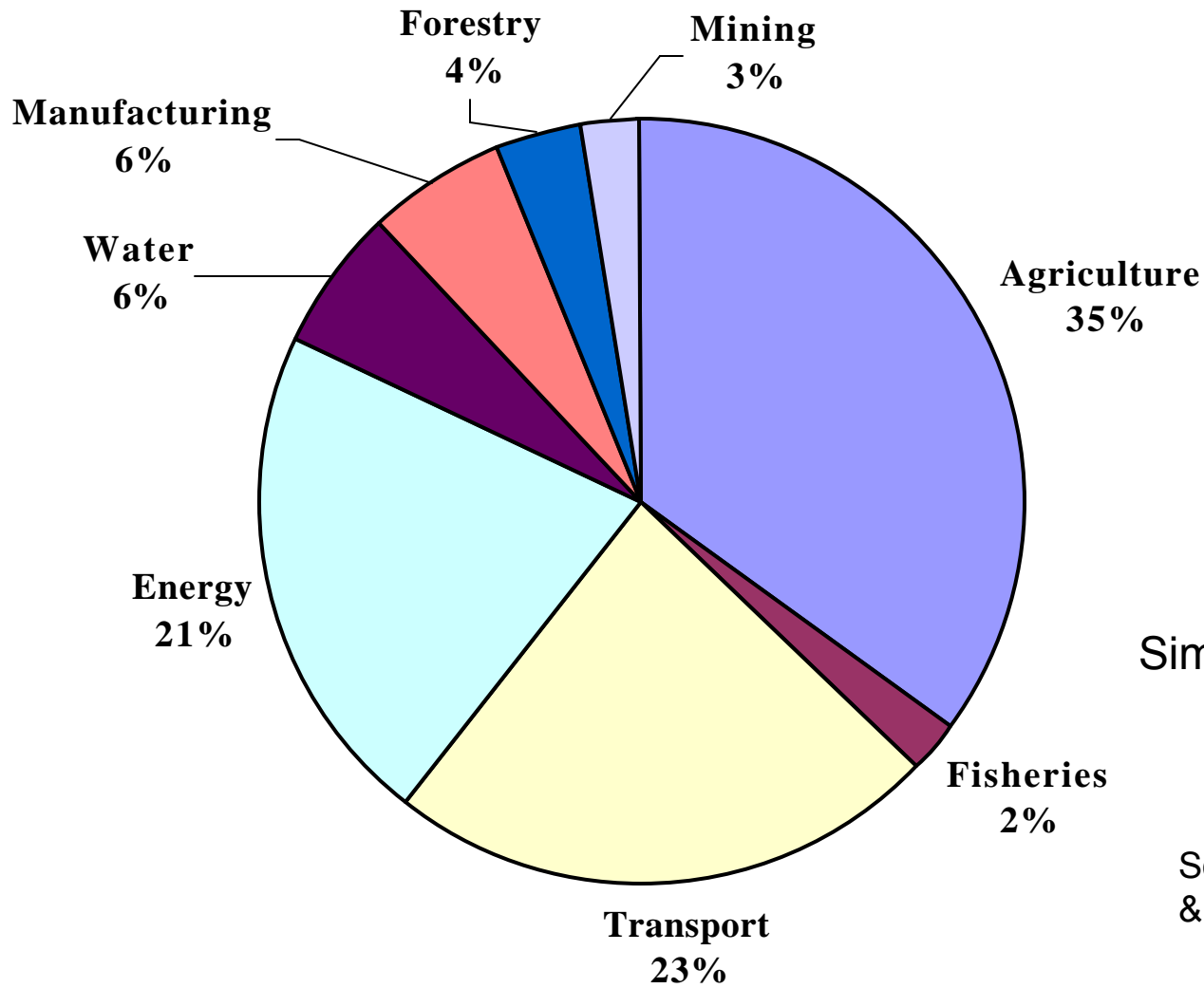


- Average environment tax revenue ~ 2% GDP (Source: OECD 2001)
- Primarily on transport and households

Subsidies

- Subsidies generally to encourage resource exploitation and industry development, NOT environmental protection
 - globally subsidies put at US\$950b in 2000; or 3.6% world GDP
- Where lead to unintended and deleterious impacts, such as environmental degradation, are termed 'perverse subsidies'
- Shift to environmentally beneficial subsidies such as US CRP and Aust. NHT, NAP, etc

Breakdown of world subsidies by sector



Similar breakdown in Aust

Source: van Beers et al (2001)
& Steenblik & Munro (1998)

Australian trading schemes include;

- Manage resource over-allocation
 - eg: transferable use rights for water, forestry, fisheries, kangaroos
- Promote uptake of environmentally friendly goods
 - eg: renewable energy (RECS)
- Cap environmental damage
 - Salinity – MDBC S&D scheme, HRSTS
 - Nutrients – South Creek Scheme in NSW
 - Air pollutants – NSW pollution licensing offsets
 - Greenhouse gases - NSW retail electricity greenhouse scheme (GGRT)

International trading schemes

- Improved resource rights structures being introduced globally
 - often with trading provisions
 - but poor specification of environmental rights
- Emission trading schemes most prominent in USA
 - 30 year history with air emission trading schemes
 - More recent and mixed success with water emission trading schemes

Price or trading instrument?

- a key consideration is in regard to managing uncertainty
- Price instruments
 - Alter the *prices* of goods / services to reflect environmental impact
 - ... provides certainty as to compliance costs
- Quantity or trading instruments
 - Control the *quantity* of the good / service to socially desired level
 - ... provides certainty as to environmental outcome
- In theory, both can yield the same outcome at the same cost
 - in practice, a multitude of factors relevant to the choice of a price or trading instrument, its design & performance

Objective of MBI workshops

- Two themes
 - price instruments
 - quantity instruments
- Overview of experiences & suitability for wider application
- Not a recipe book approach but rather to develop an understanding of how they can be used & what questions to ask when considering new applications