**Socio-Economic Benefits of Protected Areas**

*Concepts and Assessment Techniques as Applied in New South Wales, Australia*

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**Structure of Presentation**

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   - Benefits to individuals and communities from PAs
   - Economic concepts used in measuring benefits

2. **Methods**
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   - Regional Input-Output Analysis and PAs
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3. **Principles**
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**CONCEPTS**

**Introduction**

- Economic analysis can be used to:
  - conceptualise values of PAs for community welfare
  - quantify values of PAs for community welfare
  - demonstrate to decision-makers and communities that PAs are assets that justify public/private support.
  
- Valuing PA benefits - a vital step in developing sustainable financing strategies.

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**Benefits to Individuals and Communities from PAs**

- PAs generate ‘private benefits’ and ‘public benefits’.

![Diagram](protected_areas.png)
Economic Concepts Used in Measuring Benefits

- **Economic Efficiency**
  - Economic welfare enhanced when scarce resources used for activities yielding best return to their private/public owners.

- **Including Opportunity Costs**
  - Gaining economic benefits from using scarce resources in one way means foregoing benefits from alternative uses.
  - Benefits of chosen resource use should exceed benefits of uses foregone, for economically efficient resource allocation.

Economic Concepts (continued)

- **Public and Private Goods**
  - Where private firms fail to supply certain goods and services to meet needs of society through the market:
  - Governments may supply goods and services through public sector to protect/improve social welfare.

- **Distributional Effects**
  - Benefits of private/public goods accrue to groups differentially.
  - Governments can influence the flow of benefits to particular groups.

METHODS

Some Benefits of PAs in NSW

- Common valuation techniques described in paper.
  - e.g. Travel-cost method: used to estimate value of specific PAs for recreation.

- Mutawintji National Park: 12,000 visitors p.a.
  - Economic value person/visit: AUD$ 53-$67
  - Annual economic value: AUD$ 0.6m-$0.8m
  - Present value of recreational benefit: AUD$ 9m-11m

Regional Input-Output Analysis and PAs

Leakages from regional economy

- Goods and services for PA management and park visitors
- Local firms supply services
- Local firms buy inputs from other local firms
- Local firms buy local labour
- Firms outside area supply services
- Local firms buy inputs from outside area
- Local firms buy labour from outside areas

Economic benefits leak out of region to other areas
NPWS Regional Input-Output Analyses

- Shows direct/flow-on (aggregate) regional economic effects:
  - from NPWS expenditure on management
  - from tourism expenditure in region associated with PA visits.
- Fitzroy Falls Visitor Centre (386,000 visitors p.a.)
  - aggregate effects of management = 15 jobs
  - aggregate effects of tourism expenditure = 577 jobs.
- Warrumbungle National Park (50,000 visitors p.a.)
  - aggregate effects of management = 45 jobs
  - aggregate effects of tourism expenditure = 117 jobs.

PRINCIPLES

Improving Supply/Uptake of Benefits

- Promote appropriate types of socio-economic benefits
  - PA managers need to understand private and public benefits of specific PAs and promote appropriate types of benefit.
- Foster agency culture to integrate social/natural science
  - Need organisational culture which coordinates social/natural science research to develop policies/plans for better delivery of benefits.

Agency culture (continued)

- Need Executive to understand strategic value of benefits delivered by PAs, and effectively resource programs over time.
- Promote economic relationship between communities and PA agency
  - Agencies can develop relationship through supporting local businesses.
  - Agency support can help improve local business/community attitudes to PA agency and government.

- Consider equity issues
  - PA managers should carefully consider who gains/is disadvantaged by PA programs intended to deliver benefits.
- Develop coordinated interagency approach to planning and management
  - PA agencies need to coordinate their work with other government programs in the area to deliver mutual objectives
  - Coordinated interagency approaches show public that PAs also contribute to community welfare.
CONCLUSIONS

• Economic concepts/methods used in quantifying PA benefits valuable part of sustainable financing strategy.

• Programs to effectively deliver private/public benefits of PAs:
  - show PAs can serve local and wider community interests as well as achieving conservation outcomes.
  - help raises public awareness and support for funding PA programs.