

# Ecosystem Accounting "Policy Relevance"

Prepared by Mark Eigenraam  
Director ecoMarkets

Economic Policy Branch, Department of Sustainability and Environment  
Victoria, Australia, November 2012

*(Eigenraam et al 2012) Land and ecosystem services: measurement and accounting in practice*

## Environmental Partnerships

Launched by Minister for Environment and Climate Change, 10 Nov 2012

- **Establish environmental accounts that are consistent with international systems to:**
  - > establish clear standards for reporting on the quality and value of environmental assets, and recording and explaining changes over time
  - > improve the way resources are allocated to environmental activities.
- Work with **local government** to make sure strategic planning, growth area planning and **urban design** processes take into account environmental values and potential impacts.
- Streamline processes around **environmental investment** programs to improve the allocation of, and accountability for, public funds.
- Share information to bring greater transparency and accountability to our performance and **empower the community** to target their efforts and make informed decisions to co-invest.

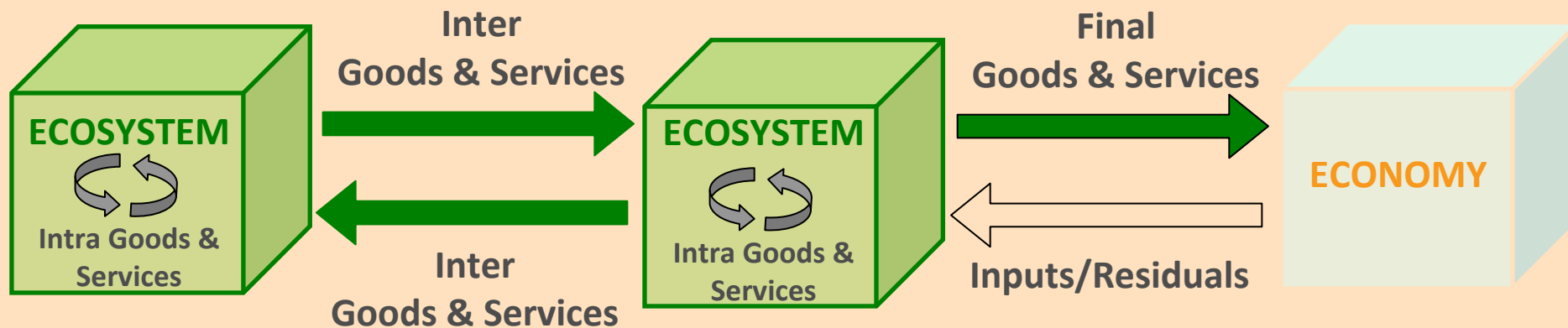
## Environmental Partnerships

- We will also make sure we have information that more clearly **accounts** for the *contribution of the environmental sector to the economic and social wellbeing of all Victorians*.
- We will share this information because this motivates and enables **individual action that benefits society broadly**. This new consolidated approach will mean environmental decision-makers at all levels can make more informed decisions.
- *We have finite resources and we need to be efficient in how we use them.*

# Ecosystem Goods and Services

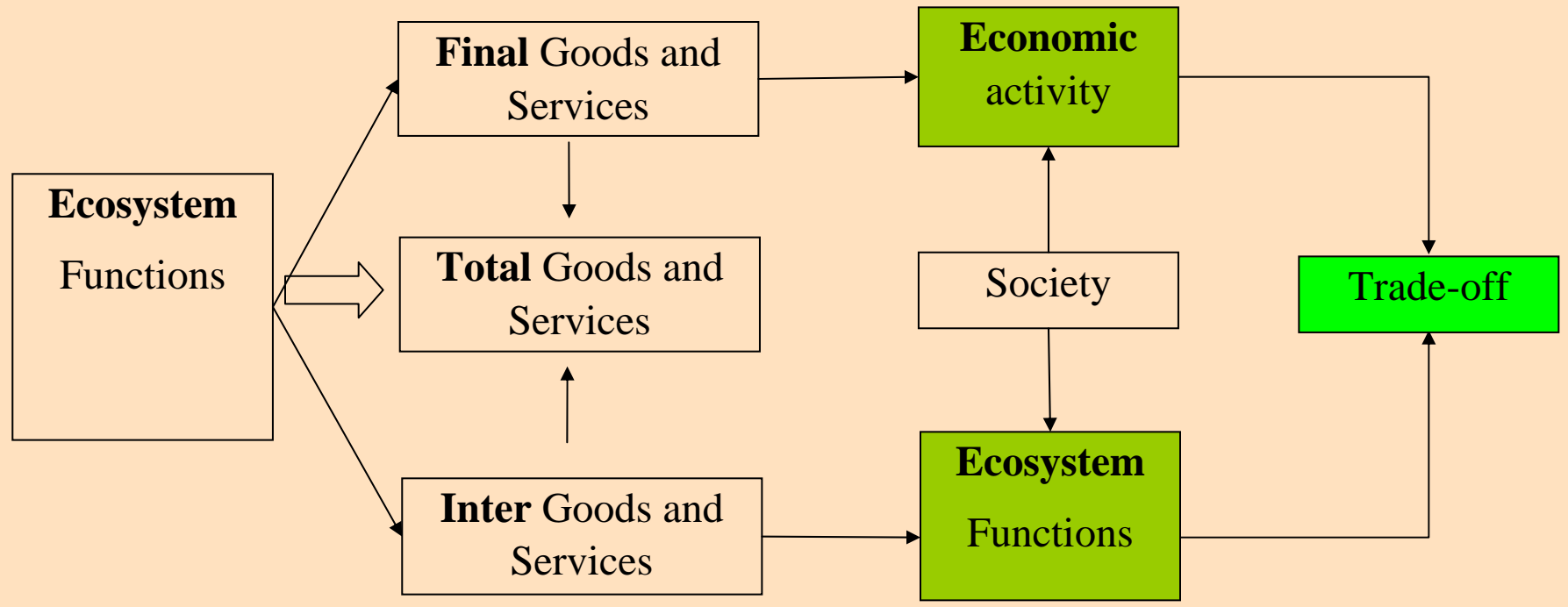
- Can human interventions impact on the services?
  - > Supporting
  - > Regulation and maintenance
  - > Provisioning
  - > Cultural
- If yes we need to account for it
  - Measure to manage!

# Linking ecosystems to the economy



# Victorian Environmental Markets

- Government procuring ecosystem services from private landholders
  - > Operating for approximately 12 years
  - > Long term contracts (5-10 years)
  - > Transactions
  - > Contribution to the economy
- Current stock and trend analysis
- Ecosystem accounting
  - > Reporting transactions and the resultant changes to the extent and quality of ecosystem assets



## Central Framework

**Table 4. Physical Account for land assets**

Land - Physical (ha)	Agriculture	Forestry	Aquaculture	Use of built up and related areas	Land used for maintenance and restoration of environmental functions	Other uses of land	Land not in use	Total
Opening stock	739,687	120,430	-	82,359	758,572	3,400	9,371	1,713,819
<b>Additions to stock</b>								
Acquisitions								
Reclassification					1263			
<b>Reduction in stock</b>								
Natural losses								
Reclassification	-1263							
Closing balance	738,424	120,430	-	82,359	759,835	3,400	9,371	1,713,819

\*Eigenraam et al 2011



# Ecosystem Accounts

**Table 2.** Condition Scores Environmental Assets for West Gippsland

EBI – Condition Elements	Terrestrial Assets	River Assets	Wetland Assets
<b>Opening Condition</b>	61,769.50	22,919.72	2,381.61
<b>Additions to condition</b>			
Acquisitions	7,130.09	3,837.56	241.06
Reclassification			
<b>Reduction in condition</b>			
Natural losses	-141.44	- 51.68	-0.02
Reclassification			
<b>Closing condition</b>	68,758.16	26,705.60	2,622.64

\*Eigenraam et al 2011

# Central / Ecosystem Accounts

**Table 3. Physical Account for Environmental Benefits Index**

<b>EBI - Physical Account</b>	<b>Agriculture</b>	<b>Forestry</b>	<b>Aquaculture</b>	<b>Use of built up and related areas</b>	<b>Land used for maintenance and restoration of environmental functions</b>	<b>Other uses of land</b>	<b>Land not in use</b>	<b>Total</b>
<b>Annual EBI Flow to 30 June 2010</b>	271,304,904							271,304,904
<b>Increase in EBI flow due to:</b>								
Acquisitions					35,855,034			35,855,034
Reclassification					270,155,361			270,155,361
<b>Reduction in EBI flow due to:</b>								
Natural losses	(84,838)							(84,838)
Reclassification	(270,155,361)							(270,155,361)
<b>Annual EBI Flow to 30 June 2015</b>	1,064,706				306,010,395			307,075,101
<b>Change in annual flow</b>								<b>35,770,196</b>

\*Eigenraam et al 2011

## Policy links

- Linking ecosystem assets to local economic performance
  - > Employment, demographics, industry development
- Climate variability
  - > Flood, fire, hurricane etc
  - > Policy responses and preparedness
- Return on investment in ecosystem condition
  - > flow of ecosystem goods and services
- Links to economic actors!

## Economic actors

- Households
  - > Linking ownership to both ecosystem and economic performance
  - > Census data for research and policy purposes
  - > Linking space (ecosystems) the people!
- Government
  - > Central and line agency accountability
- Banking and financial institutions
  - > Credence value, asset value, risk management
- Industry sustainability
  - > Dairy, grains, meat and livestock, etc
  - > Food security issues – reliant upon ecosystem assets
- Regional economic performance
  - > What is our reliance on natural capital?
- Emissions and waste industry
  - > Nitrogen, phosphorus, carbon, other residues, etc

## Observations

- Good policy relies on good data and science
- We are making decisions that impact ecosystems now and in the future
  - > We can improve those decisions.....
- Complexity
  - Don't prevent the unknown from becoming known
  - Knowledge is wealth!

End

Thank you!

[mark.e.eigenraam@dse.vic.gov.au](mailto:mark.e.eigenraam@dse.vic.gov.au)

*Movember was launched in Melbourne, Australian in 2003.*

*In 2011, over 854,000 Mo Bros and Mo Sistas around the world got on board, raising \$126.3 million USD.*

*To participate:*

<http://mobro.co/markeigenraam>