Environmental accounting in public administration

Completing the picture: Environmental accounting in practice

Gary Stoneham: DTF, Victoria
Contents:

1. Link progress in economics with environmental accounting

2. Link public administration with environmental accounting

3. Conclusions
Part 1:

ADVANCES IN ECONOMICS – IMPACT ON ENVIRONMENTAL ACCOUNTING
National accounts and the environment

- National Accounts
  - Markets define the boundary for National Accounts

- Environmental Accounts
  - Missing markets

**Status of environment in National Accounts**

<table>
<thead>
<tr>
<th>Environmental stock/flow</th>
<th>Information status</th>
<th>Status in NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic flow (transactions)</td>
<td>Revealed values</td>
<td>Included in NA</td>
</tr>
<tr>
<td>Environmental flow (e.g. species preservation)</td>
<td>Not valued (public good)</td>
<td>Not included in NA</td>
</tr>
<tr>
<td>Stock (e.g. land/water)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Productive land/water</td>
<td>Revealed values</td>
<td>Included in NA</td>
</tr>
<tr>
<td>• Habitat stock</td>
<td>Not valued</td>
<td>Not included in NA</td>
</tr>
</tbody>
</table>
Developments in microeconomics

- Evolved institutions
  - Markets

- Designed institutions
  - Market-based instruments
  - Economic design
  - Designed institutions: Spectrum auctions, electricity dispatch markets

**Markets for environmental goods and services**

<table>
<thead>
<tr>
<th>Institution</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tradeable emission permit</td>
<td>EU carbon market</td>
</tr>
<tr>
<td>Smart markets</td>
<td>Native Vegetation Exchange</td>
</tr>
<tr>
<td>Auction conservation contracts</td>
<td>BushTender ecoTender</td>
</tr>
</tbody>
</table>
Part 2:

PUBLIC ADMINISTRATION – THE ROLE OF ENVIRONMENTAL ACCOUNTING
Strategic directions in DTF

DTF’s Strategic priorities:

1. Leaders in financial and performance management

2. Enhance productivity through market-based policy instruments
   - Economic design approach to create market-based policy mechanisms
   - Centre for Market Design
Phase 1: Create markets for environmental G&S

- Design and pilot markets for environmental goods and services
  - Auction conservation contracts (BushTender/ecoTender)
  - Native Vegetation Exchange (field pilot)

- Create selected environmental accounts (SEEA)
  - Markets reveal information needed for Environmental Accounts
  - Trial Accounts from field trial results
### Environmental asset accounts:
#### Terrestrial Habitat Asset Account: Corangamite

<table>
<thead>
<tr>
<th>Land class</th>
<th>Agriculture</th>
<th>Natural</th>
<th>Forestry</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening stock</td>
<td>134,173</td>
<td>116,922</td>
<td>96,144</td>
<td>28,409</td>
<td>375,955</td>
</tr>
<tr>
<td>Change (transactions)</td>
<td></td>
<td>12,700</td>
<td></td>
<td></td>
<td>12,700</td>
</tr>
<tr>
<td>Additions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deductions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other changes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closing stock</td>
<td>134,173</td>
<td>129,622</td>
<td>96,144</td>
<td>28,409</td>
<td>388,605</td>
</tr>
<tr>
<td>% change</td>
<td></td>
<td>10.9</td>
<td></td>
<td></td>
<td>3.3</td>
</tr>
</tbody>
</table>
## Environmental assets: Corangamite – long-term

<table>
<thead>
<tr>
<th>Environmental stock</th>
<th>Change in stock (pre-European to 2009)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terrestrial</td>
<td>-71%</td>
</tr>
<tr>
<td>Surface water</td>
<td>+160%</td>
</tr>
<tr>
<td>Carbon (in vegetation)</td>
<td>-89%</td>
</tr>
</tbody>
</table>
Phase 2: Scale-up environmental accounts

- With ABS scale-up environmental asset accounts to State level
  - Land Account (Victoria): 2012

- Selected State-level Environmental Asset Accounts

- Integration of Environmental and National Accounting systems
  - Accounting concepts
  - Account architecture
  - Data architecture
Phase 3: Integrate environmental accounts with budget process

Goal:

- To develop environmental accounts to support budget and financial systems in the environment domain
  - Resources allocation
  - Monitoring and reporting
  - Environmental transaction accounts

- Project team (ABS, DTF, DSE)
Part 3:

CONCLUSIONS
1. **New capabilities in economics**  
   - Markets can be created for environmental goods and services

2. **Where environmental markets created**  
   - Information revealed facilitates environmental accounting  
   - SEEA provides the architecture and conceptual foundations

3. **In Victoria:**  
   - Significant capability in designing and creating markets  
   - Developed selected environmental accounts (SEEA)  
   - With ABS aim to create the systems needed to scale-up environmental accounts  
   - Link environmental accounts with budget and financial management  
   - Integrate data architecture with National Accounts