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Update on SEEA Experimental Ecosystem Accounts for the Great Barrier Reef

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This session

- The Great Barrier Reef Region
- Previous work
- Ecosystem Accounting in Australia
- Format of proposed accounts
- Update on progress
- Challenges
- Key messages

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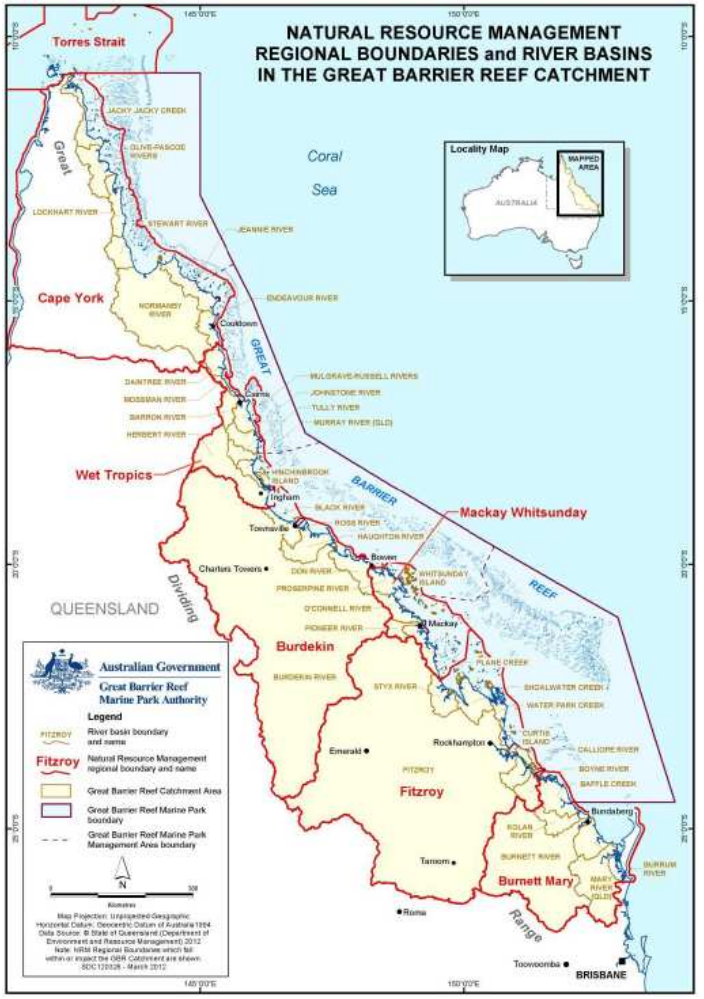
Spatial scope

- Terrestrial : 5 complete, 1 partial NRM regions
- Marine : Entire World Heritage Area



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Great Barrier Reef Region

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Great Barrier Reef Region

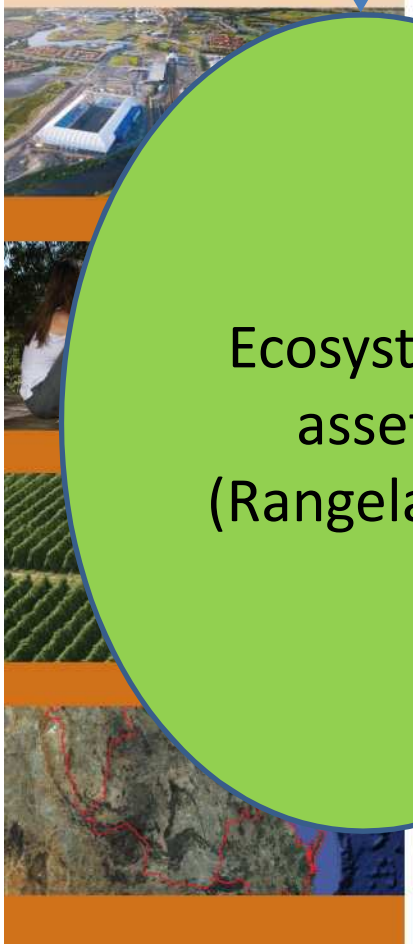
Previous and ongoing work

- Land Management: Fitzroy and Livingstone Shires
- GBR Land Accounts (experimental)
- Completing The Picture release
- NRM ecosystem accounts. Wentworth Group
- Land to reef processes
- Access Economics/Deloitte work
- GBRMPA various reports
- NERP Monitoring Program

Choice of GBR for Experimental Ecosystem Account

- To test the Experimental Ecosystem Accounting volume of SEEA
- The economic, physical and social interactions within the GBR Region are complex and varied
- There is a lot of data available for the GBR region, especially environmental data
- Previous ABS work with Queensland Government on GBR Land Account
- Support legislated role of GBR Marine Park Authority
- Significant policy area for both Commonwealth and Queensland state government, as well as community interest

Ecosystem Service view in SEEA EEA



Inputs to pastures e.g. fire control, seeds for improved pastures

Inputs to animal holding e.g. herding, veterinary care

Ecosystem asset (Rangeland)

ES: Grass and other animal feed

Grazing by domestic animals

BENEFITS: Animals, milk, meat, hides

Manure

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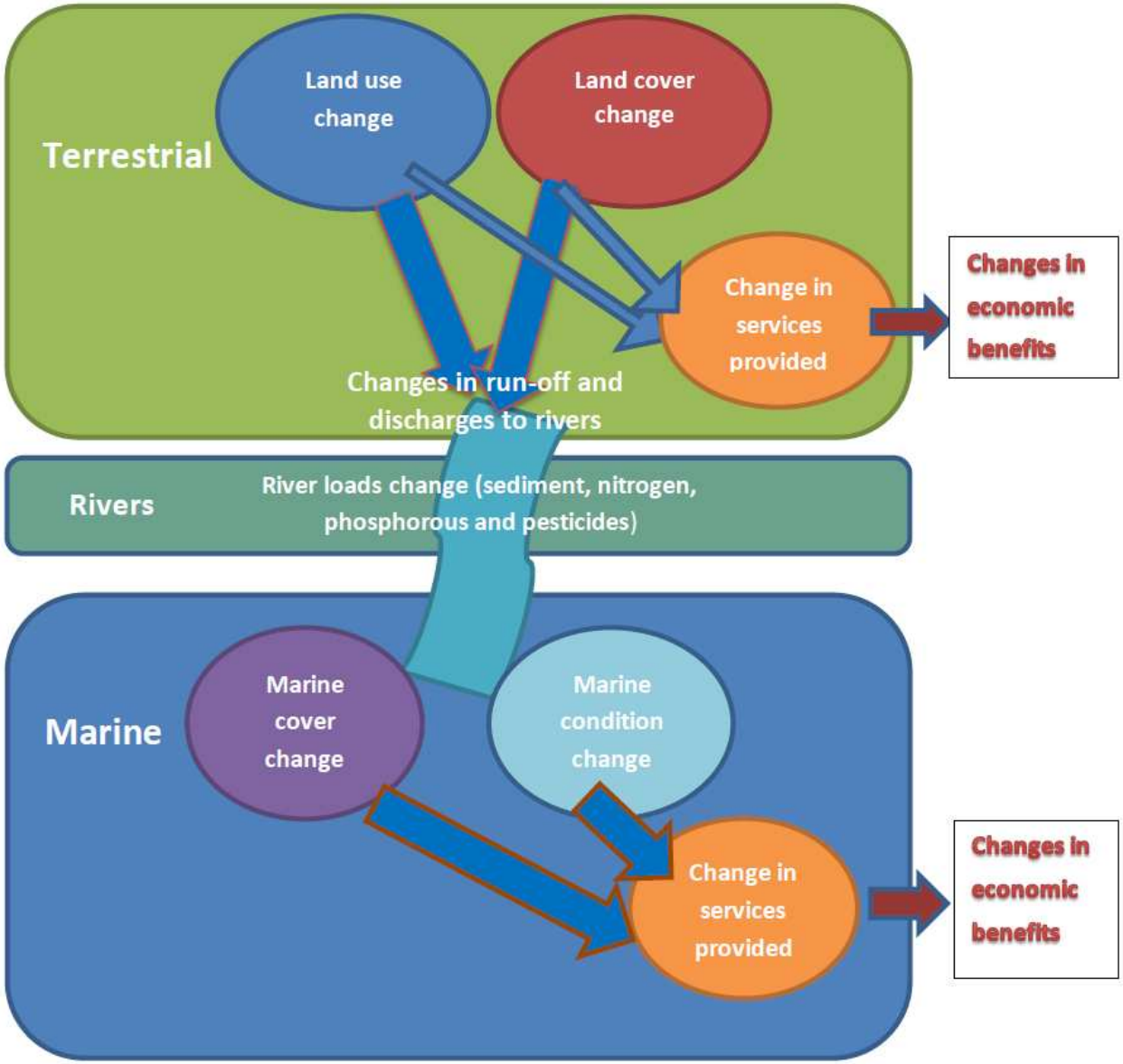
Example flow of accounts



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Prioritised List of Accounts

Number of tables	Account	Publication Priority	Physical outputs	Monetary Outputs
1	Land Cover	1	Yes	Yes
2	Land Condition	1	Yes	No
3	Land Use	1	Yes	Yes
4	Terrestrial biodiversity	1	Yes	No
5	Marine Condition	1	Yes	No
6	Marine Biodiversity	1	Yes	No
7	Provisioning – food/nutrition LAND	1	Yes	Yes
8	Cultural – tourism LAND	1	Yes	Yes
9	Physical flow – sediment loads in rivers	1	Yes	No
10	Provisioning – food/nutrition MARINE	1	Yes	Yes
11	Cultural – tourism MARINE	1	Yes	Yes
12	Cultural – indigenous cultural (Written commentary only)	1	No	No
13	Cultural - Recreational	2		
14	Marine Use	2		
15	Provisioning – water	2		
16	River condition	2		
17	Provisioning – timber	2		
18	Provisioning – fibres/materials	2		
19	Regulatory – carbon sequestration	2		
20	Provisioning – biomass energy	2		

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Sample accounts

Flora agricultural production for fibres and materials	Cotton				Hay and silage			
	Area	Production	Market Value	Ecosystem service value	Area	Production	Value	Ecosystem service value
	ha	tonnes	$m	$m	ha	tonnes	$m	$m
Burdekin								
Burnett Mary								
Cape York								
Fitzroy								
Mackay Whitsunday								
Wet Tropics								

	Tourism Industry Value Added	Tourism share of regional Value Added	Ecosystem service contribution to Tourism	
	$m	%	$m	% of regional Value Added
Burdekin				
Burnett Mary				
Cape York				
Fitzroy				
Mackay Whitsunday				
Wet Tropics				

Sample summary table

Mackay Whitsunday

	Terrestrial									River				Marine						
	Land condition	Food Provision		Tourism		Forestry		Carbon sequestration		Biodiversity	Solids	Fetrilizer	Nitrogen	Phosphorus	Coral condition	Water quality	Sea grass condition	Food provision		Recreation		Biodiveristy
	index	t	$	Visitor	$	t	$	t	$	index	t	t	t	t	index	index	index	t	$	visits	$	index
2001-02																						
2002-03																						
2003-04																						
2004-05																						
2005-06																						
2006-07																						
2007-08																						
2008-09																						
2009-10																						
2010-11																						
2011-12																						

Challenges

- Biophysical data consistency
- Allocation of services to beneficiaries
- Push to value more recreational and cultural aspects of ecosystem
- Small area economic data
- Developing use cases for Ecosystem Accounts
- Ensuring repeatability and resources

Key Messages

- The GBR is an important asset that is particularly well suited to this kind of project
- Considerable work has already been undertaken
- ABS using this pilot study to test the application of the SEEA EEA
- ABS will be seeking feedback on the work – including data sources and methodology
- Importance of building time series with this work