Manaaki Whenua
Landcare Research

Can we model futures scenarios for catchment management?

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Can we model futures scenarios for catchment management? -IDEAS?

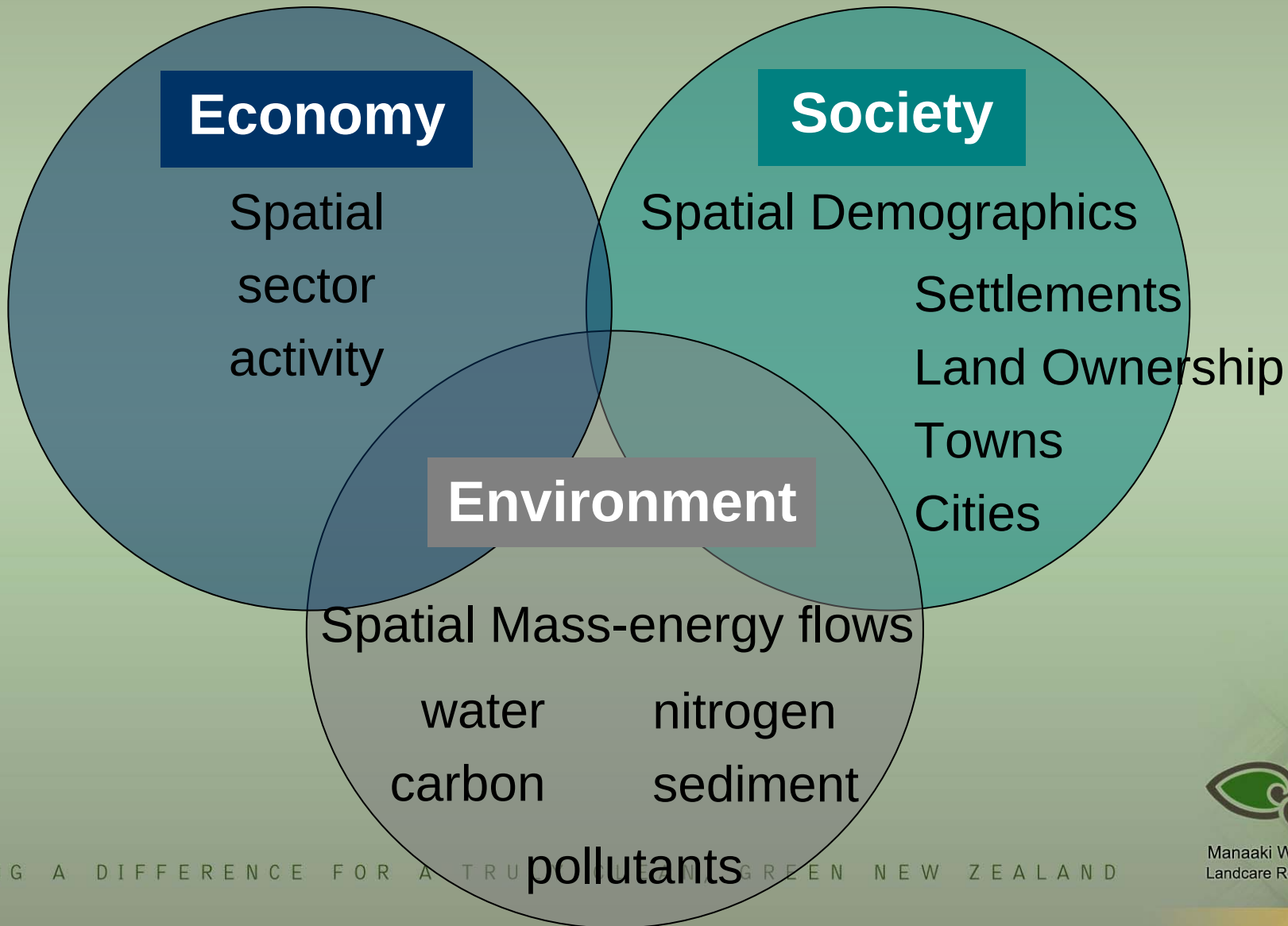
IDEAS

- Integrated
- Dynamic
- Environmental
- Assessment
- System

Required attributes

- Triple bottom-line approach
- Collaborative learning process
- Assessment of future catchment scenarios
- Dynamic

Triple bottom-line approach



Dynamic assessment of catchment scenarios

Satellite imaging

G.I.S

Present land and ocean use

Future land and ocean use

Physical models

Mass/energy flows

Economic activity

Generate future scenarios

Social demography

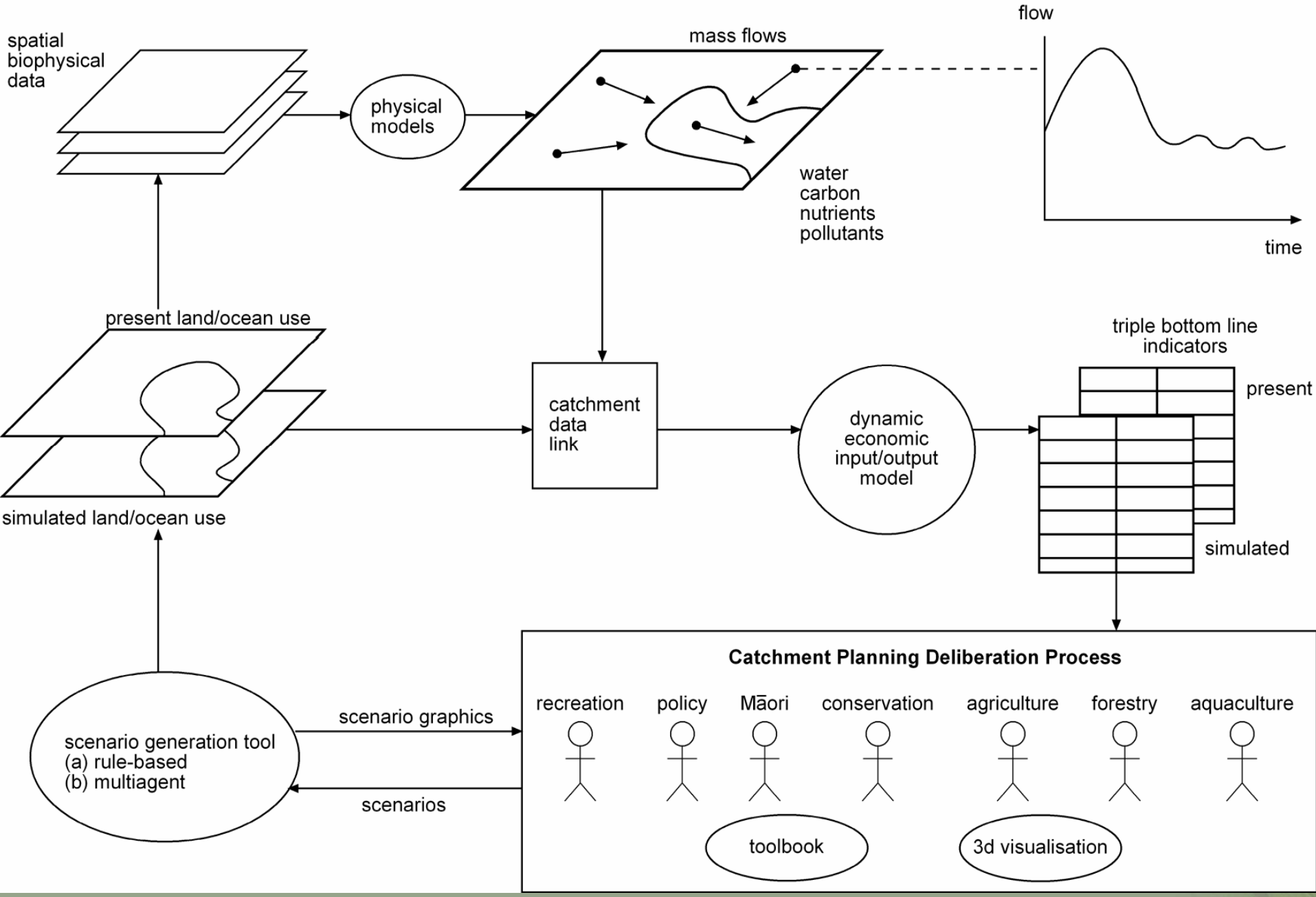
Land ownership

3D visualisation

Economic Environmental input/output models

N E W

Tabular summary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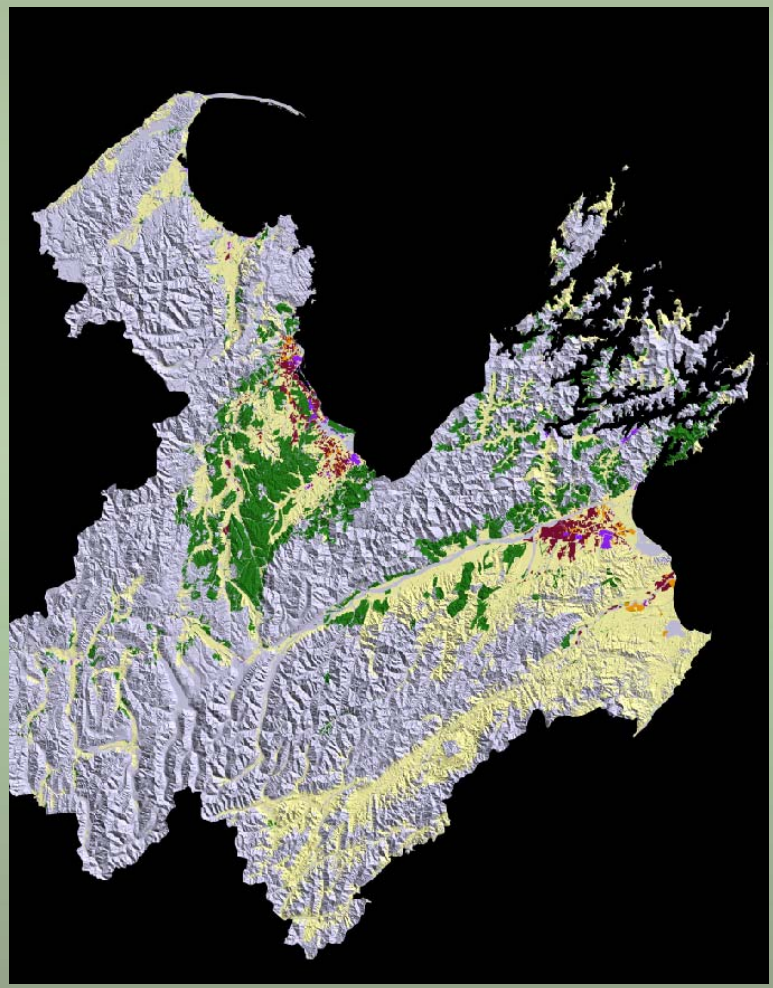
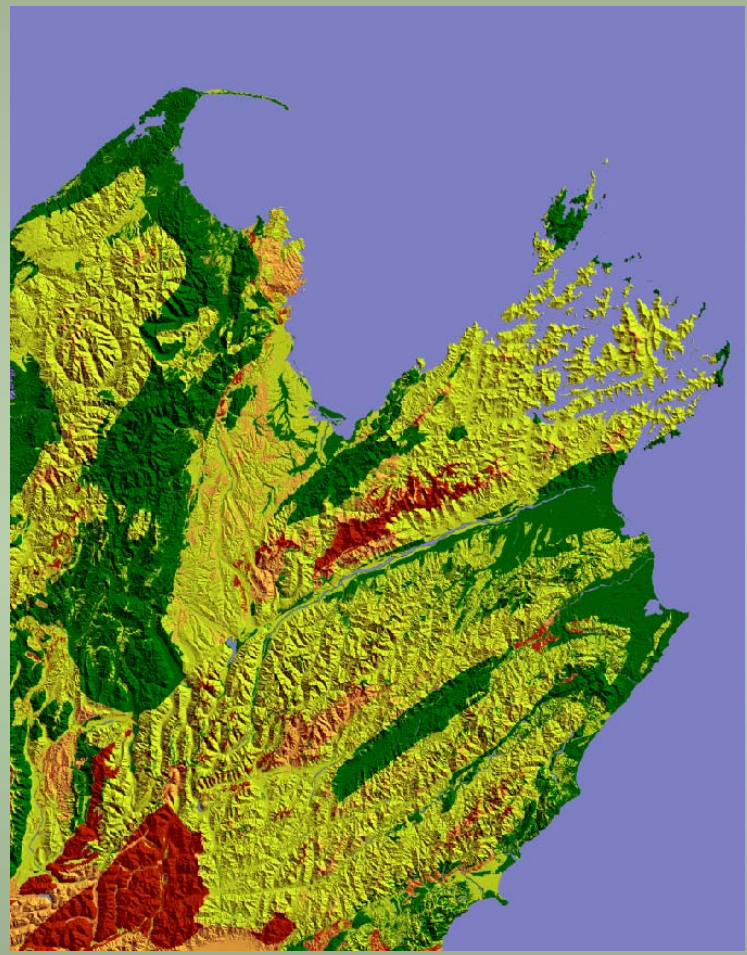
(b) multiagent
scenario graphics
scenarios

Present land-based economic sectors from satellite



Physical model of erosion

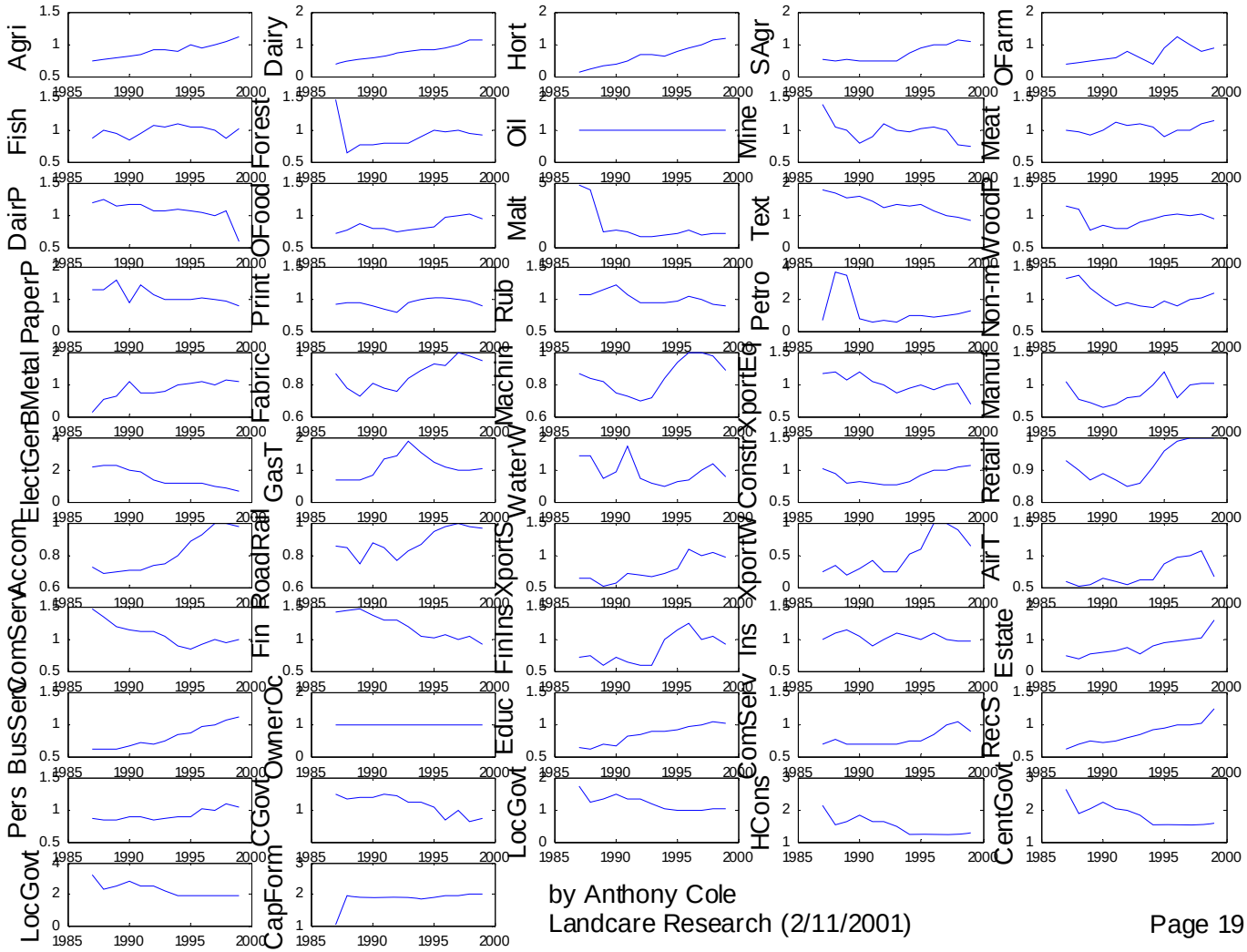


Land-based economic sectors

	Tasman district	
Landuse	Average sediment yield (t/km2/yr)	Area (ha)
Built-up area	110	2126.8
Urban parkland	80	547.7
Surface mine	440	157.7
Dump	140	7.0
Transport infrastructure	280	476.1
Other	190	712655.0
Cropping	100	1313.1
Horticulture	90	9450.6
Pastoral agriculture	210	127259.0
Exotic forestry	180	104615.3

Appendix 3

Dynamic Model Driver Variables by NZSIC



by Anthony Cole
Landcare Research (2/11/2001)

MAKING A DIFFERENCE FOR A TRULY CLEAN, GREEN NEW ZEALAND

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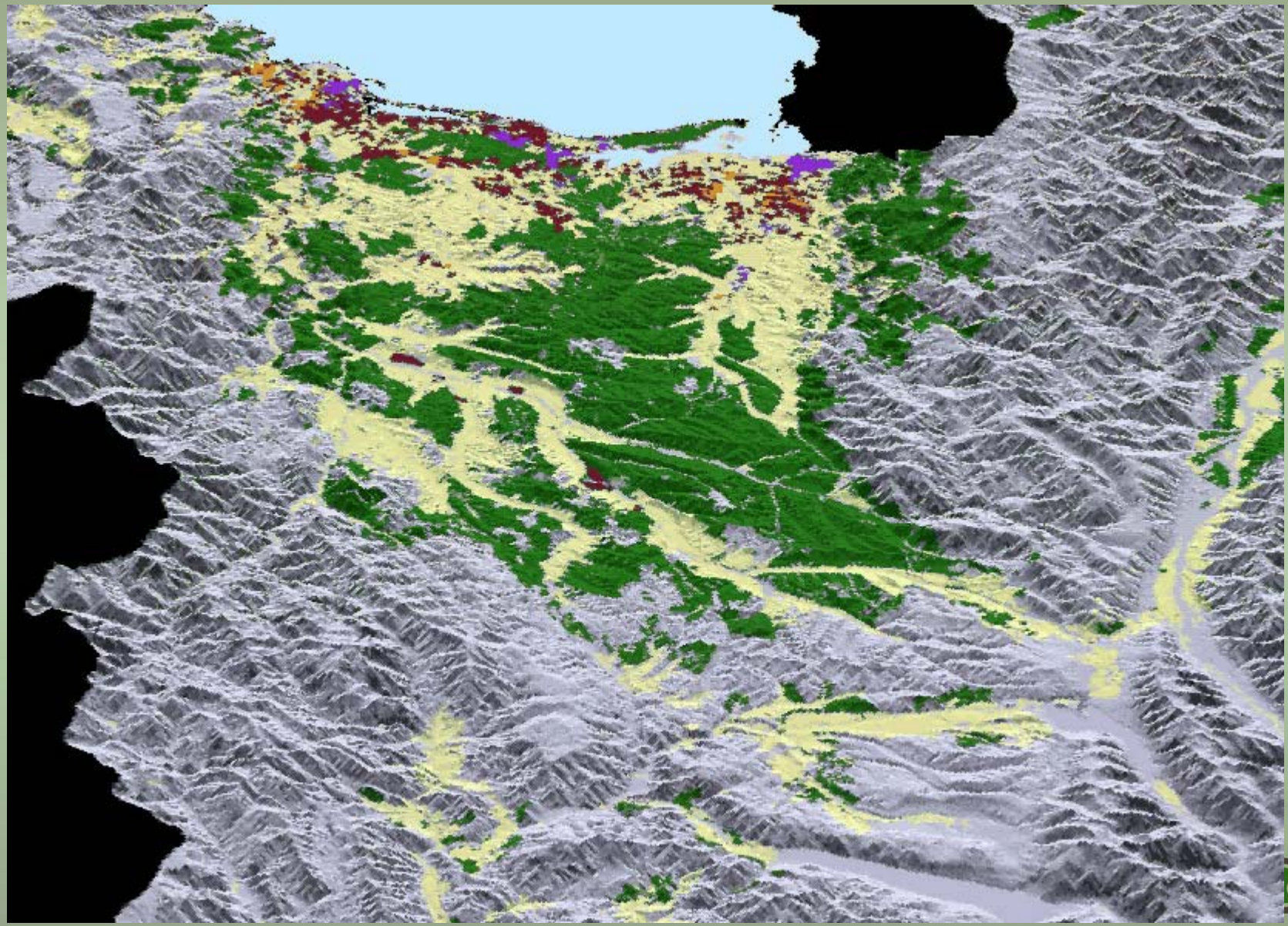

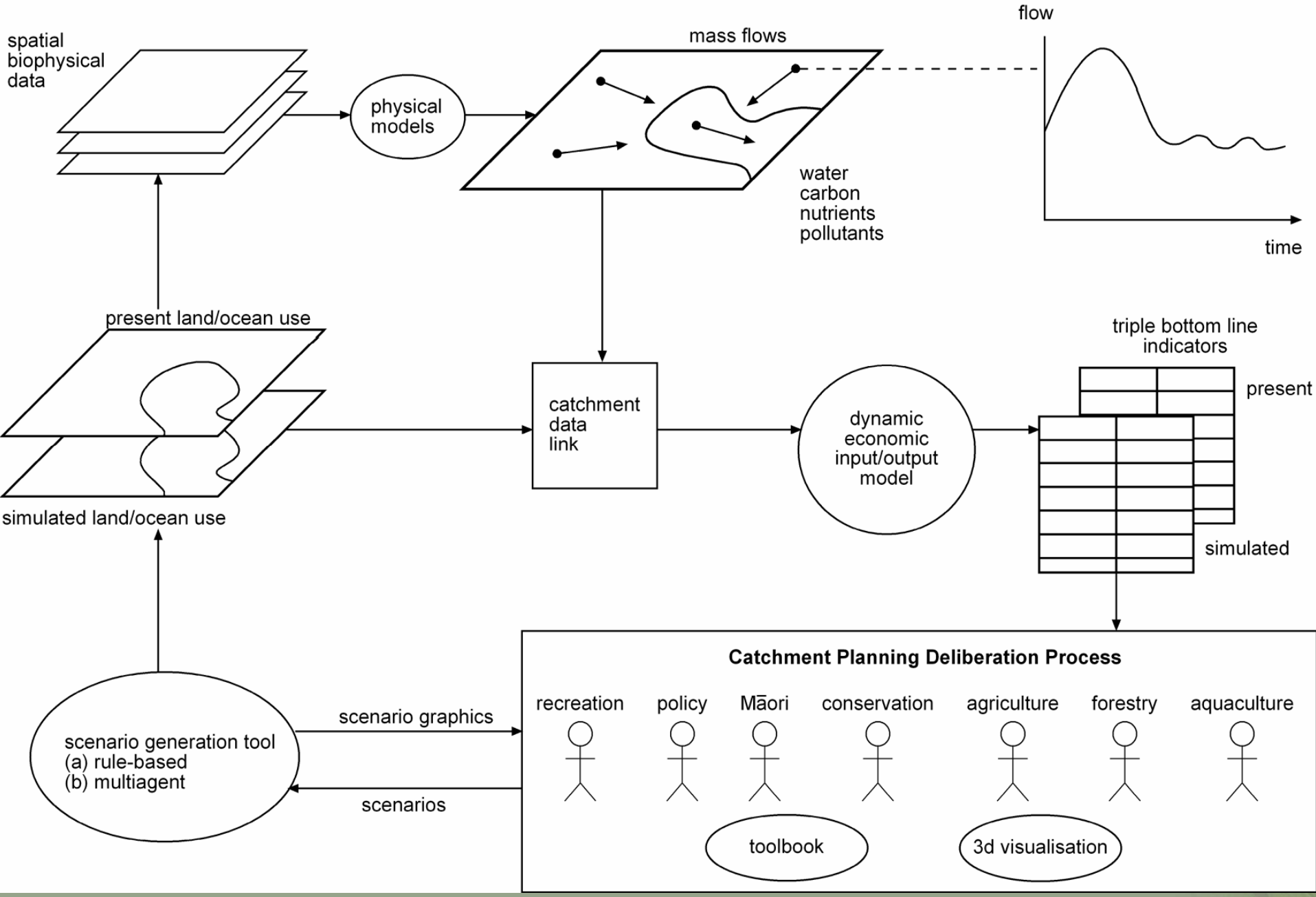
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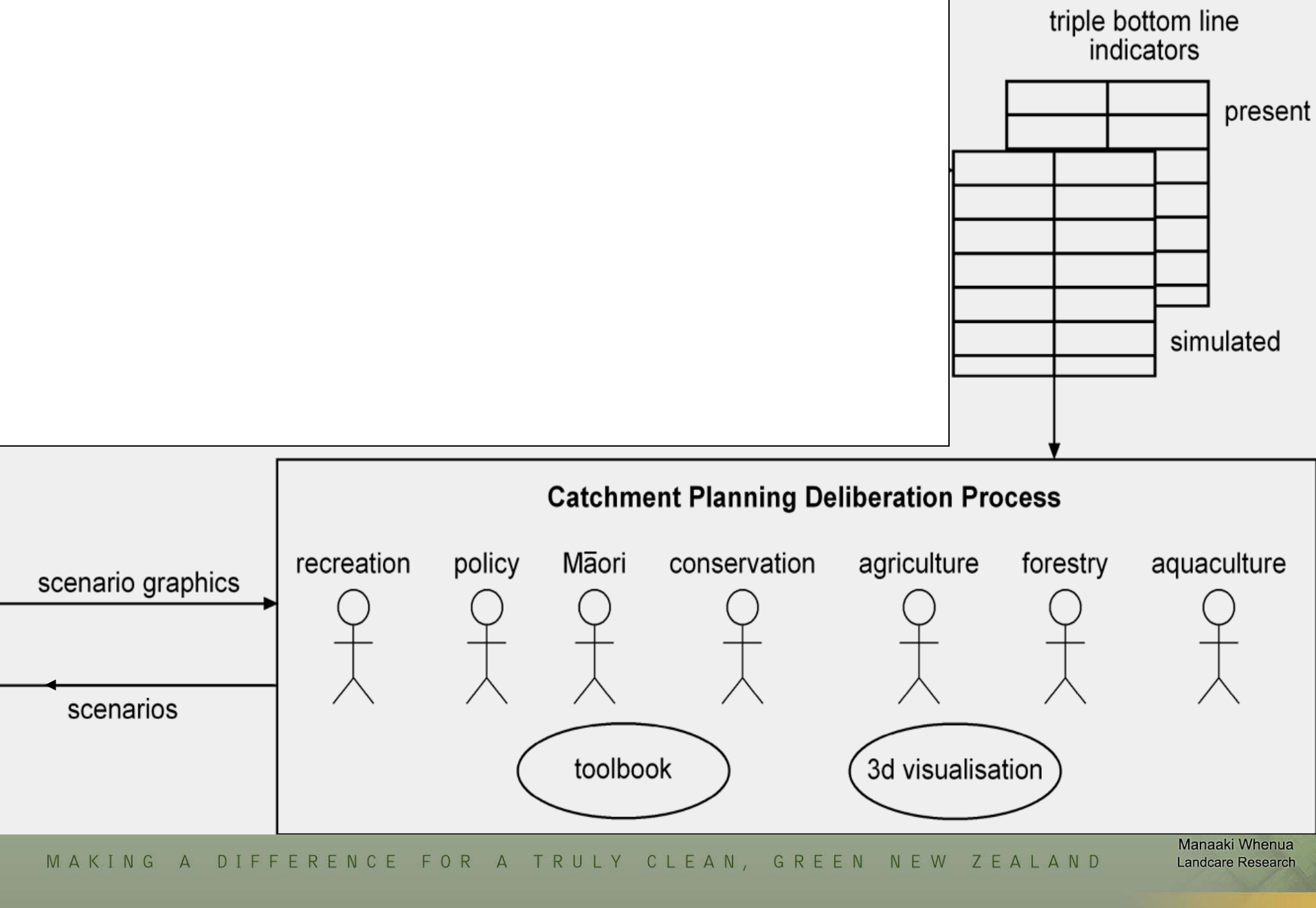
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