



Biodiversity across the Borders

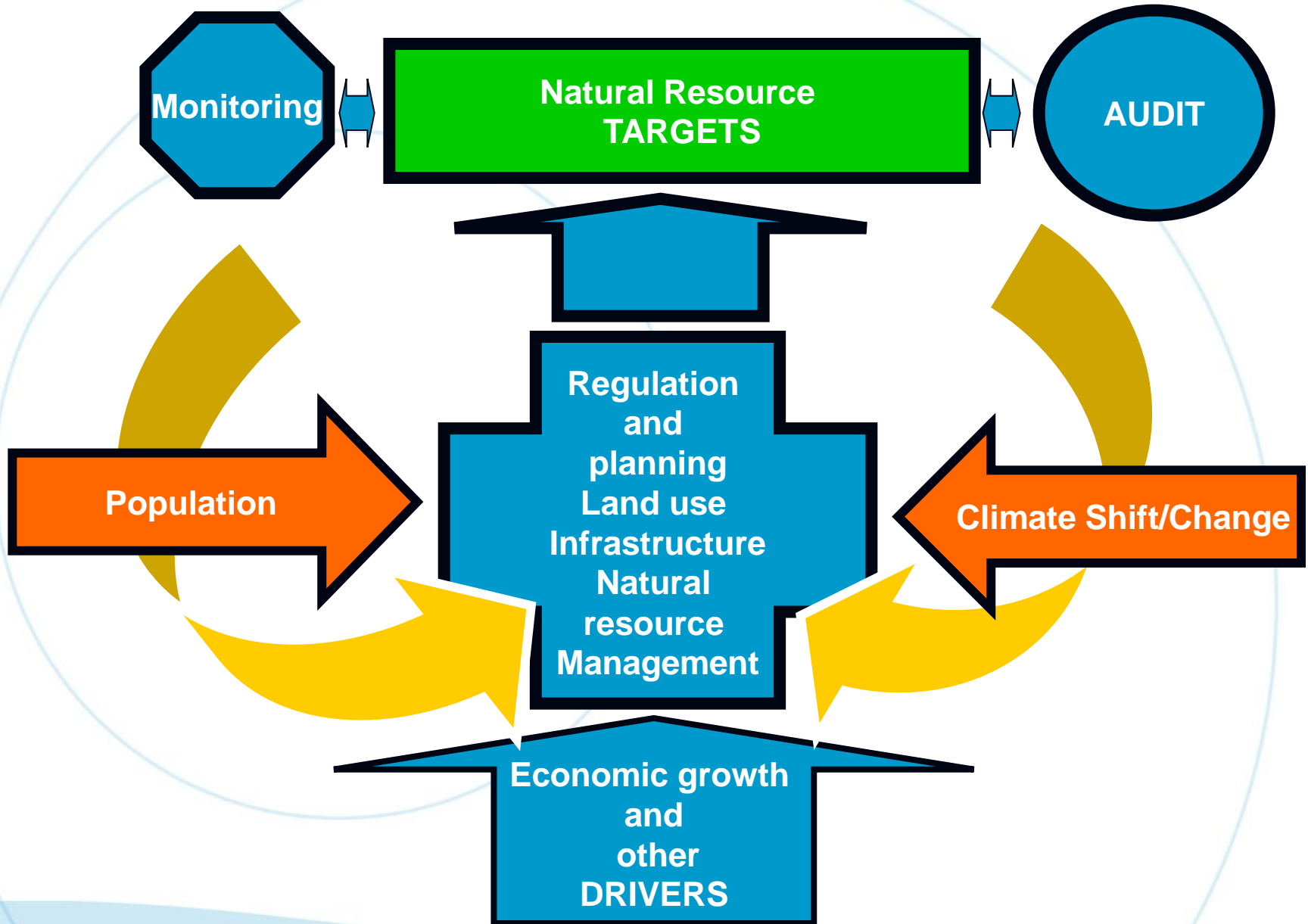
*Shifting Paradigms: Resilience and the
NSW Natural Resources Commission*

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Commissioner

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Outline

- **The NSW Natural Resources Commission**
- **The NRC and Resilience**
 - Linked social ecological systems
 - Embracing change
 - Variables and thresholds
 - Adaptive capacity
- **What we have learnt**
- **Challenges ahead**

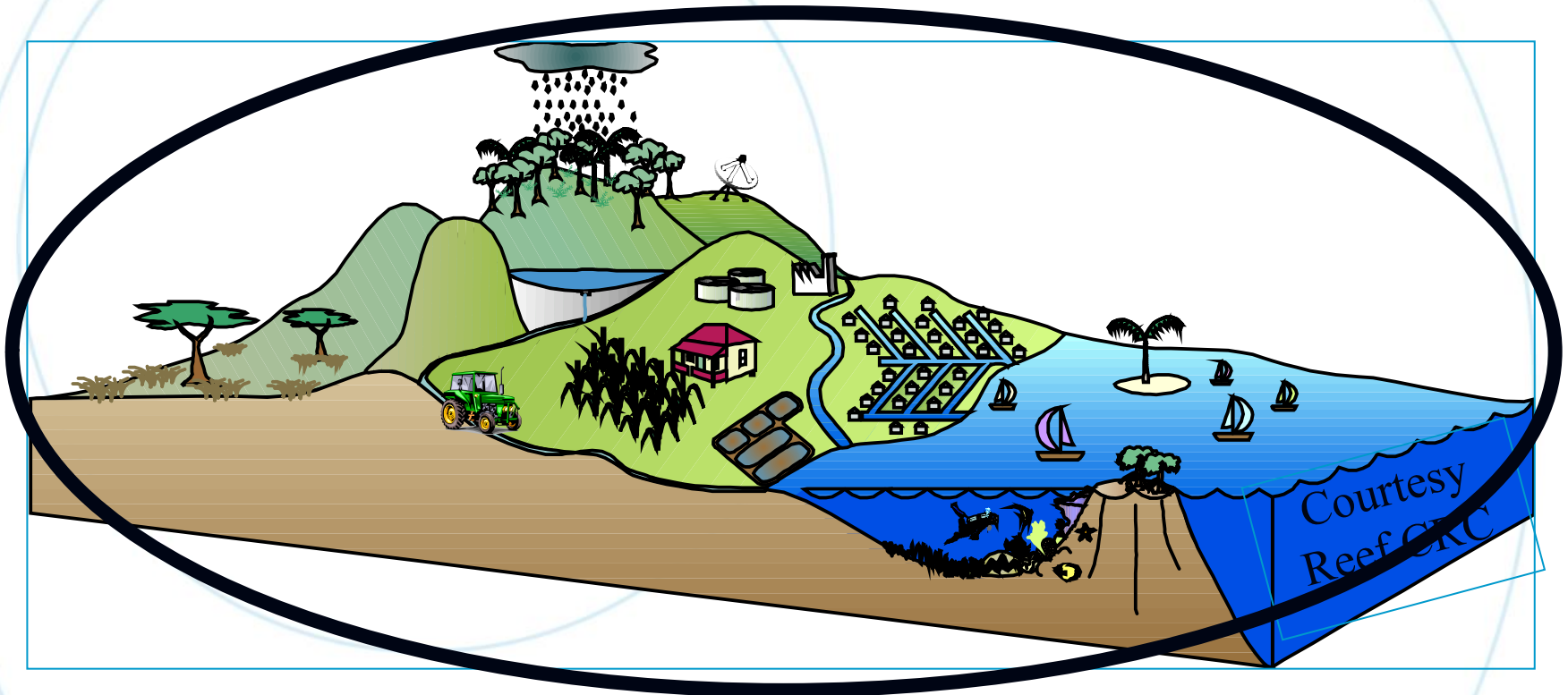


NRC & Resilience

- **NSW Aspirational Goal**
- **Consistent with NRC practice**
 - Application of the standard
 - Embraces complexity
 - Systems perspective
 - Total Catchment Management
- **Decision to test the effectiveness of resilience theory**

My vision

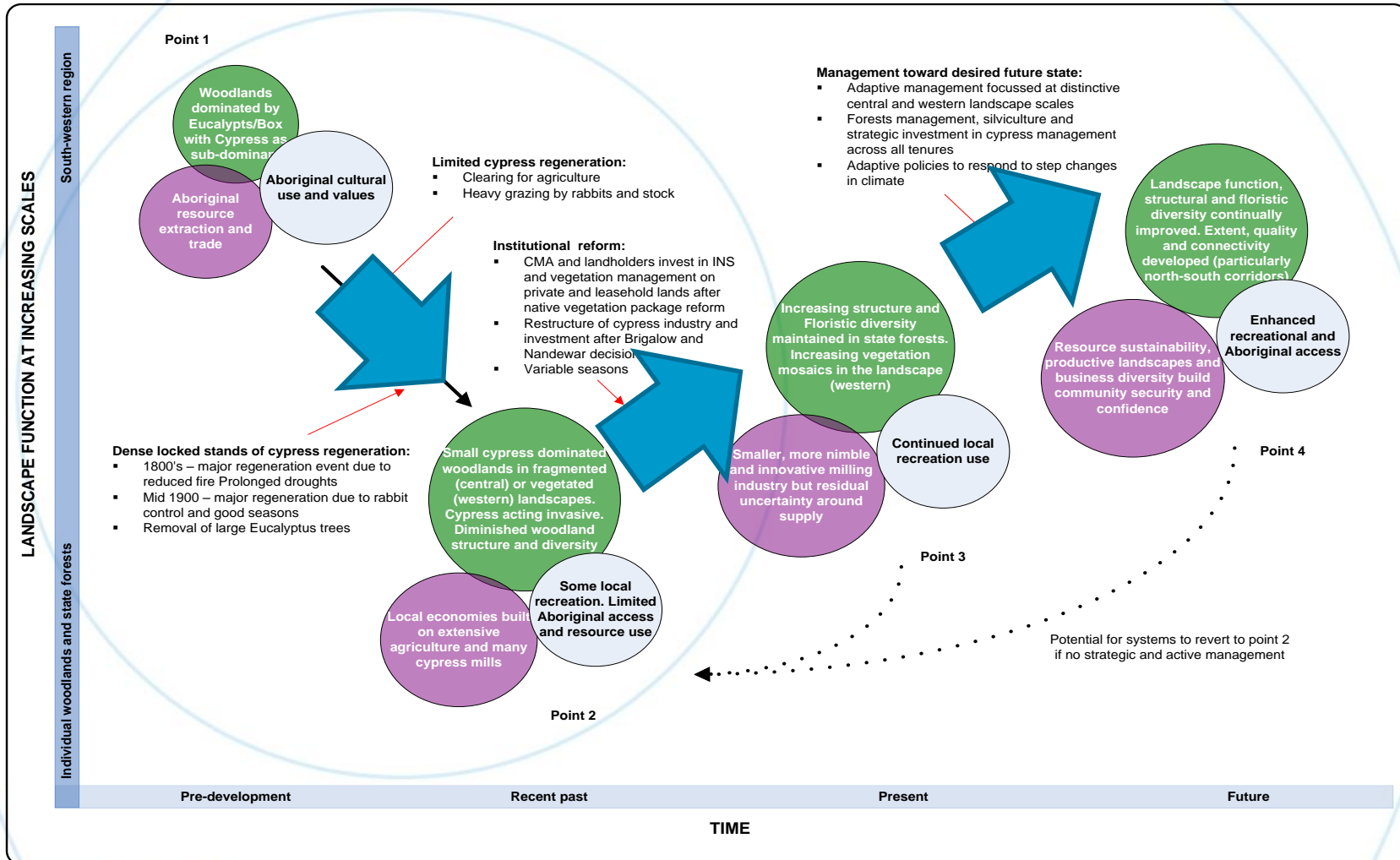
Integrated action, based on sound science, to manage the landscape for all users, for now and the future.



Linked Social - Ecological Systems

- **A new age – the anthropocene**
- **Important to ‘manage the whole’**
- **Systems dynamics - the supply of and demand for ecosystem services**
- **Increasingly social variables driving systems**
- **Example: South Western Cypress Regional Forest Assessment**

Regional Forest Assessment South Western Cypress



Managing for Change

- **Every thing is changing, always was**
 - Directional change
 - Adaptive cycles
 - Shocks

- **The myth of a steady state –**
 - Are historical benchmarks still relevant?
 - Example: River Red Gums Regional Forest Assessment

River Red Gums Regional Forest Assessment

- River regulation and climate change
- Changed Flooding = changed forests
- 1.1 year floods every 3.5 years
- 10 year landscape restoration floods unlikely to occur again



Variable and Thresholds

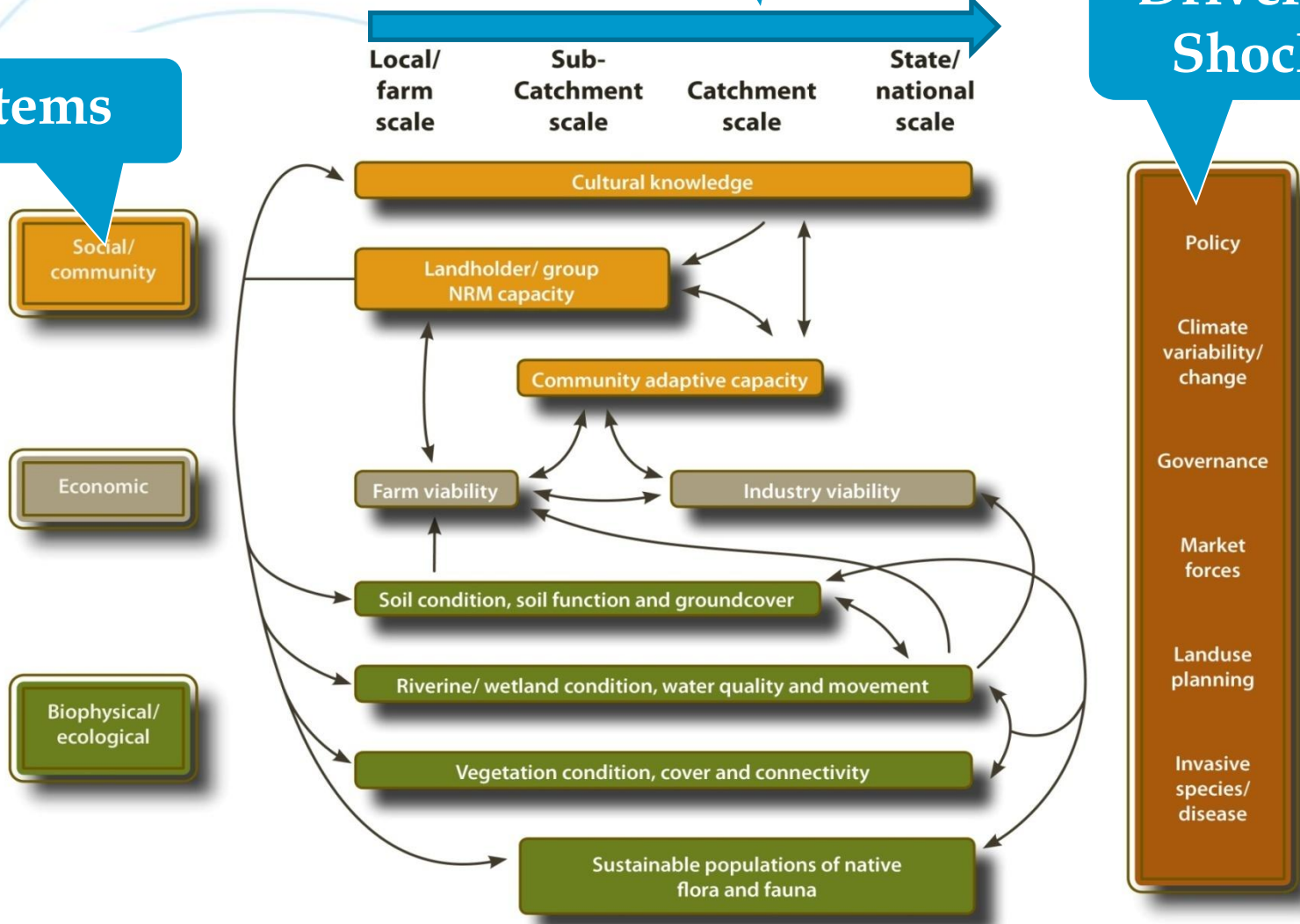
- **Linked social-ecological systems**
 - Operating at a range of spatial, temporal and institutional scales
 - Many variables - but only a few controlling variables
- **Thresholds to alternative system states**
- **Example - Resilience Based Catchment Planning.**

Resilience Based Catchment Planning

Systems

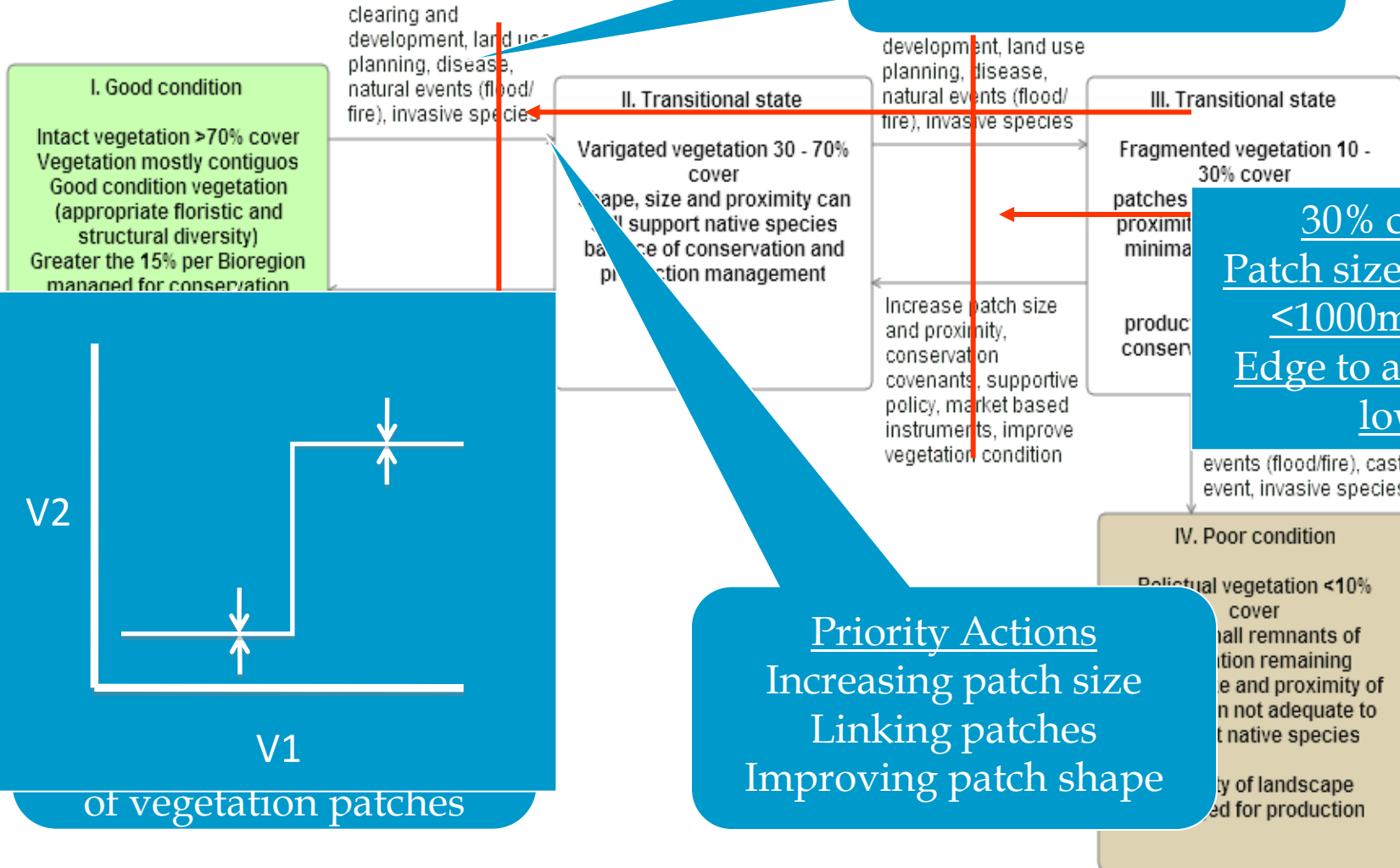
Scales

Drivers & Shocks



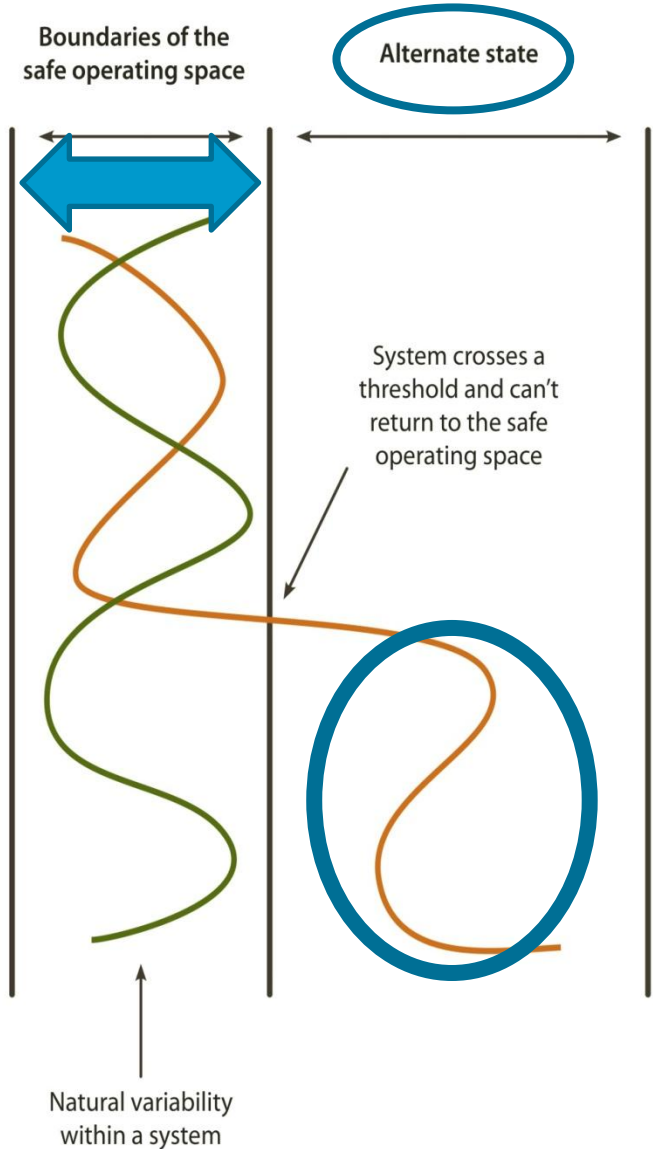
Resilience Based Catchment Planning

Drivers
Vegetation removal & fragmentation



Resilience Based Catchment Planning

- Plan targets work to keep natural systems within thresholds.
- Prioritises action to those areas that are critical
- Simplifies monitoring



Adaptive Capacity

- **Preparing for uncertainty**
- **Responsiveness agility**
 - A range of approaches –diversity of practice
 - Well connected well informed community
- **Institutional arrangements that can respond**
 - Regional decision making
 - Networked
- **Example – NSW Regional Delivery Model**

What have we learnt

- **Can integrate with existing NRM methods**
- **Effective framework for complex issues**
- **Community understood resilience intuitively**
- **Simplifies planning and communication**
- **The social aspects of resilience are challenging for NRM practitioners**
- **Resilience assessments needs strong evidence**

Challenges Ahead

- **Avoiding the “buzz-word” syndrome**
- **Un learning – being open to different thinking**
- **Integrating resilience with current practice**
- **Working across disciplines**
- **Following through**

Questions

- **This presentation is also available from**
www.nrc.nsw.gov.au