

# Australia's NRM Governance System: Foundations and principles for meeting future challenges

Australian Regional NRM Chairs 2010

Governance – the manner in which something is governed or influenced (Oxford English Dictionary) – is about how society organises itself to achieve its goals. Governments play a major role, but many people and organisations outside government are involved.

Natural resource management (NRM) governance is about the mechanisms all these people and organisations use to influence decisions about the sustainable use of Australia's lands, seas and waters. Accompanying a growing awareness of the decline in natural resources that is allied with increasing use, the number and complexity of NRM governance mechanisms in Australia has magnified in recent years. No one has examined the impact this has on the effectiveness of NRM governance as a whole.

This paper provides an introduction to thinking about NRM governance across Australia as a connected system of social organisation set within a linked socialecological system. Particular characteristics of Australia that need to shape its NRM governance design include: a variable rainfall and slow ecosystem repeat cycles; high ecosystem diversity; a range of social and political systems; local rules and customs; and a low rural population density.

The paper outlines the structure and mechanisms of Australia's NRM governance system, and draws on science and practical experience in analysing its shortcomings. The analysis draws on a systems framework from Woodhill (2008) that sets out the following main mechanisms of governance:

**Organisations and relationships:** Formal and informal relationships between organisations (e.g. government departments, landcare groups, environmental NGOs and national peak groups) provide capacity for people to work together and achieve more significant goals. Cross-scale relationships, stretching from the local to the national within industry, community and government sectors, and cross-sector relationships between different organisations operating at the same scale are critical to achieving good NRM outcomes.

**Rules and strategies:** The system is a complex mass of rules and strategies, including legal laws and regulations, mandates, policies, strategies, plans and other agreements that often operate independently across scales and natural resource issues. This complexity challenges the ability of NRM governance actions to be integrated with each other. Clear rules and strategies linked across appropriate scales results in organisations better able to integrate their work and more clearly apply rules.

**Practices and behaviour** are where organisations apply rules and strategies and exercise their relationships in formal or informal ways.

**Beliefs and understandings:** NRM choices are shaped by what the community believes and understands. These beliefs and understandings determine acceptability of possible change, as well as temper the capacity for change. They can be influenced using legislative or market processes. Knowledge comes from research and academic study (including socioeconomics), practical on-ground experience and cultural knowledge from a number of sources.

When the mechanisms are looked at together, it is clear that there are opportunities to improve effectiveness through addressing issues of complexity, discontinuity, lack of linkage across scales, and uncertainty about the roles of all participating people and organisations. The paper wraps up its findings by proposing a set of principles to underpin the design of future changes in governance.

Australia's Regional NRM Chairs encourage further debate and discussion about our analysis and

proposed principles. No single organisation is responsible for the effective working of the NRM governance system as a whole; improving it needs to be a collaborative activity.

## **PRINCIPLES**

### **1. Continuity: for Australia to be sustainable, it needs an enduring, countrywide NRM delivery infrastructure**

Maintaining healthy ecosystems needs an enduring NRM delivery infrastructure, one that can respond as NRM challenges change over time, but is based on skills and social capital maintained locally. The governance system needs structures and processes – from local to national, private to public – that are linked and stable in the medium term, but are also able to change and adapt in the longer term (see Principle 10).

### **2. Subsidiarity: devolve decision making to the lowest capable level**

For best engagement of people's skills and effort, decision making needs to be devolved to the lowest capable level. However, because there is public benefit in looking after every piece of land well, governance design needs to recognise that governments have a legitimate interest in influencing local decisions. Their influence is better exerted through providing direction, standards, guidelines, incentives and sanctions, than through direct decision making at local level. All devolved decision makers need to be accountable for their decisions.

### **3. Integrated goal setting: base investments and governance mechanisms on coherent, nested and integrated goals**

Clear and shared direction is crucial for good governance of any system. Goals must be linked across scales; and take account of the interactions in ecosystem processes, and tradeoffs between ecosystem services. Integrated goals will result in better targeted actions.

### **4. Holism: plan to address whole systems**

All organisations and activities that impact on natural resources need to be considered. Within government, planning departments and planning decisions should be more included in NRM governance; water plans and agencies need to be better integrated with land management plans and agencies. At the local scale, landscapes must be better managed across tenures. Amongst investors, more inclusion of the community and private sector in governance design could result in mechanisms that would increase their investment.

### **5. Systems approach: match governance mechanisms to the nature of the linked social-ecological system**

In 'complex' ecosystems, system behaviour emerges from interactions within the system and outcomes from interventions are not easily predictable. Experiments can probe for the interventions that work best and then be scaled up. Mixes of policy and delivery instruments can be used. A single 'institution' should only be used when the evidence is clear that this will address the issue and not produce perverse outcomes. Arrangements in remote areas need to be tailored to suit remote communities. Complex, contested and connected issues need to be dealt with thoughtfully and slowly so that rates of change are matched to the time scale of social capacity building.

### **6. Relationship orientation: recognise that relationships are as important as organisations**

Connectivity across the governance system is crucial for integration across sectoral interests and between organisations at different levels. Responsibility and accountability for effective relationships need to be built into organisational objectives. Investment in relationships is crucial for the system to work as a whole and best captures the synergies within it.

### **7. Resilience: manage for resilience of ecosystems and communities**

We need to draw on the developing knowledge and practice of ecosystem resilience for better targeting investments. A resilience approach aims to keep the slow controlling variables of ecosystems away from undesirable thresholds, or to take them over thresholds to a more desirable

state. This approach needs ecosystem function to be relatively well understood (Principle 8) or an active adaptive management approach (Principle 10) to be taken.

**8. Knowledge and innovation: equip the governance system with skills, capacity and knowledge, and encourage innovation**

A strategic approach needs to be taken for developing the skills, capacity and knowledge that supports the governance system. Encouraging innovation – both in NRM governance and in ecosystem intervention – is crucial to development of healthier ecosystems. More connections need to be made within and between monitoring data, information and knowledge.

**9. Accountability: base the case for investment and accountability on sound systems data and knowledge**

Cases for government NRM investment and the choice of mechanisms need to be transparent and better quantified in order to compete with other demands on the public purse. They need to draw on good data and ecosystem understanding (from Principle 8) and where possible, be targeted using a resilience approach (Principle 7).

**10. Responsiveness and adaptability: regularly review and adapt the whole Australian NRM governance system**

Good corporate governance requires regular, strategic assessments of performance and achievements. Accordingly Australia's NRM governance system should be periodically and collaboratively reviewed. The review should recognise the effects of past decisions and investments, and apply an adaptive management approach, searching for innovation in governance mechanisms and testing and experimenting using case studies. It should recognise where the system is in the adaptive governance cycle (rapid growth, conservation, release or reorganisation) and formulate appropriate responses. Changes in governance mechanisms need to be collaborative and take account of the whole NRM governance system (Principles 4 and 6) in order to avoid perverse impacts and to retain productive relationships.