

“Investigating the benefits of land administration information to natural resource management ”

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Introduction

- This discussion provides an overview of the information required for natural resource management in Australia, and an assessment of the capability of land administration information to support natural resource management decision-making.
- The Australian state of Victoria is used to illustrate the points made.

Natural Resource Management Issues

- Australia's landscape is not suited to many of the current land management practices.
- Much of our dryland agriculture is economically marginal and causes both on-site and off-site degradation to land and water.
- We need to develop sustainable land use and land management practices that minimise further harm to natural resources and biodiversity, and that maintain viable rural communities.

Information requirements

- Agenda 21 called on governments to strengthen information, systematic observation and assessment systems related to land resources.
- Within Australia there have been calls for improved information on ecosystem processes, the amount and condition of natural resources, and the impact of land management practices.
- Improvements are required to information at the property level and the catchment level.

Information requirements

- Landholders need information at local scales on the condition of natural resources, the impact of land management practices, and TBL information on land management alternatives.
- Information at the sub-catchment level places the landholding in a catchment context.
- Limited information for landholders at the property level.

Information requirements

- Natural resource management authorities require information at a catchment or regional level for policy development and to establish targets.
- Information at the property level is required to develop responses and interventions to individual properties.
- Catchment level information is used to establish targets and is not relevant for many landholdings.

Barriers to improving information

- Limited government funding for data capture and analysis.
- Funding exists on a project basis resulting in “mosaic” data collection.
- Data collection targeted to priority or high-risk areas.
- Agencies reluctant to release spatial data.

UNDP/UNEP/WB/WRI (2003)

- The UNDP/UNEP/WB/WRI (2003) developed a framework for environmental governance comprising 7 elements:
 - Institution and Laws
 - Participation Rights and Representation
 - Authority Level
 - Accountability Level
 - Property Rights and Tenure
 - Markets and Financial Flows
 - Science and Risk

UNDP/UNEP/WB/WRI (2003)

- Many of these elements can be directly related to land administration issues.
- Land tenure security, effective land use planning, and effective land valuation underpin effective environmental governance.
- The “Science and Risk” element acknowledges the role of information in effective environmental governance.

Environmental governance and the Triple Bottom Line

- Sustainability demands the integration of ecological, social and economic considerations.
- Many natural resource management approaches have focused on the economic aspects, and largely ignore the social and environmental issues.
- Effective environmental governance requires consideration and application of the TBL approach to sustainability.

Can Land Administration Help?

- The Bathurst Declaration argued that good decisions by public authorities must be based on sound information about the land and environment.
- To date there has been little evidence of the benefits of applying land administration information to sustainable development.
- However opportunities exist for integration of land administration and natural resource information in 3 areas – property rights, land use planning, and property valuation.

Clearly defining property rights and responsibilities

- Providing secure property rights and enforcing responsibilities will provide a basis for more sustainable land use.
- Property rights are often complex and detailed information is not readily available.
- Opportunities for using the Internet to provide information in a form that is accessible to all landholders with Internet access.
- Information should be supported by effective governance of these rights and responsibilities.

Improving land use planning and land development

- The land use planning system controls changes to land use.
- Strategic plans consistent with catchment strategies can reinforce catchment objectives.
- Opportunities exist for more inclusion of natural resource information in planning decision-making.

Property Valuation

- Property appraisals based on generalised natural resource information in rural areas.
- Information on natural resource degradation made available to the market would inform purchasers, banks and valuers.
- Publicly available valuation information would improve transparency.
- Property decisions based on knowledge of degradation would provide incentives for changes to poor land management practices.

Conclusions

- Improved knowledge and enforcement of property rights allows regulation of poor land use.
- Informed land use planning provides for inappropriate changes in land use to be prevented.
- A real estate market aware of where land degradation exists on each property will create pressure on landholders to improve land management practices.
- Improved environmental governance, including improved information is needed to achieve these changes.