State Plan target

Natural resource decisions contribute to improving or maintaining economic sustainability and social well-being (ESSW).

Background

This report focuses on links between changes in natural resource management (NRM) and ESSW which can be influenced by government. These changes are hard to measure, due to the complex interactions between the environment, society and individuals.

Understanding ESSW in the Northern Rivers region

Representatives of three key stakeholder groups – landholders, townspeople and those heavily involved in NRM activities – were consulted via focus groups and interviews. Current social research, focused on NRM issues in the Northern Rivers region, was reviewed. No overall assessment of the condition (strength and number) of the links between natural resource decisions and ESSW is given, as the distinctions between stakeholders’ perceptions and experiences are significant. These differences are critical to understanding the likely contributions of natural resource decisions to ESSW in different parts of the community.
Overview

What do people in this region see as important to maintaining community vitality?

Education and secure employment, especially close to home, were considered important by all groups as they aid in reducing the loss of young people from the area. Other important factors include:

- managing rapid development in coastal and peri-urban areas
- profitable and sustainable agriculture, particularly on the tablelands
- enhancing social networks, volunteering and community participation to overcome rural isolation and bring newcomers into the community
- managing and planning population growth (taking into consideration sea-changers and tree-changers) and maintaining a clean environment that attracts significant tourism to the area.

What is the state of ESSW across the region?

ESSW is variable across the region but is generally quite good, especially close to the coast. People are concerned about growth and development in the east, leading to major environmental and community pressures. Other key aspects include:

- high unemployment in some areas
- relatively well-off sea-changers and tree-changers who contribute positively to local economies
- agricultural and pastoral landholders thought to be doing relatively well due to the high rainfall in the region.

Aboriginal interests – connections to culture

The well-being of Aboriginal communities, as well as their ability to access land and its natural resources, is entwined with the health of the environment. Limited access and its associated impacts on cultural practice have created a history of socio-economic disadvantage.
Studies demonstrate that participation by Aboriginal people in the Australian Government’s ‘Caring for our Country’ initiative benefits both the environment and social cohesion. Meaningful NRM jobs provide many tangible, individual and family benefits as well as an increased sense of worth within Aboriginal communities.

Figure 1 shows that, over the past 10 years, the NSW indigenous population has grown at a faster rate than the total population. The indigenous population growth is around 3700 people per year; however, this number is considerably smaller than the total population increase of around 51,000 per year. The Australian Bureau of Statistics (ABS) has suggested that the high level of indigenous population growth may be a result of both high natural growth and more people being prepared to identify their indigenous origins in the census.

<table>
<thead>
<tr>
<th>NSW Total</th>
<th>Major Urban</th>
<th>Regional Centres</th>
<th>Small Towns</th>
<th>Rural Areas</th>
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<tbody>
<tr>
<td>Growth (%)</td>
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<td>Total Population</td>
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**Figure 1  Growth of indigenous population compared with general population**

Graph provided by Bureau of Rural Sciences (BRS) from Australian Bureau of Statistics (ABS) data, 2008

**Trends – community views**

**Landscape changes**

Changes to the landscape include:

- a regeneration of rainforests, particularly on hills
- farming slowly moving to flatter land
- conservation grazing practices greatly increasing ground cover on the tablelands, which reduces erosion
- improved landholder understanding that has led to better management of acid sulfate soils (ASS) on coastal floodplains – this has helped minimise runoff and subsequent damage to aquatic biodiversity and has greatly improved water quality in coastal creeks. Other work to improve water quality includes riparian fencing, stock access control and erosion control at the heads of waterways
• widespread coastal change of urban and peri-urban development, especially in the north of the region
• major localised impacts from commercial forestry projects.

**Primary industry**

Environmental impacts on the condition of farm production assets and regulatory changes are diminishing ESSW and motivation for farmers. Other issues include:

• a decline in the number of commercial producers, with an increase in lifestyle and absentee ownership along with a trend away from dairy and mixed farming to beef cattle production
• declining profitability from the rising cost of farm inputs and reduced carrying capacity due to weeds which has motivated farmers to practise improved NRM
• limited farm expansion caused by increased land prices due to the coastal location of the region, its proximity to Brisbane and competition from new markets
• the benefits of environmental improvements on the fishing industry
• the reduced employment in agriculture – employment in this sector declined by more than 10 per cent across NSW (1996–2006) and was slightly higher in the Northern Rivers region (Figure 2).

![Figure 2  Decline in agriculture employment over 10 years](image)

**Townscapes**

Overall, coastal areas are seen as faring well, although some inland areas have pockets of low income and social dislocation. Rapid urban and peri-urban development is affecting ESSW in numerous ways, eg it takes time to establish social connections between long-term residents and recent arrivals. Other key impacts include:

• coastal NRM works that have revegetated dunes and reduced invasive weeds, eg bitou bush, dune erosion impacts
• increased funding for projects involving Aboriginal people, although urban expansion is putting pressure on culturally important landscapes
• the demand for new infrastructure and social services, such as health and community facilities, due to population ageing and growth.

Table 1 provides a summary of comments made by the key stakeholder groups.
### Table 1  ESSW check and group comments

<table>
<thead>
<tr>
<th>Likely impact of NRM decisions on ESSW</th>
<th>Condition</th>
<th>Trend</th>
<th>Data confidence</th>
<th>Typical group comments</th>
</tr>
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| Business profitability/ sustainability and expansion | | ↑ | M | Education strategies and implementation have not yet yielded economic benefits.  
The sustainability of land-use has improved and is more likely to have long-term social, environmental and economic benefits.  
One participant’s carbon-friendly farming, and change from cattle farming to grass farming to soil farming, resulted in 50 per cent more beef than they had four years ago. This was positive for the environment and their bank balance, as this growth incurred no extra cost. |
| Increased employment | | ↑ | M | Markets have been created in the servicing of on-ground works. For example, bush regenerators and nurseries are now significant industries in the rainforest areas.  
There is more on-ground activity to implement measures, eg fencing, soil erosion control, tree planting. The impacts on the economy are positive. |
| Gaining more formal and informal skills | | ↑ | M | The property management planning process coordinated by the Northern Rivers Catchment Management Authority (CMA) has provided increased employment opportunities.  
Environmental works have led to greater environmental awareness in the community. |
| Community networks and interaction | | ↑ | M | Landcare and other community-based strategies have partly replaced the social fabric that was lost when small farms became non-viable.  
NRM works have brought people together through shared interests and encouraged them to volunteer within the community. |
| Participation in NRM | | ↑ | M | Strategies such as Landcare and Dunecare are continuing their work and are very important to the community. |
| More effective NRM decision-making | | ↑ | M | The change from devolved grants to a State Plan-targeted funding approach means it is harder for farmers to obtain a small grant to do works. However, this change has enabled many high conservation activities to occur.  
The Northern Rivers CMA Board is made up of local people with extensive practical experience. The Board meets in different parts of the catchment and makes an effort to meet with local groups. |
Pressures

A number of pressures, centred on urban development and land prices, are influencing land-use change and modifying links to ESSW in the region. These links affect people’s ability to use environmental services but can be felt individually as financial, relationship and time pressures.

Major pressures come from overall resource condition (e.g., soil health), availability (e.g., increased competition for water), access (e.g., for recreation, traditional foods and medicines) and quality (e.g., water quality). Additionally, people with long-term associations with an area—particularly Aboriginal people with cultural responsibilities for landscape health—can feel strong emotional and spiritual connections to the land, which increases overall ESSW.

Key pressures include:

- population change—across NSW, rural areas have experienced decline while small towns (200 to 1000 people) have had low growth. However, the Northern Rivers region has experienced high coastal growth over the past few decades. This has resulted in a generally stable rural population and a larger, more mobile, urban population. Maintaining a viable population is critical, as NRM is labour-intensive.

- community capacity—community capacity is often measured by a community’s level of volunteering, optimism and participation in community life. Although rural communities traditionally have a high rate of volunteers (as shown in Figure 3), they also have an ageing membership and are experiencing decline. Tree-changers may need time to develop the broad civic duty values that rural communities in this region generally exhibit. There is little capacity for more voluntary work in NRM in rural areas in this region.

Figure 3  Percentage of population who volunteer (2006)

Graph provided by BRS from ABS data, 2008
• funding – the delays in funding from CMA funding bodies has temporarily decreased momentum in NRM works
• market incentives – there are emerging opportunities for trading environmental assets, eg forestry, carbon trading and biobanking
• development – tourism depends on a diversity of unspoiled environments, although it is a significant driver of urban expansion in this catchment.

Management activity

The State Plan NRM targets are being addressed through state, regional and local partnerships. The Catchment Action Plans (CAPs) and investment programs that support them are the key documents that coordinate and drive the effort to improve natural resources across NSW. The CAPs describe the whole-of-Government approach to address each of the state-wide targets at the regional level. The Northern Rivers CAP can be found at www.northern.cma.nsw.gov.au/region_catchment_action_plan.php.

Monitoring ESSW is an evolving field for government and, as such, monitoring work has been developed to mesh with national approaches. Fieldwork has gathered qualitative data on the impact of CMA actions and also larger scale government investments in NRM. Monitoring occurs through several processes, including key stakeholder focus groups and interviews, with larger community samples improving reliability where possible.

State level

The State Plan target requirement is to ‘contribute more effectively to natural resource investment decision-making achieving socio-economic outcomes’. The NSW Government aims to achieve this through improved priority identification and decision-making capacity of CMAs and agencies. A socio-economic training module, designed to extend Industry & Investment NSW’s (I&I) monitoring, evaluation, reporting and improvement processes, is currently being developed. I&I is working with several CMAs and state target themes to ensure the effectiveness of this module.

Specific NSW Government actions to address the target in the Northern Rivers region include I&I working with the Northern Rivers CMA to demonstrate the integration of socio-economic and marine waters and ecosystems monitoring and evaluation.

Other socio-economic activities being undertaken at the state level include:
• developing common guidelines for country-wide socio-economic analysis
• identifying Aboriginal cultural heritage assessment priorities and progress assessments to assist land-use planning and NRM investment decision-making
• implementing the Aboriginal BioBanking Program
• development of a state-wide Aboriginal Land and NRM Action Plan ‘Healthy Country – Healthy Communities’ – this will assist in developing clear policies, principles and tools to improve socio-economic outcomes for Aboriginal people through enhanced capacity to participate in land management and NRM
• the Aboriginal Heritage Mapping and Assessment Program, which is a whole-of-Government program that provides a coordinated and consistent approach to collecting, managing and using spatial information for Aboriginal heritage values – the program incorporates cultural mapping standards, regionally based assessment and appropriate management of Aboriginal information.
It aims to develop inter-agency priorities and key deliverables for Aboriginal heritage information, assessment and mapping.

**Regional level**

The Northern Rivers CMA is undertaking the following regional activities in relation to the socio-economic target:

- engagement of industries, such as the dairy industry, in NRM programs to develop sustainable practices
- assistance with the development of projects that enhance knowledge and skills and further program development, planning and implementation
- development and engagement of four Aboriginal green teams that develop, plan and implement NRM activities
- assistance in the development and implementation of 135 NRM projects in the region.

**Further reading**


Bureau of Rural Sciences 2008, *Social Science Program*, Department of Agriculture, Fisheries and Forestry, Canberra.

Graphs for employment change by Information and Library Services 2008, NSW Department of Primary Industries, Orange.


NRCMA 2005, *Northern Rivers Catchment Action Plan*, Northern Rivers Catchment Management Authority, Grafton.