

The health of our catchments: a Victorian report card - 2002

Summary



Every five years the Victorian Catchment Management Council (VCMC) is required by the *Catchment and Land Protection Act 1994* to report to Parliament, through the Minister responsible for the Act, on the condition and management of Victoria's land and water resources.

The first report, *Know your Catchments (1997)*, stimulated a major project to establish a comprehensive suite of indicators. Reporting on these indicators would inform the Government on the condition and management of land and water resources and the related social and economic base of our catchments.

This information brochure provides a summary of the key elements contained in the 2002 report, titled the ***Health of Our Catchments: A Victorian Report Card***.

Using the 32 catchment condition indicators the VCMC assesses the condition and management of natural resources both at a regional catchment scale and at a statewide level. The report overviews the ability of Victoria's ten catchment regions to continue to provide life-sustaining services to a growing and increasingly urbanised population. The VCMC analysis is based on best available scientific, social and economic data and has been informed by the national and international debate on sustainable resource management.

THE REPORT FEATURES:

- A regional and statewide assessment of natural resource condition and management, and whether we are making a difference.
- Some possible outcomes for catchment condition if we continue current management responses and activities through to the year 2050.
- Discussion on a preferred management and condition vision for the State in 2020, introducing some potential new management options.
- An overview of the strategic planning required to reach the VCMC vision for the condition and management of the State's natural resources.

Broadly, the indicators enable the VCMC to reflect on issues relating to both the biophysical characteristics of catchments and to aspects of their management.

BIODIVERSITY, ECOSYSTEMS AND NATURAL RESOURCE CONDITION

In assessing the condition of land and water resources the Council recognises that biodiversity, ecosystems and natural resource condition are inextricably linked.

The term *ecosystem services* is used in the report to encompass all processes and conditions by which natural ecosystems sustain and fulfil human life. Services such as clean air, water cycling and purification, nutrient cycling, soil formation, biomass production, waste disposal, crop pollination, provision of food and minerals, and the maintenance of genetic diversity result from functioning ecosystems.

Ecosystems are the Earth's primary producers, solar-powered factories that yield the most basic natural resources and services at an efficiency and cost unmatched by any current technology.

World Resources Institute, 2000

Harvesting the natural resources provided by ecosystems supports our economies, provides employment and every year contributes to people's health, with millions visiting outdoor regions to relax. CSIRO has estimated the value of ecosystem services in Australia to be worth \$1327 billion each year. There is now clear evidence that the current use of some environmental assets is resulting in accelerated degradation of the asset base. This will significantly reduce benefits available to future generations.



SUSTAINABLE MANAGEMENT OF NATURAL RESOURCES

For nearly 200 years we have been significantly transforming landscapes. This is especially evident in intensely settled and farmed states such as Victoria.

European farming methods were actively encouraged by Governments, and the broader community, for one and a half centuries. Such practices were fundamental to the economic and social development of the state and nation. We now recognise that, although practised in good faith, these management methods have resulted in longer-term losses and degradation of Victoria's natural capital base. Similarly, the growth of modern cities and the consumer aspirations of successive generations of Australians are steadily running down our natural capital and degrading natural ecosystems.

It is increasingly recognised that the health and wellbeing of communities is linked to healthy ecosystems and sustainable management of natural resources.

The *Health of Our Catchments* report focuses heavily on the concept of *sustainability*. The VCMC uses the following definition of sustainability to interpret the information provided by the 32 catchment condition indicators. The definition comes from the *National Strategy for Ecologically Sustainable Development*.

Development that improves the quality of life now and into the future, in a way that maintains the ecological processes on which life depends.



KEY FINDINGS

STRIVING FOR SUSTAINABILITY

Community Participation

Sixty-four per cent of Victoria is privately owned. Collective community participation through Landcare (Victoria's largest community-based movement in natural resource management) is fundamental to achieving sustainable resource management.

Victoria is the birthplace of Landcare. As of 2000-01, 36 per cent of landholders are members of Landcare groups. There are 687 Landcare groups, 673 other environment-related groups, and 68 Landcare networks.

Institutional Arrangements

The Catchment Management Authorities (CMAs) and the VCMC are derived from the participatory and community management model of Landcare.

Nationally, Victoria's CMAs and their partners - Landcare groups, Departments of Sustainability and Environment (DSE) and Primary Industries (DPI), water authorities, local government, and the Environment Protection Authority (EPA) - are leaders in the devolved responsibility and partnership approach of community participatory resource management.

Support for devolved management through CMAs, Landcare groups and Landcare networks is fundamental to the

successful implementation of future natural resource management programs.

Management Responses

The State Government, through the previous NRE and the EPA, has focused significant effort over the last five years on developing a range of strategies that set priorities and strategic direction for natural resource management activities at a State and regional level.

Underpinning resource management decisions at the regional level are the Regional Catchment Strategies (RCS). These documents, compiled and coordinated by the CMAs, based on community input, set the strategic directions and priorities for natural resource management at the local level.

The RCS documents are supported by detailed *Action or Implementation* plans. These plans provide the implementation detail for the efficient and cost-effective investment in on-ground resource management at local level.

The RCS development process represents an extraordinary collaborative effort between individuals, government, community groups and other key stakeholders to forge a preferred future for each region. These are local strategies for local futures.

Agriculture Efficiencies and Sustainability

Over the last ten years, the annual value of Victorian agriculture has increased from \$5.2 billion to \$6.8 billion while exports have risen from \$3 billion to \$7.6 billion at an average annual growth rate of 9.9 per cent.

Restructuring in the agriculture sector is bringing about some increased efficiencies in the use of natural resources. A number of regional centres have benefited from agricultural growth and some sectors are in a stronger position to better address issues of efficiency and sustainable production.

Government Commitment

There is an increasing Commonwealth, state and local government commitment to sustainable resource management. Recent examples include:

- Over the past two-years, the State Government has invested \$10 million in Landcare.
- From 1997 to 2001 the Commonwealth Natural Heritage Trust invested \$200 million across Victoria.
- Since 1990 the Victorian Government has invested \$257 million on salinity management activities.
- Local governments across Australia spent more than \$2.1 billion on environment related activities in 1998-99.
- The Commonwealth and the Victorian State Government have jointly agreed to spend \$1.4 billion over the next seven years through the National Action Plan (NAP) for Salinity and Water Quality.
- The Commonwealth Government has also announced a continuation of the Natural Heritage Trust (NHT 2) program. The indicative budget for the regional component will be around \$50 million to 2005.

Community Values

While much of the farming sector has been concerned with trying to address issues of sustainability for some time, there is an increasing push in urban centres for environmentally sustainable activities. Consumer preference for clean, green and accredited goods appears to be growing.

Similarly, there is an increase in the number of amenity and lifestyle landowners moving into regional Victoria. The aspirations of this new group could provide the impetus for new management systems that better match the productive capability of the landscape.

THREATS TO SUSTAINABILITY

Despite the best efforts of the Government and the Victorian community in partnership, information from the indicators reveals there are both environmental and socio-economic pressures undermining the ability of Victoria to manage its natural resources sustainably.



Socio-Economic Pressures

The ability of landowners to adopt sustainable management scenarios is influenced by the following factors:

- Reducing terms of trade across elements of the agricultural sector has left some who cannot diversify or expand and hence have an increasingly limited ability to address sustainability issues. Off-farm income is becoming increasingly important in the move towards sustainability.
- Urban expansion and lifestyle/amenity landscapes are encroaching upon traditional agricultural landscapes to a point where land prices now exceed possible returns from agriculture in the same area.
- Declining farmer numbers and a continuing increase in the numbers of people living in cities, is resulting in depopulation of some rural areas.
- There is increasing pressure for access to finite resources, particularly water.
- Consumer and trade purchasing preferences are pressuring greater adoption of best management practices. In future *Environmental Management Systems* may be the minimum requirement for broad market access. Not all landholders will be in an economic position to incorporate the level of change required.
- The increasing size, consumption and waste generation of urban areas is significantly impacting on regional ecosystems. Many of these impacts and associated costs remain unrecognised.
- The last ten years have seen a massive growth in agricultural production and export earnings but the economic benefits are not spread evenly across the sector.

Environmental Pressures

The current and projected scale of environmental degradation in Victoria is undermining the notion of sustainable natural resource management.

- Dryland salinity, water quality decline, biodiversity decline, and climate change occur at a scale that

extend beyond property boundaries, crossing catchments and involving landscapes in some cases. Soil fertility issues such as acidity, soil structure decline, water and wind erosion are issues that can be dealt with at a property level if knowledge and resources allow. In some parts of the landscape, landholders do not have adequate access to these resources. Activities to support long-term sustainability are replaced by activities that ensure short-term survival.

- Production figures and the purchase price of goods do not factor in the costs associated with land and water degradation.

Knowledge Management Pressures

Knowledge generation, synthesis and exchange are fundamental aspects of managing for the future sustainability of natural resources, particularly healthy ecosystems.

In compiling the 2002 report, the VCMC notes that there are some very positive initiatives. Equally there are some glaring gaps in the area of knowledge management.

Despite being considered an information-rich state, there is much about the workings of Victoria's ecosystems, intervention opportunities and impacts, that remains to be explored.

Victoria has much to gain by (i) establishing a consistent and agreed program to monitor environmental condition, and, (ii) consequently measuring the effectiveness of our land management practices on a long-term basis.

CONCLUSIONS

Victorians are getting some of the best and highest quality water and food in the world but in doing so we are degrading our natural capital base. The cost and effort to repair environmental degradation is being borne predominantly by rural communities.

To support the health, wealth and aspirations of modern cities and consumers generally, Victorian agriculture must continue. The production methods employed will require on-going adjustment to better reflect the intrinsic ability of the landscape to produce goods without initiating longer-term environmental degradation. In other words, land use and management must align better with land capability.

Some threats to sustainability will be alleviated by a process of continuous improvement and best management practice. To combat the combined scale and impact of socio-economic changes and environmental degradation over time, Victoria will require a radically different approach if we are to ensure sustainable natural resource management.

The VCMC advocates an extension of market activity to better reflect the role that ecosystems play and the benefits they provide to all Victorians.

The concept of payments for *ecosystem services* provides a complete change in the way we view and manage the landscape. Ecosystem management and improvement should be classed as another form of primary production. The services or benefits derived from ecosystems must be recognised as extending both to the private landholder and to the wider Victorian community.

In addition to sustainable agriculture, ecosystem management would provide landholders with a new option to match the capability of land with a sustainable and benign use that benefits all Victorians.

Clear links between urban and rural communities are needed to reinforce the reality that all Victorians are responsible for the sustainable management of natural resources. Every consumer and lifestyle choice we make has an environmental impact.

For the purposes of discussion, the VCMC has developed a vision for Victoria's landscape in 2020. Critical to this vision is the development of a strategy for Victoria's rural landscapes. This should involve long-term 20-50 year planning and implementation activities across rural Victoria.

Outcomes sought by the VCMC through the development of such a strategy include:

- Development of new technologies and incentives that enable traditional agriculture to continue to adopt efficiencies and new management regimes for sustainability.
- Research and development of new production systems that better reflect the capability of landscape eg. payment for ecosystem services.
- Maintaining and encouraging resident populations in rural landscapes. Without people we have little hope of managing large-scale environment degradation issues.
- Vastly increased resources and community capacity to address large-scale environmental issues.
- The creation of clear links between rural and urban communities so that all recognise and share the benefits and costs of managing ecosystems for sustainability.
- Greatly improved environmental monitoring, evaluation and performance reporting at a State and regional level.



One of the great challenges for resource managers is to encourage investment now, for environmental outcomes that will benefit generations not yet born.

This will only be successful when both rural and urban communities and governments are fully aware of the impact of their actions on our natural resources.

The VCMC encourages those involved in natural resource management and policy development to use the information in this report and information publicly available on the web to initiate discussion, inform decision-making and improve management responses.

FURTHER INFORMATION

For additional information please contact the VCMC on **03 9412 5045**.

The following web sites have been used to source information for the *Health of Our Catchments* (2002) report:

National Land and Water Audit
www.nlwra.gov.au

Victorian Indicators Online
www.nre.vic.gov.au/vcio

Victorian Water Data Warehouse
www.vicwaterdata.net

An electronic copy of the *Health of Our Catchments* report can be located at the VCMC website.

Victorian Catchment Management Council
www.vcmc.vic.gov.au

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