

THE TARGET PROJECT (NEW SOUTH WALES)

Building biodiversity into natural resource management from the outset

New South Wales:

Region: Central West Region

Affiliated Regional NRM Group: Lachlan, Macquarie; and Castlereagh Catchment Management Boards

Background

The *TARGET (Tools to Achieve landscape Redesign Giving Environmental/economic Targets) Project* is jointly funded by the Commonwealth through Murray Darling 2001 and the State Salinity Strategy to:

- ❖ achieve land use change by on-ground works, in small, medium and regional scale catchments affected by salinity;
- ❖ identify the barriers to change.



The objectives of the project are:

- ❖ on-ground implementation with development of mechanisms and processes to redesign the landscape;
- ❖ identification of social and economic impediments to land use change;
- ❖ development of a structure and process (partnerships and incentives) for targeted land management change;
- ❖ establishment and recognition of environmental/economic indicators and benchmarks;
- ❖ monitoring and evaluation of on-ground activities against targets; and
- ❖ capacity building through a structured training and awareness program.

On-ground implementation is being undertaken in five catchments in the region. The catchments can be divided into small and medium scale with Warrangong and Mid Talbragar being small scale while Little River, Weddin and Castlereagh/Dunedoo are the medium scale catchments.

All catchments have been selected on the basis of having already undertaken some catchment planning.

On-ground implementation accounts for 70% of the project budget. Implementation in the second year is based on an Environmental Services Ratio that informs:

- landscape assessment;
- cost sharing arrangements;
- grants devolution.

Achievements to Date:

- ❖ Landholder Profile Surveys:
 - the Integrated Catchment Assessment and Management (iCAM) Centre of the Australian National University is undertaking socio-economic surveys of landholders in the Warrangong, Mid Talbragar, Weddin and Little River catchments on the way that natural resource management projects are delivered and the types of incentive packages that should be utilised to overcome social and economic barriers and impediments to change.
- ❖ Farm Analysis Project:
 - iCAM is identifying suitable farm multi-period investment models to analyse the economic feasibility of current and future land use.
- ❖ Regional Integrated Management Information System (RIMIS Project):
 - iCAM is developing a regional information system that allows users to access a number of databases and to access information and run embedded bio-physical and socio-economic scenarios (ie ask 'what if' questions).
- ❖ Ecological Surveys:
 - the National Parks and Wildlife Service is carrying out ecological surveys for biodiversity in the Warrangong, Mid Talbragar, Little River and Weddin catchments to provide a benchmark of biodiversity and vegetation in the region and develop guidelines for enhancing biodiversity.
- ❖ Biophysical Planning of Catchments:
 - being undertaken in each of the catchments to ensure that there is an adequate level of information to make decisions on changes to land use.
- ❖ Benchmarking and Monitoring:
 - being achieved through the installation of deep groundwater monitoring bores, water quality sampling stations, the ecological surveys being undertaken by NPWS and monitoring of the changes in land use at the property level through property inventories.
- ❖ Implementation:
 - being undertaken in each of the catchments through the provision of incentive funding to landholders through cost sharing arrangements for works including perennial and native pastures, conservation farming, intercropping, farm forestry and vegetation conservation;
 - the incentive funding is being managed by the Landcare Steering Committees for the catchments.
- ❖ Skill Development of Landholders:
 - training programs that include formal training as well as attendance on relevant bus trips, field days and conferences, are provided to the landholders.
- ❖ Development of Incentive Packages:
 - the project is examining ways in which incentive packages can be delivered to landholders to make it attractive for them to change their land uses. As part of this activity, the use of market based incentives are being investigated as well as cost sharing arrangements to better reflect the contributions of the landholders in relation to environmental services.

- ❖ Promotion and Communications:
 - the project has a communication and promotion strategy to ensure that key stakeholders and other interested parties are kept informed of all developments.
- ❖ Crown Roads Trial Project in the Mid Talbragar Catchment:
 - the trial has been one of the most effective implementation projects for biodiversity. In New South Wales, a significant number of gazetted roads continue to exist as undeveloped stock routes and are used by landholders for grazing at a peppercorn rental;
 - the project has negotiated for landholders to forfeit use of these areas, with the land being vested in local landcare groups. The areas are protected, revegetated and managed by the landholders as important corridors of vegetation;
 - by using all of the Crown Land reserves plus the riparian vegetation areas of low flow creeks, 12.5% of the catchment becomes a biodiversity asset. This approach has demonstrated a non-threatening way to increase biodiversity within grazing focused regions.

Information Used:

National data sets:

- ❖ Threatened species listings
- ❖ AFFA data sets

State data sets:

- ❖ Department of Land and Water Conservation
- ❖ CSIRO data sets
- ❖ Australian National University data
- ❖ National Parks and Wildlife Service
- ❖ State Salinity Strategy

Regional data sets:

- ❖ Central West Region data sets

Market and Non-Market Mechanisms for Biodiversity Conservation:

Economic instruments (financial mechanisms):

- ❖ Devolved grants to provide incentives for land management change.
- ❖ Use of the Environmental Services Ratio to prioritise assessment and funding.
- ❖ Use of multi-period investment modeling to analyse current and future land use.

Community measures (motivational mechanisms):

- ❖ Socio-economic research conducted by the University to determine impediments to change.
- ❖ Ecological surveys.
- ❖ Monitoring and evaluation systems in place from the outset.

- ❖ Local and regional champions for the project.
- ❖ Vesting of gazetted road reserves with local Landcare groups.
- ❖ Access to external information and expertise.
- ❖ Education and extension with landholders.

Critical Success Factors:

- ❖ Strong foundation of action research and adaptive management as the operating paradigm.
- ❖ Partnerships built with research institutions to develop an understanding of the social and economic barriers to land management change.
- ❖ Good use of Commonwealth information sources.
- ❖ Close alignment of regional, state and national priorities.
- ❖ Biodiversity built into the project from the outset and integrated into the rest of the resource management actions being undertaken.
- ❖ Strong emphasis on implementation at a local level, with a willingness to work at the ground level to educate on biodiversity and negotiate mutually beneficial outcomes.
- ❖ Adopted lessons from NHT1 about the importance of establishing good monitoring to be able to show what has been achieved.
- ❖ Range of catchments investigated means a wider scope of application of the lessons learned.
- ❖ Focus on tackling institutional change by:
 - lateral thinking on existing stock routes;
 - flowing the achievements of the project on into policy development.

Further Reading:

- Papers in Environmental Management and Restoration;
- Website: www.npws.nsw.gov.au/science/research/woodland_ecology.

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Quote:

“You can’t put a funnel of money over a catchment and expect changes overnight, there are a lot of impediments that run deeper than funding.”

Allan Nicholson, Central West Region.