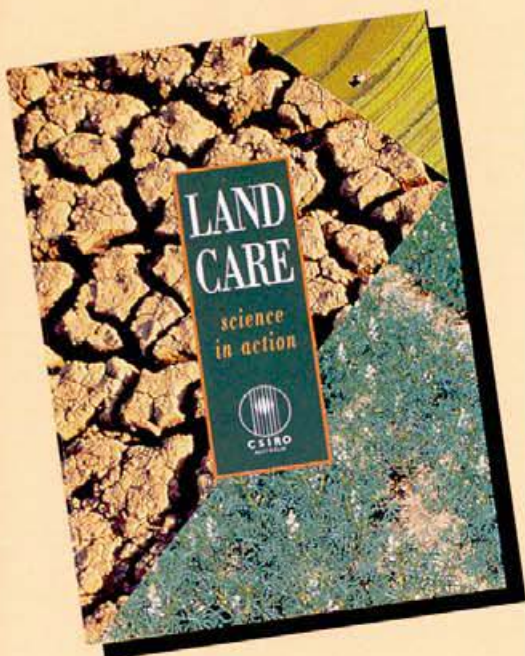


Learning about landcare



A collection of stories about research into landcare and land degradation feature in a new book released by CSIRO Publications.

Landcare, science in action, is designed for middle and upper secondary students, and other readers interested in the nature and management of Australia's soils. It brings together 15 articles from CSIRO's magazines *Ecos* and *Rural Research*. They highlight problems such as soil acidity, salinity, erosion and nutrient imbalance, and describe the application of research undertaken in these areas.

Specific projects covered in the book include restoration of the Murray-Darling Basin; integration of farm and conservation priorities; reversing rural tree decline and managing broadacre crop rotations. The 96-page publication is illustrated with quality photographs, maps, graphs and diagrams, and there are valuable suggestions for further reading.

Contact: CSIRO Publications, PO Box 89, East Melbourne, Victoria 3002, (03) 418 7217, fax (03) 419 0459.

Driving right into the pool

Car pools are a good means of increasing transport efficiency and reducing fuel consumption. The idea is widely recognised, but the practice has not caught on.

Australia's car occupancy rate is still low at 1.1 persons per car for urban trips. Only an average of 12% of city dwellers uses public transport. City travellers still find it inconvenient to join long-term partnerships for trips on a regular basis.

A project is underway to establish the viability of a privately run, 'convenience' car pool. Unlike most existing systems, an instant pooling system would cater for irregular trips, where notice is given only shortly before a trip is required. Members ring a switchboard just before they are ready to leave. The switchboard operator then tries to match them with another member whose origin, destination and departure times are compatible.

The project was conceived by the Melbourne-based Dynamic Transport Management Pty Ltd. CSIRO is helping to assess the factors that will make the system

work. For example, it will determine the percentage of the population of an area that needs to participate in the system to make it a viable enterprise.

Scientists are studying Melbourne's eastern suburbs as a test area. They are combining statistical analysis of transport patterns with a simulated set-up of controllers that matches the requests and offers of lifts within required time frames.

Ross Trayford, Dynamic Transport's research and development manager, says that in three years the project could achieve a 5% reduction in Australia's annual petrol consumption.

'This is assuming an urban participation rate of 20%, for those who at present consume around half the fuel used in Australia,' he says.

The initial research stage has gained support from the Federal Government. It has received some funding from the Australian Industrial Development Corporation and the Energy Research Development Corporation.

Energy experiment pays off

A 12-month energy-saving campaign has cut electricity use by 10% at CSIRO's Division of Atmospheric Research in Melbourne.

The drop in energy consumption means that in the past year about 70 tonnes less carbon dioxide has been released to the atmosphere than in the previous 12 months. The division has also reduced its annual energy bill by more than \$5000 and this amount is now funding additional scientific research.

Division chief, Dr Graeme Pearman, congratulated the staff for supporting the campaign. He says significant savings were made by simple steps such as switching off lights and equipment when they were not needed. Staff recognise that further energy cuts will be difficult to obtain. They are aiming for an additional 5% reduction during the next year.

Energy Victoria, the Victorian State Government's authority responsible for energy efficiency and renewable energy, helped the division achieve its target. The authority supplied advice and literature and highlighted a variety of methods for conserving electricity. Staff were issued with stickers reminding them to switch off lights and appliances after use. Equipment and meters were also provided by CSIRO's own Energy

Management Unit located in Brisbane.

Energy Victoria has helped to promote energy-efficient work practices at a number of other government agencies such as Australia Post. The authority's expertise has even extended to the reptile house at the Royal Melbourne Zoological Gardens where redesigned lighting and heating systems are expected to save \$4000 a year.

The Victorian Department of Conservation and Natural Resources has joined with Energy Victoria to plan the future of Tidal River, a village located at Wilson's Promontory.

Alternative energy sources such as wind power, solar water heating and photovoltaics are being considered.

Energy information centres operate in all states. They have available books and brochures covering all aspects of energy efficiency, at work and in the home.

