

Environment & Energy News

Welcome to the first edition of *Environment and Energy News*, the newsletter of the ABS Centre of Environment and Energy Statistics (CEES). *Environment and Energy News* will be published twice a year, highlighting developments in environment and energy statistics particularly at the ABS.



PROVIDING GREATER LEADERSHIP AND COORDINATION IN THE
FIELD OF ENVIRONMENT AND ENERGY STATISTICS



What is CEES?

The ABS has formed a Centre of Environment and Energy Statistics (CEES) which will seek to complement and add value to existing environmental statistical activity through an active partnership with key agencies, including the states and territories.

An advisory board has been established to guide the activities of CEES. The first meeting of the board was held on 24 August 2005.

CEES in collaboration with others will:

- Provide leadership in the development of environment and energy statistics in Australia.
- Coordinate statistical activities across various sectors to develop frameworks and standards and improve data quality, comparability and coverage.
- Improve the understanding of trends and current issues,

particularly across sectors, through its own analysis, and by supporting analysis by others.

- Compile environmental accounts – water, energy and greenhouse gases (and perhaps other accounts in future years).
- Research, develop and test new environment and energy surveys.
- Maintain and update elements of an Environment Information Development Plan (IDP).
- Examine proposals for client-funded extensions to the ABS core work program.
- Continue the popular time series publication on household data, which covers people's concerns, attitudes and behaviour on water, energy, transport and waste issues.
- Continue to produce a 'thematic' publication.
- For more information contact Michael Vardon, CEES Director on (02) 6252 7348 or email michael.vardon@abs.gov.au



ABS publications are now available free in pdf form on the web.

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Water use on Australian farms, 2002-03

(cat. no. 4618.0)

Release date: March 2005

As the agriculture sector accounts for around two thirds of total water use in Australia, a sound understanding of how much, for what purpose, and where water is used in agriculture, is essential.

During 2002-03, a total of 43,774 farms irrigated, which was nearly a third of agricultural establishments in Australia. These farms applied 10,404 GL of irrigation water to 2.4 million hectares, or 0.5% of agricultural land under pasture and crops.

In 2002-2003, Western Australia reported the highest average application rate (6.5 ML/ha) and Tasmania the lowest (2.4 ML/ha). New South Wales was the largest irrigating state or territory, applying 4,273 gegalitres (GL) (41% of the

Recent releases

March 2005	<i>Water use on Australian farms 2002-03 (cat. no. 4618.0)</i>
April 2005	<i>Domestic use of water and energy, South Australia (cat. no. 4618.4)</i>
April 2005	<i>Measures of Australia's Progress (MAP): Summary indicators 2005 (cat. no. 1383.0.55.001)</i>
July 2005	<i>Australian Social Trends 2005 (cat. no. 4102.0)</i>
October 2005	<i>Water use on Australian farms 2003-04 (cat. no. 4618.0)</i>

Australian total volume), followed by Victoria (24%) and Queensland (21%).

The most common source of irrigation water nationally was surface water, such as rivers and dams, reported by 72% of irrigating establishments. Recycled or re-used water from off-farm sources was reported by 2.4% of irrigating establishments. Surface irrigation, such as flood irrigation, was the prevalent irrigation method nationally, used on 1,344,000 ha, or 57% of the area irrigated.

Nationally, 27% of irrigating establishments reported irrigating without a water entitlement of some form.

'Water use on Australian farms' will increase the frequency, accuracy, timeliness and comparability of water use by the agricultural sector across Australia. Water Use on Australian Farms, 2003-04, has just been released (October 2005).

Did you know?

Pasture for grazing was the most extensively irrigated crop in Australia in 2002-03, according to a new survey on agricultural water use released in March 2005.

In a period which saw the peak of a severe drought affecting most of Australia, pasture for grazing used 27% of the total volume of irrigation water and amounted to 30% of the total area irrigated nationally.

Further details are available in:

Water use on Australian farms, March 2005
(cat. no. 4618.0)

Contact: Ron Just
Tel: (03) 6222 5842
ron.just@abs.gov.au

Domestic use of water and energy, South Australia

(cat. no. 4618.4)

Release date: April 2005

One in four South Australian households undertook some water conservation actions for the first time during the year ending October 2004. A year after the state government introduced watering restrictions, 10% of households reported that for the first time they used a soaking method to water their gardens and lawns. Other first time activities included using mulch (9% of households), stopping the watering of lawns (8%) and planting drought tolerant plants or lawn (8%).

The survey on domestic water and energy use conducted in South Australia also found:

- One in two households used gas for water heating, 31% used off-peak electricity, 14% used peak electricity and 3% had solar hot water systems.
- Air conditioners were used for heating or cooling in 82% of households.
- Gas heaters were used most often in one-third (34%) of households followed by reverse cycle air conditioners (26%).
- More than one-quarter (28%) of households had a rainwater tank plumbed into their dwelling.
- Almost half (46%) of all households hand watered their garden and lawn, with 35% using fixed sprinkler or drip systems.
- More than one-third (37%) of households reported they had a reduced flow shower head installed.
- Almost two-thirds (61%) of households adjusted water levels when washing clothes or dishes.

Recent releases cont'd

Measures of Australia's Progress (MAP): Summary indicators 2005

(cat. no. 1383.0.55.001)

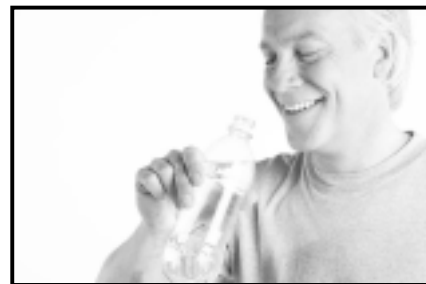
Release date: April 2005

The ABS has released a new set of summary indicators for 2005 that examines whether life in Australia is getting better. Available free-of-charge on the ABS web site, [Measures of Australia's Progress: Summary indicators 2005](#), paints a picture of national progress over the past 10 years.

The summary indicators present the latest data available for 15 areas of progress including the environment, health, education and training, work, financial hardship, and national wealth.

The 2005 update complements the more comprehensive set of indicators available in the publication **Measures of Australia's Progress** which is released every two years, the next edition of which is planned for 2006.

For more information, contact Denise Carlton on (02) 6252 5259, email denise.carlton@abs.gov.au



Future directions

In the short term the demand for environment and energy statistics from the ABS far outweighs our ability to supply the required information. There are increasing expectations of the ABS to deliver information on a range of issues. Currently, we are planning to continue to collect and compile the following collections and environmental accounts:

- Annual household surveys covering environmental attitudes and behaviours (with the exception of the environmental concerns topic, which was last collected in 1999).
- Biennial natural resource management (NRM) surveys, along the lines of the 2002 Land Management and Salinity Survey and the 2003 Agriculture Water Use Survey, to produce national and regional estimates.
- Energy and greenhouse gas accounts.
- Water accounts (next due in respect of 2004-05), for which we are aiming to provide greater regional detail.
- Annual environmental thematic publication.

Some of these activities are dependent on securing additional funding.

Planning day

All members of the ABS Environment and Energy team met in Binalong, New South Wales from 30 May to 1 June 2005. Since the team is located in both the ABS Central Office in Canberra and in the Hobart office, we took the opportunity to spend time together with the aim of improving relationships for the benefit of the work of the Environment and Energy Program. As part of the evolution of the program, all members of the team discussed and agreed upon:



- the role of CEES within the ABS, and in the field and environment and energy statistics;
- the importance of gathering environment and energy statistics;
- how we can improve the work produced by the team, our relationships with each other, and internal and external stakeholders; and
- the value of the breadth of knowledge and experience within the team, and the opportunity to capture and develop that knowledge and experience for the benefit of the Environment and Energy work program.

Special releases

Experimental estimates of regional agricultural water use

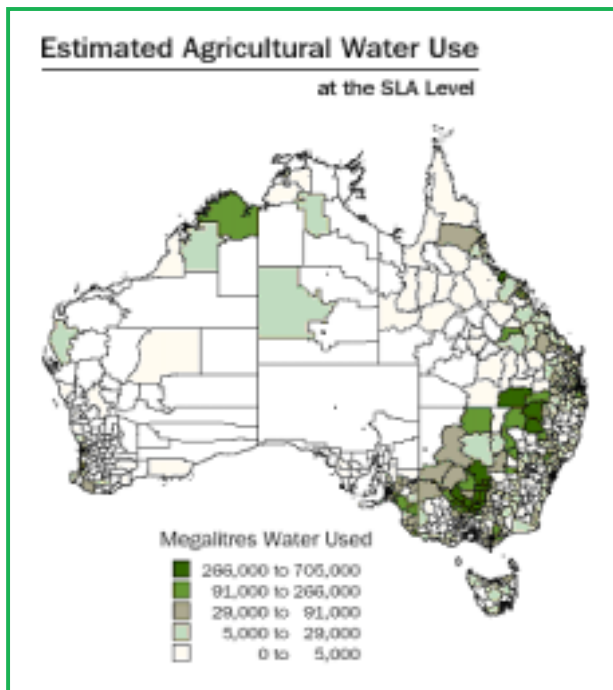
Expected release date: December 2005

Water statistics are of intense interest in Australia, partly due to the drought conditions southeastern Australia has been experiencing in the last few years. A range of agencies are involved in supplying water statistics and the Australian Bureau of Statistics has been one of these agencies.

The ABS has released two Water Accounts, which have provided state level information on the supply and use of water in Australia. The Water Account has been useful at a macro level, however as it only provides state level data it is of limited use in regional planning and decision-making. Demand exists for regional information at finer boundaries than the state level and at boundaries the ABS does not use in the design or output of its surveys.

'Experimental estimates of regional agricultural water use' presents the results of using a simple methodology to calculate regional estimates of agricultural water use. Alternative techniques and auxiliary data sources that may be used in the future are also discussed.

For further information on this research work, contact Kim Hawthorne (02) 6252 5765, email kim.hawthorne@abs.gov.au



Land management – Eurobodalla Shire, NSW, 2003-2004

(cat. no. 4651.0)

Expected release date: November 2005

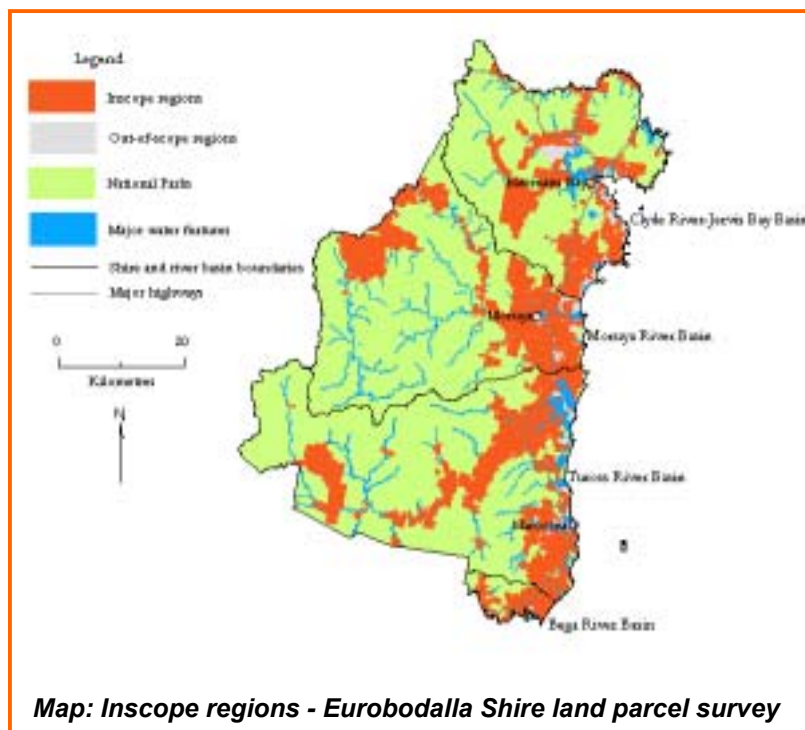
This publication will be the result of the first ABS trial of an area-based survey methodology for data collection. The trial was conducted in the Eurobodalla Shire of NSW in November/December 2004. Using an area-based approach has facilitated the release of more detailed spatial data, enabling the dissemination and mapping of small area statistics.

The publication will contain results for Eurobodalla Shire as well as parts of the four river basins that lie within the Shire. These are the Clyde River-Jervis Bay River Basin, the Tuross River Basin, the Moruya River Basin and the Bega River Basin.

Following on from the work in the Eurobodalla Shire, a much larger trial is currently being conducted for the part of the Fitzroy catchment

that lies within the Fitzroy and Livingstone Shires in Queensland. It is hoped additional trials can be undertaken, but these can only occur if additional resources are allocated. It is expected that the publication will be released before December 2005.

For further information, contact John Purcell (02) 6252 5651, email john.purcell@abs.gov.au



Map: Inscope regions - Eurobodalla Shire land parcel survey

Water accounting

Water accounting at the ABS is progressing on many fronts. Internationally we have been involved in the preparation of a manual for the implementation of the System of Environment and Economic Accounting for Water (SEEAW). In Australia, the ABS and the National Water Commission (NWC) co-hosted a workshop on water accounting on 29 June 2005 at Old Parliament House. The ABS/NWC water accounting workshop was a first step in the development of water accounts to support the COAG Agreement on a National Water Initiative (NWI). It brought together a wide range of stakeholders from industry and conservation groups as well as representatives from all Commonwealth and State/Territory governments. At the workshop, ABS and NWC recognised that NWI water accounting is about integrated national accounting, measurement and monitoring, with specific uses and users at different levels of water management, and is an important point of consensus to build upon. It is also fundamental to achieving the water accounting outcomes as agreed under the NWI. The ABS paper prepared for the workshop, as well as a workshop report, are available on request.

For further information, contact Mette Creaser (02) 6252 6161, email mette.creaser@abs.gov.au

Natural Resource Management Survey

The 2005 Federal Budget provided for an on-going biennial Natural Resource Management (NRM) Survey, beginning with the 2004-05 reference year. The survey will collect data on land and land management; water availability and use; weeds and pests; and native vegetation and other land cover. For each of these NRM topics, data is collected regarding:

- activities to prevent or manage issues;
- whether management is preventative or remedial;
- how much time was spent engaged in the identified management activities;
- the impact of identified issues;
- areas affected; and
- the financial cost associated with addressing issues.

It is anticipated that data will be available at the regional (NHT) level.

For further information, contact David Brereton (03) 6222 5804, email david.brereton@abs.gov.au

Putting water 'to best use'

A key objective of COAG's National Water Initiative is to encourage the expansion in water markets and the trade between regions to ensure that water 'is put to best use'. To date, assessment of the effectiveness of water use against this objective has been inhibited by lack of information. To help fill that information gap, a study is currently being conducted using unit record information from the ABS Land Management and Salinity Survey (2001-02), the ABS Water Survey – Agriculture (2002-03) and panel data from the Agricultural Survey/Census for the past 4 years, to examine the link between water use, salinity, land management and farm performance.

This study is a collaborative one between the Productivity Commission (PC) and the ABS. The collaborative arrangement provides the ABS with an opportunity to assist and encourage objective research, utilising official data and to ensure timely use of important new survey results. It provides the Commission with key data and analytical support needed to bring the project to fruition. Staff from both agencies are expected to benefit from increased understanding of the data, its use in analysis and its application to some major public policy issues. It is also hoped that this arrangement can be the forerunner of future similar projects whereby data from the ABS agricultural and environmental surveys can be examined at the unit record level to obtain information and test potential longitudinal relationships in the data that will assist formulation and monitoring of natural resource management and environmental policy. This opportunity has not presented itself before, partly due to the traditional (prior to 2001-02) practice of selecting largely unrelated samples for successive years in the agricultural survey, and environmental surveys have not previously been done on the back of agricultural surveys.

An information paper with a descriptive analysis of the data will be available later this year, and final results will follow. Both publications will be jointly authored and published on the ABS and PC websites. Results will be more widely disseminated as public conference/seminar papers.

For further information, contact Steven May (02) 6252 5593, email steven.may@abs.gov.au

Environmental issues

Environmental issues: People's views and practices

(cat. no. 4602.0)

Expected release date: November 2005

'Environmental issues: People's views and practices', the tenth in a series, will provide data collected in 2005 on environmental behaviour and practices of Australian households and individuals, focusing on energy use and conservation. The survey collected information on energy sources, aspects of dwelling materials and fixtures that impact on energy use, and energy using household appliances. These are some of the main determinants of energy use, which in turn has implications for greenhouse gas emissions, pollution and resource depletion.

Energy conservation measures:

- ♦ dwelling material
- ♦ insulation
- ♦ lighting
- ♦ windows

Energy and Greenpower

- ♦ energy source: electricity
- ♦ energy source: wood
- ♦ energy source: gas
- ♦ energy source: solar energy
- ♦ greenpower

Household appliances

- ♦ white goods
 - ♦ refrigerators
 - ♦ separate freezers
 - ♦ washing machines
 - ♦ clothes dryer
- ♦ non-white goods
- ♦ computers
- ♦ dishwashers
- ♦ airconditioners
- ♦ heaters

In 2002, there was widespread penetration of some energy saving measures, for example insulation, fluorescent lights and use of cold water for washing clothes. There was also an increase in the number and usage of energy-using household appliances. The adoption of energy conservation measures seemed to have been motivated mostly by lifestyle reasons and a desire to reduce energy costs, rather than any environmental benefits. Cost was the main factor influencing the use of insulation, greenpower and the replacement of white goods. The 2005 publication will enable comparisons with these environmental practices and behaviour of Australian households.

For further information, contact Apolonio Basilio (02) 6252 7433, email apolonio.basilio@abs.gov.au

Upcoming releases

Expected release date

November 2005	Environmental issues: People's views and practices (cat. no. 4602.0)
November 2005	Land management – Eurobodalla Shire, NSW, 2003-2004 (cat. no. 4651.0)
December 2005	Experimental estimates of regional agricultural water use
April 2006	Australia's environment issues and trends (cat. no. 4613.0)
April 2006	Measures of Australia's progress (cat. no. 1370.0)



Contact us

The Environment and Energy News features articles and developments in relation to work done within the ABS Environment and Energy program. If you would like to be placed on our free electronic mailing list, please contact Robyn Elphinstone and leave your address details.

Robyn Elphinstone
Centre of Environment & Energy Statistics
Australian Bureau of Statistics
Locked Bag No. 10
BELCONNEN ACT 2617

Tel: (02) 6252 5502
Fax: (02) 6252 6470
Email: robyn.elphinstone@abs.gov.au