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Environment & Energy News

Welcome to the fifth edition of *Environment and Energy News*, the newsletter of the ABS Centre of Environment and Energy Statistics (CEES). *Environment and Energy News* is 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**



Australia's Environment: Issues and Trends

The 2007 edition of *Australia's Environment: Issues and Trends* (cat. no. 4613.0) focuses on the issue of water.

Released in December 2007, this ABS flagship publication also presents a broad selection of statistics and information covering major trends of relevance to the environment.

The feature article on water draws together statistical information from a wide variety of sources, highlighting topical environmental developments. In 2007, the article explores issues associated with water availability, conservation and management, as well as how our water use impacts upon river and wetland health.

The article reveals ways that Australians are responding to issues of water scarcity. For example:

- In 2004-05, one third of all farms carried out activities to manage and prevent issues related to water quality and availability, spending a total of \$314 million.
- In Western Australia, a desalination plant started production in late 2006, providing 130ML a day, about one-fifth of Perth's water use. Across Australia, at least four other plants have been proposed.
- Australia is one of the few countries that have instituted markets for trading water. In 2004-05, there were 1,802 permanent water trades and 13,456 temporary water trades involving 247.6 GL of water traded permanently and 1,052.8 GL traded temporarily.

For more information please contact Kay Barney on (02) 6252 6766 or email: k.barney@abs.gov.au.



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Environmental Issues: People's Views and Practices

(cat. no. 4602.0)

Release date: Dec 6 2007

The series *Australia's Environment: People's Views and Practices* presents information on the environmental behaviour and practices of Australian households. The 2007 issue focuses on water use and conservation.

Figures presented in the publication reveal that, in March 2007, grey water was being used by more than half (55%) of all Australian households.

Nearly a quarter of Australian households used grey water as their main source of water for the garden, with Victoria and Queensland the highest users, at 43% and 27% respectively.

Recent releases

- Dec 2007** *Australia's Environment: Issues and Trends* (cat no. 4613.0)
- Dec 2007** *Australia's Environment: People's Views and Practices* (cat. no. 4602.0)
- Aug 2007** *Measures of Australia's Progress (MAP): Summary indicators 2007* (cat. no. 1383.0.55.001)
- Aug 2007** *Australian Social Trends* (cat no. 4613.0)
- Aug 2007** *Experimental Monetary Water Account for Australia* (cat no. 4610.0.55.005)

The majority of Australian households were undertaking some type of water saving activity; 67% saved water in the bathroom, 64% in the laundry, 50% in the kitchen and 40% in the toilet.

More than half (55%) of all households had at least one water efficient shower head. Most households (81%) in 2007 had at least one dual-flush toilet, a substantial increase since 1994 when only 39% had a dual flush toilet.

Nearly one in five (19%) households used a rainwater tank, up from 17% in 2004 and 15% in 1994.

For more information please contact Kate Maguire on (02) 6252 7735 or email: kate.maguire@abs.gov.au.

Did you know?

In 2002-03, an estimated 32 million tonnes of solid waste was generated in Australia (excluding Tasmania and the Northern Territory).

This equates to more than 1.6 tonnes per person, an increase from 1.2 tonnes per person in 1996-97.

Further details are available in *Australian Social Trends 2007* (cat. no. 4102.0).

Experimental Monetary Water Account

(cat. no. 4610.0.55.005)

An Experimental Monetary Water Account for Australia, 2004-05 was released on 15 August this year. This publication further developed the Research Paper which featured in the July newsletter.

The publication presents experimental monetary water accounts that allow some physical water flows to be matched with monetary transactions.

Key findings of the publication include:

- The total value of distributed water supply in Australia in 2004-05 was \$3,514 million
- In 2004-05, agriculture used 64% of total distributed water and contributed 8% of total payments for distributed water. Households, in comparison, used 23% of total distributed water and paid 61%.
- The difference in expenditure between households and agriculture largely reflects the different costs of storage, treatment and delivery for water used by urban versus rural users.



For more information contact Peter Comisari: (02) 6252 5381, peter.comisari@abs.gov.au.

Recent releases cont'd

Measures of Australia's Progress (MAP): Summary indicators 2007 (cat. no. 1383.0.55.001)

The ABS released a new set of summary indicators for 2007 that examine whether life in Australia is getting better. *Measures of Australia's Progress (MAP): Summary Indicators 2007*, presents data on 14 areas of progress including the environment, health, education and training, work, financial hardship, and national wealth.

The update complements the more comprehensive set of indicators presented in *Measures of Australia's Progress*. The next edition is due for release in 2009.

For further information contact Linda Fardell on (02) 6252 6228 or email: linda.fardell@abs.gov.au



Australian Social Trends 2007 (cat. no. 4102.0)

Australian Social Trends provides a snapshot of life in Australia and how it is changing over time. It presents statistical analysis and commentary on a wide range of current social issues such as: family and community; health; education; work; economic resources; and housing.

It includes key social indicators which provide an overview of social change over the past decade. The 2007 edition also includes an article on household waste in Australia.

For further information please contact: Andrew Webster on (02) 6252 7187 or email: andrew.webster@abs.gov.au.



Review of 2009 Household Survey

CEES is currently reviewing the questions and data items to be included in the 2009 Household Environmental Supplementary Survey. This national survey will focus on household waste management, motor vehicle ownership and maintenance, and use of transport.

These statistics provide an important source of information, especially for policy making and planning towards a sustainable future. All stakeholders, interested parties, and users of waste and transport statistics are invited to participate in refining the survey.

The results of the survey will be published in the 2009 edition of *Environmental Issues: People's Views and Practices* (cat. no. 4602.0).

If you would like to be involved in this review, please contact Kate Maguire on (02) 62527735 or email: kate.maguire@abs.gov.au.

Have you ever wanted to know more about environmental accounting?

The ABS has developed a one-day training course, "Valuing Australia's Environment", first delivered in 2007; it will be run again in 2008.

The course would be of interest to anyone requiring an overview of environmental statistics and their use; anyone who is new to environment and natural resource statistics; and/or anyone working in the field of environmental accounting or national accounts.

The course helps participants understand the:

- frameworks that underpin environmental accounting;
- various types of environmental accounts and what they measure;
- relative benefits of environmental accounting;
- ABS experience in compiling environmental accounts; and
- uses of environmental accounts.

To express your interest in attending, or for further information, please contact Peter Comisari on (02) 6252 5381 or email: peter.comisari@abs.gov.au.

Work In Progress

Identifying Land Development Hotspots



The CEES Land team in conjunction with the Bureau of Rural Science (BRS) is developing a method for identifying hot spots of land development. The project makes use of the Public Sector Mapping Authority (PSMA) Cadlite product which is a digital layer of all property boundaries across Australia, commonly known as a Cadastre.

Development of land leads to changes in the Cadastre over time. Comparison of old and new Cadlite layers allows changes in the Cadastre to be identified. Using the area of individual cadastral parcels the different types of development identified can be categorised.

One of the strengths of this work is the potential to identify points of peri-urban development.

Peri-urban regions are difficult to define, however local government zoning and development regulations provide a guide to the size of land parcels falling into this type of development. Using these regulations as a guide, a map showing hot spots of peri-urban change across Australia has been produced.

During 2007 the project has involved staff from the land use team at BRS. Using satellite imagery the BRS have been working on a method to check for actual on-ground changes at the points identified by ABS mapping.

The ABS presented the project at the Technical Advisory Group for Australian Land Use Management (TAGALUM) in October 2007. The project is currently ongoing and is generating attention from organisations interested in peri-urban development.

For further information please contact: John Ovington on (02) 6252 6854, or email: john.ovington@abs.gov.au

Measuring Depletion of Environmental Resources

The past decade has seen significant growth in many of the world's largest economies. This has led to greater interest in how environmental resources contribute to economic growth, as well as the effect this growth is having on the environment.

Under the current System of National Accounts (SNA), depletion of environmental resources (consumption of natural capital) is reflected in the national balance sheets, but it is not recorded as a charge against production and income. This is in contrast to the treatment of consumption of fixed capital (for example the depreciation of machinery), which is charged against production and income.

'A country could exhaust its mineral resources, cut down its forests, erode its soil, pollute its aquifers, and hunt its wildlife to extinction, but measured income would not be affected as these assets disappeared.' (Repetto et al. 1989)



The System of Integrated Environmental and Economic Accounting (SEEA) attempts to address this information need by altering the boundaries of the SNA to better reflect the interaction between the economy and the environment.

Under SEEA, it is proposed that consumption of natural capital be charged against production and income in order to develop a more informative set of aggregates.

By measuring and recording depletion of environmental resources, a more meaningful picture can be painted of the interaction between the economy and the environment. This information is essential to assessing whether development is sustainable.



The ABS is currently contributing to an international effort to update SEEA. In particular, the ABS has performed substantial research work on depletion of environmental resources.

For further information please contact Peter Comisari on (02) 6252 5381 or email: peter.comisari@abs.gov.au.

Work In Progress cont'd

Water



Gross Value of Irrigated Agricultural Production

In 2004-05, irrigated agricultural land comprised less than 1% of all agricultural land in Australia, but the Gross Value of Irrigated Agricultural Production (GVIAP), accounted for 25% (\$9 billion) of the total gross value of agricultural production.

Growing demand from policy-makers and other users has led to an increasing requirement for the ABS to produce more accurate and frequent estimates of GVIAP.

To date, the ABS has used two different methods to calculate GVIAP and combinations of these methods have been used to produce estimates for various publications such as the *Water Account* (cat. no. 4610.0) and *Characteristics of Australia's Irrigated Farms* (cat no. 4623.0). The CEES water team will release a research paper in January 2008 critiquing these methods and proposing an improved methodology. In future, it is expected that the ABS will release GVIAP data on an annual basis using this improved methodology.

Water use in the Murray-Darling Basin: its effect on society and the economy

The Murray-Darling Basin is currently of intense interest to governments, scientists, industry and the public as it accounts for a high proportion of Australia's agricultural production and approximately 50% of the water applied to agriculture in Australia. It is also an important area for manufacturing, electricity generation and mining, providing employment for several million people. The region is environmentally significant in terms of internationally recognised wetlands, river red gum forests, and the river ecosystem itself.

In response to the demand for information on the region, the water team is in the process of collating environmental, social and economic information for a new publication focused on the Murray-Darling Basin. To be released in April/May 2008, the publication will include a range of environmental, demographic and economic information and cover the period from 2000-01 to 2005-06.

For further information on water contact Bernard Morrison on (02) 6252 5321 or email: bernard.morrison@abs.gov.au

The 2011 Census Your chance to have a say

The ABS is inviting public comment on the content and procedures of the 2011 Census.

Submissions can be lodged online, by email or in hardcopy up until 31 March 2008.

An Information Paper and Submission Form are available from the ABS website (for free download) at www.abs.gov.au/2011censusviews.

Recent Developments in Energy

Australia's climate change policy announced in July 2007 proposed a number of initiatives including the development of an Australian Emissions Trading System (AETS), based on 'cap and trade' market for carbon, and the establishment of a single national system for reporting greenhouse gas emissions, abatement actions, and energy consumption and production by corporations from July 1 2008.



Following this, the *National Greenhouse and Energy Reporting (NGER) Act 2007* came into effect in late September 2007. The CEES energy team is engaged with key Government agencies developing the regulatory arrangements for the NGER system.

On 3 December 2007, the Rudd Government ratified the *Kyoto Agreement*. Accordingly, Australia will be a full member of the Kyoto Protocol before March 2008. The agreement means that Australia's greenhouse gas emissions should not be higher than 8 per cent above 1990 levels, when averaged over 2008-12.

Other current CEES energy team work includes the development of an energy monetary account which will link physical energy flows with corresponding expenditure flows. The results of this research are expected to provide useful benchmarks for comparing energy intensities by industry.

For further information contact Kai Wallenius on: (02) 6252 6019 or email: kai.wallenius@abs.gov.au.



CEES Advisory Board and User Group Meetings 2008

The Centre of Environment and Energy Statistics Advisory Board meeting is scheduled to take place in March 2008. These meetings are held annually and aim to examine the roles and work undertaken in the past year by the CEES workgroups (water, land, energy and households), and to examine the following year's work program.

In preparation for the meeting, a series of User Group meetings have been scheduled for late February to enable technical discussion around the CEES' work plan. The outcomes of these meetings play a key role in examining the ABS Environment Statistics Work Program during the board meeting.

The **Water Statistics User Group** (including household water use) will meet on: **Tuesday 26th February 2008.**

The **Land Statistics User Group** will meet on: **Tuesday 26th February 2008.**

The **Energy and Greenhouse Gas Emissions Statistics User Group** (including household energy use) will meet on: **Wednesday 27th February 2008.**

For more information on the CEES Advisory Board Meeting or User Group Meetings contact Mette Creaser on (02) 6252 5436 or email: mette.creaser@abs.gov.au.



NEWS

CEES welcomes two new directors

Graeme Brown has responsibility for Energy, Communications and Reporting, Waste, Environmental Protection Expenditure and Improved Environmental Reporting. Contact Graeme on: (02) 6252 5920 or email: graeme.brown@abs.gov.au



Mette Creaser has responsibility for Water, Land and Environmental Accounts. Contact Mette on: (02) 6252 5436 or email: mette.creaser@abs.gov.au.



Upcoming releases

Expected release date:

Dec 2007

Jan/Feb 2008

Feb 2008

March 2008

April/May 2008

June 2008

NRM on Australian Farms 2004-05 (re-issue, cat. no. 4620.0)

Gross Value of Irrigated Agricultural Production

An Alternative Industry View of Energy Supply in Australia (cat. no. 4647.0.55.001)

Water Use on Australian Farms (cat. no. 4618.0)

Water Use in the Murray-Darling Basin; its Effect on Society and Environment

NRM on Australian Farms 2006-07 (cat. no. 4620.0)

Contact us

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 Dayani Gunawardana and leave your address details.

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