**Title:**

**Catchment Scale Land Use of Australia - Update September 2017**

**Date published:**

2017-11-14T10:00:00

[Thumbnail image of Map of Catchment Scale Land Use of Australia (CLUM) update September 2017. The main map shows land use dataset, based on the ALUM secondary classes. 
                Inset maps show the date of mapping and the scale of mapping of the source vector data that were combined to generate the CLUM raster dataset.](http://data.daff.gov.au/data/warehouse/luausr9abll076/luausg201711/CLUM_map_September2017_ALUM_secondary_v1.1.0.pdf)

**Abstract:**

This dataset is the most current national compilation of catchment scale land use data for Australia (CLUM), as at September 2017. It replaces the Catchment Scale Land Use of Australia - Update May 2016 released in June 2016. It is a seamless raster dataset that combines land use data for all state and territory jurisdictions, compiled at a resolution of 50 metres by 50 metres. It has been compiled from vector land use datasets collected as part of state and territory mapping programs through the Australian Collaborative Land Use and Management Program (ACLUMP). Catchment scale land use data was produced by combining land tenure and other types of land use information, fine-scale satellite data and information collected in the field. The date of mapping (2003 to 2017) and scale of mapping (1:5 000 to 1:250 000) vary, reflecting the source data, capture date and scale. This information is provided in a supporting polygon dataset.   
  
The following areas have been updated since the May 2016 version: Desert Channels and Mackay-Whitsundays natural resource management (NRM) regions in Queensland; the Adelaide and Mount Lofty Ranges NRM region in South Australia (extending into part of the Murray-Darling Basin NRM region); the state of New South Wales; the state of Victoria; the state of Tasmania; the state of Western Australia; and the Northern Territory. The capital city of Adelaide was also updated using 2016 mesh block information from the Australian Bureau of Statistics. This equates to over 585 million hectares or 76% of Australia, the largest update of catchment scale land use mapping to date.   
  
Users should update any references or links to previous CLUM datasets in their databases. Users should also note that it is not possible to calculate land use change statistics between annual CLUM national compilations as not all regions are updated each year; land use mapping methodologies, precision, accuracy and source data (in particular satellite imagery) have improved over the years; and the land use classification has changed over time. In particular, the major differences between this September 2017 version and the May 2016 version are:

* The September 2017 version has been mapped to version 8 of the Australian Land Use and Management (ALUM) Classification (released in October 2016)
* Improvements to the Western Australia mapping including improved mapping of native forests, conservation areas, topographic features, horticulture and intensive animal production
* Changes to the mapping of native and modified pastures in New South Wales
* Changes to the mapping of dairies in Tasmania so that only the dairy infrastructure is mapped as dairies and the dairy pastures are mapped as modified pastures.

It is only possible to calculate change when earlier land use datasets have been revised and corrected to ensure that changes detected are real change and not an artefact of the mapping process. The Queensland Land Use Mapping Program (QLUMP) have done this on an NRM regions basis for Queensland and can be accessed at:

* Data: Search the Queensland Spatial Catalogue (http://dds.information.qld.gov.au/dds/) for "Land Use Mapping"
* Reports: https://www.qld.gov.au/environment/land/vegetation/mapping/qlump-reports.

The CLUM data shows a single dominant land use for a given area, based on the primary management objective of the land manager (as identified by state and territory agencies). As a seamless spatial dataset for Australia, it can be used to identify, map and analyse high level land use categories (such as irrigated horticulture and dryland cropping) and more specific land use categories such as grapes, cotton, cereals, sugar and tree fruits. These categories can be extracted or combined with other spatial datasets to provide new insights and analysis concerning land use in Australia. A complementary dataset Catchment Scale Land Use of Australia - Commodities - September 2017 provides commodity level mapping as a vector dataset.   
  
Land use is classified according to the Australian Land Use and Management (ALUM) Classification version 8, a three-tiered hierarchical structure. There are five primary classes, identified in order of increasing levels of intervention or potential impact on the natural landscape. Water is included separately as a sixth primary class. Primary and secondary levels relate to the principal land use. Tertiary classes may include additional information on commodity groups, specific commodities, land management practices or vegetation information. The primary, secondary and tertiary codes work together to provide increasing levels of detail about the land use. Land may be subject to a number of concurrent land uses. For example, while the main management objective of a multiple-use production forest may be timber production, it may also provide conservation, recreation, grazing and water catchment land uses. In these cases, production forestry is commonly identified in the ALUM code as the prime land use.   
  
The operational scales of catchment scale mapping vary according to the intensity of land use activities and landscape context. Scales range from 1:5 000 and 1:25 000 for irrigated and peri-urban areas, to 1:100 000 for broadacre cropping regions and 1:250 000 for the semi-arid and arid pastoral zone. The date of mapping generally reflects the intensity of land use. The most current mapping occurs in intensive agricultural areas; older mapping generally occurs in the semi-arid and pastoral zones.   
The primary classes of land use in the ALUM Classification are:

1. Conservation and natural environments - land used primarily for conservation purposes, based on maintaining the essentially natural ecosystems present
2. Production from relatively natural environments - land used mainly for primary production with limited change to the native vegetation
3. Production from dryland agriculture and plantations - land used mainly for primary production based on dryland farming systems
4. Production from irrigated agriculture and plantations - land used mostly for primary production based on irrigated farming
5. Intensive uses - land subject to extensive modification, generally in association with closer residential settlement, commercial or industrial uses
6. Water - water features (water is regarded as an essential aspect of the classification, even though it is primarily a land cover type, not a land use)

The Catchment Scale Land Use of Australia - Update September 2017 is a product of the Australian Collaborative Land Use and Management Program (ACLUMP). ACLUMP, of which ABARES is a partner, promotes the development of consistent information on land use and land management practices. This consortium of Australian, state and territory government partners is critical to providing nationally consistent land use mapping at both catchment and national scale, underpinned by common technical standards including an agreed national land use classification. ACLUMP provides a national land use data directory and the maintenance of land use datasets on Australian and state government data repositories. More information on ACLUMP available at www.abares.gov.au/landuse

<http://www.agriculture.gov.au/abares/aclump/land-use/data-download>