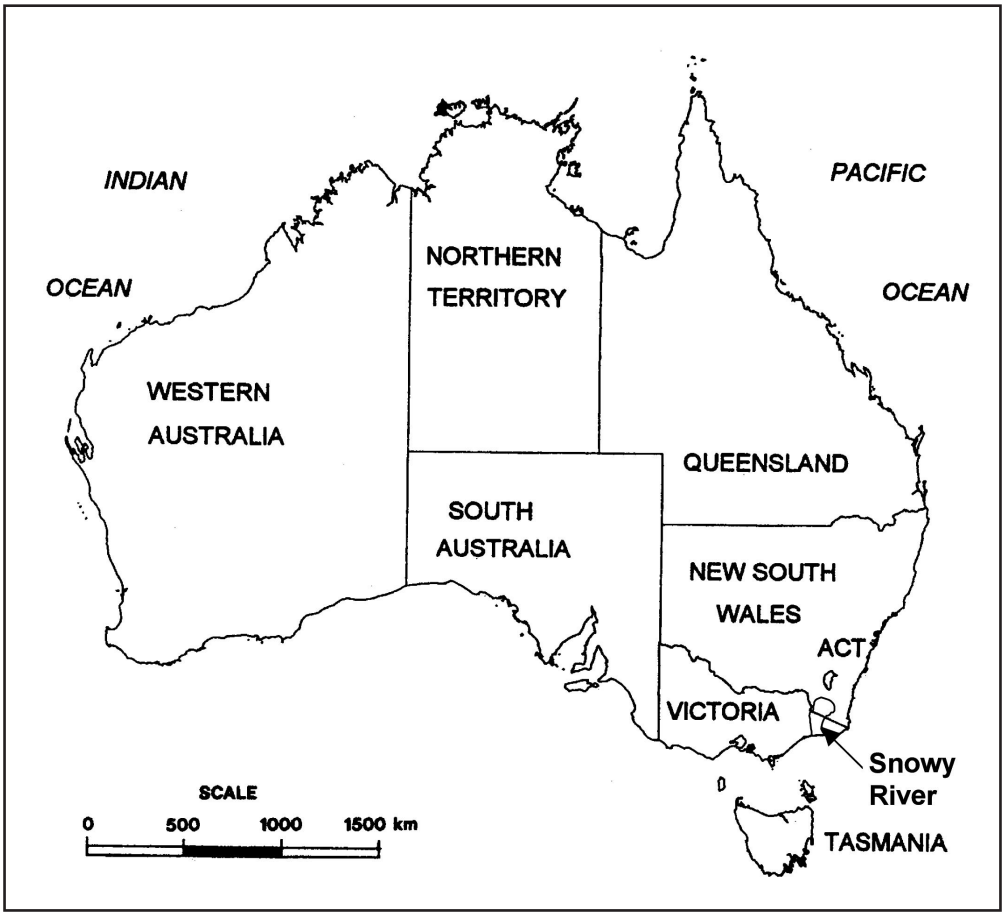
Australia

Australia-7: Snowy River below Lake Jindabyne



Introduction

The continent of Australia is the lowest, the flattest and, with the exception of Antarctica, the driest of the continents with a total land area of 7,682,000 km^2. The land lies between latitudes 10°41'S (Cape York) and 43°39'S (South East Cape, Tasmania) and between longitudes 113°09'E (Steep Point) and 153°39'E (Cape Byron). The latitudinal distance between Cape York and South East Cape, Tasmania is 3,680 kilometres. The longitudinal distance between Steep Point and Cape Byron is about 4,000 km. There are two major classes of rivers in Australia, those of the coastal margins with moderate gradients and those of the central plains with very slight gradients. The continent has a wide range of climatic zones, from the tropical regions of the north, through the arid expanses of the interior, to the temperate regions of the south. Seasonal fluctuations can be great, with the temperatures ranging from above 50°C to well below zero. The continent often experiences natural disasters, particularly droughts, floods, tropical cyclones, severe storms and bushfires. While the mean annual precipitation is 472 mm in Australia, it varies from 100 mm in the arid central plains to over 4,000 mm in the region with the highest mean annual rainfall on the north east coast of Queensland near the township of Tully. The overall population of Australia in 2001 was 19.5 million with most of the population concentrated in coastal regions.

The river catalogued in this volume is the Snowy River below Lake Jindabyne. The headwaters of the river are in the State of New South Wales and the middle and lower reaches are located in the State of Victoria. The Snowy Mountains Hydro-electric Scheme (Snowy Scheme) is a major infrastructure development that was constructed between 1949 and 1975. It is a dual purpose hydro-electric and irrigation scheme to divert the south flowing waters of the upper Snowy River inland to the Murray and Murrunbidgee rivers where it is used for irrigation. The diverted water, together with water from regulated flows from other nearby rivers generates mainly peak-load hydro electricity. The power generating capacity of the Scheme is 3,740 MW and it provides 2,360 GL annually of water for irrigation in the Murray and Murrumbidgee rivers. The Snowy River is the major river catchment of the Snowy Scheme with 99 percent of flows above Jindabyne being diverted for use by the Scheme.

As a result of increasing concerns about the environmental impacts of the Snowy Scheme, the Snowy Water Inquiry was commissioned in 1998 with a brief to recommend environmental water release options. Following consideration of the options developed by the inquiry, agreement has been reached that Snowy River flows below Lake Jindabyne will be restored to 21 percent of their original levels within 10 years and to 28 percent in the longer term.

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Much of the material presented in this work has been extracted from:
Snowy Water Inquiry, Final Report October 1998