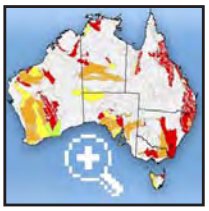

In the 2005-2006 Federal Budget handed down on May10, the Government announced an important new initiative that will have a significant impact on Geoscience Australia.

The initiative is the Australian Tsunami Warning System. It will contribute to an Indian Ocean Tsunami Warning System (IOTWS) and will integrate with the existing Pacific Tsunami Warning Centre to facilitate warning to the South West Pacific region.

The Government is providing funding of $68.9 million over four years for the system, which will be jointly operated around-the-clock by Geoscience Australia and the Bureau of Meteorology, with Emergency Management Australia handling the public awareness and disaster response aspects of the system.

The purpose of the Australian Tsunami Warning System is to:

- reduce loss of life in the event of a tsunami affecting the Australian coast,
- mitigate tsunami risks for operations at sea and in coastal waters, and
- reduce the impact of tsunamis on essential infrastructure in our coastal regions.

One of Geoscience Australia's main roles is the provision of precompetitive geoscientific information to encourage investment in mineral exploration in Australia. A significant part of this work is undertaken with the State and Territory geoscience agencies under the National Geoscience Agreement. The work is augmented through Geoscience Australia's participation in two Cooperative Research Centres—Predictive Mineral Discovery (pmd*CRC) and the Cooperative Research Centre for Landscape Environments and Mineral Exploration (CRC LEME)

In this issue we report on a number of the recent outputs of our minerals-related studies. One, conducted jointly with the Northern Territory Geological Survey (NTGS), is the recently released NTGS Report 18 "Gold mineral systems of the Tanami region". It is a study of the genesis and geological controls on lode gold deposits in the Tanami region, one of Australia's significant gold producing areas. In another article, again on the Tanami, we report further on how three-dimensional inversion modelling of gravity and magnetic data can be used to construct better 3-dimensional geological models to improve our understanding of Australia's regional geology and its mineral potential.

Also reported in this issue are the results of two studies arising from our participation in the minerals-focussed Cooperative Research Centres. One, from pmd*CRC, presents new geochronological results from the Mt Isa Province, one of Australia's most important mineral-producing areas. The new work further refines our understanding of the province's geological framework and will further focus future mineral exploration models for the area.

Geochemical exploration tools remain important in Australia and new work within CRC LEME is intended to underpin the development of a national baseline geochemical information layer. In a country as large and diverse as Australia, an initial step in developing this layer is the pilot testing of geochemical survey methodologies in representative regions displaying contrasting topographic, drainage and climatic conditions. In this issue of AusGeo News we report on the first of these pilot projects which was conducted in the Riverina area of southern New South Wales and northern Victoria.

The tragic 2004 Boxing Day Sumatran earthquake and tsunami has again reminded us all of the great damage that can be caused by earthquakes and other natural geohazards. Robust earthquake risk assessments depend on a sound knowledge of an area's seismicity, and this is often difficult to obtain because earthquakes are infrequent on the scale of the human life times. The geological record can help overcome this problem and we report in this issue on evidence from southwest Western Australia, gathered using new technologies, which indicates the occurrence of many prehistoric earthquakes that would have been comparable in size to the Magnitude 6.9 Meckering earthquake that shook the region in 1968. The insights gained from these new approaches will help mitigate earthquake risk through the development of better and safer regional building codes.

In closing I'd like to thank all those subscribers who have provided comments on the first two issues of AusGeo News to appear in its new electronic format. Your feedback is very much appreciated and is vital to the ongoing improvement of AusGeo News to better meet your needs.

Comment

Neil Williams

NEIL WILLIAMS
CEO Geoscience Australia