

INDEPENDENT SCIENCE PANEL OF ICSU ASSESSMENT OF THE JABILUKA MILL ALTERNATIVE, NORTHERN TERRITORY, AUSTRALIA

The Jabiluka proposal

The development of the uranium mine at Jabiluka, adjacent to Kakadu National Park in the Northern Territory of Australia, has been the focus of much attention, both within Australia and internationally. In August 1997, the Commonwealth Government completed its assessment of Energy Resources of Australia's (ERA) Environmental Impact Statement (EIS), which proposed that uranium ore mined at Jabiluka be processed at the Ranger mill some 20 km to the south. This development option is known as the Ranger Mill Alternative (RMA). The Minister for the Environment and Heritage approved the EIS subject to 75 conditions. Due to a pre-existing agreement between ERA and the Aboriginal Traditional Owners (TOs) relating to the milling of Jabiluka ore at Ranger, and the opposition of the TOs to the mine proceeding, ERA then submitted a Public Environment Report based on a proposal to construct a new mill on the Jabiluka lease. This is known as the Jabiluka Mill Alternative (JMA). The Public Environment Report was approved by the Minister for the Environment and Heritage in August 1998, subject to another 15 conditions.

World Heritage Committee mission

In response to concerns raised by the Traditional Owners, the World Heritage Committee sent a mission to Kakadu National Park in November 1998 which recommended that the park be placed on the list of World Heritage in Danger. The World Heritage Committee considered the report from the mission

and requested that the Supervising Scientist submit a report on particular scientific issues related to the Jabiluka project by April 1999. This report was reviewed by the Independent Science Panel (ISP), convened by the International Council of Science Unions (ICSU) at the request of the World Heritage Committee. The Supervising Scientist then provided a response to the ISP review to the World Heritage Committee in June 1999. Also in June 1999, the decline was completed at the Jabiluka site, including a ventilation raise and associated surface facilities comprising workshops, offices and water management and erosion control structures.

The World Heritage Committee met in Paris in July 1999 and agreed not to place Kakadu National Park on the list of World Heritage in Danger. In making its decision, the Committee asked the ISP of ICSU to continue to work with the Supervising Scientist and the International Union for the Conservation of Nature (IUCN) to resolve any remaining scientific issues and to provide a report on that work to the World Heritage Centre.

Development of Jabiluka ceased in September 1999, in line with a commitment made by ERA to the World Heritage Committee. Jabiluka has remained in an environmental management and standby phase since then.

Visit to Kakadu

The ISP visited Kakadu National Park in July 2000 accompanied by a representative of the IUCN. The visit included tours of Ranger and Jabiluka, a flight over Ranger, Jabiluka and Kakadu National Park, and



meetings with the Supervising Scientist and his staff, ERA, Park Managers, the Gundjehmi Aboriginal Corporation and various Australian scientists. These meetings were structured to address particular scientific issues and allow the ISP to obtain additional information sufficient for it to report on whether the development of the Jabiluka mine posed a threat to the natural World Heritage values of Kakadu.

***eriss* research**

A series of scientific investigations, information collation and logistical exercises were undertaken by the Supervising Scientist in preparation for the visit of the ISP. These programs demonstrated that developments at Jabiluka had not caused adverse impacts on downstream ecosystems or given rise to radiological impacts to people living in the region. For example, detailed measurements of suspended sediment loads in streams that run past the mine site showed that any changes arising from construction of the facilities were very small and studies on the community structure of small aquatic animals demonstrated that these changes had no biological impact.

ISP final report and recommendations

In December 2000, the World Heritage Committee considered the final report produced by the ISP after its visit to Kakadu. The conclusion of the ISP report was that:

Overall, the ISP considers that the Supervising Scientist has identified all the principal risks to the natural values of the Kakadu World Heritage site that can presently be perceived to result from the Jabiluka Mill Alternative proposal. These risks have been analysed in detail and have been quantified with a high level of scientific certainty. Such analyses have shown the risks to be very small or negligible and that the development of the JMA should not threaten the natural World Heritage values of Kakadu National Park.

The ISP also made several recommendations, including that because there may be unexpected, but unlikely, impacts due to mining, a comprehensive monitoring program, at the local and regional scale,

is necessary so that any impacts due to mining can be distinguished from those due to other causes. Another recommendation was that an Independent Science Advisory Committee be established to introduce a wider perspective into the review framework providing an essential element in protecting the natural values of the Kakadu World Heritage site into the future.

The Commonwealth Government accepted the intent of all the ISP recommendations. The World Heritage Committee considered the ISP report and the Commonwealth Government's response at its December 2000 meeting in Cairns. It concluded that the approved proposal for the mine and mill at Jabiluka does not threaten the health of people or the biological and ecological systems of Kakadu. The final ISP report is available at: <http://www.environment.gov.au/ssg/isp-icsu/index.htm>.

The Supervising Scientist is now overseeing the implementation of the recommendations of the ISP. At a landscape scale, longer-term initiatives are being considered that would lead to a phased program of research in Magela Creek catchment, commencing with ecosystem and habitat mapping, then more detailed investigations of species distribution. These analyses will provide a basis for formal risk assessments of major management issues, such as feral animals, weeds, climate change impacts and fire, in addition to mining activities, that could affect specific sites or habitats in the catchment. The data gathered in these exercises will add to that already being gathered by *eriss* and other organisations. Current chemical and biological monitoring programs will continue and the data collected will be reported to local communities and stakeholders and to the new scientific advisory committee.

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