



**Area affected by the  
Ranger uranium mine**

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## PREFACE

In September 1996, the Commonwealth Environment Minister, Senator Robert Hill, released Terms of Reference for a comprehensive and independent study of the social impact of development on Aboriginal communities in the Kakadu region. The project is known as the Kakadu Region Social Impact Study (KRSIS).

The study is intended to provide a clear statement of Aboriginal experiences, values and aspirations, and also produce an action plan to address the impacts associated with development in the Kakadu region.

An Aboriginal Project Committee (APC) has been established which is responsible for coordinating and managing Aboriginal involvement in the study and producing a report on Aboriginal concerns and aspirations for the future. Working in parallel with the APC is the Study Advisory Group on which key stakeholders are represented and which is responsible for developing the action plan.

An issue that has emerged as significant during the Study is the interpretation of the term "area affected" by mining in the *Aboriginal Land Rights (Northern Territory) Act 1976* because the interpretation adopted determines those groups of Aboriginal people who receive royalty payments. The present paper was prepared to assist the Northern Land Council in the resolution of this issue and was presented to the Study Advisory Group of KRSIS at its meeting on 12-13 June 1997.

A Johnston  
16 June 1997

# AREA AFFECTED BY THE RANGER URANIUM MINE

## A Paper to the Kakadu Region Social Impact Study

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### INTRODUCTION

In 1977, the Australian Government took to the Federal Parliament a comprehensive package of statements and legislation on Uranium Mining in Australia. This was to set the foundation for decisions on mining, milling and export of uranium, and for the economic, social and environmental strategies to optimise benefits for Australia. The package, which was referred to as '*Uranium - Australia's Decision*', provides a clear insight into the expectations at the time of legislation of the Government in general, and the relevant ministers in particular, in relation to decisions relating to uranium mining, especially in the Alligator Rivers Region.

Twenty years on from the decisions of the Australian Parliament, the Kakadu Region Social Impact Study (KRSIS) is examining social issues associated with the Kakadu Region. One important social issue relates to the distribution and use of 'royalty equivalents'; that is monies paid as a consequence of the commitments and laws passed twenty years ago. Management of distribution of royalties is overseen by the Northern Land Council.

The Northern Land Council, in its submissions to the Kakadu Region Social Impact Study, explained its role in the distribution of royalty equivalents, an activity it undertakes pursuant to Section 35 of the *Aboriginal Land Rights Act (NT) 1976*. Quoting in part from the NLC submission:

*'The Commonwealth Government (pays) into the Aboriginal Benefit Trust Account (ABTA) certain amounts of money. Those amounts are worked out by reference to the mining royalty which ERA, as owner of the Ranger Uranium Mine, has to pay to the Commonwealth Government. 30 % (less tax) of that money is paid by the ABTA to the NLC which must, within six months of receiving the money, pay it to:*

*(a) Aboriginal Councils (established under the Aboriginal Councils and Associations Act 1976) in the area affected by the Ranger Mine operations,*

*(b) Certain types of Aboriginal Associations the members of which live in, or are the traditional Aboriginal owners of, the area affected by the Ranger Mine operations, in such proportions as the NLC determines.'*

It is not our intention to provide comment on the allocation of money in the proportions as the NLC determines. Such determination is part of the statutory function given to the NLC. It is a valid issue for comment by the Kakadu Region Social Impact Study, but beyond the scope of our submission.

It is our intention to provide advice on the basis for the definition of 'area affected'; advice which we feel particularly qualified to offer. We will provide advice considered from three analyses. The first analysis will be of the stated intentions and expectations of the Government at the time of decision making, an analysis to find meaning today for decisions taken in the past. The main source of information for this will be an analysis of the package '*Uranium - Australia's Decision*'. It is noteworthy that these decisions were made and

implemented after the *Aboriginal Land Rights (Northern Territory) 1976 Act*. The second analysis will be of the interpretation of terms similar to 'area affected' from other Commonwealth Law, like the Environment Protection Acts. The third analysis will be of the impact on the area, both what was considered to be potential impact at the time of decision making, and what is known now.

It will be our conclusion that the 'area affected' is quite extensive; at least as large as Kakadu stages 1 and 2, and probably larger. Therefore, the role of the NLC in 'allocation of money in the proportions as the NLC determines' assumes even greater importance to make equitable decisions between the peoples of that 'area affected.'

## **PREVIOUS INTERPRETATIONS OF 'AREA AFFECTED'**

In the past, others have approached this issue in different ways. The NLC submission to the Kakadu Region Social Impact Study discussed five such approaches or models. In brief they are:

- Woodward in 1974 suggested that the Area Affected be represented by a 60 kilometre radius from the mine site.
- Levitus in 1987 suggested stages one and two of Kakadu National Park.
- Palmer in 1984 suggested that the 'community' define the area itself.
- Kesteven and Smith in 1983 recommended a definition based on Aboriginal peoples' relation to land.
- The model chosen as appropriate for most of the time since uranium royalties were paid, until recently, was based on Kakadu National Park Stage 1 and Stage 2, but extending to include areas just west and just south of Kakadu National Park stages 1 and 2.

The NLC notes that the Land Rights Act reference in Section 35 is to 'area affected', not the 'community affected' as in other sections of the Act, and expresses the view that this subtle difference strongly suggests that the 'area affected' refers to the land physically impacted rather than some sociological concept.

The NLC had sought advice from the Supervising Scientist to determine what area is 'physically affected', either actually or potentially, by the Ranger Uranium Mine. The Supervising Scientist gave a response, unaware that the question related to 'area affected'. The present position, as determined at Full Council of NLC of March 1996, restricts the area affected to the area currently affected by the operations of the Ranger Uranium Mine lease, the Jabiru town lease, and then extending downstream from the Ranger Uranium Mine along the Magela Creek flood plain to the confluence of the Magela Creek with the East Alligator River.

## **AN ANALYSIS OF THE STATED INTENTIONS AND EXPECTATIONS OF THE GOVERNMENT AT THE TIME OF DECISION MAKING**

The interpretation of 'area affected' will depend on its context. Most certainly the context of primary relevance is the series of decisions and enactments to approve uranium mining in the Alligator Rivers Region. These decisions were made some time after the *Aboriginal Land Rights (Northern Territory) Act* of 1976. There can be no doubt that the Government intended, and Parliament approved, a package to provide financial benefit to Aboriginal communities in the greater Kakadu region.

In his Statement introducing 'Uranium - Australia's Decision', Prime Minister Rt Hon Malcolm Fraser said:

*'Substantial revenue from royalties on uranium mined in the region will be applied to the welfare of Aboriginals in the Northern Territory generally and not solely to those in local communities affected by the mining operation or to individuals.'* (our underlining)

Thus the Prime Minister allocated two categories of Aboriginals to receive revenue from royalties on uranium; those in the Northern Territory generally, and those in local communities affected by mining. The Prime Minister, as the Minister introducing the issue to Parliament, had in mind that the effect of consequence was that on local communities; no distinction between area or community was cited.

In his companion Statement, the Hon. Ian Viner, Minister for Aboriginal Affairs, accepted the view of the Ranger Inquiry that Aboriginal opposition to mining should not prevail. He also highlighted that *'the principal threat to the welfare of the Aboriginal people, and the one they most fear, is constituted by the large numbers of people who can be expected to enter the area.'* Clearly the 'area affected' was not seen to be an area affected only by physical impacts of the mine, but that area in which there would be people impacts on Aboriginal people.

Minister Viner cited the incorporation into the National Park of areas of Aboriginal land, as suggested by the Aboriginals to the Ranger Inquiry. In his Statement on Mining Royalties he said:

*'The equivalent of a royalty of at least 2 1/2 per cent will be payable by the Commonwealth Government to the Aboriginal Benefit Trust Account for mining within the Ranger Area and 30 per cent of these payments will go to the local Aboriginal communities affected by mining development in the Region.'* (our underlining)

He further stated: *'Royalties will be used to promote the economic and social development and well-being of Aboriginal communities as provided in the Land Rights Act.'* Minister Viner also referred to the Northern Land Council:

*"The Northern Land Council was established under the Aboriginal Land Rights (Northern Territory) Act 1976 with the functions of ascertaining and expressing the wishes and opinion of Aborigines living in its area, of protecting their interests and consulting with and negotiating on behalf of traditional owners."*

Clearly, and certainly, the Minister for Aboriginal Affairs, the Minister with direct responsibility, at the time of decision making saw royalties as being for the local Aboriginal communities affected; there was no suggestion of a distinction between area and people. Throughout his Statement, the Minister referred to the focus on the Aboriginals of the Region. Quoting from his summary:

*'The Government's decision to allow mining of uranium in the Alligator Rivers Region will certainly have a profound effect on the lives of the Aboriginal people living in the Region. Let there be no doubt about this.'*

*The Ranger Inquiry recognised that development must inevitably increase the pressures already leading to rapid social change and stress in the Aboriginal communities.*

*The Government's decisions to adopt fully the Ranger Inquiry's recommendations relating to Aboriginals will allow them, as owners of the land, to follow their own lifestyle on their own land to the extent they choose, to influence the course of development, and to take advantage of the full range of opportunities which development may open up to them.*

*The Commonwealth Government recognises a continuing obligation to watch the impact of development on the Aboriginal people of the Region, to work closely in conjunction with them, and to ensure that the total level of activity in the region is controlled in their interests.'*

In his Statement as part of 'Uranium - Australia's Decision', the Hon Kevin Newman, Minister for Environment recognised also the inextricable link in the decisions about uranium mining and creation of the National Park. Quoting:

*'I now come to the Alligator Rivers Region. The establishment of a National Park in this Region is central to the findings of the Ranger Uranium Environmental Inquiry.'* Then; *'The Park we have decided to declare covers a far larger area than previously contemplated, being about 12500 square kilometres.'*

In the same statement, Environment Minister Newman, as had Prime Minister Fraser, committed to the application of the Environment Protection (Impacts of Proposals) Act to government decisions on mines in the Region.

The intention of the Government in the making of laws and decisions is a key determinant in the subsequent interpretation of those decisions. The following specific words, quoted from Ministerial Statements in 'Uranium - Australia's Decision', make clear the intention of the Government:

- Prime Minister:.... '*royalties to local communities affected by mining*'(our underlining)
- Minister for Aboriginal Affairs: .... '*payments will go to the local Aboriginal communities affected by mining development in the Region*' (our underlining)--- the principal threat to the welfare of the Aboriginal people would be '*large numbers of people who can be expected to enter the area.*'
- Minister for Environment:--- '*The establishment of a National Park in this Region is central to the findings of the Ranger Uranium Environmental Inquiry.*' '*The park---being about 12500 square kilometres.*'

In a background paper, 'Your Questions Answered', tabled with 'Uranium, Australia's Decision', in discussing 'how will Aboriginals benefit from mining at Ranger?' it states '*A share of royalties, which could be substantial, will go to nearby communities affected by mining.*' (our underlining).

There can be no doubt from the documentation that, at the time of decision making, the Government intended:

- royalties would go to communities affected, and no distinction was made between communities and area.
- the area considered may have been as wide as the Alligator Rivers Region, but certainly was as wide as Kakadu stages 1 and 2 ( 12,500 square kilometres), and certainly included the expectation of inclusion of Mudginberri and Munmarlary pastoral leases.
- the creation of the Park was linked inextricably by the Government to the decision to mine Uranium.
- the effect of most concern for the area affected was from large numbers of people; a view which is not consistent with an interpretation linked to direct physical impacts of mine or infrastructure.

Our advice based on an analysis of the stated intentions and expectations of the Government at the time of decision making is therefore as follows: There is every reason to deduce that the Government did not intend and did not make a distinction of area affected from community affected, and that they intended and did ascribe the benefits to the Aboriginal communities. To the decision-making Government, the area affected was Kakadu Stages 1 and 2, with suggestions that it was larger. The effects of most concern were impacts associated with the influx of extra people.

## **AN ANALYSIS OF THE INTERPRETATION OF TERMS SIMILAR TO AREA AFFECTED FROM OTHER COMMONWEALTH LAW**

There is no specific definition of 'area affected' beyond that in the dictionary. The *Aboriginal Land Rights (Northern Territory) Act 1976*, which preceded the Uranium decisions, gives no definition of 'area affected'. The Act does interpret 'area', which it describes thus: " 'area', in relation to Land Council, means an area for which the Council is established under this Act". Were this 'area' to be the same as in 'area affected', then the area affected would be the whole area for which the Northern Land Council has responsibility. However, it is clear from s35(2)(a) of the Act that the 'area' in relation to a Land Council is not synonymous with 'area affected' by mining because the latter, according to this clause, could include the former. We, therefore, discount the interpretation that the 'area affected' could be the whole area for which the Northern Land Council has responsibility.

The best and closest parallel in law for 'area affected' is 'environment'. The relevance of the *Environment Protection (Impacts of Proposals) Act 1974* was cited specifically by several ministers at the time of decision making. This Act provided the interpretation: '*environment includes all aspects of the surroundings of man, whether affecting him as an individual or in his social groupings*'. The same interpretation was provided a few years later in the *Environment Protection (Alligator Rivers Region) Act 1978* which applies specifically to uranium mining operations in the Region. (Both Acts have since been amended to remove gender specific language but the meaning of the interpretation remains the same.)

The meanings of 'environmental impacts' under the *Environmental Protection (Impacts of Proposals) Act 1974* has been clarified through case law, including *Tasmanian Conservation Trust versus Minister for Resources* (the Gunns case).

In this case the critical test applied by the Court was whether the Minister for Resources considered "whether the proposed action affected or would affect the environment to a significant extent". It was found, amongst other things, that it is necessary to "look to the whole undertaking of which the relevant activity forms a part to understand the cumulative and continuing effect of the activity on the environment". Both site-specific and cumulative and continuing effects can be relevant, for example the effect of associated infrastructure.

It was clarified that the impact of a (forestry) proposal included not only the felling of the trees, but the infrastructure and transport, and any changes to the 'environment' facilitated or enabled by the proposal or the decision to allow the proposal.

If it is reasonable to equate the interpretation of 'area affected' with 'environment which is impacted', and we believe that it is, then the effects will include effects on the surroundings of people, whether affecting people as individuals or in social groupings. This means that the geographic extent of area affected would be the same as the geographic extent of the area examined in the scope of an examination of a proposal under *the Environment Protection (Impacts of Proposals) Act 1974*. There is specific information on this; in the case of the

Ranger proposal the area was the Alligator Rivers Region, with particular emphasis on Kakadu stages 1 and 2.

Our advice based on an analysis of the interpretation of terms similar to 'area affected' from other Commonwealth Law, an analysis that seeks consistency in the interpretation of Commonwealth legislation, is that the outer bounds for 'area affected' becomes the Alligator Rivers Region, but at least Kakadu stages 1 and 2, including the previous pastoral leases at Mudginberri and Munmarlary.

### **AN ANALYSIS OF THE IMPACT ON THE AREA, BOTH WHAT WAS CONSIDERED TO BE POTENTIAL AT THE TIME OF DECISION MAKING, AND WHAT IS KNOWN NOW.**

Another view of 'area affected' may be gained from analysing the environmental effect, either as it was anticipated at the time of decision making, or as it is actually observed now, some twenty years later. The appropriate starting point for this analysis is the findings and recommendations of the second report of Ranger Uranium Environmental Inquiry (RUEI).

The main conclusion of the RUEI with respect to mining at Ranger was (p321-322):

*'The Ranger project as proposed, and in the land use setting which was assumed, should not in our view be allowed to proceed. On the other hand, if the plan we propose is accepted, and the various matters we recommend in relation to it, and to the mining operations themselves, are carried out, the adverse environmental consequences of the proposal can be kept within acceptable limits. Every step in our recommendations is designed to ensure that a reasonable accommodation is reached between the proposed mining venture and the conflicting environmental values and interests.'*

What then was the expected extent of physical impact?

Direct physical impact associated with the mine and mill was mainly thought to be in the immediate vicinity. There were the predictions of potential of local impacts from emissions from the calciner, from sulphur gases and the risk of sulphur fires, and from ground vibration from blasting and mining. The extremely localised nature of such impacts has proven to be the case. There is of course the physical destruction of land at the actual mine, and the alienation of the milling and refining site.

The potential for more widespread effects was, however, recognised. There was considered to be a potential for increase in air-borne radioactivity, which was predicted to be minimal or very local. There was considered to be a possibility of impacts associated with the release of contaminated water to the waterways either through direct releases to surface waters or through seepage in groundwater. However, to ensure that these potential effects would not be significant, the RUEI recommended the establishment of a very stringent environmental protection regime that included the Supervising Scientist and the Research Institute. The intention was that research would enable the development of standards, practices and procedures that would ensure that off-site environmental impact would be very small. Hence, in terms of physical impact, the expectation of the RUEI was that the area physically affected would be essentially restricted to the project area.

What then is the significance of the phrase '*Every step in our recommendations is designed...*' in the above quotation from the RUEI report? These were the steps that would achieve '*adverse environmental consequences.....within acceptable limits*'. These included wider issues such as the establishment of Kakadu National Park, a recommendation which was widely recognised as inextricably linked to the issues of uranium mining and impacts on

the Aboriginal community, resumption of the pastoral leases at Munmarlary and Mudginberri, and a number of recommendations to minimise social impact on Aboriginal people of the region.

The Inquiry recognised the potential for impacts associated with tourism, and accommodation of mine workers and their families. The influx of non-Aboriginals and Aboriginals has brought a massive change to the whole area, as the Inquiry predicted. As stated earlier, much of this change is within the scope for consideration of changes to 'environment' as defined in the Environment Protection Acts, and in our opinion, is fundamental to consideration of area affected. Not only would this mean that area affected included all of Kakadu stages 1 and 2, but possibly also west of the park and possibly including Oenpelli (Gunbalanya).

The clear conclusion is that the RUEI commissioners envisaged that the area affected by mining would be large, essentially Kakadu National Park stages 1 and 2 and the pastoral leases at Munmarlary and Mudginberri, and, since the area of physical impact was expected to be small, the principal effects expected in the larger area would be social impacts.

What is now known about the extent of current physical impact from the Ranger mine?

This is the issue raised in the resolution passed by the NLC Full Council in March 1996. Quoting from the NLC briefing paper to the Study Advisory Group:

*'The Northern Land Council considers that, for the purposes of section 35(2) of the Aboriginal Land Rights (NT) Act 1976, the area currently affected by the operations of the Ranger Uranium Mine lease, [is the area including] the Jabiru town lease, and then extending downstream from the Ranger Uranium Mine along the Magela Creek flood plain to the confluence of the Magela Creek with the East Alligator River.'* (our underlining)

The expectation that any increase in air borne radioactivity would be minimal or very local, has proven to be the case. Research has shown that, while mine related radon is clearly detectable on the Ranger lease at Jabiru East, it is barely detectable 10km away in Jabiru township and at that point radiation exposure arising from radon from the mine represents only about 5% of the total exposure due to naturally occurring radon and its progeny. There was considered to be a likelihood of impacts associated with the release of contaminated water to Magela Creek. In retrospect, no contaminated water has been released from the Restricted Release Zone at Ranger. Run-off rain water from outside of the production areas (ie: outside of the Restricted Release Zone) is released, but chemical monitoring and the most stringent biological monitoring system in Australia have shown the waters outside the Ranger lease to have suffered no impact. There are some moderately increased concentrations of constituents in local waters and groundwaters, especially for magnesium and sulphate associated with land discharge of waters from the restricted release zone, but no off-site effects have been observed.

Thus, even if it were appropriate to consider only physical impacts, it would seem inordinately difficult to sustain such a definition of area affected as that adopted now by the NLC. Certainly beyond the Ranger Mine Area, there is not, and with appropriate management, nor is there likely to be, any impact on the Magela Creek nor its flood plain.

The restriction of the 'area affected' to that area of land that is currently subject to physical impact contrasts with the request by the NLC to the Supervising Scientist for advice that was subsequently used to resolve the question of 'area affected'. The NLC letter requested advice on the 'area currently or potentially affected by the operations of the Ranger Uranium Mine'

(our underlining). The worst case scenario for direct impact could be through a loss of integrity of containment of either tailings or contaminated water, leading to contamination of the waterway and flood plain. It was with consideration of such unlikely events that Supervising Scientist advised NLC on the possible limits to physical impacts.

The Supervising Scientist's response reinforced this point by inclusion of the following information:

*'I should stress that, in providing the above information I have attempted to identify those lands that could, in principle, be affected by operation of the Ranger Mine. I understand that that is what you require to identify the Aboriginal people with whom you should consult with respect to the proposed extension of the ERA authority to mine beyond the year 2000. You would be aware, however, that, as a result of the very strict control regime that has applied to the operation of the Ranger Mine, we have concluded that no significant environmental impact on aquatic ecosystems has occurred beyond the Ranger Project Area. This conclusion has been stated by the Supervising Scientist on a number of occasions in his Annual Reports (for example, the 1994-95 Annual Report, p xi).'*

Our advice based on an analysis of the impact on the area is that potential physical and biological impacts associated with the Ranger mine were predicted to be localised provided the recommended environmental protection regime including the establishment of the Supervising Scientist and the Research Institute was implemented, and have turned out to be more localised than expected. Were it only direct physical and biological impacts of the mining operation considered in the definition of area affected, then no area outside the Ranger lease could be considered.

The decision makers intended to go much wider, did go much wider, and indeed were obliged by existing statute to go much wider.

The area affected includes the community, or human beings or people, or their social groupings and at least include all of Kakadu stages 1 and 2. There is an argument that it includes other areas in the west and also for the inclusion of Oenpelli, and a less strong argument that it includes all of the Alligator Rivers Region.

## **OVERALL ANALYSIS**

In this paper, we have explored the meaning of the term 'area affected' in s35(2) of the *Aboriginal Land Rights (Northern Territory) Act 1976*, an issue of great significance in determining those Aboriginal people who should share in the distribution of royalties from the Ranger mine.

We have stressed that in circumstances where such a term is not defined in the relevant legislation, circumstances which apply in this case, it is necessary to determine, to the maximum extent possible, what was the *intent* of the government which approved the project to which the legislation applies. We have also noted the need to achieve consistency in the interpretation of Commonwealth legislation. The analyses that we have presented based upon these two principles have shown without any doubt that, in the case of the Ranger mine, the 'area affected' should be defined to be:

- those lands on which people and/or ecosystems are being, or could be, subject to biological, chemical or physical impact as a result of mining, and

- those lands on which people are being, or could be, affected in their social groupings as a result of mining.

Further, these analyses have shown that, while the outer bounds of 'area affected' could be the Alligator Rivers Region, it is much more likely that the area affected is Kakadu National Park stages 1 and 2 and possibly including Oenpelli (Gunbalanya).

We have also explored what information on 'area affected' may be gained from analysing the environmental effect, either as it was anticipated at the time of decision making, or as it is actually observed now, some twenty years later. We have shown that the 'area affected' is not *'the area currently affected by the operations of the Ranger Uranium Mine lease, the Jabiru town lease, and then extending downstream from the Ranger Uranium Mine along the Magela Creek flood plain to the confluence of the Magela Creek with the East Alligator River.'* If the delineation was (wrongly, we argue) based on direct physical and biological impacts, there is no basis for going downstream of the Ranger lease area. This analysis has also shown that the area affected should be Kakadu National Park stages 1 and 2, and possibly including Oenpelli (Gunbalanya).

The consequence of our analysis is that the NLC may, with increased confidence, consider and determine to allocate money through approved Aboriginal Councils or Aboriginal Associations to communities from an area which is larger than that which they do now. We conclude that the "area affected", the area that they are empowered to consider, is at least as wide as Kakadu National Park stages 1 and 2, and possibly includes areas beyond this such as Oenpelli (Gunbalanya).

Barry Carbon and Arthur Johnston  
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