

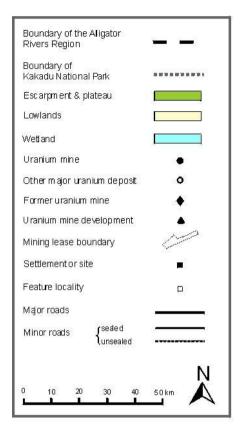
Peter Waggitt

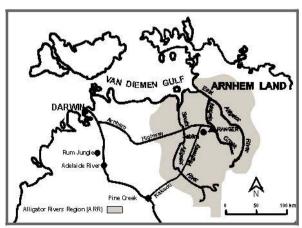
Consultant

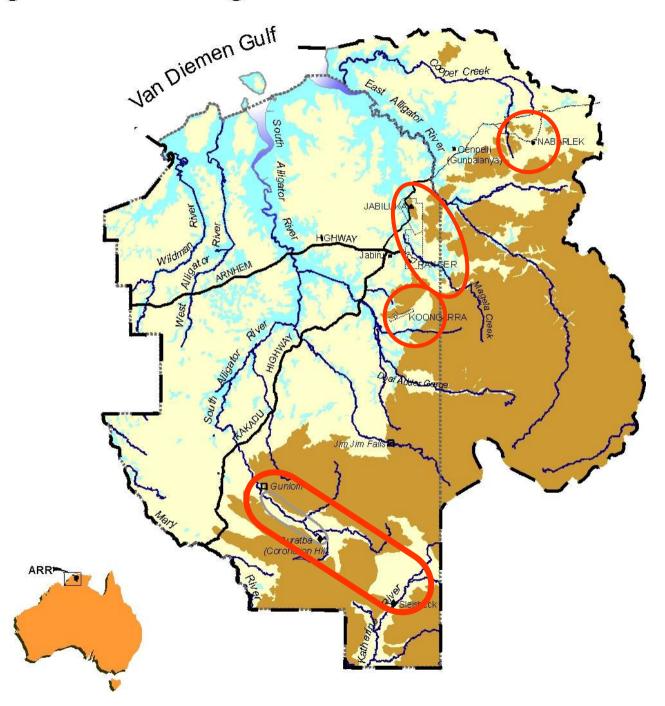
International Atomic Energy Agency

. . . ' - URAM 2009 - Vienna - June 2009

#### Alligator Rivers Region







### The Situation - then and now

- •The Pine Creek Geosyncline
- Active uranium mines
- Abandoned uranium mines
- Regulatory scene -
  - NT Government
  - Commonwealth OSS, DERT, ARPANSA
  - NLC
- Kakadu National Park
- Aboriginal Traditional Owners (ATO) & lands

## Modern uranium mining

- SAV mining 1953-1963 approximately
- · Mines:
  - Ranger(1980-?) and Nabarlek (1979-88)
  - Koongarra and Jabiluka are mines in waiting
- OSS set up the Coordinating Committee in 1978
  - Wide ranging representation, but with no ATOs
  - 2 meetings per year; very procedural, closed meetings, confidential reports
- Changed in 2001 to become 2 committees
  - Alligator Rivers Region Technical Committee ARRTC
  - Alligator Rivers Region Advisory ARRAC
- New committees have more local representation

#### ARRTC

- ARRTC to consider and review research programs on the effects of uranium mining in the Alligator Rivers Region
  - Technical specialists from local organisations
  - Some outside experts to assist some member organisations or as leading authorities on issues of concern
  - Sets pattern and programme for research programmes – primarily eriss and ERA – and coordinates with others e.g. Parks Australia
  - 2 meetings per year

#### ARRAC

- ARRAC as a formal forum for consultation on matters relating to the environmental effects of uranium mining in the Alligator Rivers Region
  - Members from all stakeholders including:
    - ATOs, Federal and State Governments, Local NGOs, Mining and exploration companies working with U in the ARR, mine workers, Jabiru township
  - 2 meetings per year, one always in Jabiru area
  - Meetings tie in with annual audit programmes

# Information exchange

 As part of the "updating" from the old Coordinating Committee summary reports of meetings are published on a web site, e.g.

http://www.environment.gov.au/ssd/communication/committees/arrac/pubs/summary-dec-08.pdf

Copies of Government departmental reports submitted to ARRAC can be obtained from the Secretariat afterwards

- Also the environmental monitoring data are now available on dedicated a website during times of creek flow
- Annual reports interpreting monitoring data are also published e.g.

http://www.environment.gov.au/ssd/monitoring/index.html

# Uranium mining activity

- All involved mining companies are invited to ARAAC
  - Ranger is active c.5000 tpa U3O8
  - Nabarlek is remediating but also a new exploration site
  - Jabiluka and Koongarra in waiting
  - Exploration under way in the West Arnhem area
- Rum Jungle and Adelaide River U mining areas are outside the ARR but consultation processes there now are generally based on these experiences
- SAV remediation is also discussed at ARRAC

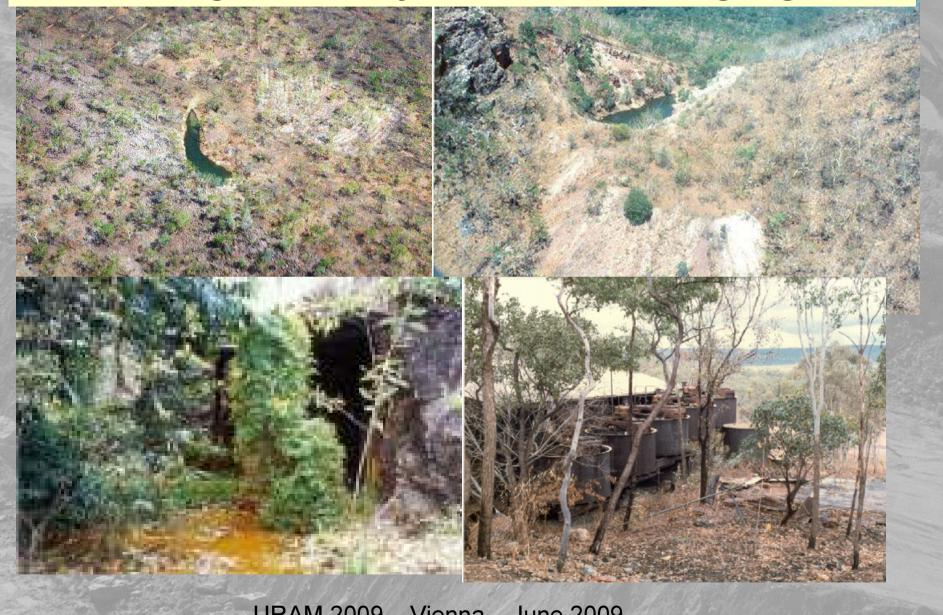
## Case Study

#### South Alligator Valley Remediation

- U mining rush after 1949 > exploration of the 1950s
- In the SAV 50+ anomalies led to 13 mines
- Operation from 1955 to 1964
- Production about 875 t of U<sub>3</sub>O<sub>8</sub>
- No EIA process and few rules
- No consultation with ATO
- Surrounding land was a cattle station
- Abandonment with no remediation



#### South Alligator Valley: Uranium mining legacies



URAM 2009 - Vienna - June 2009



# Background politics

- •1987 1991 Conservation Zone activity
  - The Coronation Hill saga
- ATO interests start to be addressed
- OSS become involved
- NLC involvement, land claim process
- •1991 All work stopped, new mines banned
- •1996 Land claim granted, lease signed
- •1997 Rehabilitation planning begins

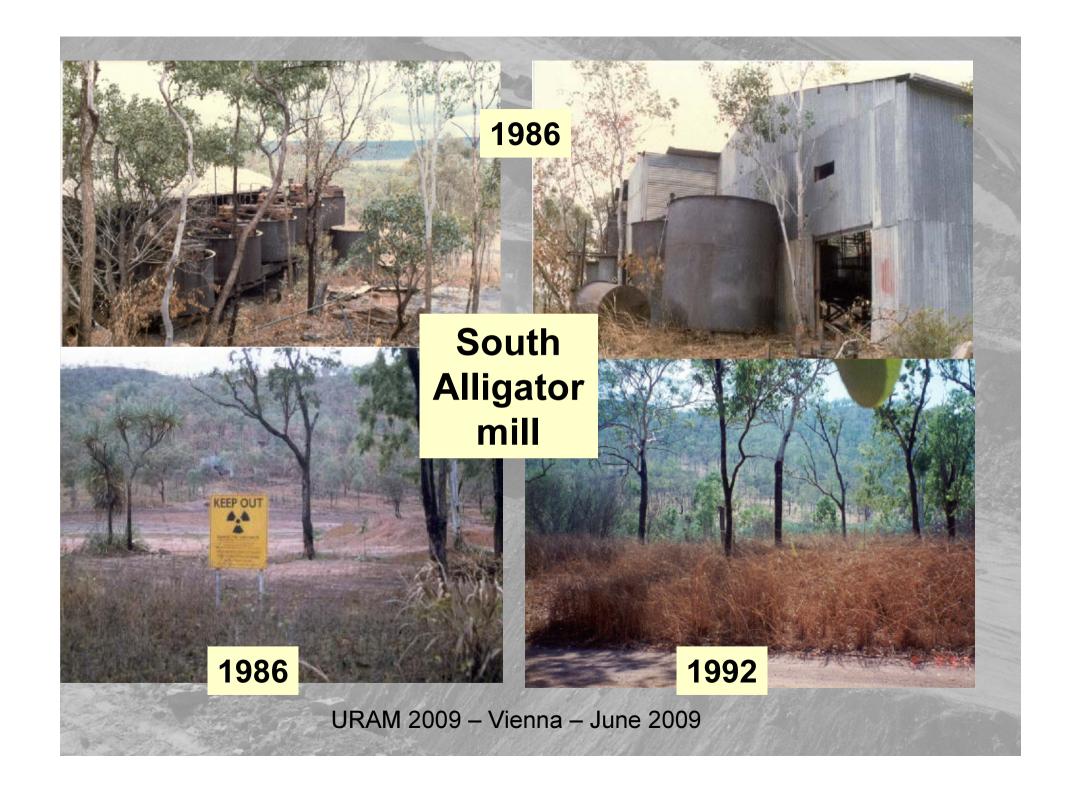
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## Remediation History

- •Rum Jungle remediation in 1984 1986
  - Not successful because not sustainable
  - No involvement of Traditional Aboriginal Owners
- •1986 Initial survey of SAV mining sites
  - SA Mill tailings removed & re-treated for Au
- •1987 Survey of the mill buildings
- •1988 Further surveys in SAV
- •1990 -92 Hazard reduction works:

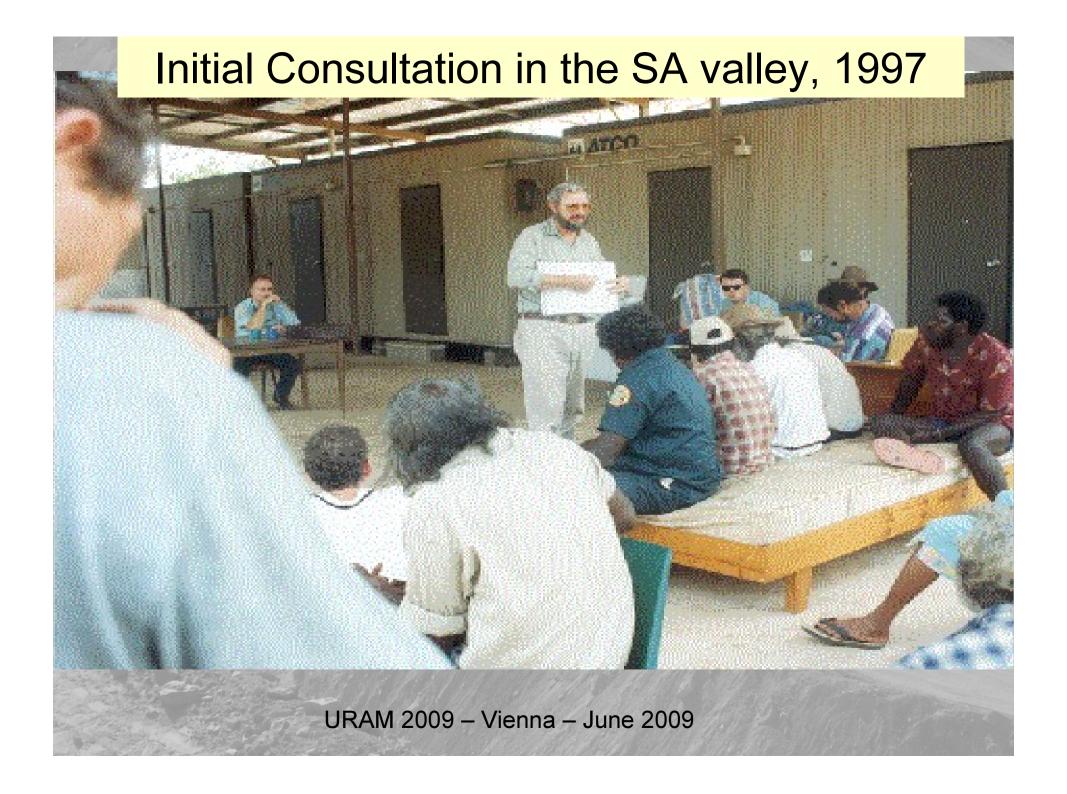
# Hazard Reduction History

- •2 contracts, mill first, then the rest
- ·Standards site specific as no others available
- 6 containment sites
- Works supervision by DPIE
- Monitoring program by OSS
- No major consultation with ATO
  - Aboriginal involvement as labourers



#### The New Rehabilitation Plan

- •1996 Lease signed
  - Plan complete by 31 December 2000
  - Works complete by 31 December 2015
- •1997 First planning meeting
  - Briefing & site descriptions
  - Consultation on final land use objectives
  - Site visits
- The first "pause"

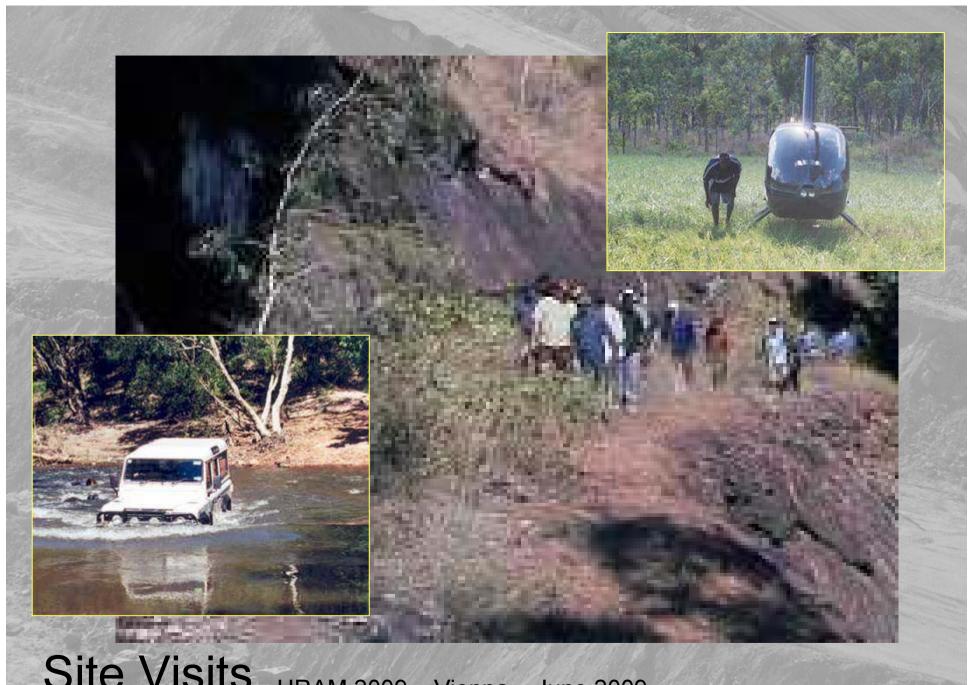


# The planning process

- ·1998-99
  - Staffing issues meant no advance since 1997
  - Only one meeting
  - New staff, new urgency
  - New approach
  - New consultative committee
    - Traditional Owners, the majority
    - Parks Australia, NLC
    - · OSS, NTDME

### Consultative Committee

- •Frequency of meetings, initially every 6-8 weeks
- Suitable venues and format; also record keeping
- Careful use of a facilitator
- Opening up of discussions
- Cultural issues revealed
  - machinery sizes
  - drilling & blasting
  - gender issues
- Site visits



Site Visits URAM 2009 - Vienna - June 2009

# Progress at last

- Agreed format for meetings
- Field inspections and camps to discuss issues in "The Dry"
- Minimise need for meetings in "The Wet"
- Use of models, posters, PowerPoint, etc
- Field testing and bush foods issues
- Radiation training course
- Prioritisation of sites by radiation hazard
- Interim works on tailings area, Nov 2000



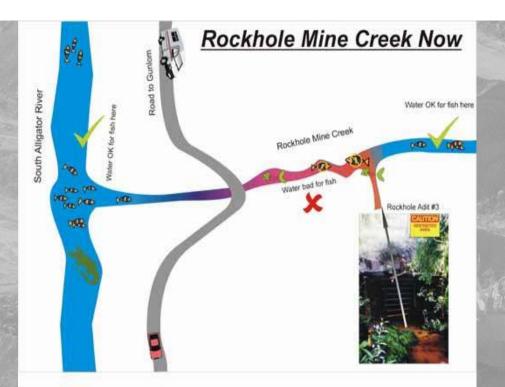


## AGENDA

- 1. DEBRIEF ON RADIATION TRAINING
- 2. FISH + MUSSEL SURVEYS
- 3. MINESITES WE HAVE SOME AGREEMENT ON
- 4. EWL PRESENTATION ON ROCKHOLE, SLIESBECK & GURATBA
- 5. LUNCH
- 6. SITE VISITS

#### **AGENDA**

Drawn up by consensus on the day





Use of posters to show water treatment options

- June 2009

# SESSION OF RADIATION TRAINING

- · Looked at instruments Radiation is all around you

  - · where it is depends on how it
  - affects you.

    This area is not as bad as some places.

    even pilots get radiation
- · Shields to protect Different levels

#### **MINUTES**

- ·Written up as we go
- Agreed as we go
- Photographed for report

- June 2009

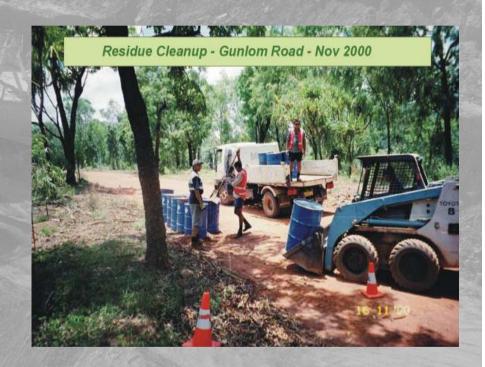
# SAV: Progress to date

- · Meetings continue as required
- ATO inputs to planning & as cultural advisers, workers, operators, seed collection and planting
- Initial planning was completed in 2005
- Finance from Federal Government followed
- Final design completed in 2007
- Dry season 2007 work began on "A" sites
- Work completed
- Sites inspected in 2008
- Final design of containment finished
- Contractor selection imminent for final, "B" works





### **ATO** involvement



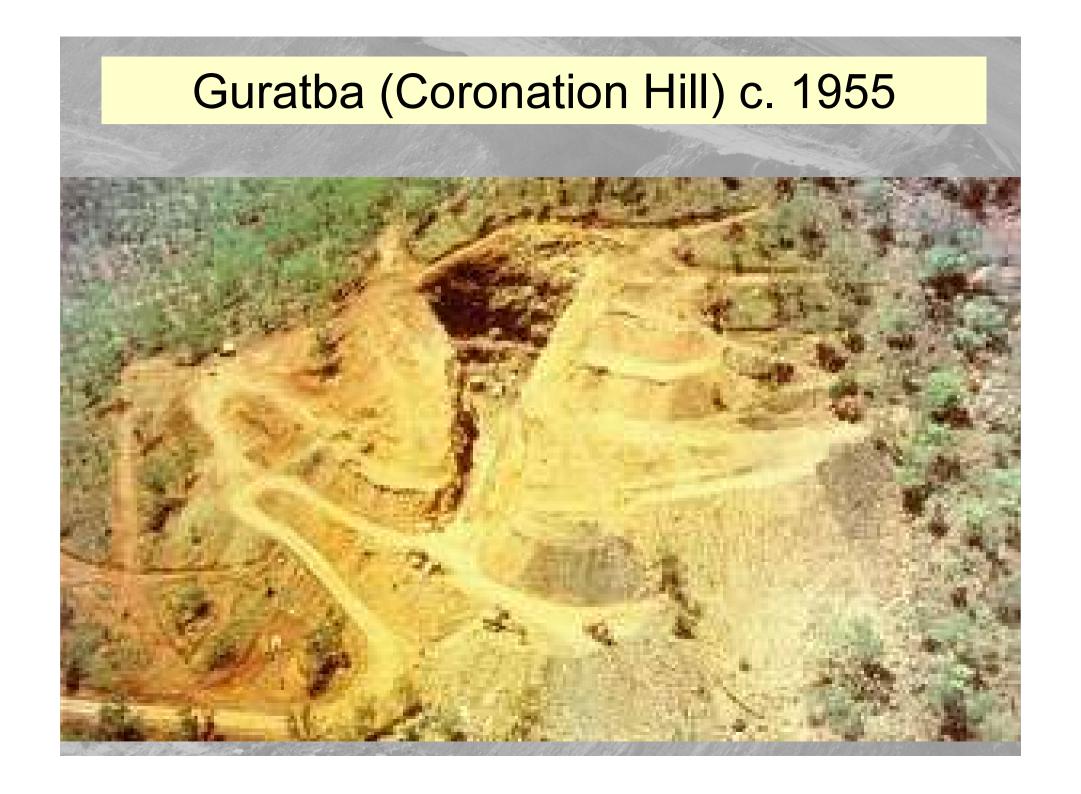
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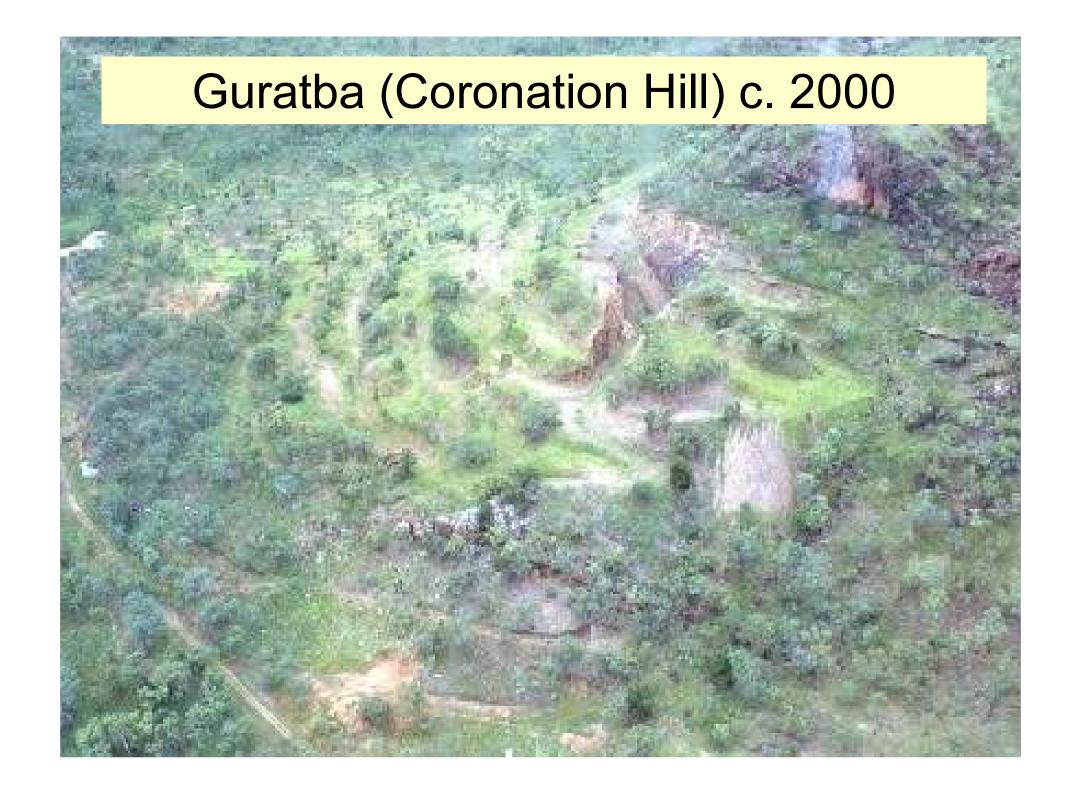
# Sleisbeck open cut

Sleisbeck 1996 – before

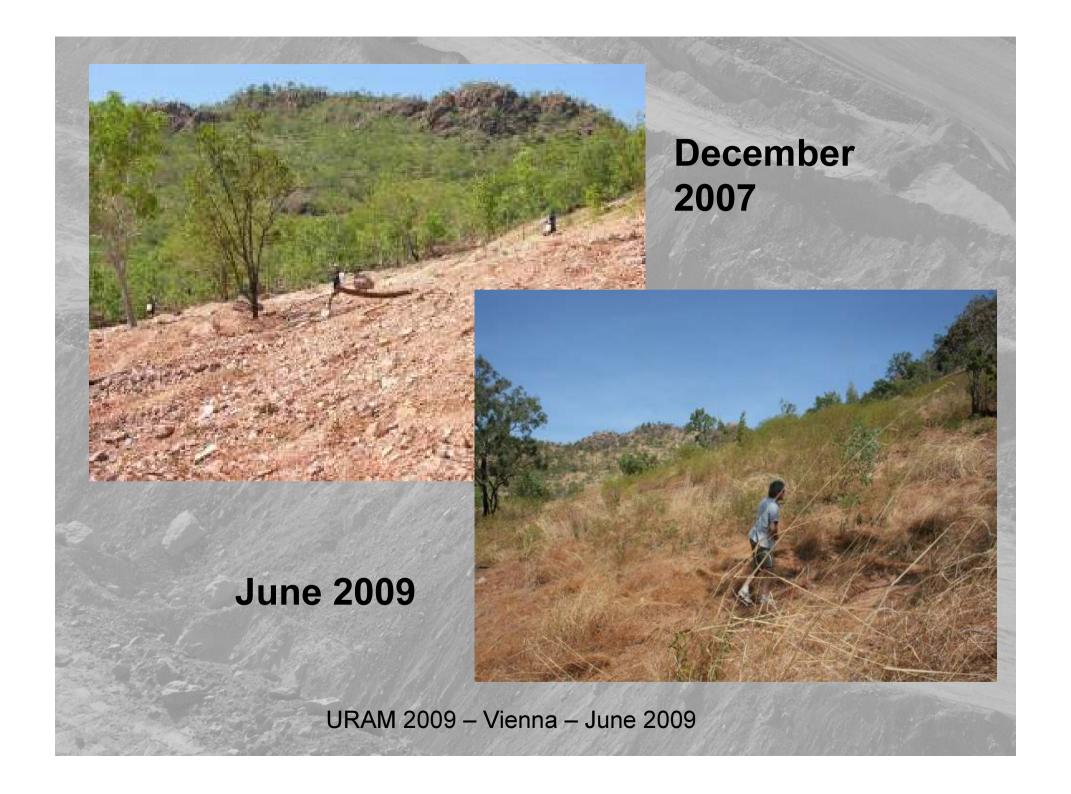
Sleisbeck 2007 – after

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## Other communications

- Public days at the OSS offices, Jabiru Field Station and laboratories, mining sites
- Participation in Community Open Days
- Open door policy for stakeholder visitors
- Specific meetings for incidents etc
- Posters, pamphlets etc in local language
- · Proactive, culturally sensitive, communication
- Links with local schools

### The Rules for communication

- Start near the middle
- Admit mistakes
- Be open about any problems
- Discuss others concerns
- Be accountable share control
- · Be fair

Honesty and transparency above all

## Summary

- Uranium mining stakeholders were poorly served until relatively recently
- Early "stakeholder" processes were too exclusive and effectively secret
- Modern system comes from an iterative process which is still developing
- Local involvement is vital
- Common principles but very site specific methods and needs must be taken into account

#### Conclusions

- Transparency of information is essential
- · Have a set of operating "rules" and use them
- Remediation needs consultation at community level
- Hard work and resource hungry but it pays dividends
- Be patient and above all be honest trust built over years can be lost in seconds and is very hard to regain
- It has taken time but it works however no time for complacency as improvement is always possible!