Mining, Biodiversity & Protected Areas

An IUCN viewpoint

Adrian Phillips  (Vice Chair for World Heritage of the World Commission on Protected Areas, IUCN )

for the MMSD Expert Group meeting, June 2001
Purpose of the presentation

- Overview of IUCN & WCPA
- Biodiversity and Protected Areas
- Issues around mining
- Protected Areas, World Heritage and Mining
- Issues for debate
IUCN - The World Conservation Union

- Created in 1948
- World's largest conservation-related organisation – a unique world partnership of government and non-government
- 78 states, 112 government agencies, 735 NGOs, 35 affiliates, and some 10,000 scientists and experts from across 181 countries
- 6 expert Commissions, including the World Commission on Protected Areas (WCPA).
- Secretariat, HQs in Switzerland, offices worldwide
IUCN’s Vision & Mission

Vision:

◆ “A just world that values and conserves nature”

Mission:

◆ “To influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and ensure that any use of natural resources is equitable and ecologically sustainable”
IUCN - Conservation Goals

Extinction crisis

- The extinction crisis and massive loss in biodiversity are universally adopted as a shared responsibility, resulting in action to reduce this loss of diversity within species, between species and of ecosystems;

Ecosystem integrity

- Ecosystems are maintained and where necessary restored and any use of natural resources is sustainable and equitable.
WCPA’s Mission

Mission:

- “To promote the establishment and effective management of a world-wide representative network of terrestrial and marine protected areas, as an integral contribution to the IUCN Mission”
Protected areas and biodiversity

• Protected areas safeguard threatened habitats and species

• Thus they are essential for biodiversity conservation (recognised under article 8 of CBD - in situ conservation)

• But protected areas alone are not sufficient, and must be supported by a range of other policies and actions for biodiversity conservation
Other reasons why protected areas are important

Protected areas are also invaluable for:
- protection of watersheds, soils, coastlines
- safeguarding cultural assets
- homelands for indigenous peoples
- supporting local and national economies
- sequestering carbon
- providing natural products
- research and education
- the human spirit
What are protected areas?

IUCN definition:

“an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means”
What do we know about protected areas?

- There are 30,000 of them
- 9.6% of earth’s land surface (=India+China)
- They come in all sizes
- They are managed for many purposes
- They are run by many organisations
- They face many challenges
A century of growth in protected areas

Extent of protected areas (km² x 1,000)
Number of protected areas

5 year period beginning...
Will their number grow in future?

- expect there to be more Category V and VI areas, but also more Category I - IV areas because:
  - some countries have only begun to build protected area systems
  - and some biomes are better represented in protected areas than others ….
Global coverage of protected areas by biome (% area protected) in 2000

- Lake systems
- Mixed island systems
- Mixed mountain systems
- Temperate grassland
- Tropical grassland/savanna
- Tundra communities
- Cold winter desert
- Warm desert and semi-desert
- Evergreen sclerophyllous forest
- Temperate broad-leaf forest
- Tropical dry forests
- Temperate needle-forest
- Sub-tropical forest
- Tropical humid forest
Six management categories of protected areas

Protected area managed mainly for:

- **Ia**: science
- **Ib**: wilderness protection
- **II**: ecosystem protection and recreation

- **III**: conservation of specific natural features
- **IV**: habitat and species management
- **V**: landscape/seascape and recreation
- **VI**: sustainable use of natural resources
Protected areas & mining

History of negative interactions:
- Conflicting landuse objectives
- Loss of natural and cultural values (real & perceived)
- Poor EIAs
- No lasting economic benefits beyond mine life (c.f. tourism)
- Inequitable distribution of benefits
- Mine accidents
- Indirect impacts - associated infrastructure, speculative human migrations

Therefore as perceived by many conservationists, mining ..
... can have a huge environmental impact ...

Thus, the Copper Mines, Bingham Canyon, Utah, USA, are half a mile deep, two and half miles wide
… can alter the landscape at a regional scale …

As here with gold mining in Papua New Guinea
… is sometimes undertaken illegally …

As here with gold mines in Kalimantan, Indonesia
… and may threaten protected areas …

As here, at the Ranger Uranium Mine, an enclave within the Kakadu National Park and World Heritage site, Australia
even if these protected area are many miles away.

As here, in the Guadiamar Valley, Spain, where a flood from a collapsed tailing dam threatened the Doñana National Park and World Heritage site.
Protected areas & mining

But also some positive interactions:

- Positive contributions to livelihoods & poverty alleviation
- Increasing co-operation and awareness between mining & conservation interests
- Direct & indirect contributions to protection & management
- Contribution to improved knowledge of biodiversity
- Improved technology - minimal impact operations, better restoration
- Recognition that mining itself part of our cultural heritage

so conservationists also recognise that ….
... some excellent environmental work is being done by mining companies...

As here, where restoration after sand mining is taking place at Richards Bay, South Africa
... vital research is being sponsored ...

As here, in Irian Jaya/West Papua, where Freeport McMoran is supporting work on tropical glaciers, biodiversity etc.
.. and some mining operations have respected protected areas.

As here, where a road has been taken around the Huascaran NP and World Heritage (Peru) to give access to a mine, rather than through it.
IUCN positions on mining

• mining and protected areas
• World Heritage and mining
• best practice
• dialogue and collaboration
IUCN policy on mining and protected areas

IUCN resolution adopted at Amman World Conservation Congress, October 2000:

- recognises need for clear guidance on mining and protected areas
- based on a draft developed within WCPA
- uses the IUCN protected area categories as a foundation, thus:
  1- in Categories I to IV- recommends no mining (<4% of earth’s surface)
  2 - in Categories V & VI - some mining may be acceptable, but must be compatible with P. A. objectives, subject to EIA and strictly controlled
  3 - strict controls over possible mining around all protected areas
  4 - no easy de-designation or boundary adjustment
IUCN, World Heritage and mining

- WH Convention a legal instrument to protect cultural & natural heritage of outstanding universal value
- WH sites are the best sites of all - 138 natural and 23 mixed sites (<1% of earth’s surface)
- IUCN assists governments by evaluating new nominations, and monitoring established sites
- Contentious issues re mining & WH sites in many countries - Yellowstone/USA, Huascaran/Peru, St.Lucia /South Africa, Congo, Donana/Spain, Kamchatka /Russia, Kakadu/Australia etc.
World Heritage and mining

- ICME dialogue - Biodiversity Roundtable, March 2000
- UNESCO, IUCN and ICME World Heritage & Mining Workshop September 2000, which:
  - received case studies
  - produced joint statement of 10 principles
  - made agreed recommendations to WH Committee, State Parties, WH managers, industry
- but agreed to differ over issue of respect for WH sites
  (IUCN position: since WH sites are the best protected areas, policies on mining and protected areas should certainly apply to WH sites)
IUCN and best practice

IUCN has worked with the mining and energy sectors, and conservation NGOs, to promote best practice.
Issues for debate

mining and conservation interests seem to agree that …

- mining plays an essential role in society
- a sustainable future is vital
- some areas should be no-go for mining (but which?)
- land use planning decisions should be based on best available information & science
- all environments should be treated as sensitive
- best practice, minimal impact approaches are desirable at all stages of mining cycle
- there is a need for on-going dialogue and co-operation
But mining and conservation interests do not seem to agree on ...

- **Which** areas are, or should be, ‘no-go’ to mining
- whether mining and biodiversity conservation objectives are compatible in protected areas categories I to IV
- the assertion that biodiversity conservation and mining are equally valid landuses
- how to identify future protected areas and future areas with mining potential
- the importance of the argument that mining can positively assist conservation - should this be allowed to compromise the rationale for protected areas?
Scope for collaboration between mining and conservation interests

Some suggestions:

- Continuing dialogue, within and beyond MMSD
- Best practice guidance (e.g. on all stages of the mining cycle; in different biomes, e.g. arid/semi arid zones; EIA; stakeholder involvement; mining, biodiversity and CBD)
- World Heritage & Mining (e.g. advice to WH Committee; case studies; industry commitment to respect WH sites)
- Vth World Parks Congress (Durban 2003): workshops; showcase good work; build strategic alliance between industry & protected areas
- Information sharing
- Innovative alliances, e.g. certification of mining operations
Conclusions

- Protected areas are vital to conservation of biodiversity and much else besides
- IUCN has adopted a strong view on mining in these areas - and especially on WH sites
- If special status of protected areas is respected, IUCN believes there are many fruitful areas for co-operation
- A large common agenda can be developed based around best mining practice & other areas of collaboration