



# Mining, Biodiversity & Protected Areas

## An IUCN viewpoint

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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?

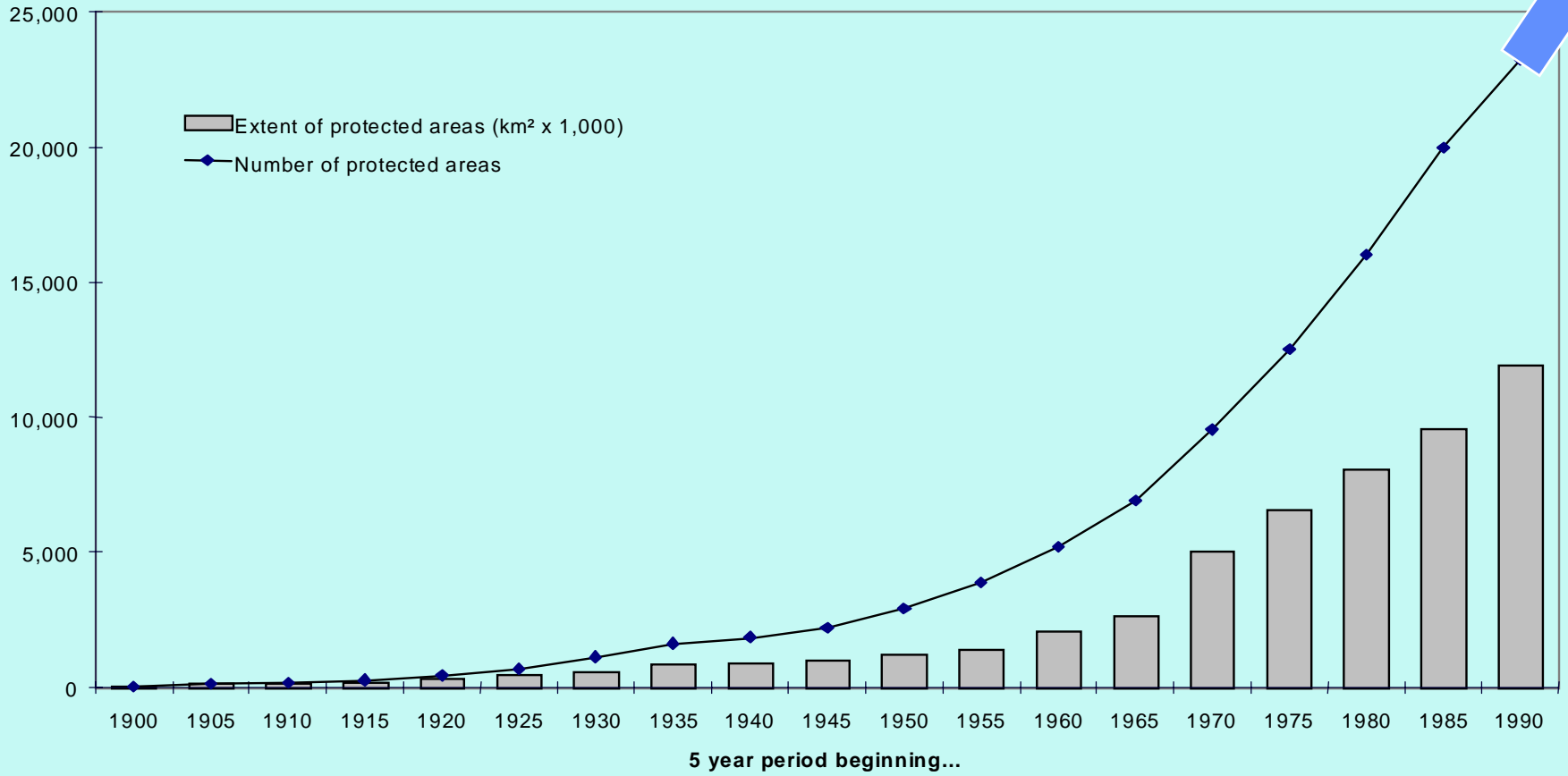
IUCN definition:

- ◆ “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**

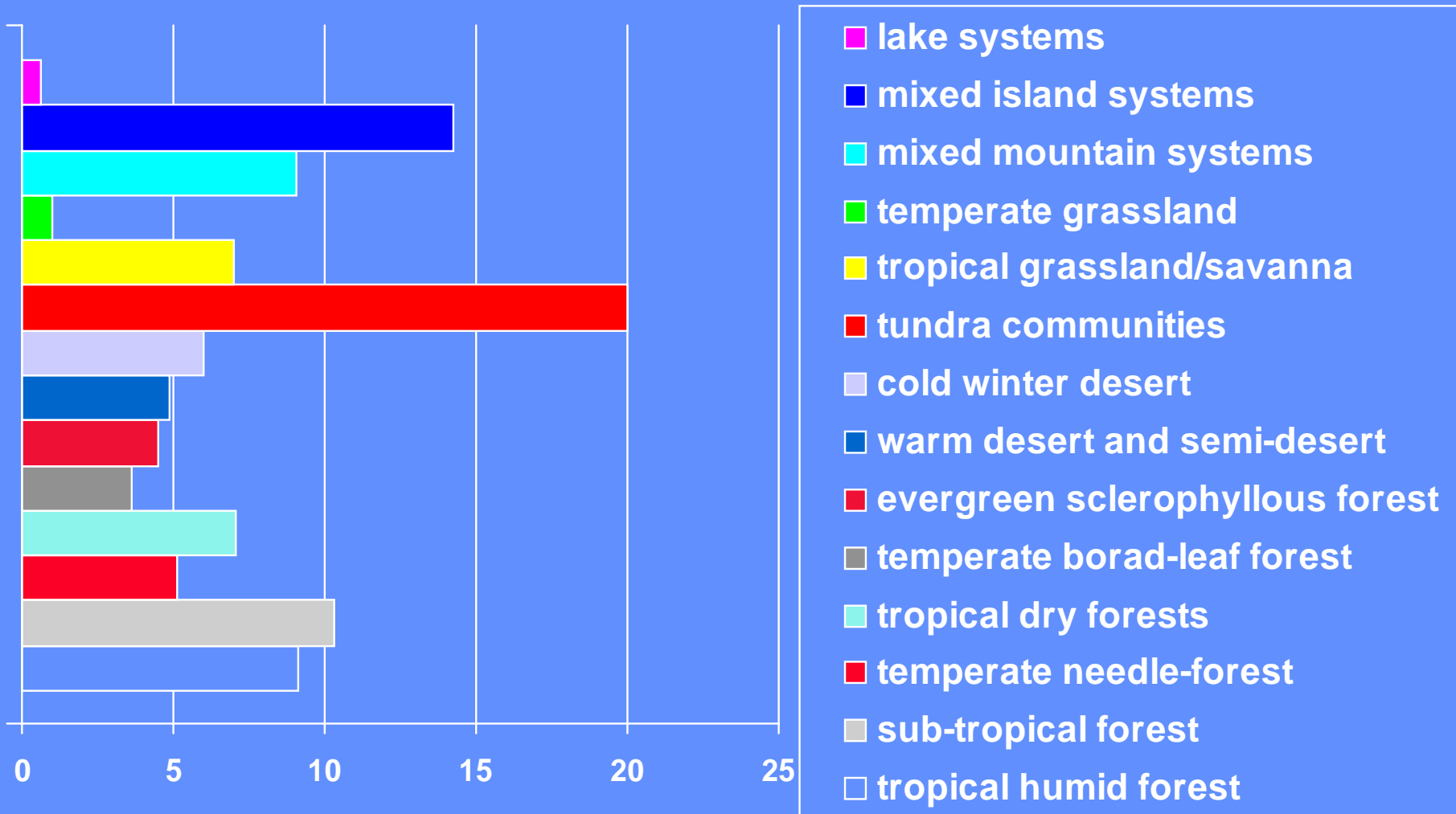
# A century of growth in protected areas



# 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



# 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**



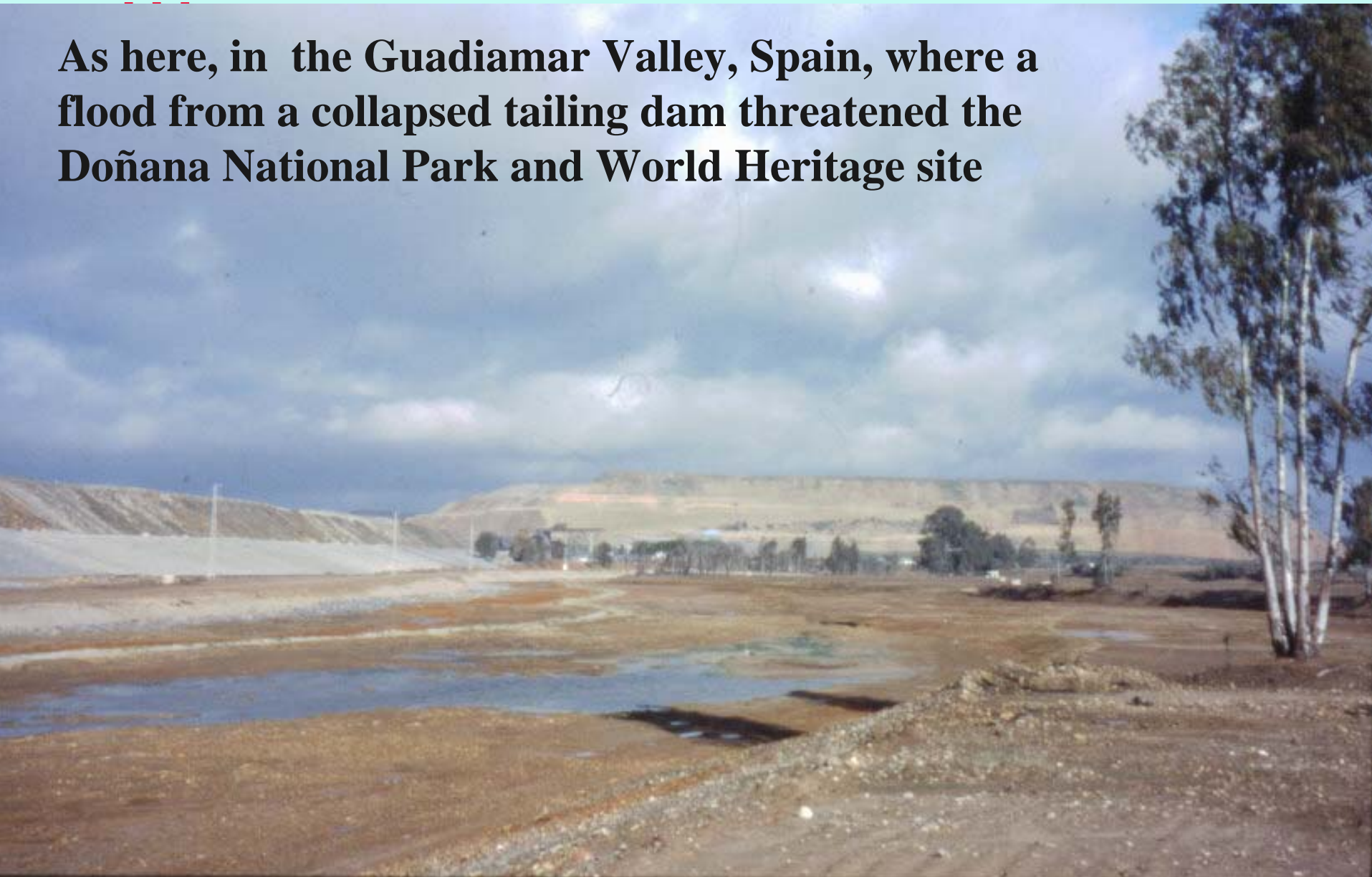
*... and may threaten protected areas ...*

**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

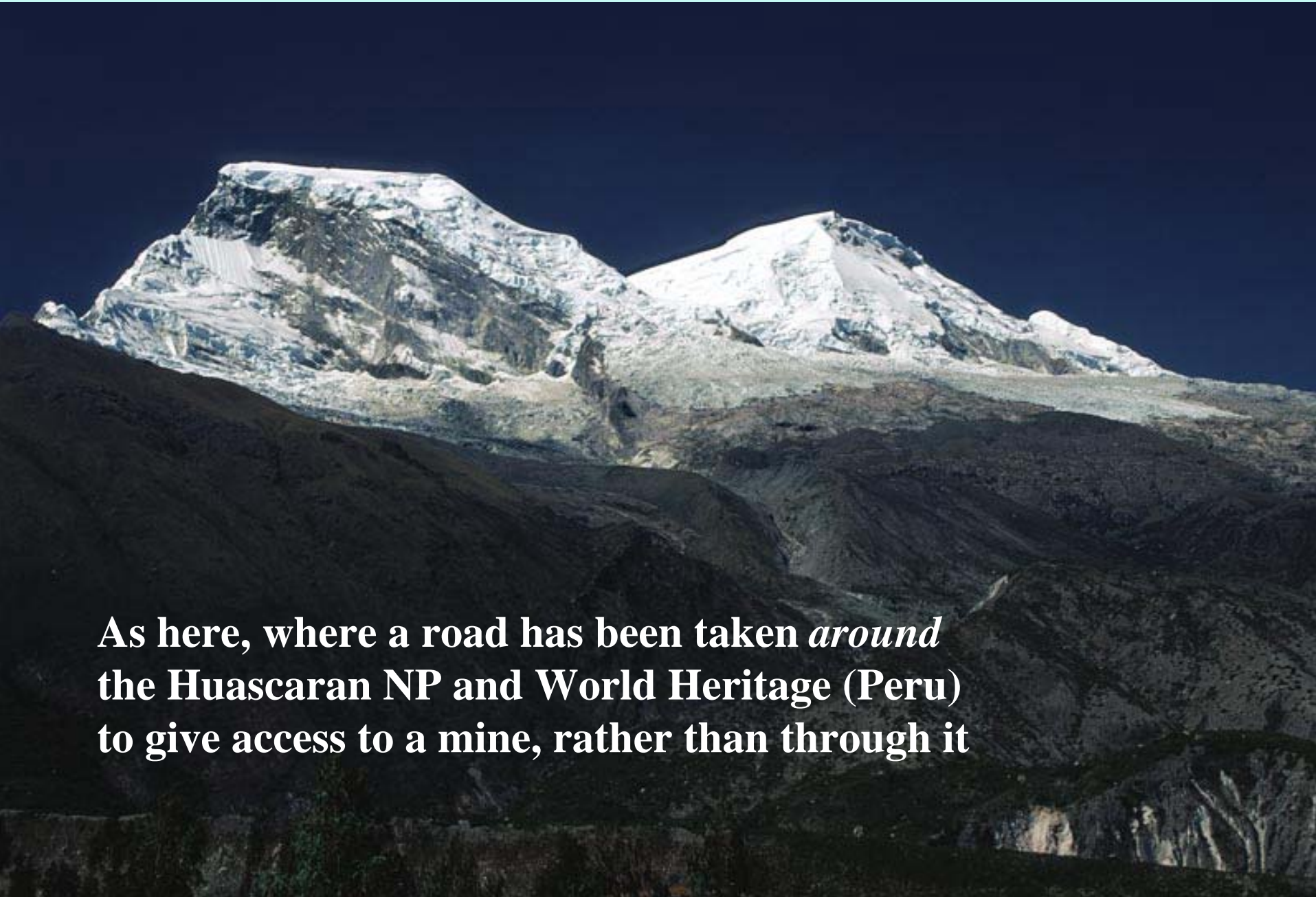


*... vital research is being sponsored ...*

**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 Huascarán 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, Huascarán/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)**
- ◆ **V<sup>th</sup> 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**