ESIA for the proposed Baynes Hydropower Project:

Public Scoping Meeting: Windhoek
Special Arrangements

- Visitors from Kunene Region – Liaison Officer will translate for them.
- Meeting filmed.
- Microphones to be used to ensure that everything said is audible.
Purpose

- To provide an Overview over the ESIA Process
- To provide the Technical Background to the Project
- To present the potential Impacts already identified
- To provide opportunity to I&APs to add to the list of potential social and environmental impacts
- To summarise and agree upon the issues identified during the meeting
- To provide an open forum for discussion
- To summarise the way forward
### Purpose and Structure of the Meeting

#### Meeting Structure

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**Speakers:**
- Mr. J Iita
- E Simon
- M Everett
- J Langford
- E Barrett
ESIA Process and Progress

Phase 1: Scoping
Determine scope of EA

Phase 2 Environmental and Social Assessment
- Analyse impacts
- Determine mitigation measures

Decision making

Development
- Development not approved
- Appeal

Development approved

Implementation
Phase 1: Scoping

- Policy and Regulatory Review
- Desk Review of previous studies and existing data
- Scoping Workshops
- Gap Analysis
- Draft TOR and Work plan for Phase 2
- Disclosure and consultation
- Final TOR, Programme and PCDP for Phase 2
Baynes and Epupa Sites selected as preferred options

Epupa Site:
- technically preferable, but
- far more disruptive to the life of the local Himba

Baynes Site:
- Would result in far less ecological and social impacts
- Smaller inundated area
- Less destruction of habitat and natural resources
- Less water loss through evaporation
- Significantly reduced human impact (loss of access to grazing, physical resettlement, loss of grave sites)
Over the past decade, local and regional power demand has increased, especially for mid-merit and peak electricity. This has necessitated the PJTC to further consider the development of the Baynes Hydropower Project. The PJTC appointed:

- Cunene Consortium, consisting of four Brazilian engineering companies, to revise the 1998 Feasibility Study of the Baynes Hydropower Project;
- Environmental Resources Management (ERM) to conduct the Environmental and Social Impact Assessment (ESIA).
Potential Biophysical Impacts

• The new water environment
  – Permanent land take
  – Impacts on reservoir water quality
  – Sedimentation and erosion

• Downstream impacts
  – Short term impacts during inundation ("first filling")
  – Long-term impacts on river levels during operation
  – Long-term impacts on downstream river morphology and water quality
Potential Biophysical Impacts

- Effects of the reservoir on groundwater and water resources
  - Short term effects on water supplies during construction
  - Long term effects on the water table
  - Long term effects on community supplies

- Water Pollution
  - Risks during construction
  - Long term risks to water quality
Potential Biophysical Impacts

• Impacts on aquatic ecology
  – Short term impacts during construction and inundation
  – Long term effects of seasonally-fluctuating reservoir levels
  – Impacts downstream
  – Effects on fish
    • Changes in species composition and population density
    • Effects on migratory fish
Potential Biophysical Impacts

- Impacts on terrestrial habitats
  - Loss of vegetation
  - Effects of changes in the water table
  - Effects on wildlife, including birds

- Impacts on wildlife
  - Short term effects of inundation on wildlife
  - Long term effects on wildlife
  - Effects on birds
  - Temporary effects on wildlife during construction
    - Disturbance of wildlife
    - Effects of noise, traffic and other human activity
    - Increased hunting pressure during construction and inundation
  - Secondary impacts from movements of people
Other potential Impacts

- Carbon trading under the Clean Development Mechanism (CDM)
- Susceptibility to climate change
- Trans-boundary watershed management
CAUTION

Key word - POTENTIAL

- Identified from previous study
- Only identify potential impacts
  - Nothing said yet about its intensity, duration, probability, significance or ability to adapt.
  - Benefits – also not exhaustive and more may be identified. During mitigation/enhancement measures – these may increase.
- Construction and operation issues combined
Potential Socio-Cultural and Economic Impacts

IMPACTS

SOCIO-CULTURAL ISSUES

- Change in Social Structure through outside influences
- Workers (excluding permanent employees) remain behind and contribute further to change in Social Structure through outside influences (small number)
- Informal settlement
- Changes in social fabric
  - Household labour patterns - emigration
  - Domestic lifestyles – emigration, displacement
IMPACTS

SOCIO-CULTURAL ISSUES (Ctd)

• Influence on local institutional structures
• Loss of control over land and resources
• Barrier Effect
• Socio-cultural heterogeneity
Potential Socio-Cultural and Economic Impacts

IMPACTS

SOCIO-CULTURAL ISSUES (Ctd)

- Inundation of cultural heritage – cultural linkages and land claims
- Inundation of some pastures and riparian vegetation
- Potential displacement

Social Pathologies

- Crime
- Alcohol and Drug Abuse
- Prostitution
Potential Socio-Cultural and Economic Impacts

IMPACTS

SOCIO-CULTURAL ISSUES (Ctd)

• Roads/Access
  • Erosion of Himba Culture – influence on the youth
  • More tourists visiting – diminish attraction
  • Land take for infrastructure, construction material

• Health Impacts
  • HIV/AIDS
  • STDs and other communicable diseases
  • Water Borne disease – Bilharzia, Malaria, Others
SOCIO-CULTURAL ISSUES (Ctd)

- Modern Services
  - Erosion of Himba Culture
  - Initial shortages especially health services
  - Land take for infrastructure and services
IMPACTS

ECONOMIC ISSUES

• Elite Capture of benefits
• Poor likelihood of jobs to locals
• Damage to Tourism
• Loss of productive assets – land, pastures and riparian resources
• Unsustainable use of natural resources such as firewood, building materials and waste generation
• Rapid move to commoditisation of stock – breakdown of social security system.
Potential Socio-Cultural and Economic Impacts

**BENEFITS**

**SOCIO-CULTURAL ISSUES**

- Improved Service Provision – education, medical facilities, government services, consumer goods, etc. (conditional)
Potential Socio-Cultural and Economic Impacts

BENEFITS

ECONOMIC ISSUES

• Stimulus to the local economy – conditional to the extent of elite capture
• Ready market for meat in close proximity
• Availability of some unskilled employment opportunities
• Potential growth in retail trade opportunities – dependent on extent of elite capture
• Opportunities for tourism and fishing
• Improved livestock marketing conditions for the north-west
BENEFITS

ECONOMIC ISSUES

• More tourists, increased viability of community based tourism

• Potential tourist attraction – more water based opportunities

• National Benefit
Card Writing Exercise

Purpose:

• To give opportunity to all to augment the list
• Emphasis on addition
• Two green cards for biophysical issues and
• Two yellow cards for socio – cultural and economic issues
• Can get more cards if more burning issues

Please remember:

Only one idea per card
Write as large letters as possible