

BATOKA GORGE HYDRO-ELECTRIC SCHEME (BGHES) -ZAMBEZI RIVER - ZAMBIA AND ZIMBABWE

Environmental and Social Impact Assessment Disclosure

04 December 2020

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Agenda

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- 3. ESIA Process Undertaken To Date
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- 5. Impact and Displacement of Tourism Activities
- 6. Next Steps
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Webinar Etiquette

- As a participant, you will be muted for the duration of the presentation
- During this time you as participant can use the Q&A function (bottom tool bar of your screen) to pose questions and comments to the speaker. Please do not use it for other topics or internal discussion
- These questions and comments will be addressed during the discussion session following the presentation
- To ask a question during the Q&A session please raise your hand using the function on your tool bar
- We will record the meeting and share the presentation on the Project website



ESIA Process To Date

Regulatory Framework

- Three separate draft ESIAs have been prepared for the Project to asses potential physical, biophysical, and social impacts of the Project, and propose measures to mitigate adverse impacts and enhance project benefits
- Three ESIA were prepared under the Zambia and Zimbabwe Environmental Management Acts and associated guidelines
- International environmental and social guidelines and standards applicable to the BGHES, include
 - World Bank Environmental and Social Safeguard Policies
 - The International Finance Corporation (IFC) Performance Standards on Environmental and Social Sustainability (2012)
 - World Commission on Dams (WCD) Guidelines and Recommendations
 - The International Hydropower Association (IHA) Sustainability Guidelines and Sustainability Assessment Protocols
 - The Southern African Power Pool (SAPP) Environmental and Social Impact Assessment Guidelines for Hydroelectric Projects and Transmission Infrastructure in the SAPP region

The ESIA Process



Scoping

Identifies the likely changes (impacts) that will happen because of the Project

Baseline Data Collection

Collect information to understand the environment and people in the area before the Project begins

Impact Assessment

Describes and assesses how the Project could affect the local environment and people, both negatively and positively, how significant the changes (impacts) are likely to be, and how the impacts could be managed

Project Description

Need for the Project

The Zambezi River has a vast hydropower energy potential. Hydropower is considered the most feasible and reasonable electrification option for both countries

BGHES would contribute significantly to electricity supply of Zambia and Zimbabwe, and to distribute power to southern African countries under the Southern African Power Pool (SAPP). The Project will aim to:



BGHES Proposed Scheme Layout



Batoka Gorge Site

BGHES Project Status

- Engineering Feasibility Studies by Studio Pietrangeli were completed
- Draft ESIA reports completed and placed in the public domain in March 2020, currently ESIA process is at Public Disclosure phase
- The Developer is carrying out predevelopment activities including refining and optimizing the feasibility studies. Developer has since submitted proposal which is currently under Review

Current Pre-Development Activities by the Developer

- Bathymetric Surveys
- Additional Geotechnical Studies
- Aerial Topography Surveys
- Environmental and Social Impact Assessment for Additional Transmission Lines

BGHES Project Timeline



Impact and Displacement of Tourism Activities

Gwyn Letley

Tourism Economic Assessment - Approach

Study approach

- Existing tourism statistics collected from relevant organisations & government departments
- Tourism business surveys undertaken in Feb 2015 and again in Jul/Aug of 2019
- Focused particularly on tourism activities most likely to be affected by the BGHES

Determining tourism value & economic impacts

- Tourism business survey:
 - Detailed questionnaire
 - Face to face interviews in Livingstone and Victoria Falls
 - Some telephonic interviews
 - Same questionnaire used in 2019, 80% re-interviewed
- From these interviews we estimated:
 - Visitor numbers, activities and expenditure
 - Direct and indirect economic impacts
 - Contribution of Batoka Gorge to tourism value of study area

Tourism questionnaire	
1: Description of	2: Description of
business	clientele
Type of business	Origins
Services offered	Activities undertaken
Capacity	Proportion undertaking
Sales, rates, occupancy	affected activities
Seasonal patterns	Reasons for visiting
3: Business impact on economy	4: Longer trends
Staff numbers	Age of business
Wages	Planned changes
Expenditure	Fluctuations
Location of spend	Impacts of BGHES on
Turnover	business

Tourism Economic Assessment - Context

Victoria Falls and Livingstone

- Tourism & associated sectors are the main source of income
- Hotels, safari lodges and activity providers contribute extensively to employment in the study area
- Tourism has fluctuated over the last two decades, but stabilising & increase in numbers more recently
- Improved hotel occupancy rates in 2018 in Vic Falls
- KAZA UNIVISA system has made it affordable and easier for foreign tourists to visit both sides of the Falls
- Any impacts on tourism are felt heavily by the towns and their communities

White water rafting

- Most popular activity downstream of the Falls
- Played a vital role in establishing adventure tourism in study area
- Considered to be one of the best WWR experiences in the world
- Still plays a major role in attracting tourists to the area
- Currently operates 310 days per year:
 - Half-day and full-day, or overnight 2-5 days
 - Estimated 21 000 trips each year

Other tourism activities

Birding, hiking and angling in the Gorge are also very popular



Tourism Economic Assessment – Key Findings

Overall economic impacts

- Tourism in study area makes significant contribution to GDP
- Accounts for 23% of the value of tourism in Zimbabwe and 10% in Zambia

Tourism value of Batoka Gorge

- Activities linked to the Gorge contribute just under US\$5 million in direct tourism expenditure each year
- Additional US\$1.4 million from accommodation
- WWR largest contributor, generates about 50% of total expenditure
- 20% of tourists to study area take part in at least one of the gorge activities
- Tourists participating in gorge activities spend about US\$74 million each year

Total annual tourism expenditure attributable to the Batoka Gorge

Туре	Estimated value (US\$)
Accommodation	1 407 805
WWR	3 340 000
Birding & hiking	82 279
Angling	158 300
Scenic flights	1 350 000
Canyoneering	16 000
Subtotal	6 354 384
Park fees	506 600
Total	6 860 984

Tourism Economic Impact - Economic Displacement of River-Based Tourism

Baseline

- The rafting industry has played a vital role in establishing adventure tourism
- 10 WWR operators in Project Area in 2019
- +/- 250-300 people employed. Difficult to determine exact numbers of part-time/casual staff (fluctuate with each season)
- Almost all employees are from local communities
- WWR largest contributor to tourism value downstream of Falls, US\$3.4 million in tourist expenditure annually.

Impact Statement

- BGHES has adopted a variable operating level approach
- Prevents rafting during high-water season (Jan-July): river reach from rapid 10 submerged by reservoir
- Rafting would only operate from rapid 1 to rapid 9/10 during low-water season (Aug-Dec)
- This has changed since 2015, when only FSL 757m ASL was being considered year-round.

Impact Significance Rating Before Mitigation	Significance Rating After Mitigation
Major Negative Impact	Moderate Negative Impact

Key management measures

- Separate RAPs and LRPs will be commissioned by ZRA for those Project components outside of ERM's current scope
- RAPs/LRPs for water users (specifically tourism operators), undertaken at a later stage (inundation proposed in 2027/2028)
- To be undertaken in accordance with the regulatory requirements of Zambia and Zimbabwe, and the requirements of IFC PS5 and WB ESS5



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Tourism Economic Impact - Economic Displacement of Non-river Based Tourism Activities

Baseline

- Other tourism activities in the gorge include birding, angling and hiking
- These activities employ fewer people than the rafting industry, but are nonetheless very popular
- Offered by activity providers as well as Lodges situated along the Gorge
- Activities contribute over US\$250,000 annually

Impact Statement

- Inundation of rapids and loss of habitat for river borne insects will reduce numbers of birds and bats in the Gorge. Increased
 water levels in the Gorge will also remove prime nesting habitat
- Hikers will not be able to hike along the bottom of the Gorge and overnight hiking and camping trips will not be feasible to
 operate as a result of increased water levels

Impact Significance Rating Before Mitigation	Significance Rating After Mitigation
Major Negative Impact	Major Negative Impact

Key management measures

- RAPs and LRPs will be commissioned by the ZRA for those Project components outside of ERM's current scope
- RAPs/LRPs for non-river users, only undertaken at a later stage, inundation of Batoka Gorge is proposed in 2027/2028
- These separate RAPs/LRPs commissioned by the ZRA will be undertaken in accordance with the regulatory requirements of Zambia and Zimbabwe, and the requirements of IFC PS5 and WB ESS5

Next Steps

Next Steps: ESIA

- Stakeholder can submit additional comments and questions to ERM until 25 January 2021 when the ESIA comment period will close
- All comments received in this forum, as well as additional comments submitted, will be included in the ESIA Comment and Response Report
- Comments, together with a response from the Project team will be included in the ESIA Comments and Response Report to be submitted to the Authorities
- The final ESIAs and associated documents will be submitted to both the EMA and ZEMA for review and consideration

Next Steps: Economic and Physical Displacement to Water Users

- Separate RAPs/LRPs will also be commissioned by ZRA for the Displacement (physical and economic) of upstream / downstream water users
- Resettlement and livelihood restoration will be undertaken in accordance with the regulatory requirements of the Republic of Zambia and Zimbabwe, and the requirements of IFC PS5 and WB ESF5

Focus Group Discussion



Thank you

Please feel free to reach out to ERM via email at:

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