

Environmental and Social Impact Assessment: Batoka Gorge Hydro-electric Scheme (HES) – Stakeholder Engagement During Scoping

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The world's leading sustainability consultancy



Kaizen Consulting International
Environment & Sustainable Development Consultants

Objectives of this Public Open Day

- Introduce the proposed Batoka HES Project
- Introduce the ESIA Process to stakeholders;
- Develop a better understanding of the project affected area;
- Develop an understanding of likely issues of concern;
- To comply with the country environmental regulations governing the development of infrastructure projects;
- To understand further engagement requirements.

Open Day Proceedings

- Posters of interest have been placed in the hall for your perusal at your own convenience
- Relevant team members have been positioned to answer questions/gather comment as required
- They will also assist by presenting you with the content of these posters where required
- Comments and questions as well as responses will be recorded
- You are also encouraged to complete a comments sheet
- Information will be communicated in English, but please communicate with the team if you have a specific requirement.

Introductions: Zambezi River Authority

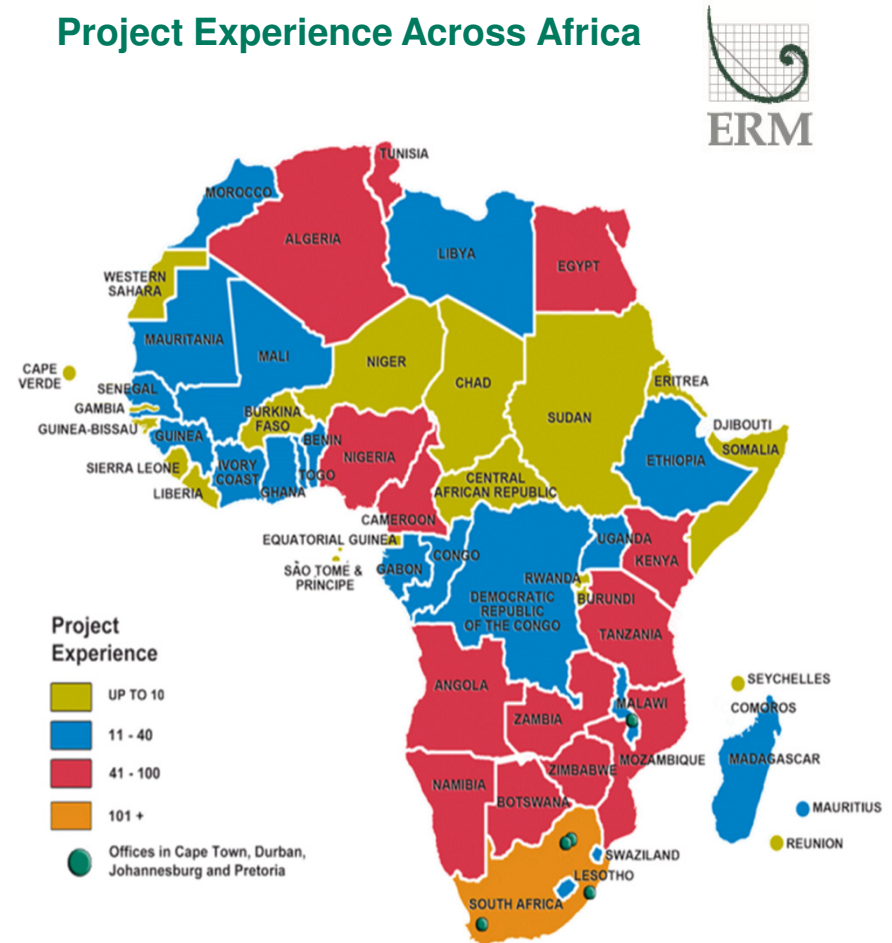
- The Zambezi River Authority (ZRA) is the Client and project proponent. The ZRA was established as a body corporate in 1987 by parallel legislation in the Parliaments of Zambia and Zimbabwe following the reconstitution of Central African Power Corporation - under the Zambezi River Authority Acts (Act No. 17 and 19 Zambia and Zimbabwe respectively) and is jointly owned by the governments of Zambia and Zimbabwe in equal proportions.



Introductions: Environmental Resources Management (ERM)

- More than 35 years of experience of working with development agencies, developers and governments to address the environmental and social impacts of economic development worldwide
- More than 4,500 staff operating in 40 countries
- Over 20 years of experience of undertaking projects in accordance with environmental and social (including resettlement) safeguard policies for IFI/World Bank funded development programs across Africa, Europe, Asia, the Americas and the Middle East.
- ERMs consulting services typically include:
 - Environmental and Social Impact Assessment (ESIA);
 - Resettlement Action Planning (RAP);
 - Sustainability Strategies and Management Systems; and
 - Project Finance assessments and reviews

Project Experience Across Africa



Local Partners

Black Crystal

- ERM's local partner in Zimbabwe
- One of Zimbabwe's leading reputable consulting companies, offering a quality service in environmental, socio-economic and cultural heritage consultancy services.
- Deliver technical consulting services to private industry, NGOs, architects, engineers and public sector clients.
- Registered with the Environmental Management Agency of Zimbabwe to undertake environmental impact assessments (EIAs)



Kaizen Consulting International

- ERM's local partner in Zambia
- Consultancy services include EIAs and Environmental Management Plans, solid waste management master plans, sustainable rural livelihood and strategic urban development plans, natural resource management and institutional capacity building, strategies for provision of water supply, training in Cleaner Production, EMS standards and ISO 14000 implementation and human resource development issues.
- Registered with the Zambian Environmental Management Agency (ZEMA), to undertake EIAs.



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What is the Project?

- In order to meet the growing demands for power, the Zambezi River Authority, alongside the Governments of Zimbabwe and Zambia, have commissioned ERM and its local partners to undertake an Environmental and Social Impact Assessment (ESIA) of the Batoka Gorge Hydro-electric Scheme (HES).
- The ESIA will be developed in line with national legislative requirements of both Zambia and Zimbabwe and international best practice (e.g. World Bank Safeguard Policies and IFC PS)
- In-country legislation includes:
 - Statutory Instrument No. 7 of 2007 the Environmental Management (Environmental Impact Assessments and Ecosystems Protection Regulations) in Zimbabwe and
 - in Zambia, it is the Environmental Management Act, 2011 and Statutory Instrument 28 of the 1997 EIA Regulations.
- The HES will be located 47km downstream of Victoria Falls and will provide 1600MW; 800MW will be provided to Zambia and 800MW to Zimbabwe. This could increase to 3000 MW depending on the results of current engineering studies

What is the project?

The Batoka Gorge Hydro-electric Scheme (HES)

- Project infrastructure will include:
 - Dam wall and impoundment;
 - Two power stations;
 - A spillway;
 - Transmission lines in Zambia and Zimbabwe;
 - Access roads in Zambia and Zimbabwe; and
 - Other ancillary infrastructure (such as quarries, spoils area, construction and camps and batching areas and permanent staff housing).



Dam Wall and Impoundment



Transmission lines



Access Roads



Powerhouses

Project infrastructure

Dam wall and impoundment: The proposed high gravity arch dam wall will be 181m in height. The Full Supply Level (FSL) of the reservoir is tentatively set at 762 m above mean sea level. After impoundment to the FSL, the reservoir surface area will cover approximately 23 km².

Power Houses: It is planned that two power houses will be constructed on each river bank, with a total capacity of the scheme being approximately 1,600 MW. The powerhouses are likely to be located outdoor at the dam toe. Each powerhouse will accommodate four turbines. The spillway will be located in Zimbabwe, approximately 2km from the dam site.

Transmission lines: In Zimbabwe it is proposed that the transmission lines will comprise of 2 x 70km 330kV lines, running in parallel, and sharing a common right-of-way, to the existing Hwange 330 kV substation. In Zambia, the line will comprise of 2 x 330kV transmission lines measuring 21km running from Batoka and terminating at a new 330kV substation ZESCO will construct in Livingstone. A second line may also be developed which will run in parallel to the existing 220kV line, terminating at the Muzuma substation in Choma, a distance of approximately 160 km.

Access Roads: Existing roads will be upgraded and new ones will be constructed to allow access to each river bank. In Zambia, it is proposed that the road originating in Palmgrove (near Livingstone) that connects to Mukuni village will be rehabilitated and a new road, measuring 20km in length will be constructed to connect Mukuni to the dam site. In Zimbabwe, the secondary road that starts from the Bulawayo-Victoria Falls main road and connects to Jabula will be upgraded and a new road, connecting Jabula to the dam site (measuring 14km long), will be constructed. The construction of a road downstream from the dam and a bridge that connects the two countries is also proposed, in order to minimise the passage of heavy loaded trucks on the dam crest.

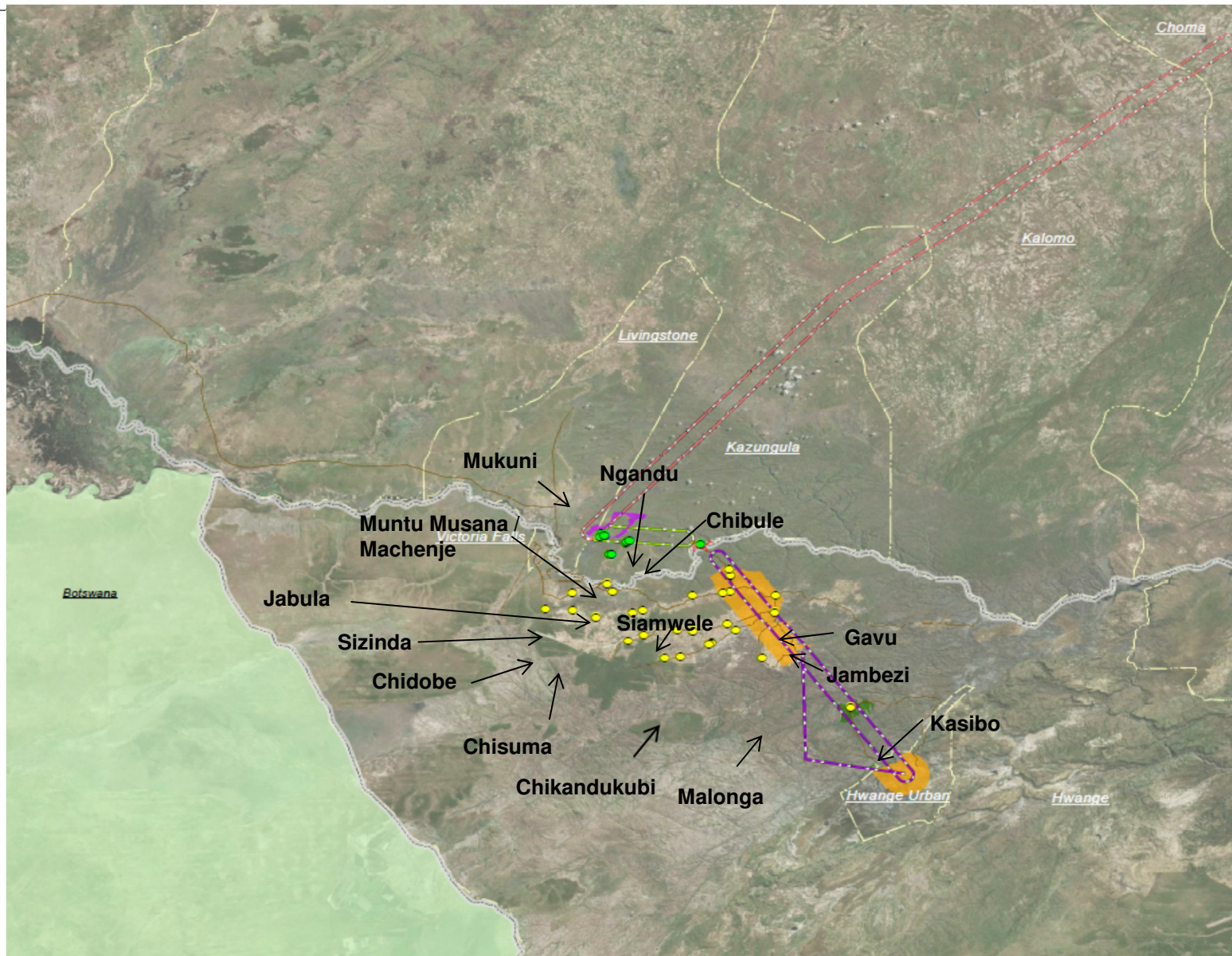
Project programme

Project phase	Duration	Dates
ESIA process	11months	May 2014 – March 2015
Construction: phase 1	1–2 years	2015- 2017
Construction: phase 2	6–7 years	2017–2024
Operation phase	For life of dam	2024 onwards

Where is the Project Located?

- In Zimbabwe, the proposed scheme falls within the province of Matabeleland North and in the Hwange Rural District. It includes the wards of Matetsi, Chidobe, Katchecheti, Nemanhanga, Mbizha, Jambezi, Sidinda, Mashala and Simangani. The traditional authorities in the area of impact include chief Shana, Bishop Matata Sibanda (who is Acting Chief for Mvutu who has recently deceased) and Chief Hwange .
- In Zambia, the main area of direct impact falls under the Southern Province in the Kazungula District, most notably the wards of Mukuni and Katapazi, which fall under Chief Mukuni's jurisdiction. However, impacts will also be felt in Livingstone District, Zimba District and Choma District and if there are downstream impacts, these may be experienced in the District of Kalomo. The traditional authorities in these areas include Chief Musokotwane, Chief Simwatachela, Chief Sipatunyana , and Chief Singani.

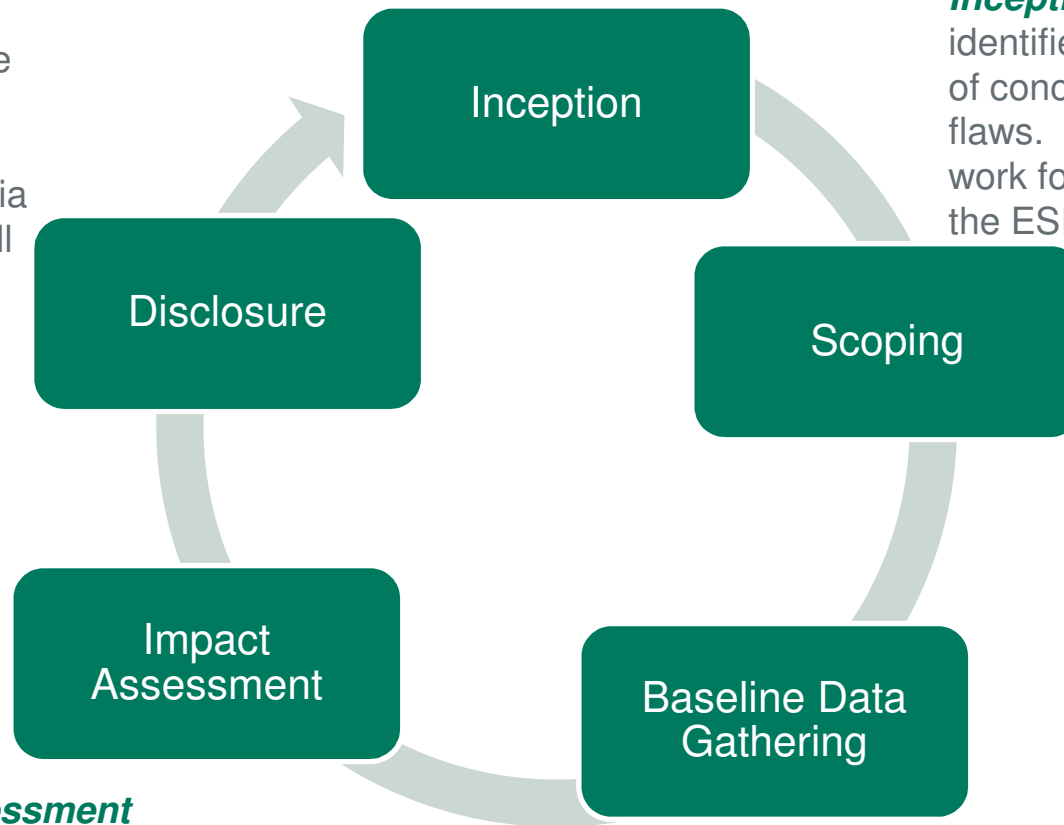
Where is the Project Located?



Environmental and Social Impact Assessment (ESIA)

The ESIA is divided into 5 stages with the primary objectives of identifying and assessing impacts and ensuring that management enhances or reduces impacts if project approved:

During **Disclosure** the ESIA report will be submitted to the Governments of Zambia and Zimbabwe who will review it and issue a decision.



Inception or screening identifies likely key issues of concern, risks and fatal flaws. Defines the scope of work for the remainder of the ESIA.

Scoping identifies the likely changes (impacts) that will happen as a result of the proposed Project. Seeks to involve interested and affected parties.

The **Impact Assessment** assesses how significant the impacts are likely to be, as well as identifying ways to manage them.

Baseline Data Gathering will be undertaken to enhance understanding on the environment and people in the area and how the proposed Project is likely to affect them.

Stakeholder Engagement

- **Stakeholder engagement is a ‘two-way’ process of communication. It will:**
 - Begin as early as possible in the process of identification of environmental and social risks and impacts;
 - Provide information to stakeholders regarding the proposed Project;
 - Identify issues of concern and suggestions of the interested and affected people and incorporate these into the ESIA studies to help with identification of impacts and development of mitigation measures;
 - Be an on-going process throughout the life of the Project
 - Manage expectations;
 - Meet the national and international requirements for ESIA; and
 - Allow the effective participation of disadvantaged and vulnerable groups.
- **Currently 3 phases of engagement proposed:**
 - Notification and Scoping;
 - Feedback on Scoping;
 - ESIA Disclosure



Stakeholder engagement during Scoping

- Advertisements placed in national newspapers
- The distribution of notices / flyers for community
- Circulation of this Background Information Document
- Meeting with national and provincial authorities in Bulawayo/Lusaka
- Meeting with local authorities and politicians (District Councils – Administrator/Chief Executive Officer/Chairman/Relevant Ward Councillors)
- Open day in Harare and Lusaka
- Open day in Victoria Falls and Livingstone
- Community meetings
- Community radio announcements
- Fielding of telephonic comment; and
- Receipt of written comment.

▪

ESIA Activities – Stakeholder Participation

**Stakeholder Meetings /
Open Days**



Key Informant Interviews



Household Surveys



Focus Group Discussions



Potential Impacts



Physical displacement



Tourism



Cultural heritage



In-migration



Economic displacement



Water quality and flow



Health



Biodiversity

Proposed further engagement

- Written comment on the Draft Scoping Report: currently anticipated towards end of 2014
- Feedback meetings on the results of the ESIA : currently anticipated in February 2015

Anticipated specialist studies

- Biodiversity
- Social-economics including health impact assessment and an economic cost-benefit analysis
- Resettlement
- Cultural heritage and archaeology
- Water flow and water quality monitoring .

Thank you

If you would like to enquire further about the ESIA process and proposed Project please contact us on the following:

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