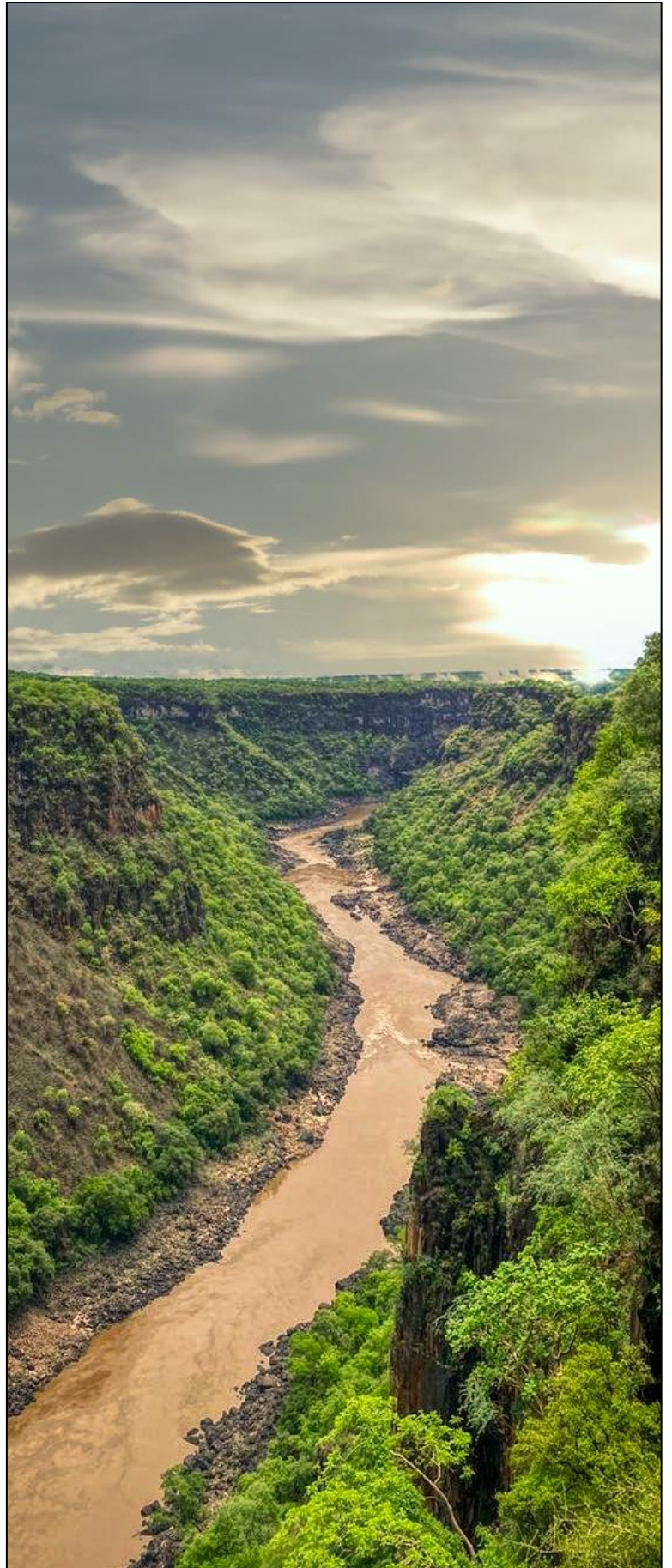


# BIRDLIFE ZIMBABWE

# BIRDWATCH ZAMBIA

## ISSUES & CONCERNS OVER THE PROPOSED 2400 MW BATOKA GORGE HYDRO- ELECTRIC SCHEME

DATE: 17 October 2022



## Preamble

Prompted by issues and concerns related to the Batoka Hydro-Electric Scheme (BGHES) and deficiencies in the Environmental and Social Impact assessment (ESIA) BirdLife Zimbabwe and BirdWatch Zambia developed a position paper on the project from our perspectives as national conservation NGO's based in Zambia and Zimbabwe, that are both additionally aligned and partnered to global conservation initiatives. The document entitled "Position paper on proposed Batoka Gorge Hydro-Electric Scheme" (attached as Appendix 1) was published on 24 January 2021 and presented proposed measures and processes to enhance the protection of the Batoka Gorge OUV as the draft ESIA did not address the impact of the project in its entirety. Subsequent to publication of the position paper there was a follow-up Survey for the Status of Taita Falcon (*Falco fasciinucha*) and Rock Pratincole (*Glareola nuchalis*) in the Batoka Hydro Electric Project Area, conducted November/December 2021, and World Heritage Centre/IUCN Reactive Monitoring mission to Mosi-oa-Tunya / Victoria Falls (Zambia / Zimbabwe), 9 – 13 February 2022. The respective findings of these missions have been accordingly incorporated into our position and an amended summary of our issues and concerns are hereby submitted in response to the Public Notice on the Batoka Gorge 2400 MW Hydropower Project Review.

## Issues & Concerns

As organizations that are focused on the conservation of avian biodiversity and the preservation of the environment it occupies, BirdLife Zimbabwe and BirdWatch Zambia are highly opposed to the construction of an impoundment and hydropower scheme on the Batoka Gorge. The ESIA carried out by ERM is fully aware and primarily focuses on the main impact of this project which will permanently submerge a very rare, restricted and unique habitat and a site of scenic and world heritage value. There is no scope for substantial mitigation of the environmental and aesthetic impacts of the project and are defined as such in the ESIA. Once the gorges are flooded the habitat and natural ecological function is irretrievably lost. However, in referring to project documentation (ESIA, CESMP and OESMP), attending of the project public disclosure meetings, and investigating other sources, we believe there are a number of issues, concerns and deficiencies that need to be addressed, or at least require further explanation before issuance of an ESIA certificate.

### 1. Impacts on the Outstanding Universal Value (OUV) of the Mosi-oa-Tunya/Victoria Falls World Heritage Site

Section 12 of the ESIA includes an assessment of the expected impacts of the BGHES on the Mosi-oa-Tunya/Victoria Falls World Heritage Site. This section concludes that the project's impacts on OUV are expected to present a 'Major Negative Impact', but suggests that offsets be investigated. This suggestion ignores the fact that a World Heritage Site's OUV is **irreplaceable** and that impacts on OUV **cannot be offset**. The BGHES proposal, in its current form, is therefore **fatally flawed** and should not be approved.

The following decisions of the World Heritage Committee warrant reiteration in this regard:

- Decision 40 COM 7, which stated the Committee's position that "the construction of dams with large reservoirs within the boundaries of World Heritage properties is **incompatible with their World Heritage status**".

- Decision 44 COM 7B.177, wherein the Committee urged the State Parties **not to proceed with the BGHES** “if the proposal will encroach on the property or has the potential to impact on the OUV”.

Rather than endeavouring to push ahead with this project on the basis of offsets and in contravention of Zimbabwe and Zambia’s commitments under the World Heritage Convention, it is crucial that **options be investigated for avoiding/minimising negative impacts to a level that is acceptable for a World Heritage Site**. Indeed, this point was recently stressed in the draft Mission Report from the World Heritage Centre/IUCN Reactive Monitoring Mission to Mosi-oa-Tunya/Victoria Falls. To this end, the draft Mission Report called for the ESIA to be revised to include, *inter alia*, “[a]lternative scenarios including an **analysis of the scenario where the dam wall is reduced to a level where the headwaters do not impact the property, and thereby its OUV**”. This has not been done.

## **2. Commercial/Financing Strategy**

### ***Sources of Funding***

The proposed project commercial/financing structure indicates that the project will be financed using pooled funds. Pooled investment funds, are typically assets of multiple financiers aggregated into single investment vehicle(s). This BGHES project has broadly highlighted the following as the main potential sources of financing;

- Government of Zambia and Zimbabwe.
- International Donors.
- Development Finance Institutions; Acting as MLA.
- Export Credit Agencies and Commercial Lenders (Project Finance).

The proposed project does not conform to the many Development Financing Institutions being presented here e.g. IFC/World Bank. It will be very difficult putting together resources for the successful completion of the project, while adhering to the mitigation measures and best practices – which are expected to be resource intensive. The proposed project is in breach of IFC performance standard 8 which requires consistency “with the Convention Concerning the Protection of the World Cultural and Natural Heritage”, ensuring that “clients protect cultural heritage in the course of their project activities”. This will further pose a challenge in attracting financing from International Donors.

The two countries have over the last decade contracted substantial amounts of debt, requiring bail out packages from the IMF to stay afloat. This implies that the proposal to utilize the “lowest cost forms of debt finance” will be difficult to undertake. The countries are high risk borrowers and will not be able to contract low cost financing.

Furthermore, the projects’ financial risk management proposal is highly dependent on external variables – without presenting practical security for the finances to be pooled under the proposed project, which will exacerbate the possibility of attracting low cost financing.

Given the context above, it is highly anticipated that if approved, this project will not take the stipulated period to finalize. The delays in project development will heighten the environmental costs of the project and impede the ability of developers to fully conform to the critical conditions required in implementing this highly risky proposed development.

### ***Public Private Partnership’s (PPP)***

The project further proposes PPP for the financing and ownership of Batoka North and South Power SPVs.

The level of inconsistency in PPP policies in Zambia and Zimbabwe, among other causes, has resulted in a high rate of failure in PPP projects in the two countries. Additionally, the management of risk during the cycle of projects has been another challenge. One of the most important drivers for value-for-money in the implementation of PPP projects is risk transfer. It implies that appropriate risks can be transferred to the private sector, which is better placed to manage them. Unfortunately, this takes a lot of planning and commitment - A level that has not been captured by the financial proposal under this development. Furthermore, the management of environmental risks presented by the project in the context of PPP's would need to be further investigated i.e. government owned companies or parastatals are usually very difficult to regulate by environmental management agencies.

### **3. Socio-Economic Impacts on the Tourism Sector**

The socio-economic impact of the project on the tourism sector which currently sustains the two cities (Livingstone & Vic Falls) and substantially contributes to the two economies has not been adequately investigated. The ESIA suggests that the tourism sector is highly "adaptive", and would adapt to the proposed development without investigating the impact to the tourism sector and the predestined opportunity cost of this development.

### **4. That the ESIA include assessments of vulture species (White-backed Vulture and Hooded Vulture) and Martial Eagle due to their re-categorization to Endangered and Critically Endangered, in particular the potential impacts on global populations.**

Since assessment in the ESIA the conservation status of a number of bird species, including most vulture species and the Martial Eagle (*Polemaetus bellicosus*) have been reviewed resulting in their conservation status being re-categorization to Endangered and Critically Endangered. In the light of this, it is conceivable that the ESIA is already out of date in its assessment of impacts on such species, particularly in respect of potential impacts on global populations.

In terms of the BGHES, the victims of electrocutions or collisions with transmission infrastructures are potentially an important factor of mortality, threatening endangered species at a regional level or larger scale. Implications of these potential impacts need to be interpreted in respect of all endangered species, including all vulture species, certain eagles, and other large bird species, such as storks. The assessed environmental impact of transmission lines on avifauna is categorized as a "Major Negative Impact", yet critically understates potential environmental impact on a suite of endangered bird species. While the ESIA states that "Transmission lines are to be designed to minimise the loss of important birds", considerations for mitigation of impacts are vague and generalized. In the Public Technical Disclosure Meeting offers were made by BirdLife International partners to assess design of transmission infrastructure in accordance with accepted international guidelines and conventions (IUCN). This should be pursued. It should be noted that the role of bird conservation NGO's is to proactively conserve avian biodiversity rather than monitor the extinction of bird species. Monitoring the impacts of transmission infrastructure by "Birding Institutions" therefore does not constitute a mitigation of impact.

### **5. That a comprehensive ESIA assessing the impact of townships and roads that are proposed to be built be prepared in conjunction with the main ESIA and shared with stakeholders and Government ahead of any approvals made in terms of the development.**

The environmental impact assessment of the townships that will be built to accommodate an estimated 8000 workers employed in construction of the project is at best superficial. The effects of social impacts, such as immigration and subsequent laying off of construction workers on completion of the dam, or changed urbanisation along the margins of the Batoka Gorge as a result of substantial road infrastructure developed for access to these townships, have not received adequate consideration, particularly with respect to avian biodiversity. Direct impacts of road infrastructure include increased risk of collision with vehicles, particularly of Endangered and Critically Endangered vulture species, that are drawn to scavenge road-kill carcasses. Apart from isolating the Batoka Gorge from the surrounding wilderness through habitat loss and fragmentation, urbanisation along road infrastructure will promote colonization of the Batoka Gorge by the alien and invasive Common Mynah bird (*Acridotheres tristis*) that is already present in urban Victoria Falls. The Common Mynah is known to displace a number of indigenous bird species and could substantially alter avian biodiversity.

#### **6. That the ESIA investigate the impacts of alien and invasive species.**

Alien species are exotic species that do not occur naturally and have been artificially introduced into an ecosystem. Once freed from their natural elements of control, such as consumers/predators, disease and competition, introduced alien species can become invasive and spread well beyond original point of introduction. Invasive species are regarded as pests and can have seriously detrimental impacts on the environment, including reducing biodiversity. The presence and threat of alien invasive species is not restricted to just the Common Mynah bird identified in 3., but also extends to species of plant, *Lantana camara* and the aquatic floating plants Water Hyacinth (*Eichhornia crassipes*), *Limnobium laevigatum* (presently one of the most aggressive of floating plants in the Zambezi basin), *Salvinia molesta*, as well as species of fish, the Nile Bream (*Oreochromis niloticus*) and the Red Claw Crayfish. All the aforementioned Alien Invasive Plants (AIPs) are considered noxious weeds.

#### **7. That the ESIA investigate the effect of altered water flow regimes on the ecology of the upper gorges upstream from the impoundment.**

The ESIA dedicates a section to the effect of the impoundment on changed river flow regime on aquatic invertebrate macrofauna and fish. Sites were identified and sampled for these aspects of species biodiversity. All of the sample sites were downstream of the location of the proposed dam wall location and none positioned to assess the upstream effect of altered water flow regimes on the ecology of the upper gorges, even though this represents highly unique habitat in terms of location, below an impassible natural barrier (the Victoria Falls), and comprising rapids and riffles of a magnitude and frequency found nowhere else. However, there has been no assessment of potentially affected biodiversity and biomass, especially aquatic invertebrate macrofauna and fish species, of this apparently unique habitat which will to a large extent be inundated and altered permanently. There is no indication that any survey of aquatic invertebrate macrofauna of the Batoka Gorge has ever been undertaken. The ESIA report records the finding of a potentially new and undescribed Mormyrid fish species, and the contracted expert, Mr Denis Tweddle, also mentioned in the disclosure meeting the possible existence of yet another undescribed fish species, also of the Family *Mormyridae*, in the river downstream of the proposed host smaller and less dramatic rapids and riffles. In his opinion it seemed that both species may be lost as a result of construction of the impoundment. In light of these findings of unique and probably endemic ichthyofauna there is an obligation to at least describe what species biodiversity, specifically aquatic macrofauna, invertebrate and vertebrate, stands to be lost/exterminated by progressing this project.

In terms of avian biodiversity, the ESIA recognises the importance of the Batoka Gorge as a significant habitat for the conservation of species such as the Rock Pratincole (*Glareola nuchalis*) and that inundation and changed flow caused by the BGHES impoundment will destroy an important nesting and foraging area, potentially resulting in this species to be re-categorized as threatened with extinction during future assessments of the IUCN Red List. Recognition of these “Major Negative” impacts prompted commissioning of the 2 surveys of rock pratincole and raptor populations inhabiting Batoka Gorge. Analysis of these data indicates that the Upper Gorges, Gorge 1-8) supports the highest diversity of raptors, including previously mentioned species that have been re-categorized to Endangered and Critically Endangered

**8. That the potential cumulative effect of altered nutrient flows by the BHGES on the major fishing industry in Kariba be investigated.**

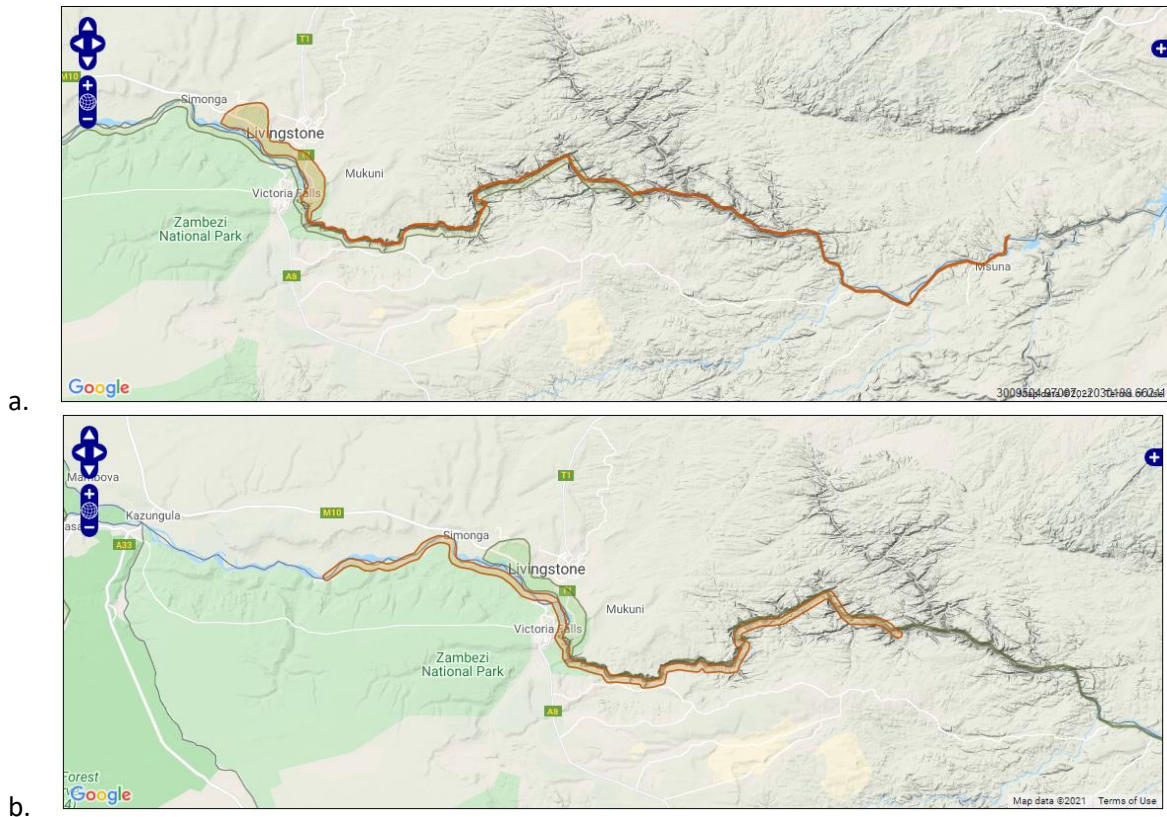
Secondary benefits, such water storage or development of fisheries are often included in the rationales for construction of Big Dam projects. In the case of BGHES perceived benefits are limited to only generation of electricity as there is no justification for increased water storage and no mention of possible fisheries development. Presumably for the latter there is none, as the characteristics of the impounded gorge offer little scope for a productive fishery. However the cumulative effect of altered nutrient flows, the Batoka Gorge reservoir is effectively a nutrient trap due to its proposed position, and flow regimes could conceivably have a profound effect on the productivity of the Lake Kariba fisheries, which is Zimbabwe’s largest and significant commercial fishery. Inflow regimes and consequent nutrient cycling are well known to affect recruitment and productivity of Kapenta (*Limnothrissa miodon*), a principal species of the commercial catch from the Kariba fishery. In the technical disclosure meeting a question was raised to the assessment of downstream cumulative effect, however this point was quickly discounted on the grounds that Kariba absorbs any cumulative effect. The potential effect of the BHGES on a major fishing industry, and source of livelihood for many, is not addressed in the ESIA.

**9. That the ESIA includes a full investigation to determine whether commitments made in respect of Multi-lateral Environmental Agreements (MEAs) eg. Convention on Migratory Species, Convention of Biological Diversity and Convention on Africa-Eurasian Migratory Waterbirds (AEWA), Ramsar Convention are being adhered to by Zimbabwe and Zambia (where they are signatories to these MEAs) for key species eg: Black Stork, Hooded Vulture, White-backed Vulture.**

As party to the Convention on Migratory Species and the Agreement on the Conservation of African-Eurasian Migratory Waterbirds, Zimbabwe has international obligations in respect of several bird species. In terms of the southern African population of Black Stork, parties are obliged to take measures to restore this population to a favourable conservation status – including through habitat conservation.

The area of impact of the BGHES includes Key Biodiversity Areas (KBAs) and Important Bird Areas (IBAs), each located on either side of the Zambian-Zimbabwean border - Mosi-oa-Tunya National Park and Batoka Gorge (Zambia) and Batoka Gorge (Zimbabwe) and are recognised as such for the presence of bird species of global conservation concern, for supporting significant congregations of one or more bird species and for holding a good selection of bird species of that are characteristic of that particular biome. The Batoka Gorge is a major breeding site for cliff-nesting raptors and holds 35 other raptor

species, Black Storks and large numbers of Rock Pratincole, nesting Hooded Vulture (*Necrosyrtes monachus*) and White-backed Vulture (*Gyps africanus*) which use the gorge as a flyway.



Maps of (a) Mosi-Oa-Tunya National Park and Batoka Gorge KBA and IBA (Zambia) and (b) Batoka Gorge KBA and IBA (Zimbabwe).

**10. That the BHGES development be reported to and the ESIA be shared with the Ramsar Convention and that the Governments of Zimbabwe and Zambia request a Ramsar Advisory Mission to assess the threats to the ecological character of the Victoria Falls Ramsar Site and submit their report to be shared with stakeholders before any final decision on this project is taken.**

Part of the project area affected by the dam is a wetland of international importance, designated under the Ramsar Convention, although the official description seems to be limited to the southern part of the Victoria Falls National Park. Parties to the Ramsar Convention are required to promote the conservation of Ramsar sites and the wise use of all wetlands in their territories (Article 3.1). ‘Conservation’ in this context has been defined to mean maintenance of a site’s ecological character (COP Recommendation 4.2). It is therefore important that the ESIA consider any potential impacts on the ecological character of the Ramsar site concerned. Per Article 3.2 of the Convention, any likely change in the site’s ecological character must be reported to the Ramsar Convention’s Secretariat.

The Ramsar Advisory Mission (RAM) is one of the most valuable tools available to Contracting Parties to the Ramsar Convention on Wetlands. A RAM is a technical assistance mechanism through which a Contracting Party may request expert advice about how to respond to threats to the ecological character of a Ramsar Site and associated wetland issues. To our knowledge no such RAM has been requested by either Zimbabwe or Zambia and this represents an oversight in the assessment.

Submitted by BirdLife Zimbabwe and BirdWatch Zambia to the Environmental Management Agency of Zimbabwe on 17 October 2022

BirdLife Zimbabwe

BirdWatch Zambia

35 Clyde Road, Eastlea

25 Joseph Mwilwa Road, Rhodes Park

Harare

Lusaka

Zimbabwe

Zambia

Email: [birds@zol.co.zw](mailto:birds@zol.co.zw)

Email: [birdwatch.zambia@gmail.com](mailto:birdwatch.zambia@gmail.com)

Tel: +263 24 2481496

Tel: +260 211 -239420

Cell: + 263 772 894562

Cell: +260 97 7353509