

Biodiversity mainstreaming in renewable energy projects in Uganda



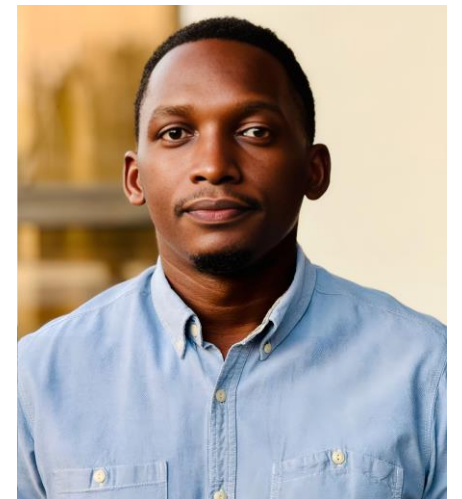
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Introduction

1. Development Projects Impacting Biodiversity Significantly

1. Infrastructure development impacts biodiversity significantly.
2. Renewable energy development critical.
3. Solar, Hydropower, Wind (generation, transmission, distribution)

2. Environmental Impact Assessments (EIA) Crucial

1. EIAs integrate biodiversity into planning.
2. Supported by international frameworks, guidelines.

3. Mitigation Hierarchy

1. Aims to minimize biodiversity impacts.
2. Emphasized by policies, financial institutions.

4. Challenges in Biodiversity Integration

1. Comprehensive approaches needed in EIAs.
2. Current research, practices show gaps.



Bujagali HP dam, Eastern Uganda

Objectives and Approach

1. General Objective: EIAs and Biodiversity Outcomes

- Explore why EIAs may not deliver desired biodiversity outcomes.
- Identify changes to improve outcomes.

2. Biodiversity Impact Assessment Review

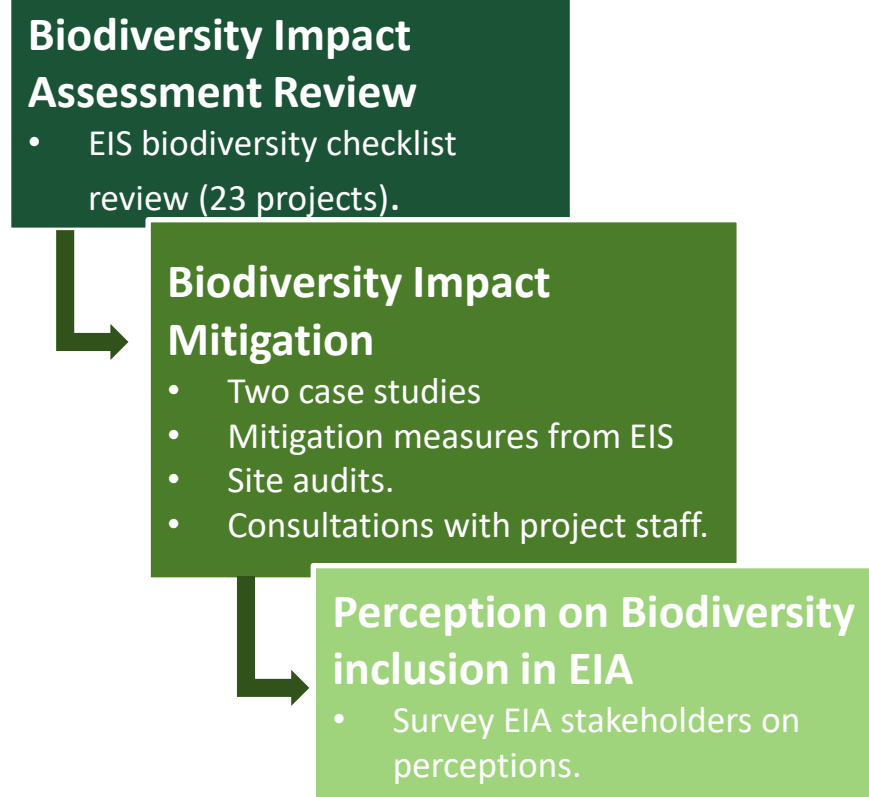
- Evaluate biodiversity consideration in EIAs.
- Assess quality, understand impacts, improve.

3. Biodiversity Impact Mitigation

- Assess effectiveness of mitigation measures.
- Examine factors influencing implementation success.

4. Stakeholder perception on Biodiversity inclusion in EIA

- Perceptions - identify challenges, improvement opportunities.



Results and Discussion

- Overall EIS quality
 - EIS Grades 'B' = 47.83%, 'C' = 43.48%, 'A' 8.70%; none 'D' or 'E'.
- BII and potential predictor variables
 - **BII Trend:** Weak negative correlation, non-significant impact over time.
 - BII values before (and including 2019) higher than after **2019** = NEA 2019
 - **Project size** and BII values – larger projects with higher BII values
 - partly explains the trend
 - Location of the Proposed Development – (e.g. near PA)
 - Power sub-sector – no observed difference
 - Project funder
 - Consultancy (team)
 - EIA Report length



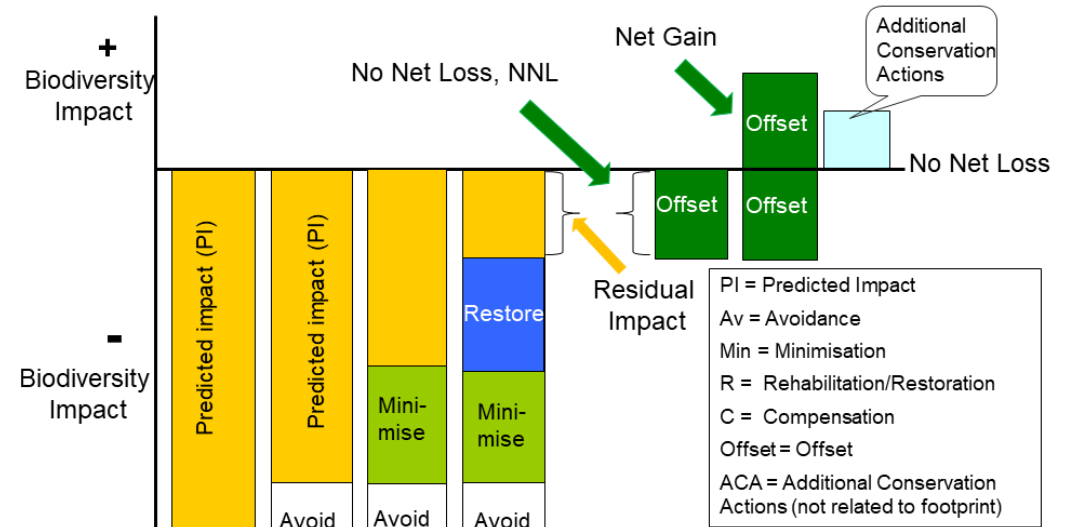
Transmission pylon within Wildlife Reserve

Results and Discussion

- Further analysis
 - Mitigation hierarchy application
 - Relationships between different sections
 - Baseline description vs impact identification (strong +)
 - Project Description and Impact Assessment

Factors Influencing Biodiversity Mitigation Implementation

- The precision of the mitigation description (auditability)
- Biodiversity information quality - BII
- Inclusion of biodiversity mitigation measures the an ESMP; and
- Implementation of a follow-up program (e.g. EMS).



Source: BBOP, adapted from Rio Tinto and government of Australia

Conclusion

- **Variability in EIA Procedures:** Depth of biodiversity data collection and monitoring varies significantly.
- **Critical Review:** Existing EIA processes for renewable energy in Uganda show significant gaps in integrating biodiversity effectively.
- **Importance of Baseline Data:** Emphasizes the crucial role of thorough baseline data for effective biodiversity conservation.
- **Inconsistency and Challenges:** Effectiveness of biodiversity integration is varied; highlights the need for robust methodologies.

Let's continue the conversation!

Post questions and comments in the IAIA24 app.



#iaia24

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