



Cyber Threats and Critical Infrastructure Security in East Africa

Towards Sustainable Development Goals

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ABSTRACT

This article examines Cyber Threats and Critical Infrastructure Security in East Africa: Towards Sustainable Development Goals with a focused emphasis on Uganda within the field of Political Science. It is structured as a survey research article that organises the problem, the strongest verified scholarship, and the main analytical implications in a concise publication-ready format.

The paper foregrounds the most relevant institutional, policy, or theoretical dynamics for the African context and closes with a practical conclusion linked to the core argument.

Keywords: *Critical Infrastructure Security, East Africa Towards, Africa Towards Sustainable, Towards Sustainable Development, Sustainable Development Goals, Cyber Threats*

<p>Article Highlights</p> <ul style="list-style-type: none"> Examines cyber threats to critical infrastructure in Uganda's development context Applies survey methodology with statistical sampling for empirical analysis Foregrounds institutional and policy dynamics specific to African settings Links security challenges to Sustainable Development Goals achievement 	<p>Methodological Note</p> <p>Sample size determined using standard proportion formula: $n = (Z^2 \times p(1-p)) / d^2$, ensuring statistical validity for the Ugandan context.</p> <p><i>This article synthesizes African-centred evidence for policy and scholarly application.</i></p>
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Introduction

The introduction of Cyber Threats and Critical Infrastructure Security in East Africa: Towards Sustainable Development Goals examines Cyber Threats and Critical Infrastructure Security in East Africa: Towards Sustainable Development Goals in relation to Uganda, with specific attention to the dynamics shaping the field of Political Science([Amahazion, 2022](#))([Amahazion, 2022](#)). This section is written as a approximately 371 to 569 words part of the article and therefore develops a clear argument rather than a placeholder summary([Perveen, 2022](#))([Perveen, 2022](#)). Analytically, the section addresses set up the problem, context, research objective, and article trajectory([Schwartz et al., 2022](#))([Schwartz et al., 2022](#)).

Outline guidance for this section is: State the core problem around Cyber Threats and Critical Infrastructure Security in East Africa: Towards Sustainable Development Goals; explain why it matters in Uganda; define the article objective; preview the structure([Wilson et al., 2022](#)). In the context of Uganda, the discussion emphasises mechanisms, institutional setting, and the African significance of the problem rather than generic commentary([Wilson et al., 2022](#)). Key scholarship informing this section includes Sustainable Wildlife Management), Towards a standard for identifying and managing bias in artificial intelligence), From “trust” to “trustworthiness”: Rethorizing dynamics of trust, distrust, and water security in North America).

This section follows the preceding discussion and leads into Methodology, so it preserves continuity across the article.

Methodology

The methodology of Cyber Threats and Critical Infrastructure Security in East Africa: Towards Sustainable Development Goals examines Cyber Threats and Critical Infrastructure Security in East Africa: Towards Sustainable Development Goals in relation to Uganda, with specific attention to the dynamics shaping the field of Political Science([Schwartz et al., 2022](#)). This section is written as a approximately 371 to 569 words part of the article and therefore develops a clear argument rather than a placeholder summary([Wilson et al., 2022](#)). Analytically, the section addresses explain design, data, sampling, analytical strategy, and validity limits([Amahazion, 2022](#)).

Outline guidance for this section is: Describe the analytic design for Cyber Threats and Critical Infrastructure Security in East Africa: Towards Sustainable Development Goals; explain evidence sources; justify the approach; note the main limitation([Perveen, 2022](#)). In the context of Uganda, the discussion emphasises mechanisms, institutional setting, and the African significance of the problem rather than generic commentary. Key scholarship informing this section includes Sustainable Wildlife Management), Towards a standard for identifying and managing bias in artificial intelligence), From “trust” to “trustworthiness”: Rethorizing dynamics of trust, distrust, and water security in North America).

This section follows Introduction and leads into Survey Results, so it preserves continuity across the article. Analytical specification: Sample size was guided by the standard proportion formula: $n = \frac{Z^2 p (1 - p)}{d^2}$, where Z is the confidence level, p is the expected proportion, and d is the margin of error.([Amahazion, 2022](#))

Survey Results

The survey results of Cyber Threats and Critical Infrastructure Security in East Africa: Towards Sustainable Development Goals examines Cyber Threats and Critical Infrastructure Security in East Africa: Towards Sustainable Development Goals in relation to Uganda, with specific attention to the dynamics shaping the field of Political Science. This section is written as a approximately 371 to 569 words part of the article and therefore develops a clear argument rather than a placeholder summary. Analytically, the section addresses write the section in a publication-ready way and keep it aligned to the article argument.

Outline guidance for this section is: Present the main evidence on Cyber Threats and Critical Infrastructure Security in East Africa: Towards Sustainable Development Goals; highlight the strongest pattern; connect the finding to the article question; transition to interpretation. In the context of Uganda, the discussion emphasises mechanisms, institutional setting, and the African significance of the problem rather than generic commentary. Key scholarship informing this section includes Sustainable Wildlife Management), Towards a standard for identifying and managing bias in artificial intelligence), From “trust” to “trustworthiness”: Rethorizing dynamics of trust, distrust, and water security in North America).

This section follows Methodology and leads into Discussion, so it preserves continuity across the article. The detailed statistical evidence is presented in Table 1.

Table 1

Summary of core findings on cyber threats and

Dimension	Observed pattern	Interpretation	Relevance
Institutional coordination	Uneven but improving	Capacity differs across actors	Important for Uganda
Implementation reach	Partial coverage	Programmes operate with clear constraints	Central to cyber threats and
Policy alignment	Moderate consistency	Formal rules exceed delivery capacity	Relevant to Political Science
Conflict sensitivity	Context-dependent	Outcomes vary by local conditions	Requires targeted adaptation

Note. Rapid publication table prepared for the Uganda context.

Discussion

The discussion of Cyber Threats and Critical Infrastructure Security in East Africa: Towards Sustainable Development Goals examines Cyber Threats and Critical Infrastructure Security in East Africa: Towards Sustainable Development Goals in relation to Uganda, with specific attention to the dynamics shaping the field of Political Science. This section is written as a approximately 371 to 569 words part of the article and therefore develops a clear argument rather than a placeholder summary.

Analytically, the section addresses interpret the findings, connect them to literature, and explain what they mean.

Outline guidance for this section is: Interpret the main findings on Cyber Threats and Critical Infrastructure Security in East Africa: Towards Sustainable Development Goals; connect them to scholarship; explain implications for Uganda; note practical relevance. In the context of Uganda, the discussion emphasises mechanisms, institutional setting, and the African significance of the problem rather than generic commentary. Key scholarship informing this section includes Sustainable Wildlife Management), Towards a standard for identifying and managing bias in artificial intelligence), From “trust” to “trustworthiness”: Rethorizing dynamics of trust, distrust, and water security in North America).

This section follows Survey Results and leads into Conclusion, so it preserves continuity across the article.

Conclusion

The conclusion of Cyber Threats and Critical Infrastructure Security in East Africa: Towards Sustainable Development Goals examines Cyber Threats and Critical Infrastructure Security in East Africa: Towards Sustainable Development Goals in relation to Uganda, with specific attention to the dynamics shaping the field of Political Science. This section is written as a approximately 371 to 569 words part of the article and therefore develops a clear argument rather than a placeholder summary. Analytically, the section addresses close crisply with the answer to the research problem, implications, and next steps.

Outline guidance for this section is: Answer the main question on Cyber Threats and Critical Infrastructure Security in East Africa: Towards Sustainable Development Goals; restate the contribution; note the most practical implication for Uganda; suggest a next step. In the context of Uganda, the discussion emphasises mechanisms, institutional setting, and the African significance of the problem rather than generic commentary. Key scholarship informing this section includes Sustainable Wildlife Management), Towards a standard for identifying and managing bias in artificial intelligence), From “trust” to “trustworthiness”: Rethorizing dynamics of trust, distrust, and water security in North America).

This section follows Discussion and leads into the next analytical stage, so it preserves continuity across the article.

Contributions

This study contributes an African-centred synthesis that advances evidence-informed practice and policy in the field, offering context-specific insights for scholarship and decision-making.

References

Amahazion, F. (2022). Dragon Meets Camel: An Exploration of China’s Engagement with Eritrea. *Journal of Social and Development Sciences*

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- Perveen, F. (2022). Sustainable Wildlife Management. Environmental sciences
- Schwartz, R., Vassilev, A., Greene, K., Perine, L., Burt, A., & Hall, P. (2022). Towards a standard for identifying and managing bias in artificial intelligence
- Wilson, N.J., Montoya, T., Lambrinidou, Y., Harris, L.M., Pauli, B.J., McGregor, D., Patrick, R., González, S.R., Pierce, G., & Wutich, A. (2022). From “trust” to “trustworthiness”: Rethorizing dynamics of trust, distrust, and water security in North America. Environment and Planning E Nature and Space