

How to bridge the Gaps of ESIA Post Approval for Environmental Performance?

Alphonse Habineza^{1, 2*}

¹: Local Economic Development Division, Local Administrative Entities Development Agency (LODA), Rwanda ²: Public Health Department, Mount Kenya University, Rwanda.

Alphonse Habineza, E-mail: ahabineza@mkurwanda.ac.rw, Tel: (+250)788-816-695

*: Corresponding author: ahabineza@mkurwanda.ac.rw or alphonse.habineza@loda.gov.rw

Abstract

In many countries, in-depth ESIA with appropriate mitigation measures and ESMP to address the project environmental and social adverse impacts is a required environmental process before the implementation of infrastructure projects such as roads and drains. However, there is increasing of limited documented evidence and uncertainty regarding the management of the project's impacts during the project implementation, raising questions over the compliance and environmental enforcement after ESIA approval and project environmental and social performance. In this paper we depart from author's experience and Rwanda Urban Development Project (RUDP) implementation to review the extent of ESMP implementation and associated challenges hindering the compliance and effectiveness of the mitigation measures. This review study has found that the non-inclusion of stakeholders' involvement and issuance of environmental compliance certificates in ESIA processes, lack of rigorous follow-up, monitoring, low institutional enforcement, staff shortage, contractors' reluctance and non-use of IT tools were the main hindrances of effective implementation of appropriate mitigation measures and best environmental and social management practices. Placing value on compliance benefits for sustainability and devoting required costs do not only deliver a reputational value of the organization but also help to advance positive environmental and social outcomes. The RUDP experience provides useful insights into future similar infrastructure projects implementation for environmental and social sustainability.

Key words: ESIA post approval, Project Performance, ESMP implementation, RUDP Experience, Compliance and Enforcement

1. Brief introduction to RUDP and Rationale of the current study

While more than 79 unplanned settlement sites are located in the city of Kigali and six secondary cities of Rwanda [1], approximately 66% and 90% of the respective city residents live in informal settlements without required basic infrastructure including roads and storm water management systems ([2-4]. To remove at least 20% of the informal settlements and achieve the urbanization growth rate of 35% by the year 2024[1], the Government of Rwanda in collaboration with the World Bank is implementing a 10 year Rwanda Urban Development Project (RUDP) since 2016. The project aims at providing basic infrastructure including roads and drains in the above mentioned cities as a way of informal settlements upgrading. The delivery of these infrastructures is subject to full ESIA to be approved and cleared by the Rwanda Development Board (RDB) as per the current national environmental legislation. Although ESIA reports must contain environmental and social management plans (ESMPs) and appropriate mitigation measures, complying with ESIA approval conditions and the management of environmental and social adverse impacts throughout the project lifecycle has been and is still challenging for many development projects. On the other hand, institution in charge of environmental management in the country REMA does not have an advanced system of monitoring, supervising and documenting what exactly happens between the ESIA approval and project completion in terms of project impacts management. Furthermore, the existing environmental law is silent on holding accountable the project proponent and sanctions in case of non-compliance. The aforementioned issues coupled with the absence of documented statistical data on the effectiveness of implementation of the mitigation measures, environmental compliance and enforcement upon ESIA approval motivated the author to undertake this retrospective study to fill this huge data gap analysis. We build upon our own experience, RUDP implementation and other literature to document the ESMPs implementation related-challenges to bridge the loopholes and elucidate the overlooked fundamental questions.

2. ESIA legal framework in Rwanda and gap analysis

While the formalization of strategic impact assessment (SIA) and introduction of EIA legislation and its promotion started in 1970s in USA [5] and 1980-2000s in Latin American countries[6], in Rwanda EIA guidelines were established in 2006[7]. Under the Ministry of Environment, the Rwanda Environment Management Authority (REMA) is the national environmental regulator. The institution implements environmental policy, coordinates, monitors, and supervises all environment-related activities and ensures the compliance with environmental legislations and environmental audit among other functions. The function of ESIA regulation process, review and subsequent approval or disapproval has been delegated to the Rwanda Development Board (RDB) which also promotes investment projects in the country. The 2018 Environmental law and 2019 ministerial order provide projects that must undergo an environmental impact assessment (EIA), instructions and procedures for conducting EIA before they obtain authorization for their implementation. Processes of ESIA in Rwanda are summarized in Figure 1 from which the outcome of the ESIA report review may be either approval or rejection. While the environment law provides a room for appeal in case of rejection, the approval is endorsed by the issuance of an ESIA certificate, subject to fulfilment of approval conditions attached to it. These conditions include, but not limited to, observation of relevant national and international environmental regulations and standards during the project lifecycle, implementation of the ESMP as prescribed in the ESIA, carrying out and submission by the project proponent of a regular environmental audit to the Authority, REMA. In case of non-compliance or after a period of three years before the project commences, the certificate can be withdrawn. However, from the time of ESIA approval until the project completion, the management of the project impacts is uncertain and left in the hands of the project proponent and contractors (Fig.1) who often weigh “sustainability costs against regulatory compliance burden” [8] and economic benefits, compromising and discrediting the aim of environmental compliance.

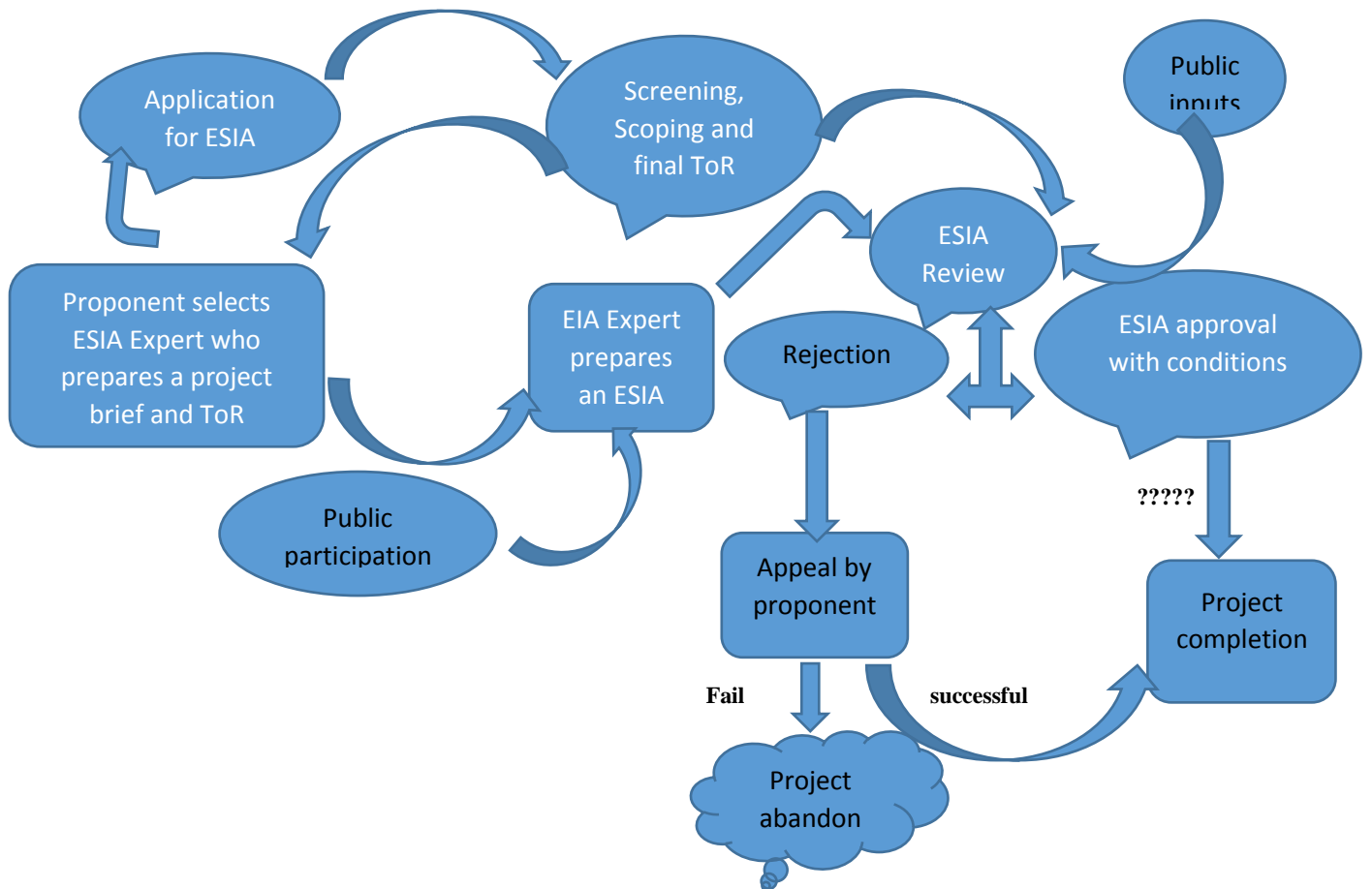


Fig.1: ESIA processes in Rwanda as per the 2018 environmental law and 2019 ministerial order

Contrary to EIA process in Rwanda, further EIA processes in other countries such as New Zealand and Myanmar encompass impact management, follow up, public involvement [9] and issuance of environmental compliance certificates (ECC) [10]. These processes are a critical part of EIA procedure, with the latter process being subject to the fulfilment of an annual report, self-monitoring and independent environmental auditing in Myanmar [10]. In Australia the delivery of infrastructure such as transport is subject to environmental approval and compliance processes [8]. From the same figure 1, it can be inferred that the reality of what has happened in terms of environmental and social management between the ESIA approval and project completion remains uncertain. This suggests that insufficient rigorous follow-up by the competent authority and low environmental law enforcement can create a loophole serving as an opportunity to get around the implementation of the mitigation measures and overlook the management of project-associated environmental and social risks and impacts. Accordingly, the compliance and enforcement of the best environmental and social practices is likely to be compromised.

The 2018 Rwandan environmental law provides administrative sanctions for those degrading the environment and /or implementing a project without an ESIA clearance. However, this law doesn't provide any legal pursuit for non-compliance with ESIA approval conditions. Only the EIA guidelines recommend to mitigate any ongoing adverse environmental impacts in case the project developer is found to be non-compliant [7]. On the other hand, the government institution in charge of complying with environmental regulations and law enforcement suffers from staff shortage often with overloaded work. This does not only render difficult the coordination, monitoring and supervision of the on-going development projects across the country but also leads to delays and/or omission of the processes of environmental audits, projects evaluation and close follow-up. Nevertheless, the environment

management authority is responsible for producing a compliance reports. However, these kinds of reports are not accessible to the public. Furthermore, there is no advanced technological system used for projects remote monitoring and supervision, suggesting a reliance on the famous traditional method of paper-based reporting. In very rare cases, the environmental monitoring is conducted for projects suspected to have caused a serious environmental degradation or when alarming reports constitute the headlines of the local media. Beside the non-disclosure to public of the projects compliance and performance reports, data regarding the projects compliance and performance, awards and/or sanctions imposed to the environmental law breakers are missing.

3. ESMP implementation-related challenges: RUDP experience and findings from the literature

Mandatory procedures for assessment and management of environmental and social adverse impacts of all activities of roads and drains construction under RUDP have been defined to meet the requirements of the national environmental legislations and international standards. Subsequently, an ESIA was prepared in accordance with existing national legal procedures (Fig.1)[11] alongside with ESMP to provide a critical link between the mitigation measures and their integration into the project during implementation phases[12] to enhance the project benefits. However, the execution of the project encountered many problems. Firstly, the project adverse impacts and mitigation measures contained in the ESIA report were generic while the sub-project activities were scattered in different city locations. Second, the procurement of the civil works was concluded before ESIA approval process, leaving a noteworthy gap and unclear scope of ESMP works in the tender documents and non-inclusion of mandatory environmental and social technical clauses (ESTCs) in the contracts. This gap in the tendering process was recently pointed out by Walmsley[13] in what author called the black hole between ESIA completion and project commencement. A critical review of the RUDP documents and field visit reports revealed an absence of archives of the project environmental compliance, monitoring and evaluation reports. It was further found that failures in implementing appropriate mitigation measures emanated from unclear understanding of the bank funded-projects requirements and procedures by the contractors, lack or low mobilization of the professional environmental and social safeguards staffs, underestimation of the ESMPs costs in tendering process and /or unwillingness of the contractors to spend costs dedicated to ESMPs implementation. Similar findings were observed in other financially-supported projects where poor knowledge of the bank's environmental and social assessment procedures and relevant safeguard policies was identified as one of the major hindrances to the non-compliance and unsatisfactory ESMP implementation [12]. Brazier and Powell [8] have noted that the lowest price tendering resulted into short term profits and compromised the potential to realise sustainable outcomes. Hence, authors recommended the project proponents and stakeholders to consider the cost for compliance as delivering a reputational value to their organisations and strive for positive environmental and social outcomes [8]. Other impediments to the achievements of positive results include the lack of adequate permanent professionally and technically qualified staff to implement the best environmental management practices as it was recently concluded by Massoud et al.[14]. In fact, some contractors prefer physical civil works to the detriment of environmental considerations and therefore, resist to hire dedicated environmental and social specialists for a proper implementation of the mitigation measures and handling environmental and social matters. Another noteworthy issue from author's viewpoint is the lack of full involvement and consultation with the project affected groups, beneficiaries and other project stakeholders to advocate for the management of the project-related impacts and environmental protection. This argument is supported by Everingham et al. [15] and Kilemo et al. [16] who stressed on consulting and engaging the project stakeholders and community beneficiaries in assessing and managing the projects' impacts and evaluation of their environmental and social performance during the planning and implementation phases. Moreover, the lack of a compliance measurement framework, specific metrics established early in the project lifecycle, staff shortage and lack of advanced technological system for project tracking and remote monitoring,

monitoring records and absence of environmental audit and compliance reports were other outstanding hindrances to compliance and environmental law enforcement. Similar study findings were recently reported by Brazier and Powell [8] who noted that out of four transport projects in Australia only one project had clear documentation over the project sustainability and beyond compliance performance.

As discussed above, the identified ESMP implementation-related challenges for RUDP are similar to many other projects across the world. For instance, Walmsley[13] observed that the delay in projects commencement after ESIA completion could lead to low effectiveness of the proposed mitigation measures on the ground if no ESIA/ESMP revision was undertaken for updating them while Damonte [6] noted that the development of more effective enforcement mechanisms was one of the most challenging tasks in Latin American countries. In France, out of 55 recent environmental impact studies only 7% of the proposed mitigation measures were found to be effective to offset the predicted impacts of the degraded sites [17]. A study commissioned by AfDB to audit 71 development projects in twelve African countries has shown that only 63% of ESMPs were fully implemented. This study attributed the poor ESMP implementation to several factors including inadequate monitoring and supervision of ESMPs and weak reporting on the implementation of environmental and social safeguards due to the absence of clear monitoring indicators, insufficient resources and expertise by governments' authorities [12]. Massoud et al.[14] recommended to provide financial support, trainings, awarding to encourage the improvement and enforcement of the standards and development of an effective sustainable environmental management practices.

4. How to depart from RUDP experience for an effective ESMP implementation?

Finding effective mechanisms for ESMP implementation and therefore, bridge the gap between ESIA approval and project completion for environmental law compliance and enforcement implies finding solutions to the above discussed challenges. Hence, a number of principal enabling factors and / or solutions tabulated in Table 1 have been suggested as a way forward for a successful implementation of upcoming similar projects.

Table 1: Challenges and proposed enabling factors for compliance with environmental requirements

Challenge	Proposed solution
ESIA-Generic impacts and mitigation measures	Impacts scrutiny and mitigation measures to be site-specific
Procurement and tendering process	- Clarity on environmental and social technical clauses (ESTCs), ESMP, code of conduct and staffing and their incorporation in the tender and contract documents -Request the bidder to submit a past ECC
Contract management and compliance enforcement	-Close follow-up on contractual obligations and their fulfilment -Conduct a quarterly, semi-annual and annual assessment to evaluate and report on compliance/non-compliance for timely decision-making - Payment to be effected based on proof of environmental and social performance, costs spent on implementation of environmental and social mitigation measures -Issuing an environmental performance/compliance certificate to the contractor upon project completion as incentive -Enforce/impose fining in case of non-compliance as per established laws -Contract termination in case of non-compliance with environmental standards (extreme option)
Monitoring, supervision, evaluation and reporting	-Development of compliance measurement framework including specific metrics and checklist of environmental and social issues/parameters -Development of a reporting template that includes environmental and social monitoring parameters -Monitoring the contractors performance based on approved ESMPs, developed checklists and metrics

	- Daily and weekly environmental inspection using advanced technologies such as Geo-Enabling initiative for Monitoring and Supervision (GEMS), drones or web based Environmental Screening Tool for screening the sites of environmental sensitivity to timely avoid impacts
Staffing	-Hiring required project staffs including environmental and social safeguard specialists to be permanently based on the project sites closer to the local communities with clear duties and responsibilities to handle the project-related environmental and social impacts
Environmental audit	-Hiring an independent environmental auditor to undertake a review of the project compliance during construction and post construction where deemed necessary -Submit environmental audit reports to the competent authorities as per the required procedures
Bank funded-projects requirements and national environmental procedures	-Organize regular workshop meetings/training with contractors, project beneficiaries, and local communities before works start and on quarterly basis throughout the project implementation
Project stakeholders involvement and consultations	-Empowering the communities verifiers and affected people to express their voices and denounce the non-compliance and environmental damage and call for stricter regulations and enforcement -Include the stakeholders in impacts management during the project implementation and post-implementation - Keep the process of regular consultation open through existing communication channels such as meetings, radio and TV shows so as to keep the public updated on the project progress and impacts management and continue to voice their opinions - Complaints register to record any concerns raised by the community during construction
Archiving and filing	-Develop an advanced system of archiving and filing of the project documentation throughout its lifecycle and beyond

5. Conclusions and recommendations

The paper has documented the infrastructure delivery-related project impact management challenges hindering the compliance and enforcement of ESMP implementation between ESIA approval and project completion. Lack of rigorous follow up, public and stakeholders' involvement and issuance of environmental compliance certificates in ESIA processes, low institutional enforcement, staff shortage, non-use of advanced IT tools, weakness in the tendering process and contractors' reluctance were the main challenges of the failures in implementing appropriate mitigation measures. Placing value on compliance benefits and devote required costs and effort not only deliver a reputational value of the organization but also help to advance positive environmental and social outcomes. The study has ultimately answered the questions regarding the project impacts management during the project implementation and elucidated the gaps between the ESIA approval and project completion. It has provided perspective approaches to enable successful implementation of similar projects. The experience and lessons learned from RUDP and other literature have provided, to some extent, valuable insights into future implementation of similar projects particularly, donor funded- projects for environmental and social sustainability. Further studies are still required to explore in –depth the extent of ESMPs implementation to measure the project environmental and social performance during the project life cycle.

6. Acknowledgement

We are thankful to the Local Administrative Entities Development Agency (LODA) management for enabling environment and required support throughout the study research process.

References

- [1]. RHA, Informal Settlement Upgrading Mechanisms-In-situ upgrading <https://www.rha.gov.rw/index.php?id=39>. 2014.
- [2]. Benken, E.E., Nowhere to go : informal settlement eradication in Kigali, Rwanda. University of Louisville, 2017.
- [3]. Rwanda, U.O., Rwanda: National Urban Policies and City Profiles for Kigali and Huye. 2018.
- [4]. MININFRA, National Urbanization Policy. 2015.
- [5]. Dietler, D., et al., Inclusion of Health in Impact Assessment: A Review of Current Practice in Sub-Saharan Africa. *International Journal of Environmental Research and Public Health*, 2020. 17(11): p. 4155.
- [6]. Damonte, G., Improving Environmental Management of Extractives through Environmental Impact Assessments. Technical Report, 2013.
- [7]. REMA, General Guidelines and Procedure for Environmental Impact Assessment. 2006.
- [8]. Brazier, R. and M. Powell, Beyond Compliance outcomes through impact assessment. IAIA 2019, Brisbane, 2019.
- [9]. Morgan, R., Understanding Impact Assessment. School of Geography, University of Otago, New Zealand, 2020.
- [10]. Bair, M., Enforcement and Compliance: SE Asia Perspectives. Asian Research Institute for Environmental Law, 2020.
- [11]. MININFRA, Environmental and Social Framework-Development of Urban Infrastructure in six secondary cities of Rwanda and the Kigali City. Final Report. 2016.
- [12]. AfDB, Enhancing Implementation of Environmental and Social Management Plans in the Agriculture and Natural Resources Sectors. 2012.
- [13]. Walmsley, B., Lost in Time-The Black hole between ESIA completion and Project commencement. Southern African Institute for Environmental Assessment, 2019.
- [14]. Massoud, M., et al., The Challenges Hindering the Implementation of Environmental Management Practices in Hospitals. *WIT Transactions on Ecology and the Environment*, 2017.
- [15]. Everingham, J.A., et al., Engaging stakeholders in post-mining transition.
- [16]. Kilemo, D., et al., Making community based environmental impact assessment work: Case study of a dairy Goat and Root Crop Project in Tanzania. *International Journal of Development and Sustainability*, 2014.
- [17]. Jacob, C., S. Pioch and S. Thorin, The effectiveness of the mitigation hierarchy in environmental impact studies on marine ecosystems: A case study in France. *Environmental Impact Assessment Review*, 2016. 60: p. 83-98.