



Evaluating the Effectiveness of Environmental Policy and Impact Assessment Procedures in Liberia

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Abstract

This paper employed the use of survey questionnaires; review of relevant literature and content analysis of EIA documentations to assess the effectiveness of the environmental policy and impact assessment procedures of Liberia. The evaluation was carried out against a review package developed by Ahmad and Wood. A thorough analysis revealed that despite still being at its early stage; significant gaps exist between policy and implementation, as well as between impact assessment procedures and practice in Liberia. We summarized those shortcomings to include limited scope of the screening process, lack of independent EIA review body, inadequate stakeholder participation, inadequate public awareness, and the absence of effective monitoring programs to oversee the performance of EIA approved projects or activities in the Country. The authors conclude with some recommendations that, if used, could overcome these shortcomings and help to improve EIA practice in Liberia.

Keywords: Liberia, EIA, environmental policy, implementation, practice, effectiveness, evaluation.

Introduction

The concept of environmental impact assessment (EIA) is accredited to the United States of America (USA), where it was first introduced in the 1970s as an environmental management tool. Since that time, the tool has been regarded as an efficient and effective decision making tool across the globe. EIA is usually carried out prior to the actual fulfillment of the decision to take a course of action in a plan, policy, project or program. It is an orderly scrutiny of all environmental impacts cropping up out of any developmental activity¹. EIA may be used as a framework to propose the measures available in adjusting the impacts of a certain project on the environment to levels that are acceptable or to aid in the investigation of technological solutions to resolving the impacts. Thus, all major development projects must undergo EIA in order to minimize their negative effects on the social environment². EIA is definitely a process or set of alternatives which contributes to pertinent environmental information to project, program or policy decision making. It has now been well recognized as a preventative environmental management tool by governments of both developed and developing nations and is well embedded in most planning processes³. EIA has also been practiced for some decades now, and its applications have covered a range of projects across different sectors. Furthermore, the concept of this tool has also become an important model for other impact assessment (IA) systems around the globe.

Despite this rapid spread, EIA has been under criticism on the way it is being implemented in different jurisdictions across the globe. EIA has continued to experience disparities between

policy and implementation, as well as between impact assessment procedures and practice in both developed and developing countries across all continents. Furthermore, since the birth of NEPA in the USA 1969, EIA policy implementation and procedure practices have continuously spread across the globe; and in many ways the field has broadened, with varying methods of practices that suit the different jurisdictions⁴. The most compelling evidence for those deficiencies is that greater emphasis has been placed on the development of EIA policies and laws than their actual implementation in practice⁵. Numerous studies aimed at evaluating the effectiveness of EIA policies and impact assessment procedures have overwhelmingly been carried out for different EIA systems worldwide⁶⁻¹¹. Yet, no such study has been conducted on the EIA system of Liberia.

EIA was formally introduced in Liberia in 2003, but actual practice came into effect in 2006 with the formulation of a generic procedural guideline. After about nine (9) years of practice, we attempt to assess the efficiency of the environmental policy and impact assessment procedures of the Country. It is hope that findings from this study will set the basis for good practice that constitutes effective EIA system and create check and balance between EIA theory and practice in Liberia and other developing countries.

Methodology

Methodology is the way by which a study is conducted; hence, it includes some chronological steps that are necessary to complete the study successfully¹². Thus, the effectiveness of

the environmental policy and impact assessment procedures of Liberia was evaluated using a series of methodologies. First, a thorough review of relevant literature and content analysis of EIA documents were carried out using an assessment package developed by Ahmad B. and Wood C.¹³. The authors used the review package to comparatively evaluate the effectiveness of EIA systems in Egypt, Turkey and Tunisia. These criteria were also used to assess the effectiveness of EIA systems in some developing countries¹⁴. The evaluation package has also been successfully used to assess the effectiveness of EIA systems across the globe¹⁵⁻¹⁸. According, the package can be used to assess the performance of any EIA system¹⁴. The validity of the evaluation criteria is based on its extensive use to evaluate EIA systems globally. The literature review helped the authors to carry out survey through the administration of questionnaires. Information were also gathered through structured interviews with EIA professionals and stakeholders on EIA practice in Liberia. The survey and interviews served as the primary sources of data collection for this paper. Table 1 presents the evaluation criteria.

Table-1
Assessment Criteria for Liberia’s EIA System: Systematic and Foundation Measures

Systematic Measures Criteria
EIA Legislation
Legal provisions for EIA
Provisions for appeal by the developer or the public against decisions
Legal or procedural specification of time limits
Formal provision for SEA
EIA Administration
Competent Authority for EIA and determination of environmental acceptability
Review body for EIA
Specification of sectoral authorities’ responsibilities in the EIA process
Level of coordination with other line ministries and agencies
The EIA process
Specified screening categories
Systematic screening approach
Systematic scoping approach
Requirement to consider alternatives
Specified EIA report content
Systematic EIA report review approach
Public participation in the EIA process
Systematic decision-making approach
Requirement for environmental management plans
Requirement for mitigation of impacts
Requirement for impact monitoring
Foundation Measures
Existence of general and/or specific guidelines including any sectoral authority procedures
EIA system implementation monitoring
Expertise for conducting EIA

Results and Discussion

Performance of the Liberian EIA against the Systemic Measures: Here, the systematic measures of the EIA system of Liberia are evaluated against 12 evaluation package. These measures include the legislative and administrative frameworks and the stages of the EIA process of Liberia.

Legislative Frameworks of EIA in Liberia: EIA was formally adopted in Liberia after the promulgation and passage in 2003, of the basic legislations. As such, the EIA system of the Country is guided by the following documents: the National Environmental Policy, the Environmental Protection Agency (EPA) Act; and the Environment Protection and Management Law (EPML). These laws established the frameworks for environment protection and management with regards to sustainable harvesting and use of natural resources in the Country. The laws also covers, in specific sections issues concerning the conduct of EIA. Section 4.7 through 1, 2, 3 and 4 of the National Environmental Policy provides that in order to minimize damage to the natural environment in Liberia, EIA system should be mainstreamed in all major undertakings; including infrastructure and land use activities¹⁹. The policy promotes EIA and defines the institutional set up for EIA implementation in Liberia. The EPML highlights the interactive steps within the EIA process and highlights the submission of application by proponents prior to the initiation of projects. It maintains that the proponent is responsible for underwriting the cost of document preparation and every expense incurred by the Agency in reviewing the documents. The law also presents a complete format of the contents of EIA reports. It specifies in table-1, a list of projects/activities that require mandatory EIA²⁰.

The EPA act elaborates on the duties of project proponent and the agency and laid emphasis on offences relating to EIA and other environmental protection standards. It addresses the enforcement and control of EIA in Part V Section 37 through 1, 2, 3 and 4²¹. The Act provides a firm basis for environmental restoration orders in Section 40. It also laid down in Section 28, the role of line ministries in the EIA process and the establishment of environmental units within their respective ministries. Respectively, Sections 105 and 38 of the EPML and EPA Act provide penalty measures against acts of non-compliance. Another distinguishing feature of both laws is the provisions for appeal. The laws provide that aggrieved party can appeal against the verdicts from the Agency through the environment courts within a specified timeframe. The EPA, in 2006 also developed a generic procedural guideline to be followed when conducting EIAs. The guideline covers all projects/ activities that require mandatory EIA, and highlights the key areas to be considered during environmental impact studies²². However, it is worth mentioning that the Liberian EIA system does not require strategic environmental assessment (SEA); even though, it is included in the evaluation package.

Thus, our analyses establish that the EIA system of Liberia has

the necessary legal framework, with clear provisions for enforcement and legal recourse. However, the laws are inadequately implemented and enforced, and the main reason for this; according to respondents is that the issues of EIA are given less importance by the National Government.

Administrative Framework of EIA in Liberia: The Environmental Protection Agency of Liberia (EPA) was established in 2003 as the principal government Agency in charge of sustainably managing and safeguarding the environments of Liberia. Duty wise, the EPA is responsible to oversee, coordinate and supervise all environment matters in the Country²¹. Other functions of the Agency include: building the capacities of government ministries and agencies, as well as the provision of quality information on the state of the environment of Liberian. However, these are not fully implemented in letter and spirit.

The EPA is specifically responsible to coordinate all EIA related-activities in Liberia, commencing with screening of proposals, reviewing, decision-making on EIA reports to implementing follow-up processes on mitigation measures recommended by project proponents. The Agency also has the jurisdiction to appoint others staff to assist in the execution of its mandates within the political sub-divisions of the Country. However, the participation of sectoral staff in the EIA process is rarely noticed. What is commonly seen in practice is that nearly all EIA related activities are undertaken by staff from the central office. Although; a vast majority (70%) of the respondents noted that staffs of the EPA have the required knowledge and skills to implement the EIA regime, interviews with concerned EIA officials suggest that the current capacity of the EPA is inadequate. They named the lack of stakeholders' understanding of the EIA process, logistical constraints and lack of scientific equipment to verify empirical data contain in environmental study reports as key challenges faced by the EPA in implementing the EIA regime.

Stages of the EIA Process in Liberia: The main components discussed under this section include; screening of projects, scoping, review of EIA reports, public involvement, EIA decision making, provisions for environmental management plans (EMPs), mitigation measures and monitoring of projects impacts.

Screening of Projects: The screening stage of the Liberian EIA process commences with the submission of project brief to the EPA by a proponent. Screening determines whether or not a proposed project/ activity will require an EIA. Screening limits the conduct of EIA to projects that are envisaged to have significant impacts on the environment. The screening process seeks to determine as early as possible whether a proposal is subject to EIA²³. Part III Section 8 through 1, 2, 3 and 4 of the EPML mandates that project briefs must include the nature of the project, the proposed location, project activities and design, the materials to be used in the project. The Law also requires

that anticipated products or by-products with associated environmental impacts and potential mitigation measures must be presented in the brief²⁰.

What is seen in practice is that the EPA usually reviews the project brief and subsequently circulates the document to relevant line ministries and agencies for their reviews and comments within a period of 10 days. Predicated upon feedbacks from the reviews, the Agency may decide whether to issue a certificate of approval or request the applicant to arrange an environmental impact study²². This decision by the EPA is communicated to the proponent within 25 days from the date of project submission. Although, an overwhelming 81% of the respondents alleged that the screening process of the Liberian EIA system is based on a formal guideline; a thorough analysis of EIA documents (legislative provisions and EIA procedural guideline) indicates that there is no formal guideline, criteria or thresholds for screening of projects. Furthermore, there is no formal code of conduct for accreditation of screeners. This raises some doubts about the effectiveness of the process. Screening requires some criteria or thresholds that must be used by the screeners to help determine the scales of potentially significant impacts of projects. But in the absence of those, one can conclude that screening solely relies on the screener's personal judgment.

Scoping: Scoping process in the Liberian EIA system begins with the preparation of the terms of reference (TOR) by project proponent through the designated consultants. The effectiveness of the scoping exercise largely depends on the experience and expertise of the team of consultants to be involved with the study, and the availability of accessible and appropriate environmental baseline information to them. The TOR must specify the key environmental concerns of the project as prescribe under Annex C of the EIA procedural guideline. The laws require that scoping exercise must incorporate the full and active participation of key stakeholders within the project impact area. This will help to reduce the range of negative impacts that are to be considered when conducting impact studies. Scoping helps to identify priority issues and impacts that are to be focused on during the EIA study²³. The EIA procedural guideline also provides guidance in Section 2.4 on how scoping should be carried out. It further highlights the require content of scoping reports²². The document also emphasized that consultants for EIA must meet the qualification criteria set by the Agency, and be in its Registry. However, our analysis revealed that none of the EIA legislations or even the procedural guideline specifies formal code of conducts for accreditation of EIA consultants.

Ironically, a large percentage (53%) of the survey respondents admitted that there are set criteria for accreditation of EIA consultants, and those criteria are made public. However, a sizeable number (30%) said that they are not quite sure about the publication of such criteria; while 17% confirmed that the general public has no access to such criteria. Presumably, but

not solely however, if there are criteria for judging the qualification of EIA consultant/s as claimed by the EPA, then those seem to be confidential.

EIA Reports Review: EIA reports review process in Liberia is guided by the use of a review checklist. The checklist highlights areas of concentration to be considered by the review panel during reviews. EIA review serves as checks and balances between theory and practice. It is therefore important to efficiently and effectively carry out this stage of the EIA process before any decision is made regarding the issuance of license/permit. The EIA procedural guideline suggests a prescribed requirement for all EIA report content and format. The proponent is required to submit a report (environmental impact statement - EIS) to the EPA after the completion of an environmental impact study. The report must include ten (10) hard copies and a (pdf) electronic version. An internal review panel will then be set up by the Agency to review the report; if found to be satisfactory, copies will be circulated to relevant line ministries/ agencies and other relevant agencies and communities for their review and comments within 10 days of receipt. The selections of review bodies within those ministries and agencies are decided by their heads; and depending on the sensitivity or significance of the comments received, the EPA will then arrange a joint review of the report to be carried out by a team of technical staff.

In practice however, the review panel is usually comprised of technical staff of the EPA and sector agencies /ministries, project representative, as well as representative from the project area.

EIA reports review task should be carried out by well trained and qualified individuals with the required knowledge and skills in the various fields relating to EIA²⁴. In addition, the review process should be guided by review criteria and a code of conduct for selection of review panel. These methods will help to enhance the effectiveness of the review process. However, the review process of the Liberian EIA system is limited with respect to these attributes. Our analysis shows that there is no independent review panel. Moreover, there are no criteria for accreditation of selected EIS review members. And although, selected individuals for review usually comprise technical staff, the vast majority of those individuals truly have no expertise in the EIA related fields. With such circumstances, the effectiveness of the review process becomes uncertain; and may sometimes lead to the approval of poor quality EIA reports.

The review stage was further augmented by critically reviewing four (4) samples of selected EIA reports. However, the absence of official statistics on approved EIA reports prevented the inclusion of; as many reports in the review. The reports were reviewed in order to evaluate the quality and completeness of information presented in them. Nevertheless, the review revealed that on the overall, the reports lack the required contents as prescribed by the EIA procedural guidelines. In all

of the reviewed reports, there are no clearly defined methods for prediction and analysis of projects impacts; no evidence of stakeholder consultation and the description of project alternatives is inadequate. Also, none of the reports presented source (s) of baseline data for the studies, and the teams of consultants for these studies lack multidisciplinary EIA professionals. However, survey respondents expressed divergent views with respect to the above. The majority of respondents (70%) rated the inclusion of impact prediction and evaluation techniques in EISs as being good. In light manners, 64% of the respondents rated the inclusion of the description of impacts mitigation measures in EISs as good.

The inclusion of project impacts on Fauna and Flora in EISs received the ratings of "Good" (49%); "Fair" (28%) and "Poor" (19%). The only component which comparatively confirmed the outcomes of documents analysis to information gathered from the respondents is the inclusion of monitoring programs in EISs. This aspect seems to be one of the key weaknesses in the Liberian EIA system. About 43% of respondents indicated that monitoring programs; which include what to be monitored and who to monitor them, are poorly presented in EISs. However, 26% also viewed their inclusion as being fair; while a grade of 21% was judged as "good".

Despite agreed to by the respondents; the inclusion of these components in EISs, our analysis revealed that on the overall, impacts prediction techniques and the evaluation of impact significance and magnitude, description of impacts mitigation measures, assessment of projects impacts on Fauna and Flora and the inclusion of monitoring programs in EISs are the key problematic areas faced by consultants when conducting EIAs. These aspects are poorly addressed in all of the reviewed EIA reports. This is probably because these are assumed to be the most difficult stages in environmental impact studies. Moreover, the teams of consultants that undertook these studies lack the required professionals with expert knowledge in the various fields relating to the projects. The majority of those teams of consultants have background in general forestry; with no speciality.

Public Involvement in EIAs: Public involvement in the EIA process of Liberia is legally required under Sections 17 and 18 of the EPML²⁰. It is a process through which individuals and groups who are likely to be affected by or are linked to a project are invited to take part into decision-making regarding said intervention. Public Involvement ensures some level of effectiveness of the entire EIA process²⁵. Section 17 of the Law requires that following an initial review of environmental impact statements (EISs), the Agency must invite public comments through a published notice on the proposed project. Such notice must highlight the prescribed particulars of the project. A timeframe of 30 days (after the publication) is given to stakeholders to submit their comments; however, the Agency may; through published notice, extend the time period based on the sensitivity of the project. The date and venue of public

hearing is also decided by the Agency. In like manner, Section 18 of the EPML also ruled the EPA may decide to conduct public hearing on EIA reports based on comments received from the general public. If well planned and appropriately implemented, public participation can serve as valuable sources of information during the impact assessment process. The majority of the respondents noted that prior to hearings on EIAs, the public is usually informed about their participation through various means including, formal communication (40%), radio announcement (34%) and the print media (15%).

Despite these, public hearing on EIAs in Liberia is limited. There are no clearly defined procedures on how hearings should be carried out. Instead, Section 18 (g) of the EPML requires that during public hearings on EIAs, the presiding officer shall decide the rules and regulations²⁰. Public involvement in EIA also takes place at several stages of the process. 29% of respondents agreed that public involvement occurs during reviews of EIA reports; 23% also noted that the public is engaged during scoping exercises; while 20% admitted that during impact studies, public participation is incorporated by EIA consultants. Despite the level of involvement; and at these various stages, public involvement in the EIA process of Liberia is still inadequate. Our analysis revealed that there are no clearly defined procedures on how different stakeholders should participate in the EIA process. Furthermore, there are no prescribed methods to be followed when conducting public hearings on EIAs. This makes the process difficult to yield the desired outcomes. As a result, less attention is given to the environmental consequences of proposed projects; and the major concern of those affected can be that the project should provide job and employment opportunities for them.

EIA Decision Making: Environmental decision making in Liberia is a statutory responsibility of the EPA. Decision making is one of the critical stages in the EIA process. It involves the integrity of the decision-maker; for this reason, the process should be free of political pressure/ or interference. However, evaluation of EIA systems globally indicate that in practice, projects subject to EIA are rarely rejected or withdrawn before approval and that EIA seldom influence decision-making¹⁸. The decision making process is a mandatory requirement under Section 22 of the EPML²⁰. It is a complex undertaking that requires a decision on whether a given project should be allowed or disallowed. The Law ruled that the decision of the Agency shall be based on the adequacy and completeness of the EIA report as well as comments submitted by the general public²⁰. The Agency is further required to make its final decision (on whether or not to allow a proposal for implementation) in a course of 90 days or within an extended timeframe with the consent of the applicant. Besides, the Law mandates the Agency to publicize the account of its final decision. Finally, the Agency is required to inform the applicant of its decision and to make available copy of the decision at the Agency's Registry.

Provided that the above requirements are implemented in practice, the decision-making process of the Liberian EIA system can be described as being comprehensive. This comprehensiveness is also supported by the provision; in the laws, for appeals against the Agency's decision.

Provisions for Environmental Management Plans (EMPs), Impacts Mitigation and Monitoring: Provision for EMPs is clearly defined in the Liberian EIA system. Section 15 of the EPML requires the inclusion of EMPs and mitigation measures as part of the EIA report²⁰. The EMP lists the activities and programs that are to be carried out before and during the implementation of projects. This is meant to guarantee the fulfillment of existing environmental standards and practices. The EMP describes the details of mitigation measures identified during the environmental impact study and outlines how they will be implemented. The law clearly outlined specified contents of EMPs. Also included in the EMP is the provision for monitoring; which is a critical stage in the EIA process.

The EPML declared in Section 24 (1) a and b that once approved, the EPA (in consultation with the relevant line ministry/ agency) is required to routinely monitor the implementation of all projects with the intent to assess their levels of impacts, and to further determine their immediate and long-term effects on the natural environment²⁰. Monitoring is an on-going process that aims to verify compliance with specific conditions and standards. It provides checks and balances between actual impacts and predicted impacts proposed in EMPs. Monitoring is also a detective control mechanism that assesses the effectiveness of proposed mitigation measures. A convincing 66% of the respondents noted that in most instances, follow-ups have been made on projects by the EPA. They named the types of follow-ups to include: monitoring, evaluation and auditing. Only about 21% said that they were not sure of any form of follow-up being made on projects; and the least number of respondents (13%) admitted that there hasn't been any form of follow-up on projects.

However, respondents expressed mixed views regarding the issue of compliance with recommended mitigation measures by project proponents. About 23% of them assumed that the EPA usually undertake environmental audit in order to assess compliance. 29% of the respondents also said that the EPA ensure compliance by requesting audit report from project proponents; while a vast majority (41%) thinks the EPA usually carryout site inspection. To balance these views, we endeavored to inquire the extent to which recommended mitigation measures are implemented by project proponents. Contradictorily, an overwhelming 77% of the respondents admitted that project proponents partially implement impacts mitigation measures recommended by them.

Though; there are no available data to further disprove respondents' claim (that follow-up have been made on projects and that EPA has ensured implementation of impacts mitigation

measures), it is sincere to admit that follow-up on projects is rarely undertaken. As a matter of fact, the monitoring of compliance and projects impacts are the weakest stage in the Liberian EIA system. What is most often noticed is that after the issuance of EIA license/ permit, the EPA; and even the relevant line ministries/ agencies feel reluctant to check compliance and to enforce the EIA regime. As a result, project proponents least bother to live up to the commitments contained in their EMPs. Interviewees also admitted that monitoring of projects impacts in the Liberian EIA system is weak; and the main reasons for the weakness are lack of logistics and equipments and the shortage of well-qualified and experienced personnel to carry out the monitoring exercises.

Performance of the Liberian EIA against the Foundation measures: In this section, we consider the existence of EIA procedural guideline, monitoring of EIA system and the availability of EIA consultants and training for the foundation measures assessment

Availability of EIA procedural guidelines: The existence of well developed guidelines guarantees the foundation for improving EIA studies in practice. In Liberia, the conduct of EIA rest upon a generic procedural guideline that was formulated by the EPA in 2006. The document discusses in detail, the operating stages of the EIA process and covers all thematic issues that must be address when undertaking EIAs. It outlines the EIA stages to include: Project screening, Scoping, Impact study, Mitigation Strategy and Time Frame, Review and EIA Decision making²². The guideline also includes a complete format of the contents of EIA reports, and highlights the basic issues to be considered when preparing the TOR. Besides, the guideline also calls for the use of multidisciplinary team in the conduct of environmental impact studies. The document further mandates the inclusion of the analysis and selection of best alternative, as well as the adequacy and completeness of relevant baseline data in environmental impact statements. Furthermore, the guideline suggests early public participation at the scoping stages of environmental impact studies and provides a checklist against which EIA reports must be reviewed. Thus, the generic guideline covering the EIA process of Liberia is quite comprehensive. However, there are no specific guidelines for the different sectors of the Country.

Monitoring of EIA System: Monitoring in the Liberian EIA system is also a statutory responsibility of the EPA. It is one of the factors that determine the effectiveness of the system. Monitoring oversees the performance of projects or activities during their life cycles. Section 24 (1) c of the EPML states that the Agency is responsible to monitor the operations of all projects/ activities with a view of assessing their compliance of existing laws and provisions²⁰. EIA system monitoring provides information that is critical to impact management, as well as to making improvements to EIA practice²³. However, these cannot be achieved in the absence of an effective monitoring framework. EIA effectiveness can best be realized if it intended

purpose(s) are achieved²⁶. In addition, following the procedural steps correctly with the achievement to the predetermined objectives also ensures EIA effectiveness²⁷. Hence, achieving EIA effectiveness requires the development and implementation of comprehensive and systematic monitoring frameworks that will oversee the performance of projects or activities during their life cycles. Monitoring should also be carried out based on specified guidelines and procedures, and by qualified and authorized environmental inspector who is an expert or a firm of experts in the sector of project being implemented. But in the absence of these, EIA system effectiveness becomes difficult to determine and the whole EIA process likely becomes Pro forma exercise.

Although; an overwhelming majority of respondents assumed that the current EIA practice in Liberia is effective at achieving its purpose, our analysis indicates that EIA has not achieve the purpose/s for which it was established in Liberia. This ineffectiveness was identified by the lack of formal criteria for effective monitoring. Accordingly, Section 39 of the EPA Act mandates the Agency to develop and publish guidelines and standards to be used for monitoring of projects throughout their life cycles²¹. However, no such measures have been developed thus far. Probably, this portion of the Act is just a mere paper statement. The absence of formal monitoring programs is a potential pitfall in the Liberian EIA system. Thus, it raises eye brows about the effectiveness of the system. Interviews with concerned EIA officials also suggest that monitoring in the Liberian EIA system is inadequate. Interviewees mainly blamed this inadequacy to the lack of logistics and equipment; as well as weak coordination between the EPA and the relevant line ministries/ agencies.

EIA Consultants and Training: The involvement; into the EIA process, of well experienced EIA consultants is a fundamental criterion for achieving effectiveness. This is important because the environmental impact statement; which is the result of an investigation of the anticipated potential environmental effects of projects/ activities, represents little more than a compilation of consultants' inputs. As such, the adequacy, completeness and relevance of information gathered by those consultants will serve as a litmus test for determining the effectiveness of the process. Thus, best-practice EIA requires the participation of highly qualified experts who are well knowledgeable in the various disciplines related to the project under study.

A few number of local consultant firms for EIA exist in Liberia. However, the majority of those teams of consultants lack specialty in the required EIA related fields. Notwithstanding, a good number of EIAs undertaken in the Country to date have relied on them. Although; there are no formal requirements for EIA consultants' accreditation in any of the EIA legislations, what is seen in practice is that consultants for EIA are granted EIA Evaluator Licensure by the EPA after participating in few weeks of in-Country training workshop that is usually organized

by the Agency. This in-Country training serves as the main source of capacity building for EIA practitioners in the Country.

Conclusion

The analysis of the EIA system of Liberia shows that EIA is still at the infancy stage in the Country. However, the process has a promising beginning. The EIA system has been legally functional for about nine years now, and the process has achieved considerable progress. Besides, the EIA system in the country has the necessary legal frameworks, and mandatory EIAs cover nearly all sectors of the Country. Despite these noticeable progresses, significant gaps also exist between policy and implementation, as well as between impact assessment procedures and practice (see Table 2 for summary of the analysis). We generally summarized those shortcomings to include the following:

Limited scope of the screening process; there are no formal criteria for determining the scales of potential significant impacts of projects during screening. Furthermore, there are no codes of conducts for projects screeners. This makes effectiveness of the screening process questionable.

Also, the absence of an independent EIA review body and a formal code of conduct for accreditations of reviewers clearly indicate some limitations in the review process.

Stakeholders' involvement in the EIA process is adequate. This limited participation is mainly due to language barrier. Another reason for this is that stakeholders are not actually aware of their role in the EIA process.

Inadequate implementation of proposed impacts mitigation measures by project proponents was also noticed. This was concord to by a large majority of the respondents.

The monitoring of compliance is weak. The EPA and the relevant line ministries have no formal strategies for monitoring of projects during their implementations. This could perhaps be the primary cause for the reluctances in monitoring.

Lack of awareness of the general public on environmental issues is another deficiency; a good number of the Liberian public have limited or no knowledge of environmental issues.

Finally, the lack of political will by national Government seems to be a storming block for EIA implementation in Liberia. This was also concord with by a significant number of the respondents, who admitted that the issues of EIA are given less importance by the national government.

The above shortcomings identified by the analysis indicate that the EIA system of Liberia is not effective in theory and practice. Therefore, we recommend the following strategies that can help to overcome these shortcomings and enhance the effectiveness of the process.

The screening process of the EIA system should be improved by developing a comprehensive screening guideline. Such guideline must include specific criteria for determining the magnitude and scales of proposed project impacts. This will help to limit EIA application to projects with potential negative impacts. ii. The list of projects/ activities requiring mandatory EIAs should be categorized into three. All projects requiring full EIA should be placed in category one (I). Category two (II) should comprise projects which may require limited EIA; and projects which require no EIA should be labeled under category three (III). This is important because projects by themselves do not determine the conduct of EIA. It is the significance of impacts associated with a given project that determine the level of EIA.

EIA review process should be enhanced by setting up an independent review panel. In the same way, the EPA should develop a systematic EIS review frameworks that will include the necessary review criteria and the accreditation of review consultants. This will help to ensure some level of transparency in the EIA process and minimize the approval of poor quality EIA reports.

Public participation in EIAs should be prioritized. The EPA should develop formal procedures to guide public participation. Such procedures should state how the public should participate by highlighting their roles and responsibilities in the process. Of equal importance, the EPA should ensure that the general public is fully aware of the potential environmental consequences associated with projects/ activities under review. The public should also be informed during the review process about how their views will be reflected in the final EIA report and even during the decision making processes.

To ensure the effective execution of EMPs and impacts mitigation measures by proponents, the EPA should routinely monitor the implementation of projects throughout their life cycles. This can be achieved by developing systematic monitoring programs with clear division of roles and responsibilities of staff to be involved with the monitoring exercises. Environmental awareness should be considered both by EPA and the national Government as a key priority. The EPA should develop some environmental awareness programs to sensitize the general public on the relevance of environmental management. The EPA should develop and publicise a code of conduct for certifying EIA consultants in Liberia. This will reveal the competency of EIA consultants and also ensure some level of transparency with regards to their selections. It will help to improve the quality of EIA reports.

Public access to environmental information in Liberia should be improved. The EPA should exert all efforts to provide the general public with all relevant EIA documentations. With this in place, the headache of locating EIA documents at the Agency's Office will surely be reduced.

Table-2a
Systematic Measures Performance of the EIA System of Liberia

Systematic measures criteria	EIA practice in Liberia
EIA Legislation	
Legal provisions for EIA	Legal basis: National Environ. Policy of Liberia (2003), Section 4.7; EPA Act (2003), Section 37 and the EPML (2003), Section 6 to 30, with provision for enforcement, but overall implementation is inadequate
Provisions for Appeal by the developer or public against decisions	Section 30 of the EPML and Section 36 of the EPA Act provide for appeals
Legal or procedural specification of time limits	Decision on the approval or rejection of project takes place within 90 days
Formal Provision for SEA	The EIA system has no formal provision for SEA.
EIA administration	
Competent authority for EIA and determination of environmental acceptability	The EPA of Liberia is the principal administrative authority responsible for EIA implementation, but the Agency is understaffed.
Review body for EIA	No independent review body for EIA; reviewers are usually appointed by the EPA and relevant line ministries/ agencies
Specification of sectoral authorities' responsibilities in the EIA process	The EPA Act, Section 19 provides for the appointment of sectoral staff.
Level of coordination of the EPA with other line ministries and agencies	Weak coordination exist among the EPA and the relevant line ministries/ agencies
The EIA Process	
Specified screening categories	One category of list that outline all projects/ activities requiring mandatory EIAs in the Country
Systematic screening approach	No formal guideline or criteria for screening of projects
Systematic scoping approach	The EIA procedural guideline provides scoping requirements, and proponent is required to prepare TOR through the designated consultant
Requirement to consider alternatives	Section 3.2.10 of the EIA guideline emphasize consideration of alternatives; but it is merely practice
Specified EIA report content	The EIA guideline, section 3.2 provides a complete format of the contents of EIA reports
Systematic EIA report review approach	Provision under Section 2.7 of the EIA guideline, but no formal review criteria and code of conduct for review staff
Public participation in the EIA process	Public participation occur during EIA report review; Section 17 of the EPML also provides for public comment on EIS, but overall, Public participation is limited
Systematic decision-making approach	EPA grants approval for all EIA mandatory projects based on satisfaction from the review of EIA and public views/ comments
Requirement for EMPs	EMPs are required under section 3.2.9 of the EIA guideline
Requirement for mitigation of impacts	Required under section 3.2.9 of the guideline, but these are rarely implemented in practice
Requirement for impacts monitoring	Impacts monitoring is required under section 3.2.11 of the EIA guideline, but monitoring is weak

Table-2b
Foundation Measures Performance of the EIA System of Liberia

Foundation measures criteria	EIA practice in Liberia
Existence of general and/or specific guidelines including any sectoral authority procedures	There is one generic guideline that cover all sectors of the Country; no sectoral guideline
EIA system implementation monitoring	Provisions for monitoring exist, but monitoring rarely takes place
Expertise for conducting EIA	A host of local consultancy firms do exist, but the majority of them have no specialty in the required EIA related fields. The EPA usually organize in-Country training, which serves as the main source of capacity building for EIA practitioners.

The EPA should also prioritize the development of sectorial guidelines. Although, the generic EIA procedural guideline may cover the majority of sectors, it is especially important for the EPA to develop sectorial guidelines to suit each specific types of projects/ or activities. The reason for this is that some environmental impacts are sector unique.

Training and capacity building of EIA stakeholders needs to be emphasized. The Government should allocate resources for training and capacity building of all stakeholders involve with the EIA process. This will help to enhance the effectiveness of the process.

Above all, the Government of Liberia should empower the EPA by providing the necessary budgetary support to enable the effective implementation of the EIA regime by the Agency. This is important because the above recommendations cannot be effectively implemented without the needed resources.

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