



Netherlands Commission for
Environmental Assessment

Report ESY–Mapping Workshop, 28 February – 3 March 2022

LIBERIA



8 April 2022
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Report by the NCEA

Title	Report ESY–Mapping Workshop, 28 February – 3 March 2022
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Date	8 April 2022
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1. Introduction

On 28 February – 2 March 2022, the Liberian Environmental Protection Agency (EPA) and the Netherlands Commission for Environmental Assessment (NCEA) conducted an ESY-map workshop. This workshop was held in the context of the ECOWAS initiative to harmonize environmental Assessment (EA) policy in the region. The aim of the ESY-map was twofold:

1. Provide an analysis of the Liberian EA system, in order to contribute to a better understanding of the similarities and differences amongst West African EA systems. This will inform the ECOWAS harmonization process.
2. Analyse the strengths and weaknesses of the Liberian EA system and identify actions to further improve the system.

In an ESY mapping workshop, a group of practitioners and stakeholders involved in ESIA in a specific country jointly analyse the ESIA requirements and practice with the help of a standard set of questions. The outcome is a graphical representation of the quality of the current ESIA system. This tool was developed jointly by the NCEA and the Southern African Institute for Environmental Assessment (SAIEA), with input from the World Bank. The ESY-map is a tool that consists of questions that revolve around key elements in the ESIA system. These questions are divided into two levels. There are 37 Quick Scan questions that address the ESIA system more generally. Each of these questions is linked to the second level: a set of 150 detailed questions for more refined analysis. These make up the Detailed Scan of the ESIA system.

The Quick Scan was conducted on day 1 in a plenary session. On the second day, the Detailed Scan was conducted for ESIA elements that were selected on day 1. Some questions were answered using mentimeter. On the third day, the participants were divided into different groups to formulate an action plans for topics identified and selected in day 1 and 2.

For this workshop, 25 participants were invited from the EPA, line-ministries, academia and civil society. A total of 29 delegates registered and most of the attendants participated throughout the whole workshop. Eventually, the participants consisted of representatives from:

- EPA
- Line ministries, including Ministry of Information, Ministry of Mines and Energy, the Forest Development Authority
- ESIA consultants
- Academia (University of Liberia)
- Monrovia City Council
- Liberia Petroleum Refining Company
- Society for Conservation of Nature

2. Results

2.1 The ESIA Process

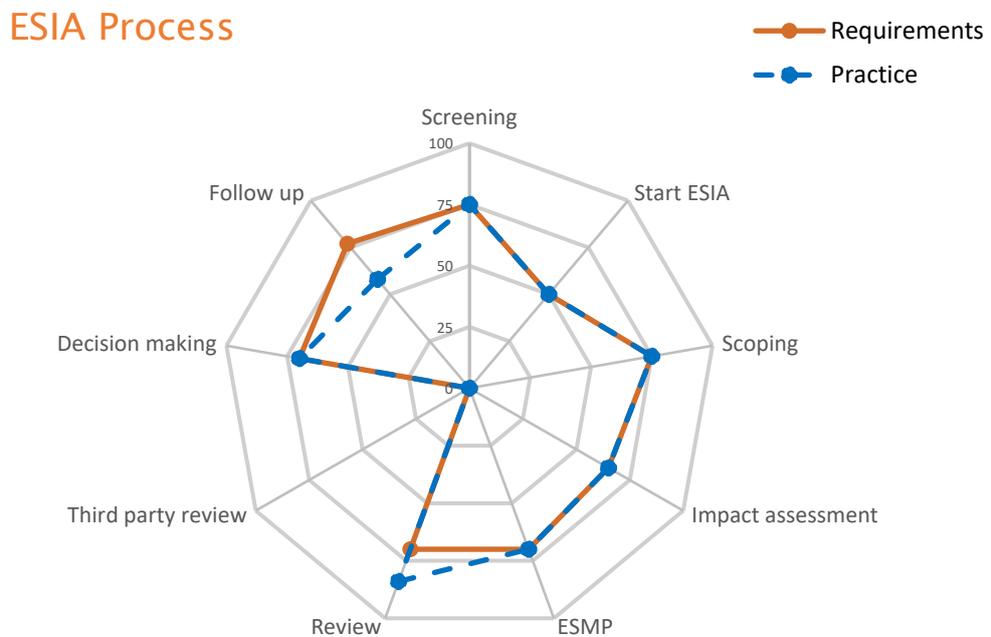


Figure 1 ESIA process scores

Screening

Quick Scan score: 75. There is well defined screening mechanism in place that functions well. A Project Brief is first submitted to the EPA that provides an overview of the project activities and potential impacts, which the EPA then shares with relevant institutions for inputs, in order to arrive at a screening decision. The Environmental Protection and Management law provides a list of interventions which require an ESIA, but the list does not include quantitative thresholds. However, the EPA does have in place and uses internal criteria and thresholds to decide whether an ESIA is required. One point of attention is that line ministries do not always provide (timely) feedback, as to ensure that the EPA takes into account the potential effects and affected stakeholders (e.g. land issues) in its screening decision.

Start ESIA

Quick Scan score: 50. The law requires that once an ESIA needs to be undertaken, a Notice of Intent must be published to inform (potentially affected) stakeholders. This Notice of Intent is supposed to outline the project activities, its location and the potential impacts. However, this provision is not known to all and in practice the Notice of Intent is not published. Project information does hence not timely reach affected stakeholders. There are opportunities to publish this information through the EPA website, newspapers and at locations where projects will take place.

Scoping

Quick Scan score: 75. There are clear requirements and guidelines for scoping and reporting that are often lived up to by consultants. Important issues are selected for study and alternatives are considered. The scoping process results in a report and a ToR that is submitted to the EPA for approval. There is sometimes some redundant information in the ESIA, but the EPA is currently revising the requirements and guidelines to tackle this issue. A point requiring attention in the scoping process is the collection of local inputs. Stakeholder consultation; this is sometimes not undertaken, or the quality of the consultation can be questioned. County environmental officers, who are locally the focal points for ESIA, are supposed to collect inputs from local environmental auditors but this does not always happen. Also line ministries, who are supposed to provide input into scoping, don't always have the right expertise available to do so.

Impact assessment

Quick Scan score: 65. In general, the quality of impact assessments are considered to be of sufficient quality. The law and guidelines are clear on what is expected in the ESIA report. Earlier on, about 50% of the reports was sent back due to insufficient quality (for instance because the baseline information provided did not correspond with the location where the impact assessment was done). But in the past few years, the EPA has been observing a gradual improvement in the quality of the reports, hence less ESIA's are being rejected or sent back. An example is the improvements in the considerations of alternatives. A key challenge remains the information provided on social, economic and cultural issues; this sometimes tends to be limited.

ESMP

Quick Scan score 70. Along with the ESIA report, also an E(S)MP must be submitted that outlines mitigation measures, monitoring indicators, budgets and timelines. The quality of ESMP reports is generally considered as of sufficient quality, although some comments are made on implementation (which is presented later in 'follow up'). ESMPs cover both environmental and social issues, but it is not always spelled out very concretely how a project will deal with social issues. Another challenge is that some social issues are dealt with through MoUs between line ministries and affected communities. This information is often not reflected in the ESIA/ESMP and is hence outside EPAs sight. It is very much desired that this information is included in the ESIA/ESMP.

Review

Quick Scan score 70. A formal procedure for internal review is in place that both takes into consideration the ESIA and the ESMP. The review is done by the EPA with the help of a review committee with line ministries. The EPA also goes into the field to ascertain that the information provided is correct. However, it is considered that keeping a better registry of experts (for review) could be a worthwhile effort. In each line ministry, there is an environmental focal point who are involved in review. A strong need is felt for capacity building in these focal points for ESIA in general and for review in specific.

Detailed scan score 75 (practice). Using mentimeter, the responded were asked to indicate what percentage of ESIA were in practice reviewed according to various requirements (see table 1). In practice, most ESIA followed review requirements, although consultation of line ministries and publication of review justification were elements that could be improved.

Questions	Weighted average	Response (in percentages)									
		0	10	20	30	40	50	60	70	80	90+
% of ESIA reviewed according to country requirements	7,9	1	0	0	0	0	2	0	7	3	3
% of ESIA where a site visit takes place during review	6,8	1	0	0	1	4	1	2	2	3	2
% of ESIA where gov't agencies are consulted during review	5,8	1	2	0	3	3	1	0	2	2	2
% of ESIA in which both process and content were reviewed	7,2	1	0	1	0	2	1	0	5	5	1
% of ESIA where the ESMP is reviewed	7	1	0	2	0	0	1	5	2	2	3
% of ESIA where reviewers formulated additional conditions	6,4	1	0	0	0	5	2	3	3	1	1
% of ESIA where review conclusions were justified and published	6,2	1	1	0	2	1	3	3	2	2	1
% of ESIA where review contributed to better ESIA	8,4	0	0	0	0	0	1	1	5	6	1
% of ESIA considered to be of sufficient quality	7,7	0	0	1	0	0	1	3	5	2	2

Table 1. Detailed Scan scores for Review

Third party review

Quick Scan score 0. There is a provision in law requiring third party review, but this in practice not applied.

Decision making

Quick Scan score 80. There are procedures in place that the EPA applies to ensure that decision making is participatory. Views are collected from the local level (affected people, environmental focal points) and their views are taken into account in the decision making and permit conditions. Also the relevant line ministries are informed, to ensure these take into account the information from the ESIA/permit when they take an overall decision on the project. Also the intersectoral committee housed within the EPA (that is responsible for coordinating with the Environmental Units at line ministries, promoting environmental awareness raising and who receive quarterly environmental reports from line ministries. The law requires that the decision on the ESIA is justified, published, and registered at the EPA registry, this does however not yet happen. A problem encountered in practice is that some projects start before the approval of the ESIA, even though such approval first is formally required.

Follow up

Quick scan score 50. This score is relatively low because there are several worries concerning this topic. Follow up on ESIA/ESMP is mainly done through environmental staff under the EPA across most of the counties. At county level there are also environmental inspectors who are supposed to monitor environmental parameters. However, both of these lack the necessary equipment and resources (such as means of transport) to carry out their work. Therefore, consultants sometimes encounter the same issues that they flagged in their earlier monitoring reports shared with the EPA. A concern pointed out is that being dependent on equipment from the sectoral departments may compromise their independence.

In emergency cases, for instance when there is question of spills or pollution, the EPA and local staff react quickly and adequately. However, the EPA may not always have a good overview whether a project achieves its objectives and permit conditions (an example is given of a hydropower dam with a reservoir that is supposed to ensure water provision in the dry season; it is unclear whether it can realize expectations). Another point of attention is the follow up on social issues; although these are (partly) included in the ESIA/ESMP, there is a concern that these are not always considered in monitoring and follow up because it is not clear what exactly should be monitored (see point ESMP).

Detailed scan score 70. Using mentimeter, the responded were asked to indicate whether follow-up met requirements in practice (see table 2). Scores were similar as to the Quick Scan; however, follow-up by proponents is lagging as the ESMPs are not always incorporated into ToR, nor is action undertaken in the case of smaller projects.

Questions	Weighted average	Response (in percentages)									
		0	10	20	30	40	50	60	70	80	90+
% of ESIA's where proponents undertake 3 or more of the following: monitor, take action, report, publish	5,8	1	0	0	0	3	5	2	2	0	0
% of ESIA's where government undertake 3 or more of the following: monitor, site visit, take action, report, publish	7,3	0	0	0	1	0	1	8	2	0	2
% of projects where ESIA/ ESMP is incorporated into contractor ToR, tenders, and contracts	5,9	1	0	0	3	3	2	0	3	2	0
% of ESIA where third parties were involved in follow-up?	5,7	0	0	0	4	2	5	2	0	0	1
% of ESIA's where financial commitments were put in place	7,8	0	0	0	0	3	0	3	1	5	2
% of ESIA where non-compliance during follow-up was rectified	7.8	0	1	0	1	0	1	0	4	5	2

Tabel 2. Detailed scan scores for Follow-up

2.2 Cross-cutting issues in the ESIA process

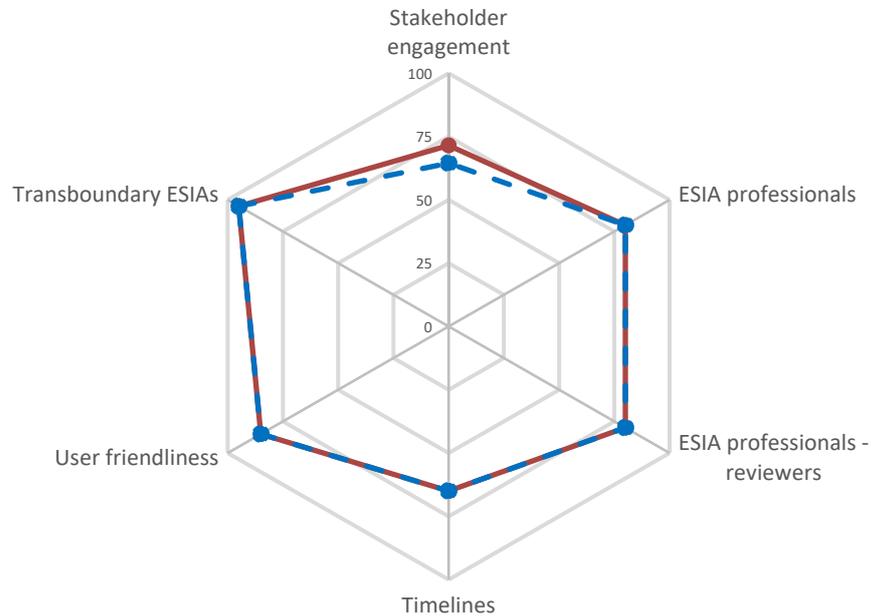


Figure 2. Cross-cutting issues

Stakeholder engagement

Quick Scan score 80. There is a requirement to publish report / Notice of Intent in local language. However, for remote projects under lesser scrutiny, specific information may be lacking. Sometimes the timing of stakeholder engagement is late in the process. Recently, improvements have been made through the forestry reform law 2006. The reformed ESIA guidance now requires community engagement during ESIA development. A point of attention is the way in which stakeholder comments are incorporated into the project design. This depends on the complexity of the project.

Detailed scan score 75 (requirements)

In the detailed scan, the requirements in general scored reasonably well, notably in the use of stakeholder input in decision making justification. However, there is no requirement to involve specialists or other special requirements to facilitate and ensure neutrality in stakeholder consultations. Some of the results are summarized in Table 3 (note that the score is based on other questions not shown here as well).

Questions	average	1 = poor; 5 = good				
		1	2	3	4	5
Comprehensiveness in which stakeholder engagement is required	3,8	2	0	1	6	4
Clarity of instructions in the regulation on methods for stakeholder engagement	3,7	1	0	4	5	3
stakeholder identification criteria	3,7	1	0	2	9	1
requirements on access to information	3,5	1	0	4	7	1
Extent in which stakeholder inputs must be recorded and responded to	3,9	1	1	2	3	6
Usage of stakeholder input in decision justification	4,1	2	2	2	7	0

Tabel 3. Detail scan scores Stakeholder consultations (requirements).

Detailed scan score 65 (practice)

In the detailed scan, practice regarding stakeholder engagement scored slightly lower, notably in the use of stakeholder input in decision making justification.

Questions	average	1 = poor; 5 = good				
		1	2	3	4	5
Does stakeholder engagement take place early enough to influence assessment and project design?	4,0	0	1	2	5	5
% of ESIA's in which project and stakeholder engagement options were announced early	3,6	0	1	5	5	2
% of ESIA's that lived up to country requirements on stakeholder engagement	4,2	0	0	3	4	6
% of ESIA's that can be considered good practice meaning that	3,9	0	1	1	9	1
% of ESIA's that delivered on the objectives of good practice stakeholder engagement meaning that	3,6	0	1	4	7	1
% of ESIA's where stakeholder input improved the ESIA and /or project	3,5	0	1	6	3	2

Tabel 4. Detail scan scores Stakeholder consultations (practice).

ESIA professionals

Quick Scan score 80. There is an agreement that the ESIA consultants perform well. There is a system of certification in place where consultants are regularly (re)assessed. It is noted that expertise in some sectors is stronger than others.

ESIA professionals – reviewers

Quick Scan score 80. The qualifications and the review capacity of the EPA staff is considered as up to level. There are also sufficient experts that are able to play the role of reviewer whom the EPA engages when they feel they lack the technical knowledge on a specific topic. With some projects the EPA engages relevant expertise, although it is felt that academia

could be more engaged in ESIA review. Also the review capacity in line ministries requires attention.

Timelines

Quick Scan score 65. The law and guidelines provide clear timelines for the ESIA procedure. But it is felt that there is some room for improvement, because the legal requirements are either perceived as too long or too short, or some timelines are not adhered to and take longer in practice. This is attributed to the fact that EPA staff is often out in the field, which leads to some backlog in their office work. The timelines for line ministries to provide inputs is perceived as too short – which (next to the perceived lack of review capacity) could clarify the low levels of response from line ministries. It is further noted that although some timelines seem long (e.g. 90 days to review ESIA reports) this is only an indication of the maximum; in practice it is rare to reach this maximum.

User-friendliness

Quick Scan score 85. There is a general agreement that the ESIA procedure is quite well outlined and understandable. Moreover, the EPA is at the moment revising the guidelines which aim at further simplifying the procedure and the process.

Transboundary ESIA's

Quick Scan score 95. This is thought to be strong element in Liberia's ESIA system. There are legal provisions to look for cross-border consultations in case of transboundary impacts. This is also adhered to, as illustrated by several examples from Guinea, Cote d'Ivoire and Sierra Leone where EPA's counterparts were consulted on projects.

2.3 Enabling conditions

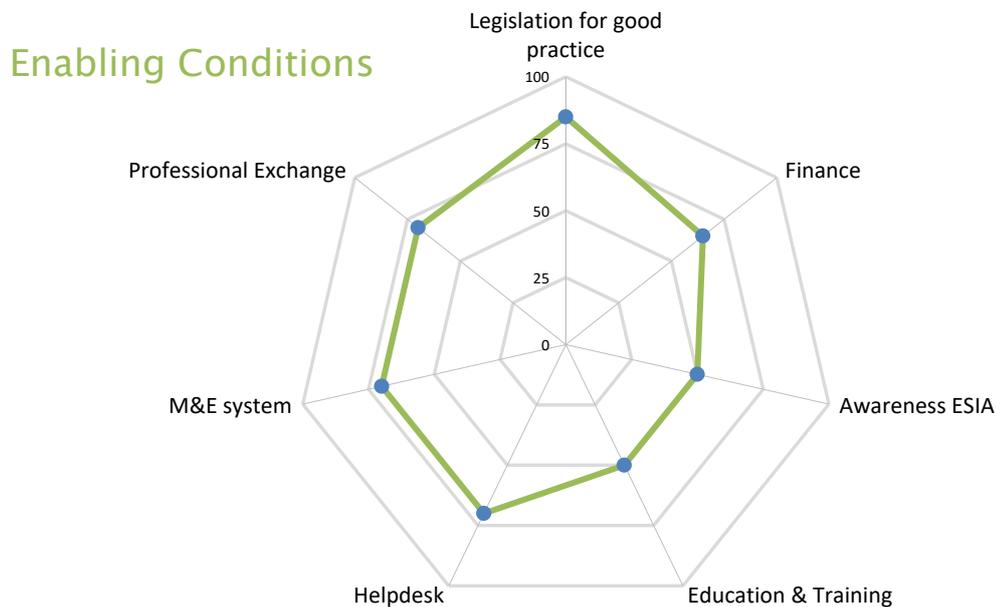


Figure 3. Enabling Conditions

Legislation for good practice

Quick Scan score 85. The existing legislation is considered as adequate to promote good ESIA practice.

Finance

Quick Scan score 65. The EPA charges fees in proportion to the project and associated administrative costs. Although the collected fees help covering the basic costs, this is not entirely sufficient to cover all costs and there are internal discussions ongoing in the EPA to solve this issue and establishing a new fee regime. Also in terms of covering human resources (covered by central finance), the EPA faces the challenge to retain staff who are attracted to other line ministries or the private sector who pays better salaries.

Awareness ESIA

Quick Scan score 50. The picture on the awareness on ESIA is a mixed one and varies from profession to profession. Among technicians there is a higher level of awareness and understanding. At the level of politics the awareness appears to be low and also communities where projects take place tends to be unaware of the ESIA procedure and their entitlements in the process. In the past about four years, the EPA has been undertaking various efforts to raise awareness on environmental issues in general and on ESIA in specific, however more efforts are still needed.

Education and Training

Quick Scan score 50. This is a topic that is currently evolving. Before 2019 there was no education on ESIA at graduate level. Recently, EPA has established in collaboration with UNDP a graduate programme that is currently up and running. The EPA is responsible to ensure training is available for consultants and efforts are made in this regard. This is however not the case to train staff within line ministries, despite the role they are supposed to play in the ESIA procedure. This is felt as a major gap and a priority issue to address.

Helpdesk

Quick Scan score 70. Proponents and consultants are able to find their way to the EPA physically or by phone, in case they have questions on the ESIA procedure. Also the environmental focal points in line ministries can easily find their way to the agency in case of questions. It is however felt that the (online) accessibility of the agency to the public could be improved.

M&E system

Quick Scan score 70. The ESIA system is monitored and evaluated in different ways. Starting with the revision of the ESIA guidelines by the EPA ideally every five years. So far such revisions took place in 2007, 2016 and now in 2022 based on an internal and external appraisal of the system where inputs are collected from the public. Occasionally also ad hoc efforts take place such as currently the revision of the ESIA process in the road sector (with World Bank support) and there is an intention to do the same for other sectors. Finally, with the newly set up graduate programme, there are currently five students who are carrying out their thesis on ESIA which could provide useful insights into the system.

Professional exchange

Quick Scan score 70. There is an association / platform of environmental professionals that shares information and that is connected via a whats-app group. The Union of Certified Environmental Professionals (UCEL) regularly organizes round table platform meetings between its members and the EPA. Within the EPA also some internal platforms exist for knowledge sharing. It is indicated that the exchange between EPA and professionals could be improved.

2.4 Capacities

The capacities of the three groups present during the workshop (EPA, consultants, and other governmental authorities) were discussed in groups, using the questions of the detailed scan. The results were presented to the group.

Capacities

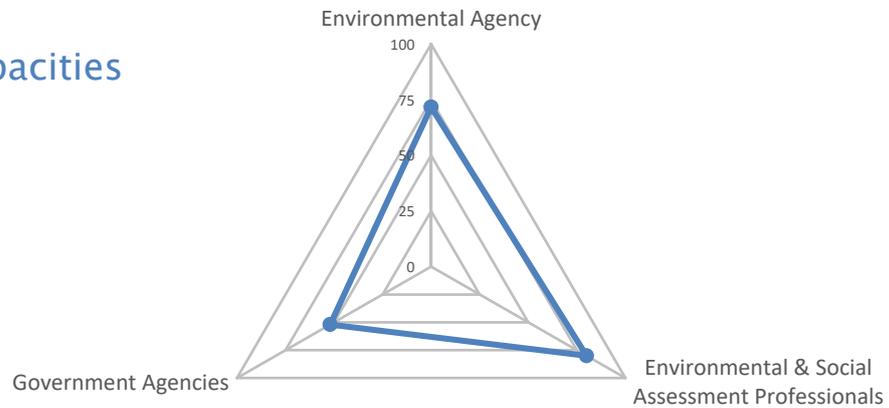


Figure 4. Capacities

Environmental Agency

Detailed Scan score 72

Environmental and Social Assessment Professionals

Detailed Scan score 45.

Government agencies

Detailed Scan score 52.

2.5 Performance

ESIA performance

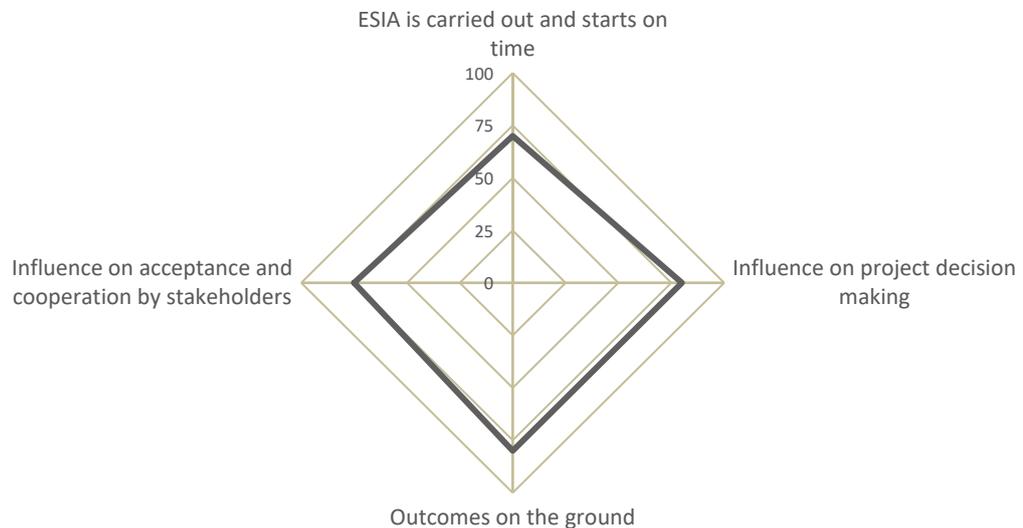


Figure 5. Performance

ESIA is carried out and starts on time

Quick Scan score 70. In a general sense, ESIA starts on time and are well aligned with project design and development. Though there are sometimes projects that start before the ESIA is approved, or the design is first done by a contractor, while the ESIA starts at the implementation phase under another contractor. This tends to happen with government projects and especially road construction but rarely with private ones, or with projects in the agriculture and mining sector. Still, in all cases the ESIA will be required and carried out.

ESIA Influence on project decision making

Quick Scan score 80. ESIA do have influence on project decision making as shown by some (recent) examples where projects have been rejected due to impacts on ecologically sensitive and valued areas, or due to severe impacts.

ESIA influence on outcomes on the ground

Quick Scan score 80. Through ESIA serious impacts are being prevented such as water pollution, erosion (for example through sediment control in road construction projects). Also in the palm sector, through ESIA buffer zones are established and engagement of local communities is ensured.

Influence on acceptance and cooperation by stakeholders

Quick Scan score 75. In the past few years, good improvements have been observed in terms of stakeholder engagement, which increases the acceptability and appreciation of projects among local communities.

2.6 Context

Context

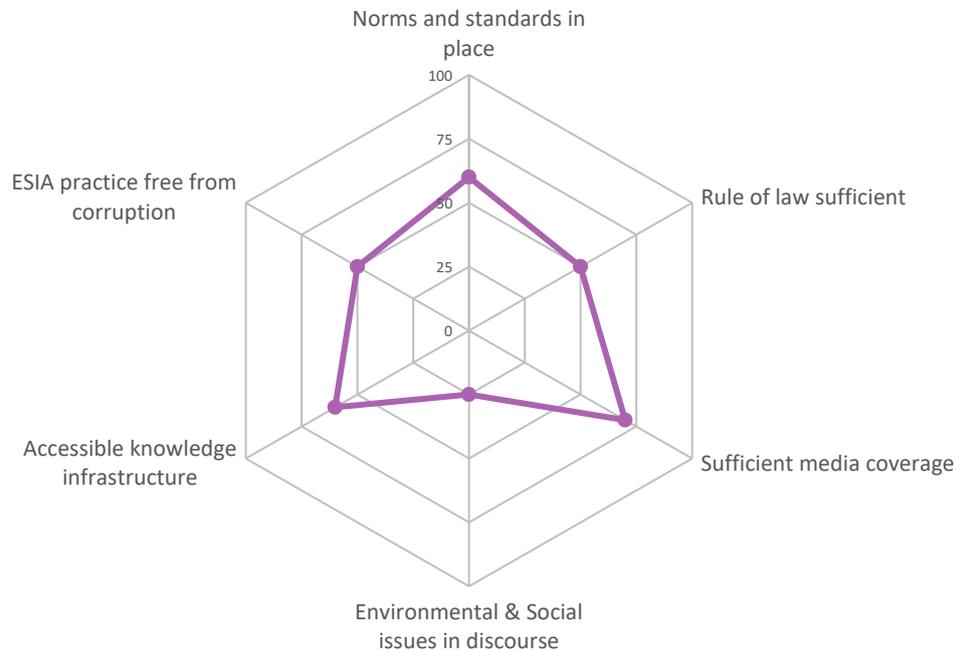


Figure 6. Context

Norms and standards in place

Quick Scan score 60. In Liberia, there are national standards in place for water, air and noise. At the moment, standards are at the stage of validation for wetlands and for waste. Whenever standards are lacking, the EPA uses international standards such as from the World Bank (for instance for Resettlement Actin Plans) or World Health Organisation (WHO). Although national standards are in place, some of them were formulated a long time ago, such as the water quality standards from 1993, and hence need to be re-assessed and updated.

Rule of law sufficient

Quick Scan score 50. The environmental law provides for the set up of an environmental court. This court is however not yet in place. Any complaint regarding an environmental issue can be brought to the national court, where the knowledge on environmental issues is limited. To close this gap, the EPA has established an Environmental Committee which is an extra judiciary body that deals with complaints/grievances on the environment, including ESIA. Also so called 'grievance desks' are being established as an administrative procedure to deal with grievances. The environmental law defines some concrete fines that apply in case the ESIA procedure is not adhered to and this functions well in practice: there are various cases where the EPA appealed successfully.

Sufficient media coverage

Quick Scan score 70. Within the EPA there is a focal point for the media who also develops press releases and who is available to provide information to journalists. Trainings environmental topics are organized regularly for media and awareness raising campaigns implemented regularly in collaboration with media. In addition, the EPA is soon to sign a contract with 10 radio for the dissemination of information.

Environmental and social issues in discourse

Quick Scan score 25. The discourse on the environment is mainly with a very limited segment of the government. This concerns for instance the commission on the environment in both houses of representatives and in the senate, who take part in international negotiations like CoP. There are also some national and local platforms amplifying natural resource issues. However, in general the awareness on and importance attached to environmental issues in the political arena remains limited. In the 2017 election for example, environmental issues did not feature in the campaigns. It is felt that some effort needs to be made in this regard.

Accessible knowledge infrastructure

Quick Scan score 60. The EPA publishes a report on the state of the environment every five years. Although within different ministries a lot of data and information is available, these need to be streamlined and made accessible to the public. Recently, some efforts and progress has been made concerning inventorying the existing data/information and establishing information and knowledge management infrastructure. Within the EPA there are focal points as data brokers for different topics a. The EPA is currently also establishing a platform / database for which a MoU is signed with different line ministries and institutions to pool data and information. Up to now, these institutions have not yet sent the information as agreed. So in sum, there is some infrastructure being set up, but these do not yet function entirely.

ESIA practice free from corruption

Quick Scan score 70. The EPA tries its best to keep the ESIA free from political interference and perceives itself as being independent as they do not need to report to any government institution. Even in cases of high political pressure, EPA has been able to reject interventions, such as a proposed football stadium in the middle of a wetland. At the same time, challenges are noted like the bribing of local people to provide wrong information to the EPA to make a project look good and desired, whilst local acceptance is lacking. Forms of corruption are also present at proponent level who can influence technicians involved in the ESIA process.

3. Action Planning

On the third day of the ESY-map workshop, the participants were requested to translate the identified strengths and weaknesses into action plans to improve the Liberian ESIA system. The inputs could be used to inform the update of the ESIA guidance, which was underway at the same time as the ESYMAP workshop. The individual actions plans are presented here.

Stakeholder Participation

No	WHAT IS ISSUED?		WHY	WHAT is needed?	How	WHO(Actions)	Time line
1.	Issue (current situation)	Issued to Address					
	<p>Generally, Project Affected persons are involve</p> <p>Generally, Concerns are raised during Stakeholder Participation</p>	<p>Desire outcome: Stakeholder's participation should be holistic</p> <p>Desirous outcome: There is need for feedback on how these concerns are address</p>	<p>Lack of holistic involvement may; Undermine/stalled the project implementation or decision making</p> <p>Lack of feedback may result to unresolved issues</p> <p>This may result to dissatisfaction, confusion</p>	<p>Ensure transparency in identifying stakeholder's at all levels</p> <p>Stakeholder composition to include: Affected Towns/communities,</p> <p>Local leaderships(county, district, township etc.)</p> <p>Local groups(civil society, youth, gender, etc.)</p> <p>Setup Grivance redress Mechanism to deal with conflicts & dissatisfaction</p> <p>Ensure channel of communication between Proponent, Regulatory & PACs</p>	<p>Regulator, Proponent(communit y liaison), Consultant, & local authority to work in identifying stakeholders; To ensure broadbase participation</p> <p>Ensure continuous engagement between Proponent, PACs</p> <p>Ensure the mobilization of finance for the representation of all stakeholders</p>	<p>Regulatory, Proponent, Consultant, Local Authority, PACs</p> <p>Regulatory</p> <p>Regulatory, Proponent</p>	<p>One month Prior to Project Commencement</p> <p>During the live of the project</p> <p>Prior to the Project</p>

Access to information

Subject	Activities	Responsible	Timeframe 2022				Partners and financial sources
			Q1	Q2	Q3	Q4	
Access to Information	<i>Mobilize resources – finance</i> <ul style="list-style-type: none"> <i>Maintain platform</i> 	Management Team-EPA					MEAs & Partners Resources(Human &Financial)
	- <i>Establish the platform</i>						MEAs & Partners Resources(Human &Financial)
	- <i>Strengthen sectoral coordination</i>						EPA & relevant MACs
	-						
	Inadequate information management						MEAs & Partners Resources(Human &Financial)
	- <i>Assess and build/train staff/professional & Maintain platform</i>						EPA & partners

Line Ministries

Subject	Activities	Responsible	Timeframe 2022				Partners and financial sources
			Q1	Q2	Q3	Q4	
Expertise of line ministries	Established environmental unit	EPA					Banque Mondiale
	Build the capacity of staff on the ESIA process and other related environmental issues. - Short- and long-term training	The institution, EPA and partners					Environmental Partners and Stakeholders
	Create environmental management plan (EMP)	The institution					Environmental Partners and Stakeholders
	Ensure Environmental Focal person should have a science/ technical background	The Institution and EPA					Environmental Partners and Stakeholders
	-						
	-						

Awareness raising

Subject	Activities	Responsible	Timeframe 2022				Partner and Financial sources
			Q1	Q2	Q3	Q4	
	<ul style="list-style-type: none"> It is an important tool for decision making for the ESIA regime of Liberia. 	EPA					Banque Mondiale
	<ul style="list-style-type: none"> Adequate Financial and logistical supports. <ul style="list-style-type: none"> Identify the potential risks and Impacts It gives you an early warning to tackle any Environmental issues at an early stage. To increase acceptability of the project It reduces doubts amongst stakeholders. 	EPA/local authorities,					International Partners/LMACs
	<ul style="list-style-type: none"> Radio Talk shows using local languages Jingles Community Engagements Increase in visibility and awareness (Flyers, stickers, Billboards) It should be incorporated into national curriculum 	EPA/local authorities,					International Partners/LMACs, media/civil society organizations
	<ul style="list-style-type: none"> The Environmental Protection Agency in consultation with line ministries. 	EPA/local authorities,					

Annex 1: Overview available knowledge and skills

- Expertise ESIA
- Environmental Engineering
- GIS / Geospatial Analysis and Environmental Geology
- Water Resources Management and water quality
- Engineering and design (waste management)
- Msc. Organic Chemistry (skills in collecting baseline data and analyzing environmental data on water soil and air)
- Chemical engineering (biochemical analysis)
- Stakeholder engagement (interview project affected people)
- Bachelor Environmental Science
 - o ESIA
 - o Conservation
 - o Climate change
 - o Forestry
 - o Waste
- Msc Environmental science and bachelor biology (and expertise stakeholder engagement and ecological impact assessment)
- Natural resource management
- ESIA (examination of alternatives and initial screening of projects)
- Bachelor Sociology (expertise in community engagement, public participation, public awareness) 2x
- Ecological
- Stakeholder engagement
- Biology (and solid waste mitigation skills)
- Strategic planning and training skills
- Hydrology and water resources analysis + community engagement
- Bsc earth science and ESIA/ESMP, compliance audit, waste management plan
- Bsc mathematics with physics, Msc Environmental science waste water remediation, stakeholder engagement specialist, working in areas of high conservation, ESIA in protected areas
- Bsc Biology/chemistry, Msc environmental science (waste management, review ESIA/ESMPs audit reports, stakeholder engagement, GHG expert)
- Environmental science and global change/ sustainability
- Geology
- Bachelor agricultural science education and ecosystem management expertise
- Biology, environmental protection, climate change
- Master public health, bachelor biology and chemistry, environmental awareness and education, stakeholder engagement, skill in linking environmental health education and public health