EA FOLLOW-UP IN GHANA
"A CHALLENGE OR AN OPPORTUNITY"

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PRESENTED BY
RENEE AFOOM

ABSTRACT

Environmental Assessment Follow-up (EA follow-up) is an essential component of any Environmental Assessment (EA) process as it provides a means for enriching and enhancing the EA process (Baker and Dobos, 2001). In spite of its importance, research revealed that EA follow-up is an option rather than the norm in most jurisdictions; particularly in developing countries like Ghana. As a result, very little attention has been given to the implementation of EA follow-up process; in fact, implementing the EA follow-up process has been seen as a challenge in Ghana. Why is this so?

This paper is aimed at contributing to the EA follow-up process in Ghana. This paper begins by describing the current EA process in Ghana; particularly, the type of EA follow-up process favored by proponents and the EA follow-up activities of the EPA. Opportunities within the current EA process will also be discussed. In order to suggest an appropriate EA follow-up process for Ghana, the main opportunities identified within the current EA process will be incorporated into the existing EA follow-up process as avenues for improvements. This paper also suggests a framework made up of six coherent steps. In conclusion, the paper recommends certain possibilities to assist the Environmental Protection Agency (EPA) with the regulation of the EA follow-up framework.

KEY WORDS: Environmental Assessment, Environmental Assessment follow-up, implementation, local involvement, regulatory capacity

INTRODUCTION

The EA process was first introduced in Ghana through the *Environmental Protection Act 490* in 1994 (EPA, 1995). Based on this act, the EPA provided standardized procedures to assist proponents with the implementation of this regulation, and to ensure that proponents comply with appropriate screening and evaluation processes. There are two main types of EA processes in Ghana, namely: the full EA and the Preliminary EA (where a full EA is not required).

Administrative Map of Ghana

Source: Ghana reference maps @ www.ghanaweb.com retrieved on 22/01/04

The EPA has a comprehensive list of undertakings that trigger the EA process. All proponents of such undertakings are required by law to obtain environmental permits before initiating such undertakings (EPA, 1995). Generally, there are six main steps under a full EA process, they are as follows:

- registration of undertaking;
- screening to determine the need for an EA;
- scoping to identify the focus of the EA (terms of reference);
- undertaking the EA activities and preparing the Environmental Impact Statement or EA report
- Environmental Decision;
- Environmental Permitting

CURRENT EA FOLLOW-UP PROCESS IN GHANA

EA follow-up activities in Ghana are usually termed "post –EA activities[1]". These post – EA activities may be performed as a result of the EA approval conditions given by the EPA. Under the current practice, EA follow-up is not mandatory (EPA, 1995). The EPA is responsible for regulating the EA follow-up process; and the proponent is expected to implement the activities within the EA follow-up programs. A summary of the current EA follow-up process is provided based on research[2] conducted in Ghana. The next paragraphs describe the EA and EA follow-up activities from three projects, as well as the activities of the EPA from 1998 -2001.

TYPES OF EA FOLLOW-UP ACTIVITIES

In order to gain insight into the types of EA follow-up processes in Ghana, table 1 below summarizes the contents of three EA reports; they include the Volta River Dredging Shoals Project, the Bogoso Gold Mining Project and the Chirano Gold Mining Project. The research revealed that in Ghana, each proponent is responsible for designing and implementing individual EA follow-up activities. This has resulted in the development of varied forms of EA follow-up programs. Unlike the EA process, there are no specific and standard principles or procedures guiding proponents. Although the EPA offers advice (on EA follow-up activities) to proponents, it is the responsibility of the proponent to determine the issues and focus of the EA follow-up process.

[1] Post-EA activities and EA follow-up activities will be used interchangeably in this paper
[2] Details of the three EA case studies may be found in Afoom (2004) in *Major Paper-MES program, York University*.

Table 1

Project **Components**	**EA for the Volta Debre Shoals Removal and Maintenance Dredging Project**	**Bogoso Gold Mining Project**	**Chirano Gold Mining Project**
Project Scope	Dredging lake bed & transporting materials to disposal sites	Creation of new open pits, construction of ore stockpile, construction of new tailings storage facilities	Construction & operation of ten open pits, conventional carbon-in-leach treatment plant & haul roads
Scope of EA	Lake water, aquatic fauna & flora, social issues	Air quality, underground & surface water, soil & geological, vegetative & social issues,	Geological & soil, flora & fauna, underground & surface water, atmospheric issues, transportation & infrastructure
Impacts	Noise pollution, lake water pollution, impacts on aquatic fauna & flora impacts from spills and health & safety, socio-economic issues	Increased noise & vibration levels, contamination of surface & underground water bodies, soil erosion & loss of vegetation, impacts on heritages resources, relocation of social infrastructure	Geological & soil disturbance flora & fauna removal, possible underground & surface water contamination, air pollution, impacts on social infrastructure & traffic congestion
Mitigation measures	Train personnel & manage dredging & dumping, conduct equipment maintenance, avoid dredging at night and near communities	Erecting acoustic fences, monitoring of water bodies & levels to facilitate continuous improvement, rehabilitation of social infrastructure, compensation for impacts on heritage and social resources	In-plant dust extractors, monitoring dust, noise & vibration levels in order to maintain air quality, protect water from contamination, land reclamation & re-vegetation programs, farm compensation, relocation & resettlement of communities
Local involvement	Proponent informed communities within the vicinity of the project impacts	Series of information sessions with communities, consultation & participation in discussions & negotiations on compensation issues	Discussions & community meetings on compensation & relocation, regular meetings with local government, chiefs & clan elders, established a Local Consultative Committee (LCC) for continuous information exchange
EA follow-up activities	Regular environmental monitoring on impact areas	Developed an EMP to monitor actual environmental & cumulative impacts, management impacts, designed Environmental Action Plan	Developed an EMP for regular environmental monitoring & auditing, reporting to LCC & local government offices, impact management

THE EA FOLLOW-UP ACTIVITIES OF THE EPA

The research also utilized the annual reports of the EPA, by examining the day to day EA follow-up activities of the EPA between 1998 -2001. The research revealed several pitfalls within the current EA follow-up process. For example, albeit the EPA conducted numerous compliance checks and exercises; most of the EA follow-up activities of the EPA were undertaken within the Greater Accra[3] region of Ghana. In 1998, all the (post -EA) compliance monitoring activities of the EPA were concentrated on projects located

[3] Accra is the capital city of Ghana

within the Accra area. This implies that the other nine regions[4] of Ghana were rarely monitored by the EPA. Through its compliance exercises, the EPA also realized that most proponents were not complying with the EA approval conditions. Additionally, most proponents were not implementing EA follow-up activities while others were inconsistent in submitting their EA follow-up reports to the EPA.

In essence, the research conducted on the EA projects revealed that although each proponent had some form of EA follow-up program, these EA follow-up programs had acute difference in terms of contents and design. Furthermore, after examining the current EA follow-up activities of the EPA, it was evident that the EPA is unable to undertake supervisory and compliance monitoring activities on a national scale. These pitfalls reinforce the need for a systematic and structured EA follow-up process that will assist both the proponent and the EPA.

OPPORTUNITIES WITHIN THE CURRENT EA PROCESS

Interestingly, the study on Ghana revealed certain opportunities embedded within the current EA process. Four main opportunities were identified as opportunities that may be directed towards improving the current EA follow-up process.

Institutional Capacity –Currently the EPA has offices in all ten administrative regions of Ghana. The EPA has also increased its regulatory capacity by establishing additional district offices. In the Western region, the EPA established an office in Tarkwa, and in Tema, which is located in the Greater Accra Region, to accommodate the large number of development projects in these two areas. The EPA has also embarked on partnership programs with non-governmental agencies, local people and other government institutions.

Training – The EPA undertakes regular environmental development and awareness creation programs. In 1998 and 1999, the EPA organized environmental education and awareness programs for planning students of the Kwame Nkrumah University of Science and Technology. At the international level, the EPA provided training assistance and institutional support to other African countries such as Benin, Zambia, Namibia and Uganda. Ghana also hosts the secretariat for Capacity Development and Linkages for Environmental Impact Assessments in Africa (CLEIAA).

[4] Ghana has ten administrative regions as illustrated in the map on page 3

Information system –The EPA has an information department that has developed an Environmental Information System. This system collects and compiles EA reports, annual environmental reports and other environmental research reports of the EPA. The Environmental Information System is connected to the National Framework for Geo-Spatial Information Management (NAFGIM) (Allotey, 1999). In 2000, the EPA developed a Regional and District Environmental Management System. This data system is aimed at enhancing environmental information flow between the ten administrative regions of Ghana.

Enforcement -To demonstrate its commitment to environmental protection, the EPA has undertaken a program called the Environmental Compliance and Enforcement Network. The Environmental Compliance and Enforcement network is made up of EPA officers' and law enforcement agencies (police and judicial personnel). This network is designed to facilitate extensive enforcement of environmental legislation throughout the country.

PROPOSED EA FOLLOW-UP PROCESS

These four opportunities will be integrated into the current EA follow-up process as avenues for improving the existing EA follow-up process. However, before providing these suggestions, it is imperative to establish the parameters underlying the proposed EA follow-up framework and suggestions. Two main factors were considered, namely:

- Feasibility –in order to facilitate immediate introduction and adjustments to the current EA follow-up process, the feasible and realistic suggestions were offered to the EPA
- Consistency –the proposed EA follow-up framework (and steps) are consistent with the current Ghanaian context

Based on these two considerations, an EA follow-up framework was developed. Certain aspects of the current EA and EA follow-up processes were maintained to facilitate the immediate introduction and adoption of the proposed EA follow-up framework into the Ghana setting. In fact, the proposed EA follow-up framework was fused into the current EA process, as a continuation of the current EA process. The main steps of the proposed EA follow-up process are described in the next paragraphs.

STAGES IN THE PROPOSED EA FOLLOW FRAMEWORK

The EA follow-up process in figure one has two main parts. It begins with the pre-EA decision part and ends at the post –EA decision part. The pre-EA part entails the

activities undertaken before the EA approval decision; they include (1) EA follow-up screening to determine the need for an EA follow-up process and (2) design of a provisional EA follow-up program or proposal. After EA approval, proponents may implement the post –EA part of the EA follow-up framework; particularly (3) the EA follow-up activities, (4) evaluation, (5) reporting and (6) EPA review. As this process is expected to guide and assist proponents, five out of the six steps (with the exception of the EPA review) are undertaken by the proponent.

Screening stage (1) –Referring to figure one, the EA follow-up process begins with the screening process conducted during the main EA process. In Ghana, proponents consult the EPA for input and technical assistance concerning the EA follow-up process. A screening process provides a channel for systematically determining which projects require EA follow-up. This screening process strengthens the current practice by making EA follow-up mandatory for the projects that actually need EA follow-up.

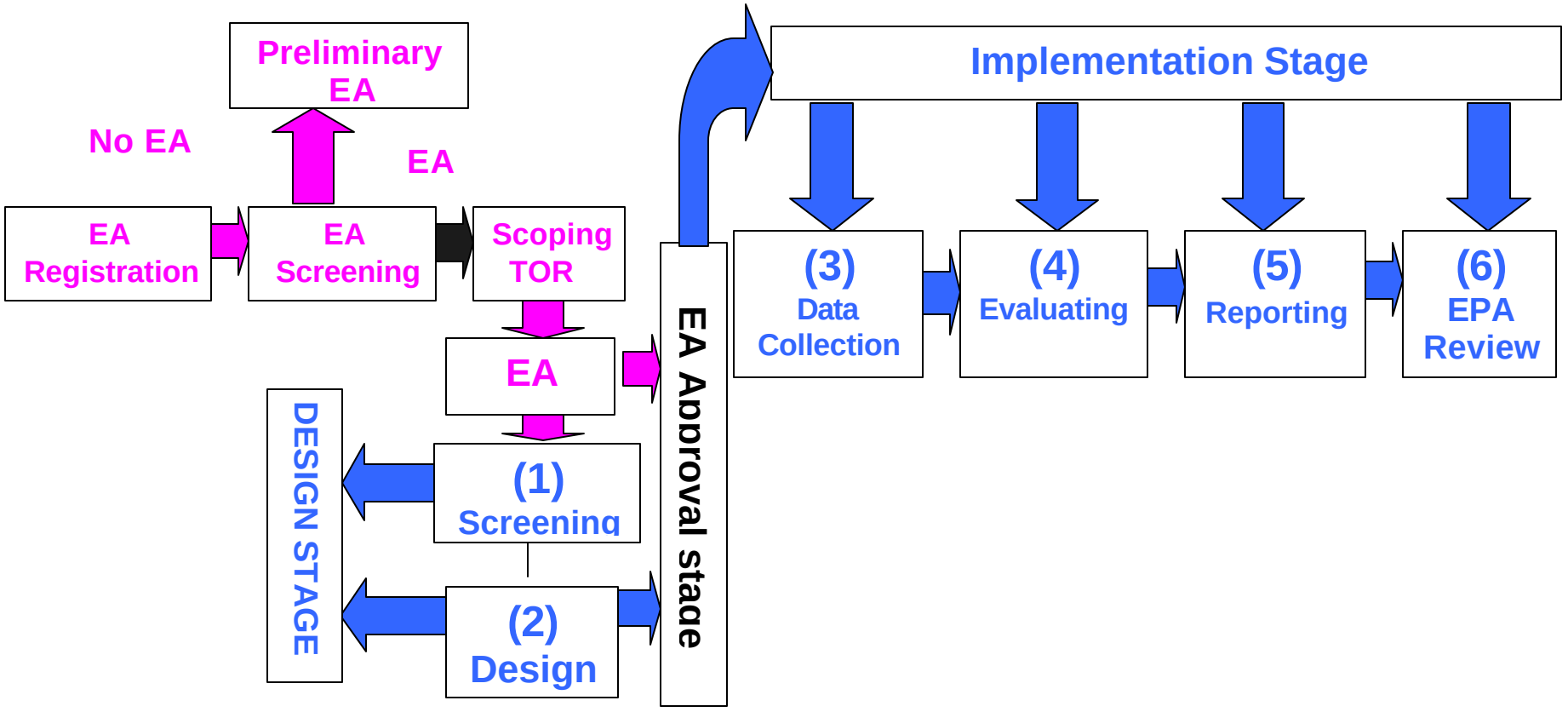
The screening process entails checking and identify whether the project relates to the screening questions in anyway. A project that answers "yes" to any of the screening evaluation questions in box 1 (one) below is expected to design an EA follow-up program. The screening process helps to identify "the need" for an EA follow-up process during the EA process. This screening process also eliminates the need for a law requesting all proponents to undertake EA follow-up.

An additional component has been introduced into the current process called the "Decline Justification report or proposal" (DJ); it requires all proponents who opt out of conducting an EA follow-up program to submit a DJ report or proposal" to the EPA. The Decline Justification report or proposal refers to a document that states and explains the proponent's decision to opt out of the EA follow-up process.

Box 1 Screening Evaluations

Is the project located within an environmentally sensitive location?	*Yes /no*
Is the mitigation measures based on new and unproven technology?	*Yes/no*
Are there socio-cultural issues surrounding the project?	*Yes/no*
Is the project based on new and unproven technology?	*Yes/no*
Are the EA approvals based on efficiency of mitigation measures?	*Yes/no*
Are there any several phases to the project?	*Yes/no*
Has the need for follow-up been indicated by any interests?	*Yes/no*
Is the project implementing any adaptive management measures?	*Yes/no*

Fig. 1 (one) –The Proposed EA follow-up Process



Designing stage (2) –In designing the EA follow-up process, the EA report may serve as a reference point to determine the scope of environmental issues that may be incorporated into the EA follow-up program. It may be useless to design an elaborate EA follow-up program before the EA approval without having the necessary resources to implement this EA follow-up program. There are two main advantages for considering the scope of EA follow-up process at this point in the EA follow-up process. The first advantage being that it offers an opportunity to focus the EA follow-up on key environmental issues identified at the EA scoping stage. Secondly, it gives the EPA an opportunity to contribute to the EA follow-up program before it becomes an official document. Additionally, proponents may be encouraged to select the appropriate EA follow-up techniques such as, the monitoring techniques, evaluation standards and time frames. This may help the proponent to design a suitable program for the undertaking before submitting the EA follow-up program at the EA approval stage.

At this pre-decision stage, the proponent has a chance to identify the different local people who may be interested in the EA follow-up process. At the pre-decision stage of the EA process, it may be possible to consider using the EA follow-up program as a negotiation tool between the proponent and local people. In addition, as the proponent is still working towards an environmental permit, the proponent may be willing to negotiate favorably and engage in positive relationships with the local people, for the mutual benefit of both the proponent and the local people. The EPA may also establish the commitment parameters of the proponent. The negotiations may go beyond just verbal agreements and clarification of issues, to include and establish the proponent's legal commitments.

EA decision –As a result of the introduction of the EA follow-up screening component; the EA approval decision may be based on the review of the EA report (EIS) and EA follow-up program. As the EA follow-up process is connected to the EA, the EA follow-up program does not necessitate a separate permit or approval fee. Similar to the current EA approval decision stage, the decision for an EA follow-up process will be given by the EPA.

Implementing stage (3) –Once the EPA approves these two documents, the EA follow-up program becomes official. At the implementation stage, proponents are expected to

perform monitoring activities, surveillance checks and effectiveness monitoring, performance checks and other activities. The monitoring method and techniques applied depends on the type of EA follow-up program being implemented. The data and information collected may relate to the air quality, water ph levels, waste disposal, management issues and so forth.

Evaluation stage (4) –All data collected through the monitoring exercises may be compiled and evaluated by the proponent. At this point, the proponent may compare the data collected from the pre-EA decision stage with the data collected at the post-EA decision stage. The evaluation stage helps the proponent to verify the EA predictions and the effectiveness of the implemented mitigation measures. This evaluation stage may be perceived as a form of internal audit in cases where there are no external interest groups involved. However, in order to promote transparency and effectiveness, the proponent may submit an evaluation or audit report to the EPA. This is similar to the current practice; the EPA is responsible for conducting random compliance checks to verify the accuracy of the evaluation and audit report submitted by the proponent.

Reporting (5) –Depending on the timetable for reporting and submission, the EPA may file and record all documents submitted by the proponents and make copies available for public viewing. In the current practice, the proponent submits audit reports and annual environmental reports at specific periods. However, these documents and reports are often made up of large volumes of technical and repetitive information, cumbersome to read by an ordinary person. In order to address this issue, it may be advisable to make summaries and non-scientific versions of the EA follow-up reports available to local people. This may replace the current situation, whereby EA follow-up documents are only accessible at the head office of the EPA.

There is also a need to create an environmental data system; presently, the EAA compiles EA related activities for its institutional purposes on an annual basis using electronic EA reports[5]. Perhaps, the EPA may begin pursuing a project-based compilation of the EA follow-up reports using the existing Regional and District Environmental Management system. This data collection system may be called the Environmental Baseline Database (EBD) system. The EBD may include compiled

[5] In addition to hard copies, the proponent is expected to submit EA reports in electronic form

baseline information from individual EA reports and EA follow-up reports. Eventually, the EBD may become a national database and research facility used by other government agencies, educational institutions and proponents.

EPA Review (6) –The last step in the figure one is the EPA review; this is the main role of the EPA within the proposed EA follow-up framework. Currently, the EPA receives and reviews annual EMP's, project reports and so forth. The uniqueness of this EA follow-up process lies in the fact that the reviewing step is not exclusive to the EPA. Local people may have an opportunity to examine and comment on the EA follow-up reports; they may submit their comments directly to the EPA, or through law enforcement personnel.

Local involvement –Local people have a role to play within the proposed EA follow-up framework. Firstly, all relevant information regarding the EA follow-up program may be made accessible to these local people at the EPA offices, and local venues such as the chief's palaces and law enforcement offices. Secondly, the comments of local people may be submitted to the regional offices of the EPA for further investigations. In severe cases, the comments and complaints may be passed on to the head office of the EPA. The outcomes of the EPA investigations may be communicated and made available at the EPA offices, law enforcement offices or to local leaders. Where possible, summaries of the reports and investigations may be translated and or reported in local dialects as currently done for EA announcements. Presently, there are local radio stations in all regions of Ghana and several districts. The EPA has often employed these radio stations to communicate EA announcements; thus, the EPA may inform the local people of the EA follow-up issues through these local radio stations.

Additionally, local people may be involved as members of the EPA review and research team. As local people are permanent residence of the area, they are often familiar with the environmental issues pertaining to the area. These local people may be concerned about the state of the environment because they rely on these environmental resources for their daily use (such as water bodies). Therefore, local people are in a favorable position to conduct regular checks and identify changes caused by the project. Although, these local people may not always have extensive skills to conduct scientific research, they may communicate these local concerns and even make suggestions to the EPA.

REGULATING THE EA FOLLOW-UP PROCESS IN GHANA

There are also six main suggestions aimed at helping the EPA improve on its performance; these suggestions may facilitate the introduction of the framework into the current practice.

Financial issues -The activities of the EPA are often determined and directed by the financial resources available to the EPA. Considering the current financial state of Ghana, it may be idealistic to expect the EPA to have financial resources to undertake massive expansions and adjustments in its EA follow-up regulatory activities. Nonetheless, the EPA (EAA) may employ a few of its existing resources to facilitate the regulation of the proposed EA follow-up framework. Consequently, the EPA may begin introducing the EA follow-up framework through pilot projects in key sectors and regions, such as the Eastern Region, Greater Accra Region and Ashanti Regions. The EPA may also initiate the EA follow-up framework into the infrastructure and services sector, as these regions and sectors recorded the highest EA registrations between 1998 -2001[6].

Institutional capacity –As mentioned, the EPA (EAA) has twelve offices; the EPA also works in collaboration with law enforcement agencies to enforce environmental regulations through the Environmental Compliance and Enforcement Network system. Connecting this environmental enforcement system to the regulation of EA follow-up may extend the EA follow-up process to a national scale. This is because these law enforcement agencies are well represented in every district and town throughout Ghana.

Personnel training programs –The EPA may train and educate its personnel on the EA follow-up framework before introducing it into the current process. The EPA may direct some of its current educational programs and training sessions towards this exercise.

Regulation -There is a need for enforcement regulations as the proposed EA follow-up process may be mandatory for selected projects. What happens to proponents who do not implement an official EA follow-up program? As the EA follow-up process has been fused into the current EA process; it may be possible to apply the existing EA regulations to the proposed EA follow-up process.

[6] This is based on the my research (Afoom, 2004)

Time frames –Time frames are important to proponents because they translate into financial liability. Similar to the current EA process, the EPA may provide time frames for the stages in the EA follow-up framework, such as time frames for monitoring, reporting and reviewing.

CONCLUSION

The current EA process in Ghana has had its fair share of challenges. Yet, there is a paradox, the opportunities for improving the current EA process lies within the EA follow-up process. Basically, the EA follow-up processes offers a chance to transfer lessons learned from actual undertakings into future EA's.

Below is a summary of concluding reflections of the paper:

- The proposed EA follow-up process offers specific procedures to strengthen the existing weak and unstructured EA follow-up process
- The proposed EA follow-up approach does not require legislative changes; instead, it offers a screening process to determine "the need" for EA follow-up
- The proposed EA follow-up framework builds upon the existing EA process; it also harnesses the potential of existing opportunities within the current EA process
- This EA follow-up framework provides a channel for transferring EA follow-up outcomes into future EA's.

Comparable to the democratic system in Ghana, the EA process is still in its infancy. Instead of perceiving EA follow-up as a challenge, this paper emphasizes the fact that EA follow-up is actually an opportunity for strengthening the current EA process in Ghana. However, it is important to note that there are other issues such as political will and jurisdictional issues that may influence the introduction of the proposed EA follow-up process.

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