

**WORKSHOP ON ASM IN GHANA & THE ROLE OF THE
GGSA
CITY ESCAPE HOTEL, AIRPORT**

**MODULE 8: THE OBLIGATIONS OF THE
ENVIRONMENTAL PROTECTION AGENCY**



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Artisanal & Small Scale Mining in Ghana





PRESENTATION OUTLINE

- Establishment & Mandate of the Agency
- Definition of ASM
- Legal framework
- Environmental Assessment
 - Requirements & Process
- Some permitting conditions
- Rehabilitation
- Challenges
- Strategies
- Conclusion & Way forward

ESTABLISHMENT OF EPA

- The Environmental Protection Agency was established by the Environmental Protection Agency Act, 1994 (Act 490) as the lead Agency for Environmental Protection in Ghana.
- The Agency was established to oversee, coordinate and regulate all issues regarding the environment in Ghana.
- The Act prescribes a set of environmental governance and management functions that are required to adequately protect and manage the environment in Ghana.

DEFINITION OF ENVIRONMENT

“Environment” is understood as the whole set of natural or biophysical and man-made or socio-cultural systems in which man and other organisms live, work and interact”(Source: Ghana EIA Procedures, 1995)

“Environment” as used in the Ghanaian context *‘includes natural resources, socio-cultural and economic conditions and the institutional conditions in which decisions are made’* (Content Report, SEA of GPRS 2004)

VISION AND MISSION

- **Vision**

The EPA has a vision of the state of environment and the status of the Agency as described below:

- A country in which all sections of the community value the environment and strive to maintain **environmentally sustainable development**, with **sound and efficient resource management**, taking into account **social and equity issues**.
- An Agency dedicated to **continuously improving and conserving the country's environment** in particular.

- **Mission**

To **co-manage**, **protect** and **enhance** the country's environment, in particular as well as seek common solutions to global environmental problems.

SELECTED- MANDATE OF THE EPA

- Issuance of environmental permits and pollution abatements;
- Issuance of notices in the form of directives, procedures or warnings;
- Prescription of standards and guidelines relating to the pollution of air, water, land and other forms of environmental pollution; and
- Conduct of investigations into environmental issues and advising the Minister;

MANDATE OF THE EPA- CONT'D

- Coordinate the activities of such bodies as it considers appropriate for the purposes of controlling the generation, treatment, storage, transportation and disposal of industrial waste.
- Act in liaison and co-operation with Government agencies, District Assemblies and other bodies and institutions to control pollution and generally protect the environment.

MINING DEPARTMENT'S OBJECTIVE

Broad Departmental Objective:

The primary objective of the Mining Department is to **PROMOTE** and **FACILITATE** the application of best practice environmental management throughout Ghana's mining industry

DEFINITION OF ASM

- **Some criteria used in defining ASM include;**
 - Costs of investment
 - Output/ ore production capacity
 - Size of concession/ licensed area
 - Labour requirements

DEFINITION CONT'D

- **Currently, the criteria used by the Agency to classify ASM include:**
 - size of concession i.e. ≤ 25 acres
 - duration of environmental permit (2 years)

***subject to change (the re- categorization of the small scale mining sub sector)*

MINERALS OF INTEREST IN ASM

- **Precious minerals**

- Gold and diamonds

- **Industrial minerals**

- Sand, gravel, limestone, granite, kaolin, mica, clay, etc

LEGAL FRAMEWORK

- The Constitution of the Republic of Ghana (1992)
- **Environmental Protection Agency Act, 1990 (Act 490)**
- **Environmental Assessment Regulations, 1999 (LI 1652)**
- The Mercury Act, 1989 (PNDC L 217)
- Minerals and Mining Act, 2006 (Act 703)
- Minerals and Mining Regulations, 2012
 - General (LI 2173), Support Services (LI 2174), Compensation & Resettlement (LI 2175), Licensing (LI 2176), Explosives (LI 2177), Health, Safety & Technical (LI 2182)
- Water Resources Act, 1996 (Act 522)
- Water Use Regulations, 2001 (LI 1692)

Environmental Assessment Regulations, 1999 (LI 1652)

- Provides the necessary legal backing for the EIA procedure/system in Ghana
- Generally, it deals with the various procedures to be followed prior to the granting of environmental permits, during the project life cycle and procedures for filing complaints, offences and penalties etc
- Has three (3) distinct parts
 - With a total of 30 regulations and
 - Five (5) schedules [***ASM falls in Schedule 1 projects, undertakings for which environmental approval is needed prior to commencement***]

LI 1652

Part 1

Process of Obtaining Environmental Permit

Part 2

Environmental Assessment Reports and Prescribed Actions by the Agency

Part 3

**Miscellaneous provisions -
suspension, cancellation or revocation
of permits and certificates, complaints
by aggrieved persons, gazette
publication, offences and penalty,
interpretation and schedules**

SCHEDULES TO EA REGULATIONS, 1999 (LI 1652)

- Schedule 1, lists undertakings requiring registration and environment permit.
- Schedule 2, lists undertakings for which EIA is mandatory.
- Schedule 3, **Regulation 15 (2)** EIA Scoping Notice
- Schedule 4, **Regulation 16 (3)** EIA Notice
- Schedule 5, **Regulation 30 (2)** provides list of Environmentally sensitive areas (**12 of them**)

LEGAL CONT'D

SOME HIGHLIGHTS OF LI 1652

-Regulation 1 – Undertaking requiring registration and issue of Environmental Permit

(2) requires all undertakings which in the opinion of the Agency has likely effects on environment and public health shall to commence only after registration and the issue of a permit

-Regulation 5 — Initial Assessment by Screening of Application

- (1) The Agency shall on receipt of an application and any other relevant information required, as an initial assessment, screen the application taking into consideration—
 - (a) the location, size and likely output of the undertaking;
 - (b) the technology intended to be used;
 - (c) the concerns of the general public, if any, and in particular concerns of immediate residents if any;
 - (d) land use; and
 - (e) any other factors of relevance to the particular undertaking to which the application relates.

LEGAL CONT'D

SOME HIGHLIGHTS OF LI 1652

-Regulation 23- Funds for Reclamation

A reclamation bond is required to be posted for any undertaking for which a reclamation plan is required

-Regulation 26- Suspension, Cancellation or Revocation of Permits and Certificates

(1d) Is in breach of any of the permit or certificate conditions

(1e) Fails to comply with mitigation commitments

(2) In the event of occurrence of fundamental changes in the environment due to natural causes before or during the implementation of the undertaking;

Regulation 29- Offences and Penalty

(a)& (b) Commences an activity without permit contrary to Regulation 1 (1) and/ or (2)

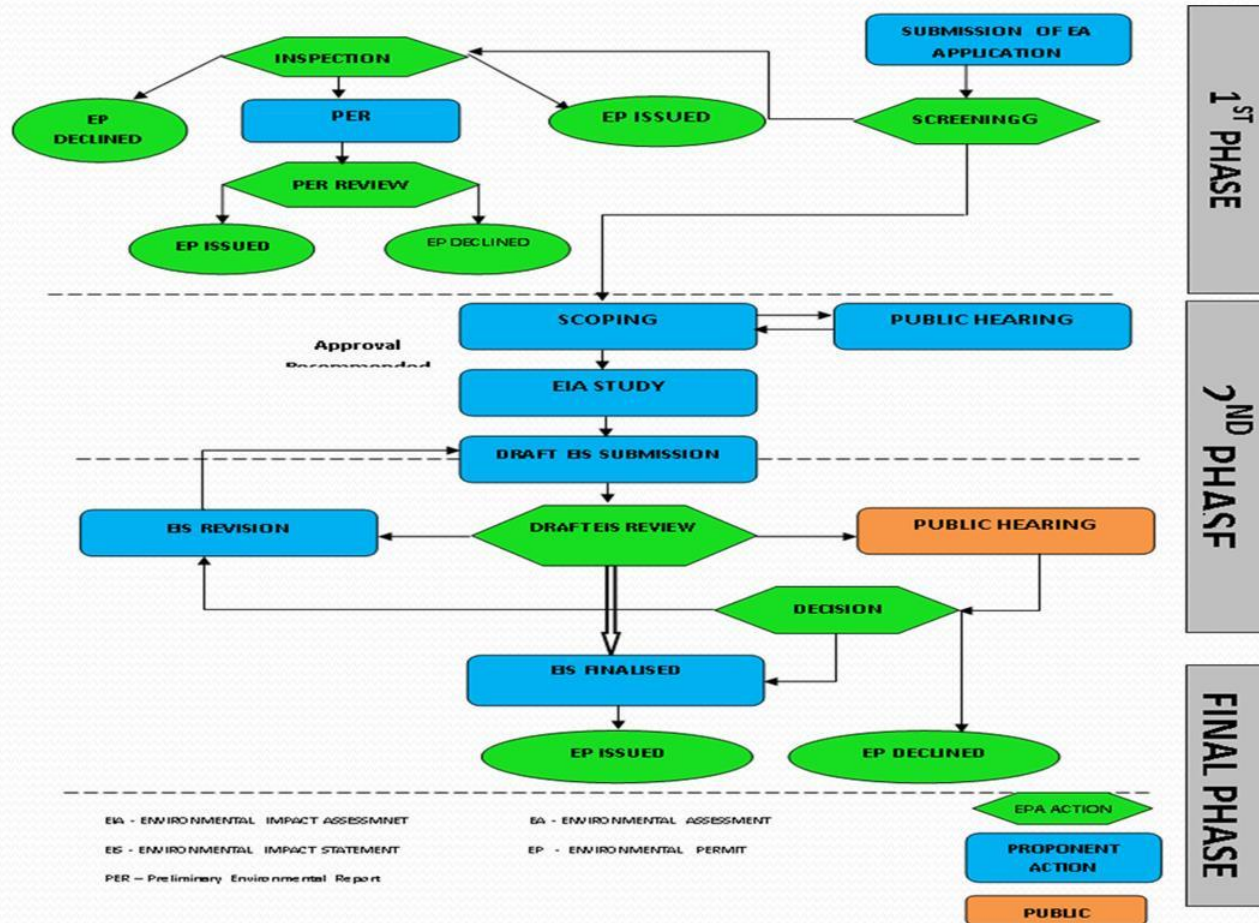
(f) Contravenes any provisions of the Regulation

ENVIRONMENTAL ASSESSMENT

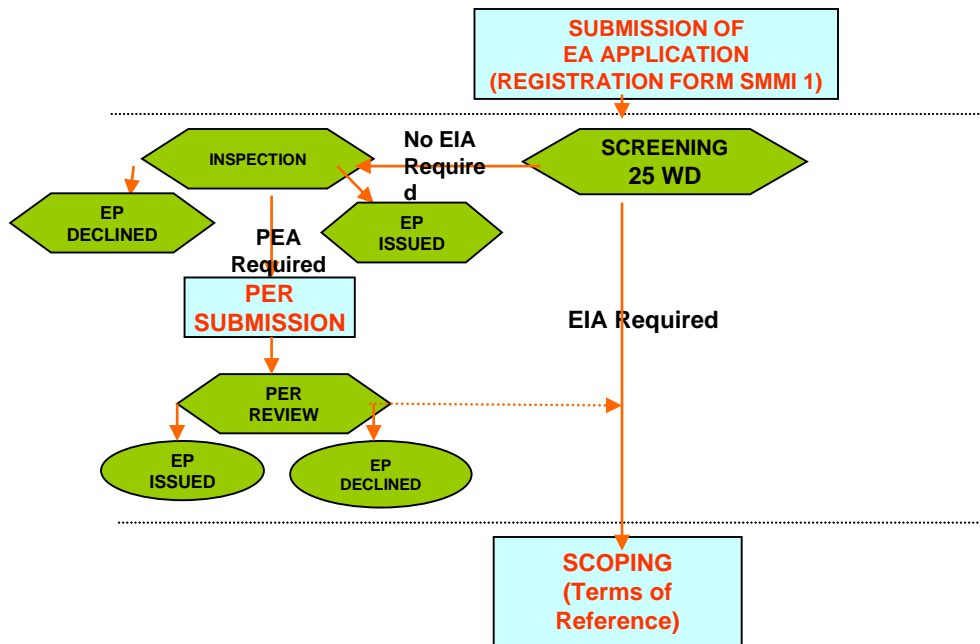
**What is
Environmental
Assessment ?**

“The process for the orderly and systematic identification, prediction and evaluation of the likely environmental, socio-economic, and cultural and health impacts of an undertaking and the mitigation and management of those effects”.

ENVIRONMENTAL ASSESSMENT PROCESS

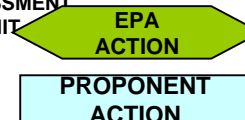


Ghana EIA Procedures



EIA - ENVIRONMENTAL IMPACT ASSESSMENT
 EIS - ENVIRONMENTAL IMPACT STATEMENT
 PER - PRELIMINARY ENVIRONMENTAL REPORT
 PEA - PRELIMINARY ENVIRONMENTAL ASSESSMENT
 PH - PUBLIC HEARING
 WD - WORKING DAYS REQUIRED FOR REVIEW

EA - ENVIRONMENTAL ASSESSMENT
 EP - ENVIRONMENTAL PERMIT



REQUIREMENTS OF ASM APPLICATIONS

- Completed Environmental Overview for Small and Medium Scale Mining Form SMMI 1 (Small and Medium Scale Mining)

Relevant attachments:

- Site Plan certified by Licensed Surveyor
- Brief description of operational methods (mining and or processing)
- Costed reclamation and abandonment proposals
- Response from the relevant District/ Municipal Assembly from the 21 Day Notice of Publication

Payment of the requisite fees (Reg 4(2), processing and permit) as approved by the Parliament of Ghana

ENVIRONMENTAL ASSESSMENT PROCEDURE

■ Registration by completing Form SMMI1

Section A:

- *General Information*: It includes details of the applicant, mineral type, the location & district concession falls in.

Section B:

- *Description of project*: It includes operational period, operational methods (mining & processing), availability & resource utilization as well as labour force.

Section C:

- *Environmental considerations*: It includes environmentally sensitive areas, likely environmental impacts, proposed mitigation measures, reclamation measures and costs, abandonment proposals, compensation issues & consultation.

ENV'TAL ASSESSMENT PROCEDURE- CONTD

- **Receipt of all relevant attachments** (as listed above)
- **Screening** (location, size, output, technology, land use, public concerns, sensitivity of area, etc)- *Reg. 5*
- **Review** of all information and documentation
- **Decision making** (approval, objection or request for submission of Preliminary Environmental Report (PER) or Environmental Impact Statement [EIS])
- **Compliance enforcement monitoring**

SCHEDULES OF THE ENVIRONMENTAL ASSESSMENT REGULATIONS, 1999 (LI 1652)

SCHEDULE 5- (Regulation 30 (2))

ENVIRONMENTALLY SENSITIVE AREAS (**SOME LISTED BELOW**)

1. All areas declared by law as national parks, watershed reserves, wildlife reserves and sanctuaries including sacred groves.
2. Areas with potential tourist value.
3. Areas which constitute the habitat of any endangered or threatened species of indigenous wildlife (flora and fauna).
9. Areas classified as prime agricultural lands
10. Recharge areas of aquifers.
11. Water bodies characterized by one or any combination of the following conditions -
 - a. water tapped for domestic purposes;
 - b. water within the controlled and/or protected areas;
 - c. water which support wildlife and fishery activities.
12. Mangrove areas characterized by one or any combination of the following conditions-
 - a. areas with primary pristine and dense growth;
 - b. areas adjoining mouth of major river system;
 - c. areas near or adjacent to traditional fishing grounds;
 - d. areas which act as natural buffers against shore erosion, strong winds or storm floods.

RELEVANT SECTIONS OF PERMIT SCHEDULE

- Payment of adequate and prompt compensation prior to the initiation of mining activities
- Adherence to appropriate buffer zones (water bodies, forests, rail lines etc)
- Reclamation
- Discharges into water bodies
- Abandonment

RELEVANT SECTIONS OF PERMIT SCHEDULE

- **Reclamation**

- Backfilling of all pits within 3 months after completion
- Conduct concurrent reclamation
- Re-vegetate the reclaimed land with indigenous species and economic trees
- Provision of detailed information with pictorial evidence on the reclaimed portion of the disturbed areas of the concession before renewal or closure

RELEVANT SECTIONS OF PERMIT SCHEDULE

- **Discharge into water bodies**
 - The Permit holder shall not at any time discharge or cause to be discharged contaminated water with mercury or any other toxic chemical(s) and water with high turbidity levels or any other pollutant into the natural drainage.
 - The Permit holder shall continually monitor the quality of the pit water of the underground mine dewatering and the receiving medium and submit quarterly reports to the Agency.

RELEVANT SECTIONS OF PERMIT SCHEDULE

- **Abandonment**

[means voluntary surrender of property (or a right to property) with no intention of taking it back]

- Rehabilitation of the site to a condition compatible with the pre-existing land use of the area within 3 months and report to the Agency for verification

NO.	IMPACT IDENTIFICATION	MITIGATION
(a)	Removal of Vegetation	Restrict vegetative clearance to needed areas ONLY
(b)	Topsoil and subsoil removal	Stockpile separately for future reclamation
(c)	Siltation of surface water bodies	Construction of drainage channels/silt traps
(d)	Pit dewatering	Re – use
(e)	Wash gravels/pebbles/sand	Use as backfill material for the pit(s)
(f)	Slime/slurry	Construction and operation of slime dams/tailings dam
(g)	Process water	Complete recycling
(h)	Solid waste	Provision of waste collection bins and disposal of waste at a well managed waste disposal site without leachate
(i)	Storage and use of hydrocarbons	Construction of containment bund and its effective management to avoid spillage
(j)	Amalgamation	Use of glass retorts or fume hoods
(k)	Mined out areas and dams	Reclamation within three (3) months after completion of mining

RECLAMATION OBJECTIVE

- The reclamation objective for restorable land will be to chemically and physically stabilize the land and restore it to the earlier or at least as near as possible to its prior land capability as before mining
- The reclamation objective for non-restorable land will be to chemically and physically stabilize the land and leave it in a safe condition

GENERAL REHABILITATION CRITERIA

Environmental Guidelines, 1994 & Schedule 2 (Reclamation Criteria of the Reclamation Security Agreement) points to the following broad criteria:

- **NON-POLLUTING** (from a continuing source of pollution)
- **SAFE** (both for humans and animals)
- **STABLE** (both to humans and animals)
- **SELF SUSTAINING** (requires as much care as an unmined or reference site)

THE MARK OF A GOOD REHABILITATION

Rehabilitation of a mined site to a condition
compatible/ consistent with the pre- existing land use
(character and utility) of the area

OR

Achieving an agreed post-mining land use
that requires as much resources for maintenance as a
similar land use in an unmined/ reference area

CHALLENGES OF ASM

- Mechanization of ASM
- Insufficient geological studies on concessions
- Lack of qualified mine personnel (best practice)
- Arbitrary costs of reclamation- benchmarking of liability estimates lacking (currently in progress)
- No posting of “reclamation bonds” (Who bears the costs of residual impacts in the post mining period)
- Inadequate monitoring (regulators vrs number of ASM operators)
- General lack of enforcement

STRATEGIES ADOPTED BY THE AGENCY

- **Creation of 17 new EPA Area Offices** (Tarkwa, Damongo, Obuasi, Ellembele, Dunkwa-on-Offin, Konongo, Akim Oda, Mpraeso, Sefwi Wiawso etc in mining hotspots)
- **Decentralization- ASM permitting process**
- **Education /Sensitization**
- **Training** (Staff, Other Regulators & ASM Operators)
- **Provision of technical advice**
- **Complaints investigations** (Client Services)

CONCLUSION

- ▶ ASM is a significant subsector of the mineral sector.
- ▶ One of the reasons for regularizing ASM was to ensure that their operations caused minimum damage to the environment by ensuring that acceptable mining practices were adhered to.
- ▶ There is a growing impression that the environmental costs far outweigh the economic gains made by the sub sector.
- ▶ Without appropriate rehabilitation, it appears there is a thin line between legal ASM and “galamsey”.
- ▶ However, proper environmental management could transform the industry/ sector into a positively vibrant one for regional and national development

WAY FORWARD

- Re- categorization of ASM to include labour requirements, equipment, investment and production output
- Demarcation and gazette of environmentally sensitive areas
- Undertake Strategic Environmental Assessments (SEAs) of blocked out areas
- Posting of reclamation bonds by operators
- Creation of special Green Courts for “fast tracking” environmentally related offences in the sub sector

**THANK YOU FOR YOUR
ATTENTION**