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GHANA

CHAPTER 11: GHANA

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11.1 Constitutional requirements for environmental protection in Ghana

Since 1992, the government has adopted policies that promote sustainable development. Most of these have their roots in the following clauses of the Constitution of Ghana.¹ Article 36(9) commits the state to:

“... take appropriate measures needed to protect and safeguard the national environment for posterity; and shall seek co-operation with other states and bodies for purposes of protecting the wider international environment for mankind.”

Article 41(k) commits every citizen *“to protect and safeguard the environment.”*

11.2 Institutional and administrative structure for EIA in Ghana

11.2.1 Ministry of Environment, Science, Technology and Innovation

The Ministry of Environment, Science, Technology and Innovation (MESTI) was established in 1993 and is responsible for promoting “sustainable development by deepening and strengthening market driven research and development for sound environmental governance”². Since then, MESTI has implemented policy and legislative reforms in the environmental sphere to manage the constraints that the environment places upon people and vice versa. The MESTI consists of six directorates and six other public bodies (see Figure 11.1).

11.2.2 Directorate of Environment

The Directorate of Environment is responsible for providing technical support for the implementation of the MESTI’s policies, programmes and projects. It also provides technical support for legislative reforms pertaining to environmental governance and natural resource management. This directorate does this by liaising with the relevant agencies such as the Environmental Protection Agency (EPA).

11.2.3 Environmental Protection Agency

The Environmental Protection Agency (EPA) was established in 1994 under Section 1 of the Environmental Protection Agency Act, 1994, Act 490. It is one of the six public bodies which fall under MESTI (Figure 11.1).

¹ Republic of Ghana, 1992. *The Constitution of the Republic of Ghana*. Accra: Government of Ghana.

² Republic of Ghana 2017. Ministry Environment, Science, Technology and Innovation website. Available at: <http://mesti.gov.gh>

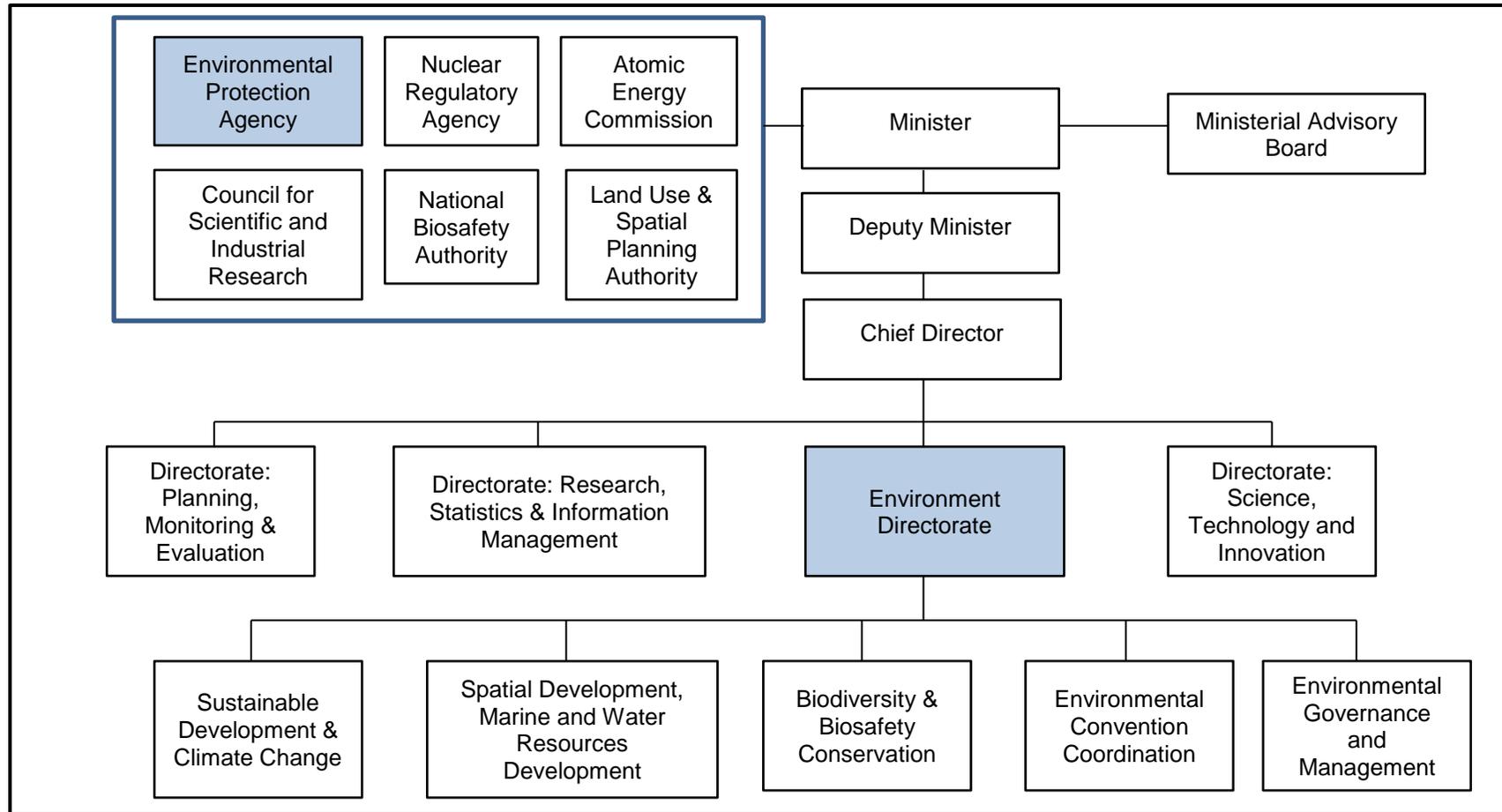


Figure 11.1: Organisational structure of the technical departments of the Ministry of Environment, Science, Technology and Innovation

Source: <http://mesti.gov.gh/organizational-structure/>

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The EPA has three divisions – Operations, Technical Services and General Services. Policy and direction are provided by a Board (Section 4(1)), consisting, of 13 members³ from a wide range of sectors as provided by Section 4(1) of the EPA Act. The EPA board has a total of approximately 15 members.⁴

Section 2 of the Act mandates the EPA among other functions to:

- Co-ordinate the activities of bodies concerned with the technical or practical aspects of the environment and serve as a channel of communication between those bodies and the Ministry;
- Co-ordinate the activities of the relevant bodies for the purposes of controlling the generation, treatment, storage, transportation and disposal of industrial waste;
- Secure by itself or in collaboration with any other person or body the control and prevention of discharge of waste into the environment and the protection and improvement of the quality of the environment;
- Review all submissions associated with applications for environmental permits;
- Issue environmental permits and pollution abatement notices for controlling the volume, types, constituents and effects of waste discharges, emissions, deposits or other sources of pollutants and of substances which are hazardous or potentially dangerous to the quality of the environment or any segment of the environment;
- Issue notices in the form of directives, procedures or warnings to such bodies as it may determine for the purpose of controlling the volume, intensity and quality of noise in the environment;
- Prescribe standards and guidelines relating to the pollution of air, water, land and other forms of environmental pollution including the discharge of wastes and the control of toxic substances; and
- Ensure compliance with any required environmental impact assessment procedures in the planning and execution of development projects, including compliance with respect to existing projects.

11.2.4 Inspectors

Section 15(1) provides for the appointment of Environment Protection Inspectors, referred to as 'Inspectors', by the EPA Board. An Inspector may at any reasonable time enter any premises for the purpose of ensuring compliance with the EPA Act or any other law pertaining to the protection of the environment.

³ <http://www.epa.gov.gh/epa/about/board-management>

⁴ Ibid.

11.3 Policy and legal framework for EIA in Ghana

11.3.1 Environmental considerations in national policy

Ghana – Vision 2020: The First Step which was formulated in 1995 is a planning framework to provide guidance to planning agencies to prepare their own development plans.⁵ Ghana – Vision 2020 embraces the idea of sustainable development. For the long-term objectives for economic growth and rural development, it recognises the need to exploit natural resources on a sustainable basis.⁶

11.3.2 Environmental Policy

Ghana's first Environmental Policy was published in 1995, based on the principles of sustainable development. Since then, it has become evident that environmental degradation in Ghana is not only a function of failing world markets and poverty but also of institutional shortcomings at the household, district, regional and national levels.

The 1995 Policy identified a restructured lead agency the EPA to drive the process towards sustainable development. The efforts of the EPA in this regard resulted in the development of a revised Environmental Policy, which was approved by Cabinet in 2012.

The vision for the 2012 Environmental Policy is *“to manage the environment to sustain society at large”* with the following aims:

- Reversing the current insufficient commitment to environmental objectives, policies and interventions;
- Reversing rapid population growth, economic expansion, persistent poverty, poor governance and institutional weaknesses and failures;
- Improving quality and flow of information;
- Creating an understanding of the nature and causes of environmental problems;
- Establishing a clear definition of the national environmental agenda and its links to economic growth and poverty reduction and weak legal, regulatory, financial, technical, human and institutional capacity;
- Mainstreaming international relations into the national environmental agenda;
- Improving the current environmental quality control programme by which prior environmental impact assessments of all new investments that would be deemed to affect the quality of the environment are undertaken;
- Taking appropriate measures, irrespective of existing levels of environmental pollution and extent of degradation, to control pollution and the importation and use of potentially toxic chemicals;

⁵ Ghana vision 2020: the first step 1996-2000: presidential report on coordinated programme of economic and social development policies, policies for the preparation of 1996-2000 development plan. Republic of Ghana, Accra.

⁶ Ghana vision 2020: the first step 1996-2000. Page 32 and 34

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- Taking appropriate measures to protect critical ecosystems, including the flora and fauna they contain against destructive practices.

Cross-cutting issues which are not explicitly addressed in the Policy include gender, resettlement, community health and safety, cultural heritage and resource efficiency.

11.3.3 Ghana National Climate Change Policy

Ghana is situated in a complex environment affected by tropical storms, the Atlantic Ocean and the Sahel biogeographic zone. Key areas of concern for Ghana include increased temperatures, rainfall variability, including unpredictable and extreme events and sea-level rise. Therefore, Ghana is vulnerable to the effects of climate change.

The vision of Ghana's climate change policy which was drafted in 2013 is to ensure a climate-resilient and climate-compatible economy while achieving sustainable development through equitable low-carbon economic growth.

This Policy has identified themes and strategic focus areas to direct efforts that will reduce the vulnerability of various sectors to the effects of climate change. These themes and areas are outlined in Table 11.1 below.

Table 11.1: Climate change policy themes and strategic focus areas

Policy Theme	Focus Area
Agriculture and Food Security	Develop climate-resilient agriculture and food security systems
Disaster Preparedness and Response	Build climate-resilient infrastructure
	Increase resilience of vulnerable communities to climate-related risks
Natural Resource Management	Increase carbon sinks
	Improve management and resilience of terrestrial, aquatic and marine ecosystems
Equitable Social Development	Address impacts of climate change on human health
	Minimise impacts of climate change on access to water and sanitation
	Address climate change and migration
Energy, Industrial and Infrastructural Development	Minimise greenhouse gas emissions

11.3.4 Environmental Protection Agency Act 1994 (Act 490)

The Environmental Protection Agency Act, 1994 (Act 490), repealed the Environmental Protection Council Decree (NRCD) 239, of 1974.

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The term 'environment' is not actually defined as such in the Act or the Regulations (see below for more detail), but the latter document, the Environmental Assessment Regulations, 1999, LI 1652 does provide a definition of the term "*environmental assessment*" as being "*the process for the orderly and systematic identification, prediction and evaluation of:*

- a) the likely environmental, socio-economic, cultural and health effects of an undertaking; and*
- b) the mitigation and management of those effects."*

The term 'environmental impact' is defined by the LI 1652 as including "*any direct or indirect, positive or negative change in the environment caused by man-made works or activity (sic) when such change affects life in general, biodiversity, the quality or significant quantity of natural or environmental resources and their use, wellbeing, health, personal safety, habits and customs, the cultural heritage or legitimate means of livelihood*".

These definitions offer a comprehensive view of the term 'environment' , one which includes social, health, cultural and economic aspects but not worker health and safety.

11.3.5 Regulations

The Environmental Assessment Regulations (LI 1652) were promulgated in 1999. The EA Regulations specify the environmental impact assessment (EIA) process, the development of environmental management plans (EMPs), decision-making with respect to applications for an environmental permit, and how to appeal the decisions taken.

11.3.6 Permits and licences

No person can commence with an undertaking specified in Schedule 1 of the Regulations (see Appendix 11-1) unless an Environmental Permit has been issued according to the EA Regulations.

An Environmental Permit is valid for 18 months from the date of issue. If the applicant fails to commence the undertaking within this period, the permit becomes invalid and a new application needs to be submitted if the applicant wishes to commence the undertaking after the 18 months validity period.

An applicant with a valid Environmental Permit, who commences with an undertaking within the 18 months validity period is required to obtain an Environmental Certificate from the EPA within 24 months of the date of commencement (Reg. 21(1)). The EPA will only issue an Environmental Certificate upon submission of evidence or confirmation of:

- Actual commencement of operations;
- Acquisition of other permits and approvals where applicable;
- Compliance with mitigation commitments indicated in the environmental impact statement or preliminary environmental report;
- Has submitted to the Agency its first annual environmental report as required under Regulation 25; and

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- Payment of the fee determined by the Agency.

The Agency may suspend, cancel or revoke an environmental permit or certificate issued in terms of the EA Regulations where the holder of the permit or certificate (Reg. 26(1)):

- Fails to obtain any other authorisation required by law in relation to his undertaking before commencement of operations;
- Is in breach of any provision of these regulations or any other enactment relating to environmental assessment;
- Fails to make any payments required under these regulations on the due date;
- Acts in breach of any of the conditions to which his permit or certificate is subject; or
- Fails to comply with mitigation commitments in his EIA report or EMP.

Some activities will need other permits in addition to the Environmental Permit. For example, a quarry or mine will require a permit from the Ministry of Lands and Natural Resources (through the Minerals **Commission**) to operate.

11.3.7 Penalties

The Act clearly specifies what is considered an offence, and penalties are specified for each offence. These are summarised in Table 11.2.

Table 11.2: Offences and penalties in terms of the Environmental Protection Agency Act of 1994

Offence	Penalty
Section 13(3): A person who acts contrary to an enforcement notice.	A fine not exceeding 250 penalty units ⁷ and in default (i.e. if not paid within the required payment period) to a term of imprisonment not exceeding one year, or both
Sections 15(3) & 56: A person who assaults or obstructs an Inspector.	A fine not exceeding 250 penalty units and in default to a term of imprisonment not exceeding 6 months, or both
Sections 57(1): A person who does not comply with various stipulations in this Section pertaining to pesticides.	A fine not exceeding 500 penalty units and in default to a term of imprisonment not exceeding two years, or both
Sections 57(2): A person who does not comply with various stipulations in this Section pertaining to pesticides.	A fine not exceeding 250 penalty units and in default to a term of imprisonment not exceeding one year, or both
Sections 57(3): A person who presents false information.	A fine not exceeding 200 penalty units and in default to a term of imprisonment not exceeding one year, or both
Sections 57(4): A person who discloses proprietary information.	A fine not exceeding 250 penalty units and in default to a term of imprisonment not exceeding one year, or both

⁷ According to section 2(2) of the Fines (Penalty Units) Act, 2000 (Act 572) the value of a 'penalty unit' should not exceed a sum equivalent to one third of the prevailing national daily minimum wage multiplied by thirty.

11.3.8 Fees

The EA Regulations require fees to be paid for the issuing of an Environmental Permit and Environmental Certificate. The processing and permit Fees will be determined by the EPA in accordance with the Fees and Charges (Amendment) Instrument, 2015, LI 2228.

11.3.9 Guidelines

A national Environmental Assessment Capacity Development Programme was initiated in 2001 with financial assistance from the Netherlands Government. This was to assist all relevant institutions in meeting their respective obligations under the EA Regulations, and to promote sustainable development in Ghana. An important aspect of the programme was the development of Environmental Assessment Sector Specific Guidelines for eight sectors namely:

- Transportation;
- Mining (revision);
- Tourism;
- General Construction & Services;
- Energy;
- Oil and gas;
- Manufacturing;
- Agriculture⁸; and
- Health⁹.

The health and agriculture sector guidelines are available for download from the website of the Netherlands Commission for Environmental Assessment.

11.3.10 Environmental standards

Ghana uses the raw water quality criteria and guidelines prescribed by the Water Resources Commission in June 2003 to assess raw water quality and the World Health Organisation (WHO) standards for raw water as a reference when need be. Since 2001, the EPA has used various guidelines on noise, air quality and effluent discharge which have within the past two years been converted into standards. The standards currently used by the EPA are:

- Ghana Standards (GS) for Environment and Health Protection – Requirements for Effluent Discharge (GS 1212, 2019).
- Ghana Standards for Environment and Health Protection – Requirements for Ambient Air Quality and Point Source/Stack Emissions (GS 1236, 2019).
- Ghana Standards for Health Protection – Requirements for Ambient Noise Control (GS 1222, 2018).

⁸ <https://www.eia.nl/documenten/00000055.docx>

⁹ <https://www.eia.nl/documenten/00000059.docx>

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- Ghana Standards Acoustics - Guide for Measurement of Outdoor A-Weighted Sound Levels (GS 1258, 2018).
- Ghana Standards for Environment and Health Protection – Requirements for Motor Vehicle Emissions (GS 1219, 2018).
- Ghana Standards for Water Quality – Specification for Drinking Water (FDGS 175-1:2013) (see Tables 11.3 to 11.10 below).¹⁰

Table 11.3: Physical requirements

Parameter	Maximum allowable
Turbidity	Shall not exceed 5 Nephelometric Turbidity Units (NTU)
Apparent colour	Shall not exceed 5 Hazen Units
Odour and taste	Shall not be objectionable to most consumers
Temperature	Shall not be objectionable to most consumers
Total Suspended Solids/Matter	Shall not exceed zero (0 mg/l) in packaged water

Table 11.4: Chemical requirements

Parameter	Maximum allowable
Aluminium, (as Al)	0.2 mg/litre
Chloride (as Cl)	250 mg/litre
Iron (as Fe)	0.3 mg/litre
Manganese (as Mn)	0.4 mg/litre
pH	6.5 – 8.5 units
Total dissolved solids	1000 mg/litre
Sulphate (SO ₄)	250 mg/litre
Total hardness	500 mg/litre
Arsenic (as As)	0.01 mg/litre
Residual free Chlorine*	0.2 mg/litre
Cyanide (as CN)	0.07 mg/litre
Fluoride (as F)	1.5 mg/litre
Nitrite (as NO ₂)	3.0 mg/litre
Nitrate (as NO ₃)	50.0 mg/litre

Table 11.5: Bacteriological requirements

Determinant	Maximum allowable
Total viable count, at 37° C for 48h	500 count/ml
Total viable count, at 22° C for 72hrs	50 count/ml

¹⁰ Ghana Standards Authority 2013. FDGS 175-1:2013. Quoted in Republic of Ghana 2015. National Drinking Water Quality Management Framework for Ghana. Available at https://www.gwcl.com.gh/national_drinking_water_quality_management_framework.pdf

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Determinant	Maximum allowable
<i>E. coli</i> , count/100ml	Not detected
Total coliform, count/100 ml	Not detected
Clostridium, count/100 ml	Not detected
Streptococcus, count/100 ml	Not detected
Pseudomonas, count/100 ml	Not detected

Table 11.6: Chemical constituents

Determinant	Maximum allowable
Inorganic	
Copper (as Cu)	2.0 mg/litre
Sulphide	0.05 mg/litre
Dissolved oxygen	**
Organic	
Toluene	0.7 µg/litre***
Xylene	0.5 µg/litre***
Ethyl benzene	0.3 µg/litre ***
Styrene, max.	0.02 µg/litre***
Monochlorobenzene	10 – 120 µg/litre
1,2-Dichlorobenzene	1.0 µg/litre
1,4-Dichlorobenzene	0.3 µg/litre
Trichlorobenzene (total)	5 – 50 µg/litre
2-Chlorophenol	0.1 – 10 µg/litre
2,4-Dichlorophenol	0.3 – 4.0 µg/litre
2,4,6-Trichlorophenol	2 – 300 µg/litre
** The dissolved oxygen content shall not be substantially less than the saturation concentration.	
*** Concentrations of this substance at or above this health-based value may affect the appearance, taste or odour of the water, leading to consumer complaints.	

Table 11.7: Inorganic constituents of health significance

Constituent	Maximum allowable
Barium (as Ba)	0.7 mg/litre
Boron (as B)	0.5 mg/litre
Cadmium (as Cd)	0.003 mg/litre
Chromium (hexavalent)	0.05 mg/litre
Lead (as Pb)	0.01 mg/litre
Manganese (as Mn)	0.4 mg/litre*
Mercury (total as Hg)	0.001 mg/litre
Molybdenum	0.07 mg/litre

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Constituent	Maximum allowable
Nickel (as Ni)	0.02 mg/litre
Selenium (as Se)	0.01 mg/litre
Antimony (as Sb)	0.005 mg/litre
*The concentration of the substance at or above this value may affect the appearance, taste or odour of the water leading to consumer complaints	

Table 11.8: Organic constituents of health significance

Constituent	Maximum allowable
Chlorinated Alkanes	
Carbon tetrachloride	4 µg/litre
Dichloromethane	20 µg/litre
1,2 -Dichloromethane	40 µg/litre
1,1,1-Trichloroethane	2000 µg/litre
Chlorinated Ethenes	
Vinyl chloride	5 µg/litre
2-Dichloroethane	50 µg/litre
1,1-Dichloroethane	30 µg/litre
Trichloroethane	70 µg/litre
Tetrachloroethane	40 µg/litre
Chlorinated Benzenes	
Monochlorobenzene	300 µg/litre *
1,2 -Dichlorobenzene	1000 µg/litre *
1,4 -Dichlorobenzene	300 µg/litre *
Trichlorobenzene (total)	20 µg/litre *
Aromatic Hydrocarbons	
Benzene	10 µg/litre
Toluene	700 µg/litre
Ethylbenzene	300 µg/litre *
Styrene	20 µg/litre *
Benzo [α] pyrene	0,7 µg/litre *
Miscellaneous	
Di (2-ethylhexyl) adipate	80 µg/litre
Di (2-ethylhexyl) phthalate	8 µg/litre
Acrylamide	0,5 µg/litre
Epichlorohydrin	0,4 µg/litre
Hexachlorobutadiene	0,6 µg/litre
Eidetic acid (EDTA)	200 µg/litre
Nitritotriacetic acid	200 µg/litre
Tributyltin oxide	2 µg/litre
*Note that concentrations of these substances at or above the health value may affect the appearance, taste or odour of the water.	

Table 11.9: Chemical constituents of health significance – Pesticides**

Constituent	Maximum allowable
Aldicarb	10 µg/litre

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Constituent	Maximum allowable
Aldrin / dieldrin	0,03 µg/litre
Atrazine	2 µg/litre
Carbofuran	5 µg/litre
DDT	1.0 µg/litre
1,2-dibromo-3-chloropropane	1.0 µg/litre
Heptachlor & heptachlor expoxide	0.03 µg/litre
Lindane	2 µg/litre
Methoxychlor	20 µg/litre
Metolachlor	10 µg/litre
Molinate	6 µg/litre
Permethrin	20 µg/litre
Propanil	20 µg/litre
*These pesticides are being used currently in Ghana in spite of the fact that Aldrin, DDT and Heptachlor are included in the list of persistent organic pollutants under the Stockholm Convention to which Ghana is a signatory. The probability that they would contaminate drinking water sources is rather high.	

Table 11.10: Disinfectants and disinfectant by-products of health significance

Constituent	Maximum allowable
Trihalomethanes	
- Bromoform	100 µg/litre
- Dibromochloromethane	100 µg/litre
- Bromodichloromethane	60 µg/litre
- Chloroform	200 µg/litre
Chlorite	700 µg/litre
Cyanogen chloride	70 µg/litre
2,4,6-trichlorophenol	200 µg/litre

11.3.11 Certification of environmental consultants

Neither the Act nor the Regulations require EIA consultants to be registered and certified, nor is there any explicit requirement for the consultants to be independent of the applicant in either financial terms (excluding normal remunerations for consultancy services) or corporately.

The EPA has however organised training programmes on Environmental Assessment requirements and procedures and some consultants have attended these programmes.

11.4 EIA procedural framework in Ghana

The steps required to conduct an EIA are outlined in the following subsections and shown schematically in Figure 11.2.

11.4.1 Initial registration

A person who intends to carry out an undertaking specified in Schedule 1 (see Appendices 11-1 and 11-2 at this end of this Chapter) of the EA Regulations is required to register that undertaking with the Environmental Protection Agency (EPA) (Reg. 4). The areas specified in Schedule 5 of the EA Regulations (see Appendix 11-3) are interpreted as ‘environmentally sensitive areas’ (Reg. 30(2)). Registration is carried out by submitting an application for an environmental permit using a form prescribed by the EPA. A non-refundable processing fee prescribed by the EPA is payable as part of the application submission.

11.4.2 Screening

Screening is the process of classifying a proposed activity to determine the level at which environmental assessment will be carried out. After a person has registered an application for an activity, the EPA is required to make a decision within 25 days, regarding the level of EA required (Figure 11.2). The following responses are possible:

- No further studies needed, an environmental permit is granted and the prescribed permit granting fee must be paid (see s. 11.3.8);
- A preliminary EA (PEA) is required;
- An EIA is required;
- A strategic environmental assessment (SEA) is required;
- More information is required to make a decision; or
- The EPA objects to the undertaking at the outset with the reasons for the objection/refusal stated.

11.4.3 Preliminary Environmental Assessment

If the EPA decides that a Preliminary Environmental Assessment (PEA) is required, the applicant should submit a Preliminary Environmental Report (PER) on the proposed undertaking. This report should include more information about the project (compared to the application for an environmental permit – as described in s. 11.4.1 above) and should state the detailed effects of the undertaking on the environment with measures proposed to mitigate the effects identified. After submission of a PER to the EPA, the following responses are possible within 25 days:

- No further studies are needed and an environmental permit is granted; or
- An EIA is required (Figure 11.2).

11.4.4 Scoping

Where an EIA is required, the developer should prepare a scoping report setting out the scope and extent of a full EIA, including draft terms of reference (ToR) for the specialist studies.

Public consultation is required as part of scoping. Part of the terms of reference should include how “*consultation with members of the public likely to be affected by the operations of the undertaking*” (Reg.

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12(k)) will be dealt with. Furthermore, once the applicant (developer) has compiled the scoping report s/he is required to (Reg. 15):

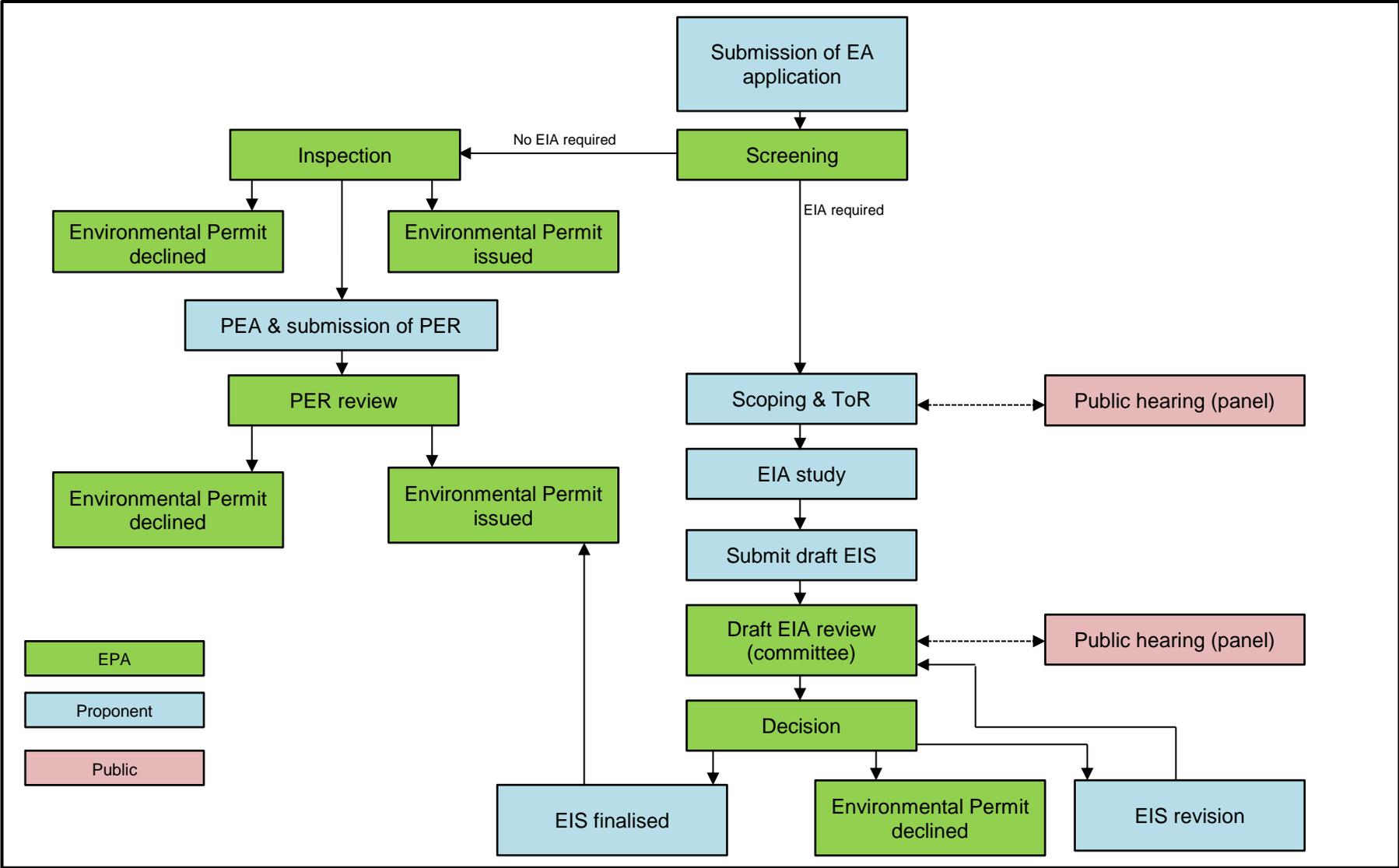


Figure 11.2: Flow diagram of the Ghana EIA procedure

Source: MESTI, 2019

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- Give notice, using the form specified in Schedule 3 of the EA Regulations, of the proposed undertaking to the relevant organs of state (national to local level);
- Advertise in at least one national newspaper and any other newspaper, if available, circulating in the locality where the proposed undertaking is to be situated; and
- Make hard copies of the scoping report available for inspection and comments by the general public (including all relevant stakeholders at the site) and in the locality of the proposed undertaking.

The draft terms of reference should describe how the environmental impact statement on the proposed undertaking will deal with the following matters (Reg. 12):

- a) A description of the undertaking;
- b) An analysis of the need for the undertaking;
- c) Alternatives to the undertaking including the 'no-go' scenario where the undertaking is not proceeded with;
- d) Matters on site selection including a statement of the reasons for the choice of the proposed site and whether any other alternative site was considered;
- e) An identification of existing environmental conditions including social, economic and other aspects of major environmental concern;
- f) Information on potential positive and negative impacts of the proposed undertaking on environmental, social, economic and cultural aspects in relation to the different phases of the undertaking;
- g) The potential impact on the health of people;
- h) Proposals to mitigate any potential negative socio-economic, cultural and public health impacts on the environment;
- i) Proposals to be developed to monitor predictable environmental impacts and the effectiveness of proposed mitigation measures.
- j) Contingency plans, existing or to be evolved, to address any unpredicted negative environmental impacts;
- l) Maps, plans, tables, graphs, diagrams and other illustrative material that will assist with comprehension of the contents of the environmental impact statement;
- m) A provisional environmental management plan;
- n) Proposals for payment of compensation for possible damage to land or property arising from the operation of the undertaking; and
- o) An indication whether any area outside Ghana is likely to be affected by the activities of the undertaking.

Within 25 days of receiving a scoping report the Agency has to inform the applicant whether the report is acceptable or not. If acceptable the applicant will be informed to proceed with the EIA and submit a draft Environmental Impact Statement (EIS) if not the applicant will be informed to revise the scoping report if s/he so desires.

It should be noted that Regulation 12(n) of the ToR (see list above) implies that the resettlement action plan and/or compensation for the possible damage to land or property by the proposed project should be done as part of, or simultaneously with the EIA so that compensation and other mitigation measures associated with such disturbance can be included in the EIA report and associated environmental management plan (EMP). Occupational health and safety issues are not explicitly included in the ToR.

11.4.5 Environmental impact assessment

Once the scoping report has been approved by the Agency, the applicant must submit a draft Environmental Impact Statement (EIS), based on the ToR contained in the scoping report. As with the requirements for the scoping report, the requirements for the contents of the EIS are comprehensive. The EIS should address possible direct and indirect impacts of the undertaking on the environment at the pre-construction, construction, operation, decommissioning and post decommissioning phases as well as the following (Reg. 14(1)):

- a. Concentrations of pollutants in environmental media including air, water and land from mobile or fixed sources;
- b. Any direct ecological changes resulting from such pollutant concentrations as they relate to communities, habitats, flora and fauna;
- c. Alteration in ecological processes such as transfer of energy through food chains, decomposition and bio-accumulation which could affect any community, habitat or species of flora or fauna;
- d. Ecological consequences of direct destruction of existing habitats from activities such as dumping of waste and vegetation clearance, earth fill and spoil/overburden disposal;
- e. Noise and vibration levels;
- f. Odour;
- g. Vehicle traffic generation and potential for increase in road accidents;
- h. Changes in social, cultural and economic patterns relating to:
 - i) decline in existing or potential use of valued resources arising from pollution and ecological deterioration;
 - ii) direct or indirect employment generation;
 - iii) immigration and resultant demographic changes;
 - iv) provision of infrastructure such as roads, schools and health facilities;
 - v) local economy;
 - vi) cultural changes including possible conflict arising from immigration and tourism; and
 - vii) potential land use in the area of the proposed undertaking.
- i. An environmental impact statement shall also include information on the possible health effects of the undertaking on persons within and around the vicinity of the proposed undertaking; and
- j. An environmental impact statement for mining and other extractive industries shall include reclamation plans.

11.4.6 EIA review and decision-making

Twelve (12) copies of the draft EIS should to be submitted to the Agency, as well as relevant government ministries and government departments. It is the responsibility of the Agency to place notices, drafted in accordance with the form specified in Schedule 4 of the EA Regulations regarding the completion of the EIS and “*such parts of the EIS as it considers necessary*” in the mass media. The general public, NGOs, local and national government agencies can make comments on what is disclosed. The cost of publication of the notices shall be borne by the applicant.

In the case of adverse public reaction or where an undertaking will involve extensive relocation or resettlement of communities, or where the Agency believes there will be significant effects on the environment, the Agency may hold a public hearing and people may make submissions to the appointed panel. Following the hearing, the EIS may be further reviewed by the Agency and a decision taken to issue a permit, request further information or reject the application.

Once the PER or EIS has been approved by EPA, the developer must submit an environmental management plan (EMP) within 18 months of commencement of operations and thereafter every three years (Reg. 24). The term ‘operations’ is not defined in the Act or EA Regulations; this could be interpreted as the start of project implementation, i.e. at the construction phase, or (more usually), the commencement of actual operations/production (after construction and commissioning). The EMP must set out steps that are intended to be taken to manage any significant environmental impact that may result from the operation of the undertaking.

According to section 20(1) the total decision-making time allotted to the EPA on a given application for an environmental permit should be no more than **90 days** from the date of submission of a completed application form (Figure 11.2). The 90 days however does not apply for an application for which a public hearing is required to be held. There is no provision in the Act or Regulations allowing for an independent (i.e. non-government), external review of an EIS to be conducted at the cost of the proponent.

11.4.7 Appeals

Provision is made in Regulation 27 for an appeal process. In terms of this process, any person aggrieved by a decision or action of the Agency may submit a complaint to the Minister of the MESTI. The complaint should be sent to the Minister within 30 days of the complainant becoming aware of the decision or action to which the complaint relates. The complaint shall state the issues objected to; have attached a copy of the decision objected to; and have attached all documents relevant for considering and determining the complaint.

The Minister should within 14 days of receipt of the complaint appoint a five member panel and refer the complaint to this panel. The panel should give fair hearing to all parties and determine the issue as it considers appropriate. The panel after hearing all parties may: alter the decision of the Agency; request the EPA to determine the application where applicable within a specified period; or give any

other directives as it considers just. The panel will within 60 days determine the matter and report to the Minister. The proceedings of the panel shall be fully documented together with reasons for the panel's decision. Copies of the decision and proceedings shall be sent to the Agency; and the relevant Ministry.

11.4.8 Inspections and monitoring

One of the Agency's mandates is to ensure compliance with any laid down EIA procedures in the planning and execution of development projects, including compliance in respect of existing projects (Section 2(i) of the EPA Act). The Act also allows the Agency to issue enforcement notices where an activity appears to be posing a serious threat to the environment or to public health (Section 13).

A person granted an environmental permit under these Regulations shall submit an annual environmental report in respect of his/her undertaking 12 months from the date of commencement of operations¹¹ and every 12 months thereafter to the Agency. The annual environmental report should be in a form and contain information prescribed by the Agency.

Although monitoring by the EPA is not specifically required in the Act or Regulations, most large-scale projects which required an EIA to be conducted are inspected by the EPA at least once per year to ensure compliance with the conditions of the environmental permit and the approved EMP.

11.4.9 Strategic environmental assessment

Ghana has not provided a strong legal basis for SEA. The EA Regulations includes 'plan' and 'programme' under the definition of 'undertaking', which provides a gap for the legislated conduct of SEA. In 2006, it was noted through the Country Environmental Analysis conducted by the World Bank that Ghana's development agenda and socio-economic growth was not sustainable and that the cost of environmental degradation was estimated at 10% of gross domestic product. Recognising the need for a more sustainable growth trajectory led to the development of the strategic environmental assessment (SEA) process termed 'the Ghana SEA Approach' with the main aim being to incorporate environmental/sustainability issues into strategic decision-making (i.e. policies, plans and programmes).¹²

In order to give effect to this initiative, the EPA set up the SEA Unit under the Executive Director's Secretariat. The core responsibility of the unit is to conduct SEAs. The unit is also responsible for the coordination of the Natural Resource and Environmental Governance Programme activities. The programme is a collaborative effort by the following government bodies: Ministry of Lands and Natural Resources (MLNR), MESTI, Forestry Commission, Minerals Commission and the Agency.¹³

¹¹ This could be interpreted as the start of project implementation, i.e. at the construction phase, or (more usually), the commencement of actual operations/production (after construction and commissioning)

¹² (www.epa.gov.gh)

¹³ (www.epa.gov.gh)

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Despite the weak legal provision for SEA, over twenty SEAs have been conducted since the promulgation of the EA Regulations on a range of proposed policies and plans. Some of the SEAs undertaken include:

- SEA of the Ghana poverty reduction strategy I & II;
- SEA of the transport sector;
- SEA of the energy sector;
- SEA of the National Environmental Policy; and
- SEA of the district midterm development plans for 216 districts.

11.4.10 Trans-boundary impacts

Ghana is situated on the coast of West Africa. Côte d'Ivoire lies to the west, Burkina Faso to the north and Togo forms the eastern boundary. Trans-boundary impacts are specifically required to be addressed in the EIA (when applicable (Reg. 12).

11.5 Other relevant environmental legislation

A number of sector laws in Ghana are relevant to EIA. Table 11.1 provides a summary of the relevant sector legislation.

Table 11.1: Other potentially applicable sectoral requirements

Sector	Primary agency	Title and date of document	Purpose
Water resources	Ministry of Sanitation and Water Resources	Water Resources Commission Act, 1996, Act 552	Establishes the Water Resources Commission as the body responsible for water resources management in Ghana and provides for its composition and functions on the regulation and management of the utilisation of water resources in Ghana
	Water Resources Commission	The Water Use Regulations, 2001 (LI 1692)	
Waste	Ministry of Environment, Science, Technology and Innovation	Hazardous and Electronic Waste Control and Management Act, 2016 (Act 917)	This legal framework requires producers and private importers to register with Ghana's Environmental Protection Agency (EPA) and pay an Advance Eco Levy for electronic goods imported.
		Hazardous, Electronic and other Waste Control and Management Regulations, 2016 (LI 2250)	
		Environmental Protection Agency Act, 1994 (Act 490)	The EPA Act and its EA Regulations provide for the procedures for Environmental Assessment and the management of waste and pesticides
Environmental Assessment Regulations, 1999 (LI 1652)			

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Sector	Primary agency	Title and date of document	Purpose
		Pesticides Control and Management Act, 1996 (Act 528), has been repealed and is now Part II of Act 490	Pesticide control and management now forms Part II of Act 490
Forestry	MNL The Forestry Commission of Ghana	Forestry Commission Act, 1999 (Act 57)	This Act re-establishes the Forestry Commission in order to bring under the Commission the main public bodies and agencies implementing the functions of protection, development, management and regulation of forests and wildlife resources.
		Forest and Plantation Development Act, 2000 (Act 583)	Relates to the utilisation of forest resources and sets out the responsibility of communities and district authorities to manage fire protection and undertake forest management.
		Timber Resource Management Act, 1997 (Act 547) as amended 2002 Timber Resources Management Regulations, 1998	Provides for the granting of timber rights in a manner that secures the sustainable management and utilisation of the timber resources of Ghana.
		Forest Protection Act, 1974 (NRC 243) as amended 2002	Provides for the appointment of Forest Officers and matters pertaining to the protection of forest resources
		Trees and Timber Act, 1974 (NRC 273) as amended 1994	Provides for the registration of locality marks (i.e. designated forest areas) and the felling of trees for export.
Conservation and wildlife	MNL The Forestry Commission of Ghana	Wild Animals Preservation Act 1961 (Act 43) as amended 1983	The Act consolidates and amends the law relating to wild animals, birds and fish and provides for the continued observance of the Convention signed at London on 19 May, 1900
		Wildlife Reserves Regulations, as amended 1991	
		Wildlife Conservation (Amendment) Regulations, as amended 1989	
		Wetland Management (Ramsar Sites) Regulations 1999	
Fisheries	Ministry of Food and Agriculture	Fisheries Act, 2002 (Act 625)	This Act consolidates, with amendments, the law on fisheries. This Act also provides for the regulation and management of fisheries and for the development of the fishing industry and the sustainable exploitation of fishery resources.
		Fisheries Regulations, 2010	

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Sector	Primary agency	Title and date of document	Purpose
Tourism	Ministry of Tourism, Arts and Culture Ghana Tourism Authority	Tourism Act, 2011	Establishes the Ghana Tourism Authority and provides for the regulation of the tourism industry.
Health	Ministry of Health Food and Drugs Authority Ghana Standards Authority	Public Health Act, 2012 (Act 851) Ghana Standards Authority Act, 1973 (NRCD 173)	Revises and consolidates the law relating to public health and provides for disease prevention, promotes, safeguards, maintains and protects the health of humans and animals.
Planning and zoning	Ministry of Environment, Science, Technology and Innovation Town and Country Planning Department	Land Use and Spatial Planning Act, 2016 (Act 925)	Revises and consolidates the laws on land use and spatial planning, provides for sustainable development of land and human settlements through a decentralised planning system, ensures judicious use of land in order to improve quality of life, promotes health and safety in respect of human settlements and regulates national, regional, district and local spatial planning, and generally provides for spatial aspects of socio economic development
Mining and mineral resources	Ministry of Lands and Natural Resources	Minerals and Mining Act, 2006. (Act 703) as amended 2015	Revises and consolidates the law relating to minerals and mining.
	Minerals Commission	Minerals And Mining (General) Regulations, 2012	
	Department of Energy	Minerals Commission Act 1993, (Act 450)	Establishes a Minerals Commission, provides for its composition and functions relating to the regulation and management of the utilisation of minerals.
Energy	Ministry of Energy Energy Commission	Energy Commission Act, 1997 (Act 541)	Establishes an Energy Commission; provides for its functions relating to the regulation, management, development and utilisation of energy resources in Ghana; provides for the granting of licences for the transmission, wholesale supply, distribution and sale of electricity and natural gas; refining, storage, bulk distribution, marketing and sale of petroleum products.
		Renewal Energy Act, 2011 (Act 823)	Provides for the development, management, utilisation, sustainability and adequate supply of renewable energy for generation of heat and power.

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Sector	Primary agency	Title and date of document	Purpose
Land and agriculture	Ministry of Lands and Natural Resources	State Lands Act, 1962 (Act 125)	Provides for the acquisition of land in the national interest
	The Lands Commission Ministry of Food and Agriculture	The Lands Commission Act 2008	Establishes the Lands Commission to integrate, subject to the Constitution, the operations of public service land institutions under the Commission in order to secure effective and holistic land administration.
		Administration of Lands Act, 1962	Consolidates, with amendments, the enactments relating to the administration of Stool and other lands.
Archaeological, historical and cultural	Ministry of Tourism, Arts and Culture The Ghana Museums and Monuments Board	National Museum Act, 1969 (Act 387)	Establishes the Ghana Museums and Monuments Board provides for the protection of antiquities and objects of archaeological interest.
Labour employment and occupational health	Ministry of Employment and Labour Relations National Labour Commission	Labour Act, 2003 (Act 651)	Amends and consolidates the laws relating to labour, employers, trade unions and industrial relations; to establish a National Labour Commission

Appendix 11-1: Undertakings requiring registration and environmental permit (Schedule 1)

Agricultural and related services

1. Agriculture - Livestock farms

Community pastures -

- a. involving the clearing of land of greater than 40 hectares in area; or
- b. involving the clearing of land located in an environmentally sensitive area.

Fruit and other vegetable farms: Management areas -

- (a) involving the clearing of land of greater than 40 hectares in area; or
- (b) involving the clearing of land located in an environmentally sensitive area.

2. Fishing and trapping

Fishing –

- a. fish or shell fish farming in salt water, brackish water or fresh water, where the proposal includes the construction of shore-based facilities other than wharves;
- b. permanent traps or weir fisheries, salt water.

Services incidental to fishing –

- a. Fish or shellfish breeding and propagating services, or fish or shellfish hatchery services, where the proposal includes the construction of shore based facilities other than wharves.

3. Logging and forestry

- a. Management of forested land for the primary purpose of harvesting timber in a contract area.

4. Forestry services

Forestry services –

- a. application of pesticides;
- b. introduction of exotic species of animals, plants or microbial agents.

Mining (including milling), quarrying and oil wells

5. Mining

- a. metal mines;
- b. non-metal mines.

6. Crude oil and natural gas

- a. crude oil or petroleum production facilities;
- b. natural gas production facilities.

7. Quarries and sand pits

Stone quarries –

- a. where the total area is greater than 10 hectares, or
- b. where any portion is to be located within an environmentally sensitive area.

Sand and gravel pits –

- a. where the total area is greater than 10 hectares, or
- b. where any portion is to be located within an environmentally sensitive area.

Manufacturing

8. Food

Meat and poultry products –

- a. abattoirs;
- b. meat, fat or oil processing facilities
- c. poultry processing facilities.

Fish products

Flours, prepared cereal foods and feeds –

- a. Feed mills

9. Beverages

- a. distillery products;

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- b. brewery products;
 - c. wines
- 10. Rubber products
 - a. tyres and tubes;
 - b. rubber hoses and beltings;
 - c. other rubber products
- 11. Plastic products
 - a. foamed and expanded plastic products;
 - b. plastic pipes and pipe fittings;
 - c. plastic films and sheetings;
 - d. other plastic products
- 12. Leather and allied products
 - a. Leather and allied products
 - b. Leather tanneries
- 13. Primary textiles
 - a. man-made fibres and filament yarns;
 - b. spun yarns and woven cloths;
 - c. broad knitted fabrics
- 14. Textile products
 - a. natural fibres processing and felt products;
 - b. carpets, mats and rugs;
 - c. canvas and related products
 - d. other textile products.
- 15. Wood
 - a. sawmill, planing mill and shingle mill products industries;
 - b. veneers and plywoods;
 - c. other wood products;
 - d. wood preservation facilities which use hazardous chemicals or similar chemical processes;
 - e. particle board or wafer board production.
- 16. Paper and allied products
 - a. pulp and paper;
 - b. asphalt roofing;
 - c. other converted paper products.
- 17. Primary metals
- 18. Fabricated metal products
- 19. Transportation equipment
- Shipbuilding and repair –
 - a. facilities engaged in building and repairing all types of ships above 4,000 tonnes displacement including marine production platforms for petroleum, natural gas or mineral resource extraction.

Non-metallic mineral products

- 20. Refined petroleum products
- 21. Chemicals and chemical products –
 - a. industrial chemicals;
 - b. agricultural chemicals;
 - c. plastics and synthetic resins;
 - d. paints and varnishes.
 - e. Soaps and cleaning compounds;
 - f. Other chemical products.
- 22. Other manufacturing
- Scientific and Professional Equipment –

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- a. photographic films and plates manufacturing;
- b. floor tiles, linoleums and coated fabrics manufacturing;
- c. other manufactured products.

23. Construction

Industrial construction (other than building) –

- a. construction of pipelines for the transmission of oil, natural gas and other related products from the source to the point of distribution, where –
 - i. any portion of the pipeline is to be located at a distance greater than 500 meters from an existing right-of-way; or
 - ii. any portion of the pipeline is to be located in an environmentally sensitive area;
- b. diesel electric power generating plants having a capacity greater than 1 megawatt;
- c. gas turbine electric power generating plants having a capacity greater than 1 megawatt;
- d. nuclear electric power generating plants.

24. Highways and heavy construction

- a. roads
- b. waterworks and sewage system –
 - i. construction of trunk pipelines for transmission of water from the source to the point of distribution;
 - ii. construction of trunk sewer pipelines;
 - iii. construction of trunk sewer pipeline outfalls.
- c. hydroelectric power plants and related structures –
 - i. construction of dams and associated reservoirs;
 - ii. inter-or intra-basin water transfers;
 - iii. construction of hydroelectric power developments.

25. Utilities

- a. establishment of waste disposal sites;
- b. establishment of facilities for the collection or disposal of hazardous waste materials

Wholesale trade**26. Petroleum products**

Petroleum products, wholesale –

- a. Establishment of petroleum products storage facilities

27. Other products, wholesale

Waste materials, wholesale –

- a. Establishment of facilities for the purpose of assembling, breaking up, sorting or wholesale trading of scrap, junk or waste material of any type.

28. Services

Economics services administration –

- a. resource conservation and management programmes involving introductions of exotic species of animals or plants for any purpose;
- b. resource conservation and management programs involving introductions of native species of animals or plants into areas where those species do not occur at the time of the proposed introduction;
- c. designation of land for cottage development or other recreational development.

Accommodation, food and beverage services**29. Accommodation services**

- a. Establishment of recreation and vacation camps.

30. Amusement and recreational services

Commercial spectator sports –

- a. establishment of horse racetrack operations;

- b. establishment of racetrack operations for motorised vehicles sports and recreation clubs and services;
- c. establishment of facilities, including trails,
- d. establishment of outdoor firearm ranges;
- e. establishment of marina operations;
- f. establishment of facilities, including trails, for motorized recreational vehicles;
- g. other amusement and recreational services.

Appendix 11-2: Undertakings for which environmental impact assessment (EIA) is mandatory

1. Agriculture -
 - a. land development for agriculture purposes not less than 40 hectares;
 - b. agricultural programmes necessitating the resettlement of 20 families or more.
2. Airport -
 - a. construction of all airport or airstrips as well as the enlargement of existing airports or airstrips.
3. Drainage and irrigation –
 - a. construction of dams and man-made lakes;
 - b. drainage of wetland;
 - c. irrigation schemes.
4. Land reclamation –
 - a. coastal land reclamation;
 - b. dredging or bars, estuaries.
5. Fisheries -
 - a. construction of fishing harbours;
 - b. harbour expansion;
 - c. land based aquaculture undertaking.
6. Forestry -
 - a. conversion of hill forest land to other land use;
 - b. logging or conversion of forest land to other land use within the catchment area of reservoirs used for water supply, irrigation or hydro-power generation or in areas adjacent to forest, wildlife reserves;
 - c. conversion of wetlands for industrial, housing or agricultural use.
7. Housing -
 - a. human settlement development undertaking;
 - b. housing development.
8. Industry -
 - a. chemical – where production capacity of each product or combined products is greater than 100 tonnes/day;
 - b. petrochemicals – all sizes or raw materials requirements of 100 tonnes/day or greater;
 - c. non-ferrous-smelting –
 - i. aluminium – all sizes;
 - ii. copper – all sizes;
 - iii. others –producing 50 tonnes/day and above product;
 - d. Non-metallic cement–lime - 10 tonnes/day and above burnt lime rotary kiln or 50 tonnes/day and above vertical kiln.
 - e. iron and steel;
 - f. shipyards;
 - g. pulp and paper.
9. Infrastructure
 - a. construction of hospitals;
 - b. industrial estate development;
 - c. construction of roads and highways;
 - d. construction of new townships;
 - e. construction of railways.

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10. Ports

- a. construction of ports;
- b. port expansion involving an increase of 25 per cent or more in handling capacity per annum.

11. Mining

- a. mining and processing of minerals in areas where the mining lease covers a total area in excess of 10 hectares;
- b. quarries –
 - Proposed quarrying of aggregate, limestone, silica, quartzite, sandstone, marble and decorative building stone within 3 kilometres radius of any existing village, residential, commercial or industrial areas, or any area earmarked for residential, commercial or industrial development;
- c. sand dredging.

12. Petroleum –

- a. oil and gas fields development;
- b. construction of off-shore and on-shore pipelines;
- c. construction of oil and gas separation, processing, handling and storage facilities.
- d. construction of oil refineries;
- e. construction of product depots for the storage of petrol, gas or diesel which are located within 3 kilometres of any commercial, industrial or residential areas.

13. Power generation and transmission –

- a. construction of steam generated power stations;
- b. dams and hydroelectric power schemes;
- c. construction of combined cycle facilities in national parks;
- d. construction of nuclear-fuelled power stations;
- e. erection of power transmission lines.

14. Resort and recreational development –

- a. construction of coastal resort facilities of hotels with more than 40 rooms;
- b. hill top resort or hotel development;
- c. development of tourist or recreational facilities in national parks;
- d. development of tourist or recreational facilities on islands in surrounding waters.

15. Waste treatment and disposal –

- a. toxic and hazardous waste –
 - i. construction of incineration plant;
 - ii. construction of recovery plant (off-site)
 - iii. construction of wastewater treatment plant (off-site);
 - iv. construction of secure landfills facility;
 - v. construction of storage facility (off-site)
- a. municipal solid waste –
 - i. construction of incineration plant;
 - ii. construction of composing plant;
 - iii. construction of recovery/recycling plant;
 - iv. construction of municipal solid waste landfill facility;
 - v. construction of waste depots.
- a. municipal sewage –
 - i. construction of wastewater treatment plant;
 - ii. construction of marine outfall;
 - iii. night soil treatment.

16. Water supply –

- a. construction of dams impounding reservoirs;
- b. groundwater development for industrial, agricultural or urban

17. Environmental conservation and management

- a. activity to remove "designated" status from an area designated for wildlife conservation and management;
- a. activities relating to –
 - i. wildlife conservation and management;
 - ii. forest conservation and management;
 - iii. watershed conservation and management;
 - iv. commercial exploitation of fauna and flora.

Appendix 11-3: Environmentally sensitive areas (Schedule 5)

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).
4. Areas of unique historic, archaeological or scientific interests.
5. Areas which are traditionally occupied by cultural communities.
6. Areas prone to natural disasters (geological hazards, floods, rainstorms, earthquakes, landslides, volcanic activity etc.)
7. Areas prone to bushfires.
8. Hilly areas with critical slopes.
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 characterised 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.

Acronyms

EA	Environmental Assessment
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement or Study
EMP	Environmental Management Plan
EPA	Environmental Protection Agency
GS	Ghana Standard
LI	Legal instrument
MESTI	Ministry of Environment, Science, Technology and Innovation
MLNR	Ministry of Lands and Natural Resources
PEA	Preliminary Environmental Assessment
PER	Preliminary Environmental Report
SEA	Strategic Environmental Assessment
ToR	Terms of Reference

List of useful contacts

Department	Ministry	Telephone	Email	Website
Environmental Protection Agency	Ministry of Environment, Science, Technology and Innovation	+233-302 664 697	info@epa.gov.gh	http://www.epa.gov.gh
Chief Director's office; Environment Directorate	Ministry of Environment, Science, Technology and Innovation	+233-302 666 049	contact@mesti.gov.gh	www.mesti.gov.gh