

Annexes to Chapter 7

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Annex 7-1 Second Schedule: Project Types which Require EIA in Kenya

No.	Project Type
1. General	
(a)	An activity out of character with its surrounding;
(b)	Any structure of a scale not in keeping with its surrounding; and
(c)	Major changes in land use;
2. Urban Development including-	
(a)	Designation of new township;
(b)	Establishment of industrial estates;
(c)	Establishment or expansion of recreational areas;
(d)	Establishment or expansion of recreational townships in mountain areas, national parks and game reserves; and
(e)	Shopping centres and complexes.
3. Transportation including-	
(a)	All major roads;
(b)	All roads in scenic, wooded or mountainous areas and wetlands;
(c)	Railway lines;
(d)	Airports and airfields;
(e)	Oil and gas pipelines; and
(f)	Water transport;
4. Dams, rivers and water resources including:	
(a)	Storage dams, barrages and piers;
(b)	River diversions and water transfer between catchments;
(c)	Flood control schemes; and
(d)	Drilling for the purpose of utilising ground water resources including geothermal energy.
5. Aerial spraying.	
6. Mining, including quarrying and open-cast extraction of:	
(a)	Precious metals;
(b)	Gemstones;
(c)	Metalliferous ores;
(d)	Coal;
(e)	Phosphates;
(f)	Limestone and dolomite;
(g)	Stone and slate
(h)	Aggregates, sand and gravel;
(i)	Clay;
(j)	Exploitation for the production of petroleum in any form; and
(k)	Extracting alluvial gold with use of mercury.
—	Forestry related activities including
(a)	Timber harvesting;
(b)	Clearance of forest areas; and
(c)	Reforestation and afforestation.
7. Agriculture including:	
(a)	Large-scale agriculture;
(b)	Use of pesticide;
(c)	Introduction of new crops and animals;
(d)	Use of fertilizers; and
(e)	Irrigation.
8. Processing and manufacturing industries including:	
(a)	Mineral processing, reduction of ores and minerals;
(b)	Smelting and refining of ores and minerals;

No.	Project Type
(c)	Foundries;
(d)	Brick and earthenware manufacture;
(e)	Cement works and lime processing;
(f)	Glass works;
(g)	Fertilizer manufacture or processing;
(h)	Explosive plants;
(i)	Oil refineries and petro-chemical works
(j)	Tanning and dressing of hides and skins;
(k)	Abattoirs and meat-processing plants;
(l)	Chemical works and process plants;
(m)	Brewing and malting;
(n)	Bulk grain processing plants;
(o)	Fish-processing plants;
(p)	Pulp and paper mills;
(q)	Food-processing plants;
(r)	Plants for the manufacture of assembly of motor vehicles;
(s)	Plants for the construction or repair of aircraft or railway equipment;
(t)	Plants for the manufacture or assembly of motor vehicles;
(u)	Plants for the manufacture of tanks, reservoirs and sheet-metal containers;
(v)	Plants for the manufacture of coal briquettes; and
(w)	Plant for manufacturing batteries;
9. Electrical infrastructure including:	
(a)	Electricity generation stations;
(b)	Electrical transmission lines;
(c)	Electrical sub-stations; and
(d)	Pumped-storage schemes.
10. Management of hydrocarbons including: the storage of natural gas and combustible or explosive fuels.	
11. Waste disposal including –sites for solid waste disposal;	
(a)	Sites for hazardous waste disposal;
(b)	Sewage disposal works;
(c)	Works involving major atmospheric emissions; and
(d)	Works emitting offensive odours.
12. Natural conservation areas including:	
(a)	Creation of national parks, game reserves and buffer zones;
(b)	Establishment of wilderness areas;
(c)	Formulation or modification of forest management policies;
(d)	Formulation or modification of water catchment management policies;
(e)	Policies for the management of ecosystems, especially by use of fire;
(f)	Commercial exploitation of natural fauna and flora; and
(g)	Introduction of alien species of fauna and flora into ecosystems.
13. Nuclear Reactors.	
14. Major developments in biotechnology including the introduction and testing of genetically modified organisms.	

Source: Second Schedule of EMCA 1999

Annex 7-2 Contents of the Project Report to be Submitted to NEMA

No.	Contents
(a)	Name of the proponent, PIN number ⁹ , address and contact person;
(b)	Title of the project;
(c)	Objectives and scope of the project;
(d)	Nature of the project;
(e)	Location of the proposed project, including the physical area that may be affected by the project's activities;
(f)	Types of activities that will be undertaken during the project construction, operation and decommissioning phases;
(g)	Design(s) of the project;
(h)	Materials to be used, products and by-products, including waste to be generated by the project and the method(s) of their disposal;
(j)	Mitigation measures to be taken during and after implementation of the project;
(k)	An action plan for the prevention and management of foreseeable accidents during the project cycle;
(l)	A plan to ensure the health and safety of the workers, and neighbouring communities;
(m)	Economic and social benefits to the local community and the nation in general;
(n)	Project budget;
(o)	Views of the public about the project, indicating representativeness of the potentially affected people; and
(p)	An environmental management plan (EMP) for the entire project cycle.

Source: 2.4.6 Draft Environment Impact Assessment Guidelines and Administrative Procedure, Nov. 2002

⁹ Personal Identification Number (PIN) is the identification number of individual person or companies used for the tax payment.

Annex 7-3 Contents of the Scoping Report to be Submitted to NEMA

No.	Contents
(a)	Introduction including the purpose of the TOR, the project, the project proponent, and citation of the EIA regulation;
(b)	Project background including history of the project, parties involved, justification of the project, a description of the project area, relevant policy, legislative and planning framework, identification of associated project, or any other planned within the region which may compete for the same resources, the project products, by-products and processes at both implementation and operation phases, resources required for successful implementation and operation of the project, and a brief history of the project including the options considered;
(c)	Project objectives such as the goals and specific objectives of the project;
(d)	Existing environmental conditions including description of the project area, ecological zoning & state of environment in the project area & its surrounding (e.g. natural state/suffered degradation & causes of degradation if applicable),
(e)	All the proposed project activities in the project cycle;
(f)	Identification of environmental impacts including significant positive/negative impacts, direct/indirect impacts, immediate/long-term impacts, and unavoidable and/or irreversible impacts;
(g)	Social analysis of the project alternatives: comparison of alternatives with respect to site, technology, product mix, scale, potential environmental impacts, capital and operating costs, suitability under local conditions, and institutional, training, and monitoring requirements; and indication of irreversible/avoidable impacts and potential mitigation measures; consideration of a “no project” alternative;
(h)	Consultation and public participation including means in which the affected community is/will be involved in the project formulation;
(i)	Social analysis such as evaluation of the project economics and project validity including the environmental costs as investment costs;
(j)	Possible analysis information gap including means of information evaluation, data comparison, and necessary further study or monitoring if applicable.
(k)	Proposed mitigation measures including feasible and cost-effective mitigation measures; and
(l)	Conclusion and Recommendations

Source: 2.5.7 of Draft Environment Impact Assessment Guidelines and Administrative Procedure, Nov. 2002

Annex 7-4 Kenyan EIA-Related Laws and Regulations

Annex- 7-4 (1) EIA-Related Laws and Regulations	
a)	<p>The Environment Management and Co-ordination Act (EMCA), 1999</p> <ul style="list-style-type: none"> - An Act of Parliament to provide for the establishment of an appropriate legal and institutional framework for the management of the environment. - The requirement for an EIA is stated in Section 58 of the Act and this requirement is applicable to projects listed in the Second Schedule. These include dams, rivers and other water resources projects. - The procedure requires project proponents to undertake an EIA study and to prepare a report. The assessment is to be carried out in accordance with EIA regulations, guidelines and procedures issued under the Act. - Part II General Principles: Section 3 provides for any person to compel the company to restore a degraded environment to its immediate condition prior to damage - Part VIII Environmental Quality Standards: Sections 101 - makes it an offence to emit noise in excess of the prescribed standards. - Part V Protection and Conservation of the Environment: Section 42 requires approval of an EIA before erecting, altering, extending a structure or part of any structure, excavating, disturbing, depositing any substance likely to have adverse environmental effects, directing, blocking or draining a lake, river, wetland or coastal zone. - Part VIII Environmental Quality Standards: Sections 71, 72, 73: requires NEMA to set standards for discharge of effluents and protocols for monitoring, makes it an offence to pollute any aquatic environment, requires sites to supply information on discharge effluents within 90 days of the Act coming into force. - Part VIII Environmental Quality Standards: Section, 75 requires an effluent discharge license for the discharge of any effluents directly into the environment. - EMCA requires that every person whose activities generate waste, employ minimization measures through treatment, reclamation or recycling. The Act prohibits disposal of waste, whether generated within or outside Kenya, in such a manner as to cause pollution of the environment or ill health to any person. It also prohibits the transport of waste without a license issued by NEMA, and stipulates that waste may only be disposed of at a licensed site. It is an offence under the Act to operate a waste disposal site or plant without a license issued by NEMA. - Section 68 of EMCA states that NEMA shall be responsible for carrying out an environmental audit of all activities that are likely to have a significant impact on the environment. It states that an environmental inspector may enter land or premises for purposes of determining compliance with the EIA license. - Section 69 states that NEMA may, in consultation with lead agencies, monitor the operation of any industry, project or activity with a view to determining its immediate or long term effects on the environment. This section also states that an environmental inspector may enter upon any land or premises for the purposes of monitoring the effects upon the environment of any activities carried out on that land or premises.
b)	<p>Environmental (Impact Assessment and Audit) Regulations, 2002</p> <ul style="list-style-type: none"> - Provides further guidance on the EIA process; - The Second Schedule contains a list of issues to be considered during an EIA; and - The Third Schedule details the general guidelines for carrying out an EIA study.
c)	<p>The Environmental Management and Coordination (Water Quality) Regulations, 2006</p> <ul style="list-style-type: none"> - Established as per section 147 of EMCA; - Part I Section 2 lists the sectors that these Regulations are applicable to. This includes 'water that is used for agricultural purposes'; - Part IV addresses issues related to water for agricultural use including: Section 19: the use of wastewater for irrigation purposed (as per the guidelines set out in Schedule 8 of the Regulations); Section 20: abstraction from a water under an environmental management plan; Section 21: creation for a buffer zone for an irrigation scheme; and Section 23: compliance with the Regulations; - Part V Section 24 states that "No person shall discharge or apply any poison, toxic, noxious or obstructing matter, radioactive wastes, or other pollutants or permit any person to dump or discharge any such matter into water meant for fisheries, wildlife, recreational purposes of any other uses"; - The Third Schedule provides the standards for effluent discharge into the environment;

Annex- 7-4 (1) EIA-Related Laws and Regulations	
	<ul style="list-style-type: none"> - The Fourth Schedule provides a monitoring guide for discharge into the environment; - The Eighth Schedule provides the microbiological quality guidelines for the use of wastewater for irrigation; - The Ninth Schedule provides the standards for Irrigation Water; and - The Tenth Schedule provides the quality standards for recreational waters.
d)	<p>The Environmental Management and Coordination (Waste Management) Regulations, 2006</p> <ul style="list-style-type: none"> - Established as per sections 92 and 147 of EMCA; - Part II: Section 4 describes the responsibility of the waste generator; section 5 cleaner production methods; and section 6 waste segregation; - Part V relates to pesticides and toxic substances: part 24 states that regulations under the Pest Control Products Act are applicable; and section 25 addresses pesticide disposal; and - Part VIII section 41 addresses offences and penalties.
e)	<p>Energy Act</p> <ul style="list-style-type: none"> - The Act established the Energy Regulatory Commission and defines the objects and functions of the commission. - It describes the requirements of a licence or permit, provides the permission to survey and use land to lay electric supply lines and the power of the licensee to enter land to inspect or repair lines, and defines the payment of compensation by the Commission and the liability of licensee to make compensation for damage. - It provides the power to the licensee to lop trees and hedges which interfere with the construction, maintenance work, working of any electric supply line. Seven (7) days notice shall be given to the owner or occupier of the land to request to lop or cut trees and hedges at the cost of the licensee.
f)	<p>The Public Health Act (Cap. 242)</p> <ul style="list-style-type: none"> - Part XI – Public Water Supplies, Sections 129, 130: the local authority is responsible for the prevention of any pollution to any water supplies used for human and domestic consumption; and - Section 115 prohibits nuisances and states that no person shall cause a nuisance or allow to exist on any land owned or occupied by him or of which he is in charge any nuisance or other condition liable to be injurious or dangerous to health. Nuisance is defined to include any premise or thing that is liable to be injurious or dangerous to health. It extends beyond just solid waste to liquid and gaseous waste as well. The responsibility for taking action against those responsible for causing nuisances lies with the local authority.
g)	<p>Physical Planning Act (Cap286)</p> <ul style="list-style-type: none"> - Section 36: If in connection with a development application a local authority is of the opinion that proposals for industrial location, dumping sites, sewerage treatment, quarries or any other development activity will have injurious impact on the environment, The applicant shall be required to submit together with the application an environmental impact assessment report.
h)	<p>The Forests Act, 2005</p> <ul style="list-style-type: none"> - An Act of Parliament to provide for the establishment, development and sustainable management, including conservation and rational utilization of forest resources for the socio-economic development of the country.
i)	<p>Lakes and Rivers Act (rev. 1983) Cap 409</p> <ul style="list-style-type: none"> - An Act of Parliament to regulate dredging and the use of steam vessels on certain lakes and rivers; and - Part IV – General, 11(e), 12: provides for the protection of bird and animal life on or in a lake or river.
j)	<p>Wildlife Conservation and Management Act Cap 376</p> <ul style="list-style-type: none"> - This is an Act of Parliament that provides for the protection, conservation and management of wildlife in Kenya (Republic of Kenya, 1976). - Provides for the establishment of national parks and national reserves and defines their management. - Section 15 of the Act empowers the Minister, after consultation with the competent authority and being satisfied that it is necessary, for ensuring the security of animals or plant life in national parks or reserves or for preserving habitat and ecology to declare an area as a protection area and specify acts that are prohibited or restricted or make regulations accordingly.

Annex- 7-4 (2) RAP-Related Laws and Regulations	
k) The Constitution	<ul style="list-style-type: none"> - This is the supreme law in Kenya and it overrides any other law which is inconsistent with it. - Section 75 of the Constitution of Kenya enshrines the right to property. It prohibits compulsory acquisition of property except in strictly defined circumstances. Of relevance to dam related developments, one of the circumstances in which compulsory acquisition is permitted relates to “the development or utilization of property so as to promote the public benefit.” - A number of statutes define land ownership in Kenya, among them the Registration of Titles Act, Chapter 281, the Registered Land Act, Chapter 300 (the RLA) and the Land (Group) Representatives Act, Chapter 287. All these laws provide systems under which interests in land can be acquired, primarily through registration and documentation of title.
l) Government Land Act Cap 280	<ul style="list-style-type: none"> - An Act of Parliament to make further and better provision for regulating the leasing and other disposal of Government lands, and for other purposes - Part IV relates to the disposal of agricultural land: including the division of land into farms, auction, lease, rent (sections 27-31) - Section 87: The Government may at any time enter upon any land sold, leased or occupied under this Act, and may there do any work which it may consider necessary for maintaining or improving the flow of water in any river or stream on the land, and may construct and maintain dams or divert any river or stream, without paying compensation except for buildings and crops destroyed or damaged.
m) Land Titles Act Cap 282, 1908	<ul style="list-style-type: none"> - An Act of Parliament to make provision for the removal of doubts that have arisen in regard to titles to land and to establish a Land Registration Court - Section 26 (1) states that the Recorder of Titles shall keep a register and shall file therein the Photostat copies of all certificates of title issued under this Act. - Section 27.(1) states that the certificate of title shall set out a description of the immovable property therein referred to, with figures and references necessary to identify it on the plan or map of the area in which it is situated, and a correct statement of the right, title or interest of the person to whom it is issued. - Subsidiary Legislation includes: <ul style="list-style-type: none"> • The Land Titles Rules ● Part III addresses the ascertainment of value of property: Section 5(1) states that whenever it is necessary that the value of any property shall be ascertained for the purpose of determining the fee to be paid in respect of a certificate of ownership to be granted under the Act, or for the purpose of determining the sum to be paid by an unsuccessful claimant under subsection (1) of section 33 of the Act, the value shall be determined by the Recorder of Titles, and, have as hereinafter provided, his determination shall be final and conclusive against the person to whom the certificate is to be granted, or against the claimant, as the case may be.
n) Registration of Titles Act Cap 281	<ul style="list-style-type: none"> - An Act of Parliament to provide for the transfer of land by registration of titles; - Part II addresses what land and on application by what persons can be brought under the Act; - Part IV considers grants, transfers and transmission of land , including section 22; and - Part V, Section 34 states that when land is intended to be transferred (or any right of way or other easement is intended to be created or transferred), the registered proprietor or, if the proprietor is of unsound mind, the guardian or other person appointed by the court to act on his behalf in the matter, shall execute, in original only, a transfer in form F in the First Schedule, which transfer shall, for description of the land intended to be dealt with, refer to the grant or certificate of title of the land, or shall give such description as may be sufficient to identify it, and shall contain an accurate statement of the land and easement, or the easement, intended to be transferred or created, and a memorandum of all leases, charges and other encumbrances to which the land may be subject, and of all rights-of-way, easements and privileges intended to be conveyed and section 35 sets out the procedure with

Annex- 7-4 (2) RAP-Related Laws and Regulations	
	regard to transfer of land.
o)	<p>Land (Group Representatives) Act Cap 287, 1970</p> <ul style="list-style-type: none"> - An Act of Parliament to provide for the incorporation of representatives of groups who have been recorded as owners of land under the Land Adjudication Act and for purposes connected therewith and purposes incidental thereto; and - The First Schedule lists the matters to be provided for in the Constitution of every group.
p)	<p>The Trusts of Land Act Cap 290, Revised edition 1982</p> <ul style="list-style-type: none"> - An Act of Parliament relating to the trusts of land. - Part III Section 10 defines what constitutes settled land; Section 11 addresses transitional provisions for converting settlements into trusts for sale; and Section 12 establishes that attempted settlement constitutes trust for sale. - Part IV provides for the powers of trustees for sale, including: section 17 (power of sale and exchange); section 18 (leasing powers); section 19 (leases for special subjects); and section 23 (surrenders and regrants). - Subsidiary Legislation includes: <ul style="list-style-type: none"> • The Trust Land (Irrigation Areas) Rules : <ul style="list-style-type: none"> - Applicable to areas of Trust Land declared to be irrigation areas; - Provides for the appointment of an irrigation committee; - License (including conditions) for areas declared to be irrigation areas; and - States that any person who: interferes with the flow of irrigation water in the canals; makes unlawful use of irrigation water; refuses to permit the authorised passage of irrigation water across his/her holding; willfully damages or obstructs canals or control works; or refuses to accept or drain off irrigation water when required to do so, is guilty of an offence and liable to a fine or imprisonment (or to both).
q)	<p>Land Control Act 302, Revised Edition 1989 (1981)</p> <ul style="list-style-type: none"> - An Act of Parliament to provide for controlling transactions in agricultural land; - Part II addresses the Control of Dealings in Agricultural Land, including the transactions affecting agricultural land (Section 6); and - Regulations under section 25 comprise of the Land Control Regulations.
r)	<p>Land Planning Act Cap 303 (Revised Edition 1970)</p> <ul style="list-style-type: none"> - An Act of Parliament to make provision for planning the use and development of land; - Subsidiary legislation includes: <ul style="list-style-type: none"> • The Development and Use of Land (Planning) Regulations, 1961
s)	<p>Land Acquisition Act, Cap 295</p> <ul style="list-style-type: none"> - Section 6 provides that a notice must be given prior to compulsory acquisition. The preconditions for compulsory acquisition are that the Minister must be satisfied that: <ul style="list-style-type: none"> • Land is required for the purposes of a public body; • The acquisition is necessary in the interests of “.....the development or utilization of any property in such a manner as to promote the public benefit”; and • The necessity therefore is such as to afford reasonable justification for the causing of any hardship that may result to any person interested in the land. - Section 9 stipulates that where land is compulsorily acquired, “full compensation shall be paid promptly to all persons interested in the land.” An inquiry shall be held into claims to compensation by all persons interested in the land. The value of the land shall be assessed on the basis of the market value at the date of the publication of the notice of the intention to acquire the land. To the

Annex- 7-4 (2) RAP-Related Laws and Regulations

amount of compensation so determined shall be added a sum equal to 15% of the market value.

t) Valuers Act Cap 532

- An Act of Parliament to provide for the registration of valuers and for connected purposes
- Section III establishes the Valuers Registration Board (which has the responsibility of regulating the activities and conduct of registered valuers in accordance with the provisions of this Act)
- Section 6 (1) states that the Registrar shall keep and maintain a register in which the name of every person entitled to have his name entered therein shall be entered after his being accepted by the Board for registration; (2) All changes in the particulars registered under subsection (1) shall be entered on the register by the registrar.
- Section 8.(1) states that the Registrar shall cause to be published in the Gazette, as soon as may be practicable after entry in the register, the name, address and qualification of each registered valuer and, subject to the directions of the Board, he may cause to be so published any amendments to the register; (2) The registrar shall cause to be published in the Gazette at the beginning of each year a list containing the names, addresses and qualifications of all registered valuers then appearing on the register.
- Section 12 lists the conditions and qualifications for registration of Valuers, which include full membership of the Institution of Surveyors of Kenya (Chapter of Valuation and Estate Management Surveyors); or corporate membership of the Royal Institution of Chartered Surveyors (in the General Practice or Land Agency or agriculture) and is qualified to be or is a full member of the Institution of Surveyors of Kenya (Chapter of Valuation and Estate Management Surveyors); or the holder of a degree or diploma from any university or college which is recognized for the time being by the Board and qualifies him to be a full member of the Institution of Surveyors of Kenya (Chapter of Valuation and Estate Management Surveyors).

u) Rating Act Cap 267, 1963

- An Act of Parliament to provide for the imposition of rates on land and buildings in Kenya; to amend the law relating to valuation and rating in Kenya; and for purposes connected therewith and incidental thereto
- Section 4. (1) states that the rating authority may, for the purposes of levying rates, adopt the following forms of rating : (a) an area rate in accordance with section 5; (b) an agricultural rental value rate; or (c) a site value rate or a site value rate in combination with an improvement rate in accordance with section 6. Provided that : (i) where any one of the aforementioned forms of rating has been adopted in respect of any rating area, no other form of rating under this subsection shall, at the same time, be adopted in respect of that area; (ii) before the rating authority adopts any form of rating, the Minister's approval to the form of rating so adopted and the rating area in respect of which such form of rating is adopted shall be obtained and a notice to this effect shall be published by the rating authority. (2) As soon as may be after the rating authority has adopted as a form of rating for any rating area any form of area rate or agricultural rental value rate the Minister may, under section 27, make rules appropriate to the form of rating so adopted. (3) Where the rating authority has adopted for any rating area a form of rating under subsection (1) (b), the provisions of the Valuation for Rating Act shall apply to the form of rating so adopted.
- Section 5 provides alternative methods of rating which include: (a) a flat rate upon the area of land; (b) a graduated rate upon the area of land; (c) a differential flat rate or a differential graduated rate upon the area of land according to the use to which the land is put, or capable of being put, or for which it is reserved; (d) an industrial rate upon the area of land used for other than agricultural or residential purposes; (e) a residential rate upon the area of land used for residential purposes; (f) such other method of rating upon the area of land or buildings or other immovable property as the rating authority may resolve, and a rate levied in accordance with any such method as aforesaid shall in this Act be known as an area rate.
- Section 7 states that the Council shall, with the approval of the Minister, by resolution appoint one or more persons to value land for the purposes of preparing every draft valuation roll or draft supplementary valuation roll under and in accordance with the Valuation for Rating Act.
- Section 13 (2) states that amount of the rate levied in the area of any urban council, area council or local council shall be sufficient to meet all liabilities falling to be discharged by that urban, area or local council, as the case may be, for which provision is not otherwise made, including amounts

Annex- 7-4 (2) RAP-Related Laws and Regulations	
	<p>required by such council to establish or increase to a reasonable level a general reserve fund in accordance with section 218 of the Local Government Act.</p> <ul style="list-style-type: none"> - Subsidiary legislation includes: <ul style="list-style-type: none"> • The Rating Rules: A notification of charge (for rates and interest) shall be in the form in the Schedule.
v) Energy Act	<ul style="list-style-type: none"> - It provides the power to the licensee to lop trees and hedges which interfere with the construction, maintenance work, working of any electric supply line. Seven (7) days notice shall be given to the owner or occupier of the land to request to lop or cut trees and hedges at the cost of the licensee. - Section 54 enables a licensee to acquire land compulsorily for any of the purposes of a licence at the cost of the licensee, and the licensee may apply to the Minister to acquire the land on his behalf.
w) Wayleave Act	<ul style="list-style-type: none"> - It provides for wayleaves in favour of the government on private lands for the public work projects such as a sewer, drain or pipeline into, through, over or under any private land without the consent of the owner. However, if an owner, lessee or occupier of the private land notifies the objection to the competent District Commissioner, the work shall not proceed without the sanction of the Minister. - The Act also define the items to be compensated, the power to enter land at any time for the purpose of the Act and penalties for unauthorized building over sewers, drains or pipelines.

Annex 7-5 Environmental (Impact Assessment and Audit) Regulations 2003

[CHAPTER 8 of 1999 - ENVIRONMENTAL MANAGEMENT AND CO-ORDINATION ACT](#)
[HOME](#)

[FIRST SCHEDULE](#)

LEGAL NOTICE No. 101

THE ENVIRONMENTAL (IMPACT ASSESSMENT AND AUDIT) REGULATIONS, 2003

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PART I - PRELIMINARY

1. These Regulations may be cited as the Environmental (Impact citation. Assessment and Audit) Regulations, 2003.

2. In these Regulations unless the context otherwise requires - interpretation.

"analysis" means the testing or examination of any matter, substance or process for the purpose of determining its composition or qualities or its effect (whether physical, chemical or biological) on any segment of the environment or examination of emissions or recording of noise or sub-sonic vibrations to determine the level or other characteristics of the noise or sub-sonic vibration or its effect on any segments of the environment.

"Authority" means the National Environment Management Authority established under section 7 of [the Act](#);

"biological diversity" means the variability among living organisms from all sources including terrestrial ecosystems, aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, among species, and of ecosystems;

"chemical" means a chemical substance in any form whether by itself or in a mixture or preparation, whether manufactured or derived from nature and includes industrial chemicals, pesticides, fertilizers and drugs;

"Director-General" means the Director-General of the Authority appointed under section 10 of [the Act](#);

"District Environment Committee" means the District Environment Committee appointed under section 29 of [the Act](#);

"economic analysis" means the use of analytical methods which take into account economic, socio-cultural, and environmental issues in an integrated manner in the assessment of projects;

"environment" includes the physical factors of the surroundings of human beings including land, water, atmosphere, climate, sound, odour, taste, the biological factors of animals and plants and the social factor of aesthetics and includes both the natural and the built environment;

"environmental audit study" means a systematic evaluation of activities and processes of an ongoing project to determine how far these activities and programmes conform with the approved environmental management plan of that specific project and sound environmental management practices;

"environmental auditor" means an expert or firm of experts registered in accordance with regulation 14;

"environmental control audit system" means a mechanism or procedure put in place by a proponent or

proprietor in consultation with the Authority to determine compliance with environmental standards;

"environmental impact assessment" means a systematic examination conducted to determine whether or not a programme, activity or project will have any adverse impacts on the environment;

"environmental impact assessment study report" means the report produced at the end of the environmental impact assessment study process under section 58 of [the Act](#) and regulation 11;

"environmental impact assessment expert" means an individual expert or firm of experts registered under regulation 14 and includes a lead expert and an associate expert;

"environmental management" includes the protection, conservation and sustainable use of the various elements or components of the environment;

"environmental management plan" means all details of project activities, impacts, mitigation measures, time schedule, costs, responsibilities and commitments proposed to minimize environmental impacts of activities, including monitoring and environmental audits during implementation and decommissioning phases of a project;

"environmental monitoring" means the continuous or periodic determination of actual and potential effects of any activity or phenomenon of the environment whether short-term or long-term;

"guidelines" means the guidelines describing the methodology for implementation of environmental impact assessment requirements adopted by the Authority under section 58 of [the Act](#);

"inspector" means an environmental inspector appointed under section 117 of [the Act](#);

"lead agency" means any Government ministry, department, parastatal, state corporation or local authority, in which any law vests functions of control or management of any element of the environment or natural resources;

"mass media" includes publicly exhibited posters, newspapers, radio, television or other media used for public communication;

"mitigation measures" include engineering works, technological improvements, management and ways and means of minimising negative aspects, which may include socio-economic and cultural losses suffered by communities and individuals, whilst enhancing positive aspects of the project;

"natural resources" include resources of air, land, water, animals and plants including their aesthetic qualities;

"premises" include mesuages, buildings, lands and hereditaments in every tenure and machinery, plant or vehicle used in connection with any trade carried on at any premises;

"project" includes any project, programme or policy that leads to activities which may have an impact

on the environment;

"project report" means a summary statement of the likely environmental effects of a proposed development referred to in section 58 of [the Act](#);

"proprietary information" means information relating to any manufacturing process, trade secret, trade mark, copyright, patent or formula protected by law in Kenya or by any international treaty to which Kenya is a party;

"proponent" means a person proposing or executing a project, programme or an undertaking specified in the Second Schedule of [the Act](#);

"Provincial Environment Committee" means the Provincial Environment Committee appointed under section 29 of [the Act](#);

"review" means a process of checking the adequacy of an environmental impact study to ensure that it meets the legal requirement and ensure wide acceptance of the environmental impact study findings;

"social analysis" means assessing or estimating in advance the social consequences from specific policy actions or project development including social justice and equity, social uncertainty, social cohesion, social networks and interactions, social status and gender desegregation;

"standard" means the limits of discharge or emissions established under [the Act](#) or under these Regulations;

"strategic environment assessment" means the process of subjecting public policy, programmes and plans to tests for compliance with sound environmental management;

"sustainable development" means development that meets the needs of the present generation without compromising the ability of future generations to meet their needs by maintaining the carrying capacity of the supporting ecosystem;

"sustainable use" means present use of the environment or natural resources, which does not compromise the ability to use the same by future generations or degrade the carrying capacity of supporting ecosystems;

"Standards and Enforcement Review Committee" means the Standards and Enforcement Review Committee established under section 70 of [the Act](#);

"Technical Advisory Committee" means the Technical Advisory Committee on environmental impact assessment established under section 61 of [the Act](#) and regulation 5 of these Regulations;

"trans-boundary impacts" means impacts beyond the Kenyan borders;

"Tribunal" means the National Environment Tribunal established under section 125 of [the Act](#);

"waste" includes any matter prescribed to waste and any matter whether liquid, solid, gaseous or radioactive, which is discharged, emitted or deposited in the environment in such volume composition or manner likely to cause an alteration of the environment;

"water" includes drinking water, river, stream, watercourse, reservoir, well, dam, canal, channel, lake, swamp, open drain, or underground water.

3. These Regulations shall apply to all policies, plans, programmes; project and activities specified in Part IV, Part V and the Second Schedule of [the Act](#).

4. (1) No proponent shall implement a project -

(a) likely to have a negative environmental impact; or

(b) for which an environmental impact assessment is required under [the Act](#) or these Regulations;

unless an environmental impact assessment has been concluded and approved in accordance with these Regulations.

(2) No licensing authority under any law in force in Kenya shall issue a licence for any project for which an environmental impact assessment is required under [the Act](#) unless the applicant produces to the licensing authority a licence of environmental impact assessment issued by the Authority under these Regulations.

(3) No licensing authority under any law in force in Kenya shall issue a trading, commercial or development permit or license for any micro project activity likely to have cumulative significant negative environmental impact before it ensures that a strategic environmental plan encompassing mitigation measures and approved by the Authority is in place.

(4) If the Authority determines that an application for an environmental impact assessment raises issues that concern more than one district, it shall submit the application to the relevant Provincial Environment Committee.

5 (1) The Authority may set up technical advisory committees at national, provincial and district levels to advise it on environmental impact assessment related reports.

(2) A technical advisory committee set up under this regulation shall consist of not less than five multi-disciplinary specialists and such other persons as shall be indicated in the guidelines.

(3) The terms of reference and rules of procedure of a technical advisory committee shall be drawn by the Authority in accordance with section 61 of [the Act](#).

(4) The Committees may, with the approval of the Director General, co-opt any persons it deems necessary for its proper functioning.

6 An application for an environmental impact assessment Application for licence shall be in the form

of a project report in Form 1 set out in the Environmental First Schedule to these Regulations, and the applicant shall submit the application together with the prescribed fee to the Authority or the Authority's appointed agent in the District where the project is to be undertaken.

PART II - THE PROJECT REPORT

7. (1) A proponent shall prepare a project report stating -

- (a) the nature of the project;
- (b) the location of the project including the physical area that may be affected by the project's activities;
- (c) the activities that shall be undertaken during the project construction, operation and decommissioning phases;
- (d) the design of the project;
- (e) the materials to be used, products and by-products, including waste to be generated by the project and the methods of their disposal;
- (f) the potential environmental impacts of the project and the mitigation measures to be taken during and after implementation of the project;
- (g) an action plan for the prevention and management of possible accidents during the project cycle;
- (h) a plan to ensure the health and safety of the workers and neighbouring communities;
- (i) the economic and socio-cultural impacts to the local community and the nation in general;
- (j) the project budget; and
- (k) any other information the Authority may require.

(2) In preparing a project report under this regulation, the proponent shall pay particular attention to the issues specified in the Second Schedule to these Regulations.

(3) A project report shall be prepared by an environmental impact assessment expert registered as such under these Regulations.

8. A proponent shall submit at least ten copies of the project report to the Authority or the Authority's appointed agent in the prescribed form accompanied by the prescribed fees. *** (The Environmental (Impact Assessment and Audit) Regulations in these Regulations referred to as the "principal Regulations" are amended in regulations 8 by deleting the word "ten" and substituting the word "two" thereof. – L.N. No. 133 of 2007 14th June 2007***

9.(1) Where the project report conforms to the requirements of regulation 7(1), the Authority shall within seven days upon receipt of the project report, submit a copy of the project report to -

(a) each of the relevant lead agencies;

(b) the relevant District Environment Committee; and

(c) where more than one district is involved, to the relevant Provincial Environment Committee, for their written comments which comments shall be submitted to the Authority within twenty one days from the date of receipt of the project report from the Authority, or such other period as the Authority may prescribe.

(2) On receipt of the comments referred to in subparagraph (1) or where no comments have been received by the end of the period of thirty days from the date of receipt of the project report, the Authority shall proceed to determine the project report.

10 (1) On determination of the project report, the decision of the Authority, together with the reasons thereof, shall be communicated to the proponent within forty-five days of the submission of the project report.

(2) Where the Authority is satisfied that the project will have no significant impact on the environment, or that the project report discloses sufficient mitigation measures, the Authority may issue a licence in Form 3 set out in the First Schedule to these Regulations.

(3) If the Authority finds that the project will have a significant impact on the environment, and the project report discloses no sufficient mitigation measures, the Authority shall require that the proponent undertake an environmental impact assessment study in accordance with these Regulations.

(4) A proponent who is dissatisfied with the Authority's decision that an environmental impact assessment study is required may within fourteen days of the Authority's decision appeal against the decision to the Tribunal in accordance with regulation 46.

PART III - THE ENVIRONMENTAL IMPACT ASSESSMENT STUDY

11. (1) An environmental impact assessment study shall be conducted in accordance with terms of reference developed during the scoping exercise by the proponent and approved by the Authority.

(2) The terms of reference shall include matters required to be considered in the making of an environmental impact assessment as may be contained in the Second Schedule to these Regulations and such other matters as the Director General may in writing require.

12. (1) An environmental impact assessment study shall be conducted in accordance with the general environmental impact assessment guidelines and sector environmental impact assessment guidelines set out in the Third Schedule to these Regulations.

(2) Sector environmental impact assessment guidelines shall be developed by the lead agency in consultation with the Authority.

13. (1) A proponent shall, on the approval of the terms of reference under regulation 11, submit to the Authority the names and qualifications of the impact assessment experts appointed to undertake the environmental impact assessment study and authorized so to do in accordance with section 58 (5) of [the Act](#).

(2) Every environmental impact assessment study shall be carried out by a lead expert qualified in accordance with the criteria of listing of experts specified in the Fourth Schedule to these Regulations.

(3) A person undertaking an environmental impact assessment study shall conduct themselves in accordance with an established code of practice issued by the Authority

14. (1) A person or firm wishing to apply for registration as an environmental impact assessment expert or firm of experts for carrying out environmental impact assessment studies or audits shall be required to meet the qualification criteria set out in the Fourth Schedule to these Regulations.

(2) An applicant for registration under sub-paragraph (1) shall submit an application in Form 4 set out in the First Schedule to these Regulations, accompanied by the prescribed fees.

(3) An environmental impact assessment expert practising under a firm of experts shall be registered as an individual expert.

(4) The Authority shall issue a certificate of registration to a qualified environmental impact assessment expert in Form 5 set out in the First Schedule to these Regulations.

(5) An environmental impact assessment expert registered as such under these Regulations may be de-registered if the expert contravenes any of provisions of [the code](#) of practice issued by the Authority.

15. (1) An environmental impact assessment expert registered under these Regulations may apply for an environmental impact assessment practising licence in Form 6 set out in the First Schedule to these Regulations. ** The "principal Regulations" are amended by deleting regulation 15.-- L.N. No. 133 of 2007 14th June 2007 **

(2) Where the Authority approves an application submitted under sub-regulation (1), it shall issue an environmental impact assessment practising licence in Form 7 set out in the First Schedule to these Regulations. ** The First Schedule to the principal Regulations is amended by deleting Form 6 and Form 7.-- L.N. No. 133 of 2007 14th June 2007 **

(3) The approval of the experts to undertake an environmental impact assessment under this regulation shall be communicated to the proponent by the Authority within fourteen days of receipt of the proponent's application.

16. An environmental impact assessment study prepared under these Regulations shall take into

account environmental, social, cultural, economic, and legal considerations, and shall -

- (a) identify the anticipated environmental impacts of the project and the scale of the impacts;
- (b) identify and analyze alternatives to the proposed project;
- (c) propose mitigation measures to be taken during and after the implementation of the project; and
- (d) develop an environmental management plan with mechanisms for monitoring and evaluating the compliance and environmental performance which shall include the cost of mitigation measures and the time frame of implementing the measures.

7.(1) During the process of conducting an environmental impact assessment study under these Regulations, the proponent shall in consultation with the Authority, seek the views of persons who may be affected by the project.

(2) In seeking the views of the public, after the approval of the project report by the Authority, the proponent shall -

- (a) publicize the project and its anticipated effects and benefits by -
 - (i) posting posters in strategic public places in the vicinity of the site of the proposed project informing the affected parties and communities of the proposed project;
 - (ii) publishing a notice on the proposed project for two successive weeks in a newspaper that has a nation-wide circulation; and
 - (iii) making an announcement of the notice in both official and local languages in a radio with a nation-wide coverage for at least once a week for two consecutive weeks;
- (b) hold at least three public meetings with the affected parties and communities to explain the project and its effects, and to receive their oral or written comments;
- (c) ensure that appropriate notices are sent out at least one week prior to the meetings and that the venue and times of the meetings are convenient for the affected communities and the other concerned parties; and
- (d) ensure, in consultation with the Authority that a suitably qualified co-ordinator is appointed to receive and record both oral and written comments and any translations thereof received during all public meetings for onward transmission to the Authority.

PART IV - THE ENVIRONMENTAL IMPACT ASSESSMENT STUDY REPORT

18. (1) A proponent shall submit to the Authority, an environmental contents of impact assessment study report incorporating but not limited to the environmental following information -

- (a) the proposed location of the project;
 - (b) a concise description of the national environmental legislative and regulatory framework, baseline information,
 - (c) and any other relevant information related to the project; the objectives of the project;
 - (d) the technology, procedures and processes to be used, in the implementation of the project;
 - (e) the materials to be used in the construction and implementation of the project;
 - (f) the products, by-products and waste generated project;
 - (g) a description of the potentially affected environment;
 - (h) the environmental effects of the project including the social and cultural effects and the direct, indirect, cumulative, irreversible, short-term and long-term effects anticipated;
 - (i) alternative technologies and processes available and reasons for preferring the chosen technology and processes;
 - (j) analysis of alternatives including project site, design and technologies and reasons for preferring the proposed site, design and technologies.
 - (k) an environmental management plan proposing the measures for eliminating, minimizing or mitigating adverse impacts on the environment; including the cost, time frame and responsibility to implement the measures;
 - (l) provision of an action plan for the prevention and management of foreseeable accidents and hazardous activities in the cause of carrying out activities or major industrial and other development projects;
 - (m) the measures to prevent health hazards and to ensure security in the working environment for the employees and for the management of emergencies;
 - (n) an identification of gaps in knowledge and uncertainties which were encountered in compiling the information;
 - (o) an economic and social analysis of the project;
 - (p) an indication of whether the environment of any other state is likely to be affected and the available alternatives and mitigating measures; and
 - (q) such other matters as the Authority may require.
- (2) The environmental impact assessment study report shall be accompanied by a non-technical

summary outlining the key findings, conclusions and recommendations of the study and shall be signed by the proponent and environmental impact assessment experts involved in its preparation.

19. A proponent shall submit ten copies and an electronic copy of an environmental impact assessment study report to the Authority in Form 1B set out in the First Schedule to these Regulations accompanied by the prescribed fees.

20(1) The Authority shall within fourteen days of the receipt of the environmental impact assessment study report, submit a copy of the report to any relevant lead agencies for their comments.

(2) Upon receiving the environmental impact assessment study report, the lead agencies shall review the report to ensure that it complies with the terms of reference developed under regulation 11 and that it is comprehensive and shall thereafter send their comments on the study report to the Authority within thirty days or such extended period as the Authority may specify.

(3) If the lead agencies to which a copy of the environmental impact assessment study report is submitted fail to submit their comments within thirty days or such extended period as the Authority may specify, the Authority may proceed with the determination of the application for the implementation of the project

21.(1) The Authority shall, within fourteen days of receiving the environmental impact assessment study report, invite the public to make oral or written comments on the report.

(2) The Authority shall, at the expense of the proponent -

(a) publish for two successive weeks in the Gazette and in a newspaper with a nation-wide circulation and in particular with a wide circulation in the area of the proposed project, a public notice once a week inviting the public to submit oral or written comments on the environmental impact assessment study report; and (b) make an announcement of the notice in both official and local languages at least once a week for two consecutive weeks in a radio with a nation-wide coverage .

(3) The invitation for public comments under this regulation shall state -

(a) the nature of the project;

(b) the location of the project;

(c) the anticipated impacts of the project and the proposed mitigation measures to respond to the impacts;

(d) the times and place where the full report can be inspected; and

(e) the period within which the Authority shall receive comments.

(4) The notice to be published in the newspaper as specified under sub-regulation (3) shall be in Form

8 set out in the First Schedule to these Regulations.

22. (1) Upon receipt of both oral and written comments as specified Public hearing, by section 59 and section 60 of the Act, the Authority may hold a public hearing.

(2) A public hearing under these Regulations shall be presided over by a suitably qualified person appointed by the Authority.

(3) The date and venue of the public hearing shall be publicized at least one week prior to the meeting

(a) by notice in at least one daily newspaper of national circulation and one newspaper of local circulation;

(b) by at least two announcements in the local language of the community and the national language through radio with a nation wide coverage.

(4) The public hearing shall be conducted at a venue convenient and accessible to people who are likely to be affected by the project.

(5) A proponent shall be given an opportunity to make a presentation and to respond to presentations made at the public hearing.

(6) The presiding officer shall in consultation with the Authority determine the rules of procedure at the public hearing.

(7) On the conclusion of the hearing, the presiding officer shall compile a report of the views presented at the public hearing and submit the report to the Director General within fourteen days from the date of the public hearing.

23.(1) The Authority shall give its decision on an Decision of environmental impact assessment study report within three months of receiving an environmental impact assessment study report.

(2) The decision of the Authority shall be in writing and shall contain the reasons thereof.

(3) In making a decision regarding an environmental impact assessment licence under these Regulations, the Authority shall take into account -

(a) the validity of the environmental impact assessment study report submitted under regulation 18 with emphasis on the economic, social and cultural impacts of the project;

(b) the comments made by a lead agency and other interested parties under these Regulations;

(c) the report of the presiding officer compiled after a public hearing specified under regulation 22 where applicable; and

(d) other factors which the Authority may consider crucial in the implementation of the project.

(4) The decision of the Authority under this regulation shall be communicated to the proponent within fourteen days from the date of the decision and a copy thereof shall be made available for inspection at the Authority's offices.

24. Where the Authority approves an environmental impact assessment study report under regulation 23, it shall issue an environmental impact assessment licence in Form 3 set out in the First Schedule to these Regulations on such terms and conditions as it may deem necessary.

25. (1) Where a proponent wishes to vary the terms and conditions on which an environmental impact assessment licence has been issued, the holder of the licence has been apply for a variation of the environmental impact assessment licence in Form 9 set out in the First Schedule to these Regulations accompanied by the prescribed fees.

(2) The Authority may issue a certificate of variation of an environmental impact assessment licence in Form 10 set out in the First Schedule to these Regulations.

(3) A variation of an environmental impact assessment licence issued under regulation 24 may be issued without the holder of the licence submitting a fresh environmental impact assessment study report if the Authority is satisfied that the project it varied would comply with the requirements of the original licence.

(4) Where an environmental impact assessment is required under this regulation, the provisions of Part II of these Regulations shall apply.

26. (1) The holder of an environmental impact assessment licence may, on payment of the prescribed fee, transfer the licence to another person only in respect of the project to which such licence was issued.

(2) The transferee as well as the transferor of a licence under this regulation shall be liable for all liabilities, and the observance of all obligations imposed by the transfer in respect of the licence transferred, but the transferor shall not be responsible for any future liabilities or any obligations so imposed with regard to the licence from the date the transfer is approved.

(3) Where an environmental impact assessment licence is to be transferred, the person to whom it is to be transferred and the person transferring it shall jointly notify the Director General of the transfer in Form 11 set out in the First Schedule to these Regulations.

(4) The Authority shall issue a certificate of transfer of an environmental impact assessment licence in Form 12 set out in the First Schedule to these Regulations.

(5) Where no joint notification of a transfer is given in accordance with this regulation, the registered holder of the licence shall be deemed for the purposes of these Regulations and [the Act](#) to be the owner or the person having charge, management or control of the project as the case may be.

27 (1) The holder of an environmental impact assessment licence may surrender the licence issued under these Regulations to the Authority after ceasing to be responsible for the implementation of the project.

(2) The holder of the licence shall notify the Authority of the intention to surrender the licence under sub-regulation (1) at least six months before the surrender by submitting a notification in Form 13 set out in the First Schedule to these Regulations together with the prescribed fees.

(3) The holder of a licence shall not surrender their licence without the consent of the Authority.

(4) The surrender of an environmental impact assessment licence shall not be effective until the Authority issues a certificate of surrender in respect of that licence in Form 14 set out in the First Schedule to these Regulations.

(5) A surrender shall be without prejudice to any liabilities or obligations which have accrued on the holder of the licence prior to the date of surrender.

28. (1) The Authority may, at any time after it issues a licence under these Regulations, on the advice of the Standards Enforcement and Review Committee -

(a) suspend the licence on such terms and conditions as the Authority may deem fit for a period not exceeding twenty-four months; or

(b) revoke or cancel the licence.

(2) The Authority may suspend, revoke or cancel a licence as specified under sub-regulation (1) where -

(a) the licensee contravenes the conditions set out in the licence;

(b) there is a substantial change or modification in the project or in the manner in which the project is being implemented;

(c) the project poses an environmental threat which could not be reasonably foreseen before the licence was issued; or

(d) it is established that the information or data given by the proponent in support of his application for an environmental impact assessment licence was false, incorrect or intended to mislead.

29. Information or documents submitted to the Authority by any person in connection with an environmental impact assessment together with the Authority's decision and the reasons thereof shall be made available to the public on such terms and conditions as the Authority may prescribe.

30. (1) A person submitting information to the Authority may at any time apply to the Authority in Form 15 set out in the First Schedule to these Regulations to exclude the information or parts thereof from being made available to the public on the basis of commercial confidentiality or national

security.

(2) If the Authority grants the request made under sub-regulation (1), the information or specified parts of the information shall be excluded from public access, and an entry shall be made in a register to be maintained by the Authority indicating in general the nature of the information and the reason for which it is excluded from public access: Provided that this information shall remain available to the Authority, and the Authority shall take all measures to maintain confidentiality of the information and shall not copy, circulate, publish or disclose such information.

(3) If the Authority rejects the claim that the information is proprietary, it shall communicate the decision to the proponent within fourteen days of its decision.

(4) The Authority shall review its decision on an application made under this regulation from time to time to determine whether the reasons for exclusion are still valid and whether the exclusion should continue.

(5) A person who is aggrieved by the decision of the Authority under this regulation may appeal to the Tribunal against that decision.

PART V - ENVIRONMENTAL AUDIT AND MONITORING

31 (1) An environmental audit study shall be undertaken on the following development activities which are likely to have adverse environmental impacts -

- (a) ongoing projects commenced prior to the coming into force of these regulations; or
- (b) new projects undertaken after completion of an environmental impact assessment study report.

(2) An environmental audit shall, unless it is a self-auditing study under regulation 34, be conducted by a qualified and authorized environmental auditor or environmental inspector who shall be an expert or a firm of experts registered in accordance with regulation 14.

(3) The Authority shall require the proponent to undertake -

(a) in the case of an ongoing project-

(i) an initial environmental audit study followed by subsequent environmental control audit studies as may be necessary at such times as shall be agreed upon by the Authority and the proponent; and

(ii) an initial environmental audit study to provide baseline information upon which subsequent environmental control audit studies shall be based; and

(b) An environmental audit study based on baseline information provided in the environmental impact assessment report study.

(4) (a) The proponent of an ongoing Project shall undertake an environmental audit of the project

within a period of twelve months from the date of publication of these Regulations.

(b) A proponent of a project that has undergone an environmental impact assessment study shall within a period of twelve months of the commencement of the operations, and not more than twenty four months after the completion of a project which ever is earlier, undertake an environmental audit of the project:

Provided that an audit may be required sooner if the life of the project is shorter than the period prescribed under this regulation.

(5) An environmental audit study specified under this regulation shall be conducted in accordance with the terms of reference developed by the proponent in consultation with the Authority.

(6) In carrying out the environmental audit study under this regulation, the auditor shall ensure that an appraisal of all the project activities, including the production of goods and services is carried out, gives adequate consideration to environmental regulatory frameworks, environmental health and safety measures and sustainable use of natural resources.

(7) An audit report compiled under this regulation shall include but shall not be limited to the limited to the following information -

(a) the past and present impacts of the project;

(b) the responsibility and proficiency of the operators of the project;

(c) existing internal control mechanisms to identify and mitigate activities with a negative environmental impact;

(d) existing internal control mechanisms to ensure the workers' health and safety; and

(e) the existence of environmental awareness and sensitization measures, including environmental standards, and regulations, law and policy, for the managerial and operational personnel.

32. In carrying out an environmental audit study, the with standards, environmental auditor shall comply with any existing national environmental regulations and standards prescribed by the Authority, and in the absence of such national environmental regulations and standards shall use such other international standards as shall be prescribed by the Authority.

33. (1) A control audit shall be carried out by the Authority auditing, whenever the Authority deems it necessary to check compliance with the environmental parameters set for the project or to verify self-auditing reports.

(2) A control audit shall -

(a) confirm that the environmental management plan of the project is being adhered to; and

(b) Verify the adequacy of the environmental management plan in mitigating the negative impacts of a project.

34 (1) In executing a project, after the environmental impact assessment study report has been approved by the Authority, or after the initial audit of an ongoing project, the proponent shall take all practical measures to ensure the implementation of the environmental management plan by -

- (a) carrying out a self-auditing study on a regular basis;
- (b) preparing an environmental audit report after each audit and submitting the report to the Authority annually or as may be prescribed by the Authority; and
- (c) Ensuring that the criteria used for the audit is based on the environmental management plan developed during the environmental impact assessment process or after the initial audit.

35. (1) An environmental audit shall be carried out through an environmental questionnaires, an environmental site visits and test analysis and in the manner specified in this regulation.

(2) In conducting an initial environmental audit an environmental auditor shall -

- (a) consider the description of the project;
- (b) indicate the objective, scope and criteria of the audit;
- (c) study all relevant environmental law and regulatory frameworks on health and safety, sustainable use of natural resources and on acceptable national and international standards;
- (d) verify the level of compliance by the proponent with the conditions of the environmental management plan;
- (e) evaluate the proponent's knowledge and awareness of and responsibility for the application of relevant legislation;
- (f) review existing project documentation related to all infrastructural facilities and designs;
- (g) examine monitoring programs, parameters, and procedures in place for control and corrective actions in case of emergencies;
- (h) examine records of incidents and accidents and the likelihood of future occurrence of the incidents and accidents;
- (i) inspect all buildings, premises and yards in which manufacturing, testing and transportation takes place within and without the project area, as well as areas where goods are stored and disposed of and give a record of all significant environmental risks associated with such activities;
- (j) examine and seek views on health and safety issues from the project employees, the local and other

potentially affected communities; and

(k) prepare a list of health and environmental concerns of past and ongoing activities.

(3) Where an environmental auditor is conducting a control audit, the environmental auditor shall -

(a) consider the description of the project;

(b) indicate the objective, scope and criteria of the audit;

(c) inspect all buildings, premises and yards in which manufacturing, testing and transportation takes place within and without the project area as well as areas where goods are stored and disposed of and give a record of all significant environmental risks associated with such activities;

(d) indicate the extent to which the environmental management plan corresponds to the planned arrangements and, if implemented, achieves the stated objectives;

(e) identify any significant source of air pollution, water pollution, land contamination and degradation, local community disturbance, wildlife disturbance and the health of the workers of the project; and

(f) prepare a list of concerns of on-going activities with recommendations.

36.(1) An environmental auditor shall indicate in an audit report the measures that exist under the environmental management plan of the proposed project to bring the project up to an acceptable environmental standard and how environmental impacts will be addressed and controlled.

(2) An environmental audit report compiled under these Regulations shall contain -

(a) a presentation of the type of activity being audited;

(b) an indication of the various materials, including non-manufactured materials, the final products, and by products, and waste generated;

(c) a description of the different technical activities, processes and operations of the project;

(d) a description of the national environmental legislative and regulatory frameworks on ecological and socio-economic matters;

(e) a description of the potentially affected environment on ecological and socio-economic matters;

(f) a prioritization of all past and on-going concerns of the project;

(g) an identification of all environmental and occupational health and safety concerns of the project;

- (h) an opinion on the efficacy and adequacy of the environmental management plan of the project;
- (i) detailed recommendations for corrective activities, their cost, timetable and mechanism for implementation;
- (j) an indication of the measures taken under the environmental management plan to ensure implementation is of acceptable environmental standards; and
- (k) a non technical summary outlining the key findings, conclusions and recommendations of the auditor.

37. The Authority may issue an improvement order for the carrying out of corrective measures for mitigating the environmental degradations revealed during any audit study.

38. (1) An inspector may, at reasonable times, enter on any land, premises or facility of a project for the purposes of inspection, to examine records and to make enquiries on the project.

(2) A person who refuses to answer questions, refuses to avail documents or refuses to give other information legitimately sought by the inspector commits an offence.

39. A member of the public may, after showing reasonable cause in writing, petition the authority to cause an audit to be carried out on any project.

40. (1) The Authority shall in consultation with lead agencies -

monitor environmental phenomena with a view to making an assessment of any possible changes in the environment and their possible impacts,

monitor the operations of any industry, project or activity with a view to determining its immediate and long term effect on the environment.

except where a baseline survey has been carried out under regulation 31 cause the proponent to carry out a baseline survey to identify basic environmental parameters in the project area before implementation;

determine the parameters and measurable indicators to be used in monitoring of projects; and

conduct measurement of environmental changes that have occurred during implementation

(2) The Authority shall, in consultation with the lead agencies monitor ongoing projects on a continuous basis using parameters and indicators developed under this regulation.

(3) The Authority shall, in consultation with the lead agency upon detection of non-compliance with the conditions of approval of an environmental impact assessment licence immediately, institute remedial action.

41. (1) Where a lead agency has undertaken monitoring under The monitoring regulation 40, it shall submit a report to the Authority which report shall include the following -

- (a) the name and address of proponent;
- (b) the name of the proposed project;
- (c) date of implementation of the proposed project;
- (d) the date of the last monitoring report, including the report findings, action taken and its result;
- (e) details of the environmental parameters to be monitored;
- (f) results of the actual monitoring exercise;
- (g) new actions to be implemented including the criteria for the next evaluation; and
- (h) A non technical summary of findings, conclusions and recommendations.

(2) An Inspector may enter upon any land or premises for the purposes of monitoring the effects of any activities carried on that land or premises upon the environment.

PART VI - MISCELLANEOUS PROVISIONS

42.(1) Lead agencies shall in consultation with the Authority Strategic subject all proposals for public policy, plans and programmes for environmental implementation to a strategic environmental assessment to determine which ones are the most environmentally friendly and cost effective when implemented individually or in combination with others.

(2) The assessment carried out under this regulation shall consider the effect of implementation of alternative policy actions taking into consideration -

- (a) the use of natural resources;
- (b) the protection and conservation of biodiversity;
- (c) human settlement and cultural issues;
- (d) socio-economic factors; and
- (e) The protection, conservation of natural physical surroundings of scenic beauty as well as protection and conservation of built environment of historic or cultural significance.

(3) The Government, and all the lead agencies shall in the development of sector or national policy, incorporate principles of strategic environmental assessment.

43 (1) A strategic environmental impact report prepared under this regulation shall include the following information -

- (a) the title of the report;
- (b) a summary of the potential significant impacts of a proposed policy, programme or plan;
- (c) potential opportunities to promote or enhance environmental conditions;
- (d) recommendations for mitigating measures; and
- (e) alternative policy, programme or plan options to ensure compliance with [the Act](#).

(2) The proposed policy, programme or plan specified in this regulation shall state -

- (a) the purpose and rationale of the policy, programme or plan taking into consideration socio-economic, environmental and cultural issues;
- (b) alternatives and strategies of the policy, programme or plans;
- (c) areas and sectors affected by the policy, programme, plan, or proposed activities;
- (d) an environmental analysis covering:
 - (i) baseline information focusing on areas potentially affected;
 - (ii) relevant legislative framework and related policy documents;
 - (iii) summary of views of key stakeholders consulted;
 - (iv) predicted impacts of the policy, programme or plan;
 - (v) alternative policy options and comparison against environmental indicators;
 - (vi) ongoing projects and how they fit in the proposed policy, programme or plan;
- (e) recommendations outlining -
 - (i) suggested policy changes;
 - (ii) proposed mitigation measures;
 - (iii) strategic environment assessment; and

(f) relevant technical appendices such as stakeholders meetings referred to in the assessment.

44. Where a project is likely to have a transboundary impact, the proponent shall, in consultation with the Authority, ensure that appropriate measures are taken to mitigate any adverse impacts taking into account any existing treaties and agreements between Kenya and the other country.

45. (1) Notwithstanding any licence, permit or approval granted offences. under any written law, any person who commences, proceeds with, executes or conducts or causes to commence, proceed with, execute or conduct any project without approval granted under these regulations commits an offence and on conviction is liable to the penalty prescribed under [the Act](#).

(2) Any person who -

(a) fails to prepare and submit a project report to the Authority contrary to regulations 7 and 8;

(b) fails to prepare and submit an environmental impact assessment study report contrary to regulations 18 and 19;

(d) is in breach of any condition of any licence or certificate issued under these Regulations;

(e) fraudulently makes a false statement in a project report or environmental impact assessment study report;

(f) fraudulently alters a project report or an environmental impact assessment study report;

(g) fraudulently makes a false statement in an environmental audit;

(h) fails to inform the Authority of a transfer of an environmental impact assessment licence in accordance with regulation 26; or

(i) after an audit report is submitted fails to implement any mitigation measures specified under regulation 37;

commits an offence and on conviction shall be liable to the penalty prescribed under [the Act](#).

46 (1) Any person who is aggrieved by -

(a) a refusal to grant a licence or by a refusal to transfer a licence under these Regulations.

(b) the imposition of any condition, limitation or restriction on a licence;

(c) the revocation, suspension or variation of a licence issued under these Regulations;

(e) the imposition of any environmental restoration order or environmental improvement order on the project by the Authority; or

(f) the approval or reinstatement by the Authority of an environmental impact assessment licence, may within sixty days after the date of the decision against which he or she is dissatisfied, appeal to the Tribunal;

(2) A person aggrieved by a decision or order of Authority of an environmental impact assessment licence, may within sixty days of such a decision or order, appeal against such decision or order to the High Court.

(3) The fact that approval is given in respect of an environmental impact assesment shall not be a defence to any civil action or to a criminal prosecution under any enactment.

47. (1)The Authority shall maintain the following registers -

(a) a register of all individual experts or firms of experts duly authorized to conduct or prepare environmental impact assessment studies and audits;

(b) a register of all environmental impact assessment licences issued under these Regulations;

(c) a register of environmental impact assessment reports, audit study reports, strategic environmental assessment reports and monitoring reports; and

(d) a register of approvals of applications seeking exclusion of proprietary information from public access.

Fees.

48. The Authority may, for the purposes of these Regulations charge the fees specified in the Fifth Schedule to these Regulations.

SECOND SCHEDULE

ISSUES TO BE CONSIDERED IN ENVIRONMENTAL IMPACT

ASSESSMENT

The following issues may, among others, be considered in the making of environmental impact assessments.

1. Ecological Considerations -

(a) Biological diversity including -

(i) effect of proposal on number, diversity, breeding habits, etc. of wild animals and vegetation;

(ii) gene pool of domesticated plants and animals e.g. monoculture as opposed to wild types.

(b) Sustainable use including -

- (i) effect of proposal on soil fertility;
- (ii) breeding populations of fish, game or wild animals;
- (iii) natural regeneration of woodland and sustainable yield;
- (iv) wetland resource degrading or wise use of wetlands.

(c) Ecosystem maintenance including -

- (i) effect of proposal on food chains;
- (ii) nutrient cycles;
- (iii) aquifer recharge, water run-off rates etc;
- (iv) a real extent of habitants;
- (v) fragile ecosystems.

2. Social considerations including -

- (a) economic impacts;
- (b) social cohesion or disruption;
- (c) effect on human health;
- (d) immigration or emigration
- (e) communication - roads opened up, closed, rerouted
- (f) effects on culture and objects of culture value

3. Landscape -

- (a) views opened up or closed;
- (b) visual impacts (features, removal of vegetation, etc);
- (c) compatibility with surrounding area;

(d) amenity opened up or closed, e.g recreation possibilities.

4. Land uses -

(a) effects of proposal on current land uses and land use potentials in the project area.

(b) possibility of multiple use.

(c) effects of proposal on surrounding land uses and land use potentials.

5. Water:

Important aspects to consider are the effects of the proposal on:

(a) water sources (quantity and quality) -

(i) rivers;

(ii) springs;

(iii) lakes (natural and man-made);

(iv) underground water;

(v) oceans;

(b) drainage patterns / drainage systems;

(r.12)

THIRD SCHEDULE

GENERAL GUIDELINES FOR CARRYING OUT AN ENVIRONMENTAL IMPACT ASSESSMENT STUDY

An environmental impact assessment study shall be conducted in accordance with the general environmental impact assessment guidelines and administrative procedures issued by the Authority. An environmental impact assessment study shall include the following:

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1. Sources of Impact
2. Project Inputs
3. Project Activities
4. Areas of Impact on the Natural and Human Environments
5. Environmental Impacts (General Impacts on the Natural and human Environment)
6. Environmental Guidelines and Standards (National Legislation, International guidelines. International Conventions and Treaties)
7. Mitigation Measures
8. Environmental Management Plan
9. Environmental Monitoring and Auditing.

(r.13(2))

FOURTH SCHEDULE
CRITERIA FOR ENVIRONMENTAL IMPACT ASSESSMENT
EXPERTS

Local and foreign environmental impact assessment individual and firm of experts wishing to undertake environmental impact assessment activities in Kenya shall register as experts with the National Environment Management Authority on payment of the prescribed fees. The following shall be the criteria for registration of experts:-

A. LEAD EXPERT

A lead expert must have attained the following qualifications:-

A Doctorate degree or equivalent in any field plus training in environmental impact assessment from a recognized institution, with 3 years experience in environmental impact assessment related activities.

A Doctorate, Masters or Bachelors plus 5 years experience in environmental impact assessment related research consultancy or teaching and at least two relevant publications in referred journals.

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or

A Masters degree or equivalent in any field plus training in environmental impact assessment from a recognised institution, with 5 years experience in environmental impact assessment related activities.

or

A Bachelors degree or an equivalent in any field plus training in environmental impact assessment from recognised institution, with 8 years experience in environmental impact assessment related activities.

B. ASSOCIATE EXPERT

An associate expert must have attained the following qualifications:-

A Bachelors degree or equivalent in any field plus training in environmental impact assessment from a recognized institution.

C. FIRM OF EXPERTS

A firm of experts must meet the following conditions:

Must be registered in Kenya

Must submit to the Authority a firm profile indicating capacity to undertake Environmental impact assessment /audit studies.

(r.48)

FIFTH SCHEDULE

FEES

**The Fifth Schedule to the principal Regulations is amended by-
(a) deleting item 1 and substituting therefor the following new item-
"1. Application for registration as an Environmental Impact Assessment/Audit expert Shs.500"
(b) deleting item 2
L.N. 133 OF 2007 ***

1. Application for registration as Environmental Impact Assessment/Audit* expert

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KSh.
KSh.

Citizen
Non-citizen

(a) Lead Expert.....

3,000

9,000

(b) Associate Expert.....

2,000

6,000

(c) Firm of Experts.....

5,000

15,000

2. Annual Licence to practice as Environmental Impact Assessment expert Citizen Non-Citizen

KSh.
KSh.

Citizen

Non-citizen

(a) Lead Expert.....

5,000

15,000

(b) Associate Expert.....

3,000

9,000

(c) Firm of Experts.....

20,000

60,000

3. Inspection of records/register..... 200 per record/register.

4. Environmental impact assessment licence..... 0.1% of the total cost of the project.

5. Surrender, transfer or variation of environmental impact assessment licence..... 5,000

Annex 7-6 Environmental Standards and Guideline Values

(1) Water Standards

Table 1 Quality Standards for Sources of Domestic Water (First Schedule)

Parameter	Guide Value (max allowable)
pH	6.5 – 8.5
Suspended solids	30 (mg/L)
Nitrate-NO ₃	10 (mg/L)
Ammonia –NH ₃	0.5 (mg/L)
Nitrite –NO ₂	3 (mg/L)
Total Dissolved Solids	1200 (mg/L)
Scientific name (<i>E.coli</i>)	Nil/100 ml
Fluoride	1.5 (mg/L)
Phenols	Nil (mg/L)
Arsenic	0.01 (mg/L)
Cadmium	0.01 (mg/L)
Lead	0.05 (mg/L)
Selenium	0.01 (mg/L)
Copper	0.05 (mg/L)
Zinc	1.5 (mg/L)
Alkyl benzyl sulphonates	0.5 (mg/L)
Permanganate value (PV)	1.0 (mg/L)

Note: 1 Nil means less than limit of detection using prescribed sampling and analytical methods and equipment as determined by the Authority.

2 Any other parameters as may be prescribed by the Authority from time to time.

Source: The Environmental Management and Coordination (Water Quality) Regulations, 2006

Table 2 Standards for Effluent Discharge into the Environment (Third Schedule)

Parameter	Maximum Allowable (Limits)
1.1.1 Trichloroethane (mg/l)	3
1.1.2 Trichloroethane (mg/l)	0.06
1.1 Dichloroethylene	0.2
1.2 Dichloroethane	0.04
1.3 Dichloropropene (mg/l)	0.02
Alkyl Mercury Compounds	Nd *1
Ammonia, Ammonium Compounds, NO ₃ Compounds and NO ₂ Compounds (Total sum of Ammonia – N times 4 plus Nitrate-N and Nitrite-N (mg/l)	100
Arsenic (mg/l)	0.02
Arsenic and its Compounds	0.1
Benzene (mg/l)	0.1
Biochemical Oxygen Demand (BOD 5 days at 20°C) (mg/l)	30
Boron (mg/l)	1.0
Boron and its Compounds – non marine (mg/l)	10
Boron and its Compounds – marine (mg/l)	30
Cadmium (mg/l)	0.01
Cadmium and its Compounds (mg/l)	0.1
Carbon Tetrachloride	0.02
Chemical Oxygen Demand (COD) (mg/l)	50
Chromium VI (mg/l)	0.05
Chloride (mg/l)	250
Chloride Free Residue (mg/l)	0.10
Chromium Total	2
cis – 1,2 – Dichloroethylene	0.4
Copper (mg/l)	1.0
Dichloromethane (mg/l)	0.2
Dissolved Iron (mg/l)	10
Dissolved Manganese (mg/l)	10
E.Coli (Counts/100 ml)	Nil *2
Fluoride (mg/l)	1.5
Fluoride and its Compounds (marine and non-marine) (mg/l)	8
Lead (mg/l)	0.01
Lead and its Compounds (mg/l)	0.1
n-Hexane Extracts (Animal and Vegetable Fats) (mg/l)	30
n-Hexane Extracts (Mineral Oil) (mg/l)	5
Oil and Grease	Nil*2
Organo-Phosphorous Compounds (Parathion, Methyl Parathion, Methyl Demeton and Ethyl Parantophenyl Phenlyphosphorothroate, EPN only) (mg/l)	1.0
Polychlorinated Biphenyls, PCBs (mg/l)	0.003
pH (Hydrogen Ion Activity---marine)	5.0 – 9.0
pH Hydrogen Ion Activity---non marine	6.5 – 8.5
Phenols (mg/l)	0.001
Selenium (mg/l)	0.01

Parameter	Maximum Allowable (Limits)
Selenium and its compounds (mg/l)	0.1
Hexavalent Chromium VI compounds (mg/l)	0.5
Sulphide (mg/l)	0.1
Zimazine (mg/l)	0.03
Total suspended solids (mg/l)	30
Tetrachloroethylene (mg/l)	0.1
Thiobencarb (mg/l)	0.1
Temperature (in degrees Celsius based on ambient temperature)	±3
Thiram (mg/l)	0.06
Total Coliforms (counts/100 ml)	30
Total Cyanogen (mg/l)	Nd *1
Total Nickel (mg/l)	0.3
Total Dissolved Solids (mg/l)	1200
Colour in Hazen Units (H.U.)	15
Detergents (mg/l)	Nil *2
Total Mercury (mg/l)	0.005
Trichloroethylene (mg/l)	0.3
Zinc (mg/l)	0.5
Whole Effluent Toxicity	
Total Phosphorus (mg/l)	2 Guideline value
Total Nitrogen	2 Guideline value

Note: *1-Nd (Not Detectable) means that the pollution status is below the detectable level by the measurement methods established by the Authority.

*2-Nil: Less than limit of detection using prescribed sampling and analytical methods and equipment as determined by the Authority.

Source: The Environmental Management and Coordination (Water Quality) Regulations, 2006

Table 3 Standards for Effluent Discharge into Public Sewers (Fifth Schedule)

Parameter	Maximum levels permissible
Suspended solids (mg/L)	250
Total dissolved solids (mg/L)	2000
Temperature °C	20 - 35
pH	6-9
Oil and Grease (mg/L) -where conventional treatment shall be used	10
Oil and Grease (mg/L)- where ponds is a final treatment method	5
Ammonia Nitrogen (mg/L)	20
Substances with an obnoxious smell	Shall not be discharged into the sewers
Biological Oxygen Demand BOD5 days at 20 °C (mg/L)	500
Chemical Oxygen Demand COD (mg/L)	1000
Arsenic (mg/L)	0.02
Mercury (mg/L)	0.05
Lead (mg/L)	1.0
Cadmium (mg/L)	0.5
Chromium VI (mg/L)	0.05
Chromium (Total) (mg/L)	2.0
Copper (mg/L)	1.0
Zinc (mg/L)	5.0
Selenium (mg/L)	0.2
Nickel (mg/L)	3.0
Nitrates (mg/L)	20
Phosphates (mg/L)	30
Cyanide Total (mg/L)	2
Sulphide (mg/L)	2
Phenols (mg/L)	10
Detergents (mg/L)	15
Colour	Less than 40 Hazen units
Alkyl Mercury	Not Detectable (nd)
Free and saline Ammonia as N (mg/L)	4.0
Calcium Carbide	Nil
Chloroform	Nil
Inflammable solvents	Nil
Radioactive residues	Nil
Degreasing solvents of mono-di-trichloroethylene type	Nil

Note: Any other parameter as the Authority and the sewerage service provider may prescribe.

Source: The Environmental Management and Coordination (Water Quality) Regulations, 2006

Table 4 Microbiological Quality Guidelines for Wastewater Use in Irrigation (Eighth Schedule)

Reuse conditions	Exposed group	Intestinal nematodes (MPN/L)*	Coliforms (MPN/100 ml)
Unrestricted irrigation (crops likely to be eaten uncooked, sports fields, public parks)	Workers, consumers, public	<1	<1000**
Restricted irrigation (cereal crops, industrial crops, fodder crops, pasture and trees***)	Workers	<1	No standard recommended

* *Ascaris lumbricoides*, *Trichuris trichiura* and human hookworms.

** A more stringent guideline (<200 coliform group of bacteria per 100 ml) is appropriate for public lawns, such as hotel lawns, with which the public may come into direct contact.

*** In the case of fruit trees, irrigation should cease two weeks before fruit is picked and fruit should be picked off the ground. overhead irrigation should not be used.

Source: The Environmental Management and Coordination (Water Quality) Regulations, 2006

Table 5 Standards for Irrigation Water (Ninth Schedule)

Parameter	Permissible Level
pH	6.5-8.5
Aluminium	5 (mg/L)
Arsenic	0.1 (mg/L)
Boron	0.1 (mg/L)
Cadmium	0.5 (mg/L)
Chloride	0.01 (mg/L)
Chromium	1.5 (mg/L)
Cobalt	0.1 (mg/L)
Copper	0.05 (mg/L)
<i>E.coli</i>	Nil/100 ml
Fluoride	1.0 (mg/L)
Iron	1 (mg/L)
Lead	5 (mg/L)
Selenium	0.19 (mg/L)
Sodium Absorption Ratio (SAR)	6 (mg/L)
Total Dissolved Solids	1200 (mg/L)
Zinc	2 (mg/L)

Note: Any other parameters as may be prescribed by the Authority from time to time

Source: The Environmental Management and Coordination (Water Quality) Regulations, 2006

Table 6 Quality Standards for Recreational Waters (Tenth Schedule)

Parameter	Maximum Permissible Level
Arsenic (mg/l)	0.05
Fecal coliform (Counts/100 ml)	Nil
Total coliform (Counts/100 ml)	500
Cadmium	0.01
Chromium	0.1
Colour (True Colour Units)	100
Light Penetration (meters)	1.2
Mercury (mg/L)	0.001
Odour (Threshold Odour Number, TON)	16
Oil and Grease (mg/L)	5
pH	6 – 9
Radiation, Total (Bq/L)	0.37
Surfactant, MBAs (mg/L)	2
Temperature (⁰ C)	30
Turbidity (NTU)	50

Note: Any other parameters as may be prescribed by the Authority from time to time

Source: The Environmental Management and Coordination (Water Quality) Regulations, 2006

(2) Air Quality (Draft)

1) Second Schedule: Ambient Air Quality Tolerance Limits

Table 7 Ambient Air Quality Tolerance Limits

No.	Pollutant	Time-weighted Average	Industrial Area	Residential, Rural & Other Area	Controlled Areas***
1.	Sulphur oxides (SO _x);	Annual Average*	80 µg/m ³	60 µg/m ³	15 µg/m ³
		24 hours**	120 µg/m ³	80 µg/m ³	30 µg/m ³
		Annual Average		0.019 ppm/50 µg/m ³	
		Month Average			
		24 Hours		0.048 ppm /125 µg/m ³	
		One Hour			
		Instant Peak		500 µg/m ³	
2.	Oxides of Nitrogen (NO _x);	Annual Average*	80 µg/m ³	60 µg/m ³	15 µg/m ³
		24 hours**	120 µg/m ³	80 µg/m ³	30 µg/m ³
		8 hours			
		Annual Average		0.2 ppm	
		Month Average		0.3 ppm	
		24 Hours		0.4 ppm	
		One Hour		0.8 ppm	
3.	Nitrogen Dioxide	Annual Average		0.05 ppm	
		Month Average		0.08 ppm	
		24 Hours		0.1 ppm	
		One Hour		0.2 ppm	
		Instant Peak		0.5 ppm	
4.	Suspended particulate matter (SPM)	Annual Average*	360 µg/m ³	140 µg/m ³	70 µg/m ³
		24 hours**	500 µg/m ³	200 µg/m ³	100 µg/m ³
		Mg/Kg			
		Annual Average****		100 µg/m ³	
		24 hours***		180 µg/m ³	
5.	Suspended Particulate matter (<10µm) (RPM)	Annual Average*	120 µg/m ³	60 µg/m ³	50 µg/m ³
		24 hours**	150 µg/Nm ³	100 µg/Nm ³	75 µg/Nm ³
6.	Lead (Pb)	Annual Average*	1.0 µg/Nm ³	0.75 µg/Nm ³	0.50 µg/m ³
		24 hours**	1.5 µg/m ³	1.00 µg/m ³	0.75 µg/m ³
		Month Average		2.5	
7.	Carbon monoxide (CO)/ carbon dioxide (CO ₂);	8 hours**	5.0 mg/m ³	2.0 mg/m ³	1.0 mg/m ³
		1 hour	10.0 mg/m ³	4.0 mg/m ³	2.0 mg/m ³
		Mg/Kg			
8.	Hydrocarbons (HC);	24 hours**			
		24 hours**			
9.	VOC				
10.	Ozone	1-Hour		0.12 ppm	
		Instant Peak		1.25 ppm	

* [Annual Arithmetic mean of minimum 104 measurements in a year taken twice a week 24 hourly at uniform interval.]

[** 24 hourly/8 hourly values should be met 98% of the time in a year. However, 2% of the time, it may exceed but not on two consecutive days.]

Whenever and wherever two consecutive values exceed the limit specified above for the respective category, it would be considered adequate reason to institute regular/continuous monitoring and further investigations.

* the 24-hour limit may not be exceeded more than three times in one year;

** 24-hour limit may not be exceeded more than three times in one year micrograms/m³

*** Not to be exceeded more than once per year average concentration

Note: Standard values for some parameters are originally blank.

Source: The Environmental Management and Coordination (Air Quality Standards) Regulations, 2007 (Draft)

Table 8 Ambient Air Quality at Property Boundary for General Pollutants

No.	Pollutant	Time-weighted Average	Property Boundary
1	Particulate matter (PM)	Annual Average*	50 µg/m ³
		24 hours**	70 µg/m ³
2.	Oxides of Nitrogen (NO _x);	Annual Average*	80 µg/m ³
		24 hours**	150 µg/m ³
3.	Sulphur oxides (SO _x);	Annual Average*	50 µg/m ³
		24 hours**	125 µg/m ³

Source: The Environmental Management and Coordination (Air Quality Standards) Regulations, 2007 (Draft)

Table 9 Occupational Air Quality Exposure Limits – Control Limits
for Hazardous Chemical Substances

Substance	Formulae	TWA OEL		SHORT TERM OEL		1995 Notes
		ppm	mg/m ³	ppm	mg/m ³	
Carbon black	C	-	3.5	-	-	
Carbon dioxide	CO ₂	5000	9000	15000	27000	
Carbon monoxide	CO	50	55	300	330	
Hydrocarbons, organic compounds in gaseous or particulate form (aliphatic-saturated I to 10 c-atoms)	HC					
Hydrogen sulphide	H ₂ S	10	14	15	21	
Lead inorganic dusts & fumes (as Pb)	Pb	-	0.15	-	0.45	
Lead arsenate (as Pb)	Pb	-	0.15	-	0.45	
Lead chromate (as Cr)	PbCr	-	0.05	-	-	
Nitrogen Dioxide	NO ₂	3	5	5	9	
Nitrogen Oxide	NO	25	30	35	45	
Nitrous Oxide	N ₂ O	100	180	-	-	
Particulate matter as: -						
Cotton dust		-	0.5	-	-	
Grain dust		-	10	-	-	Sen
Rubber process dust		-	8	-	-	
Rubber fumes		-	0.6	-	-	
Silica, crystalline respirable dust	SiO	-	0.4	-	-	
Wood dust (hard wood)		-	5	-	-	Sen
Sulphur Dioxide	SO ₂	2	5	5	13	
Hydrogen Chloride (HCl)						

Abbreviations:

Sen = capable of causing respirable sensitization

TWA= Time Weighted Average

Source: The Environmental Management and Coordination (Air Quality Standards) Regulations, 2007 (Draft)

Table 10 Seventh Schedule - Emission Limits for Controlled and Non-Controlled Facilities

Industry	Air Pollutant mg/Nm ³	Opacity	Particulate (Dust) PM ₁₀	Sulphur oxide (SOX)	Nitrogen oxides (NOX)	Carbon monoxide	Carbon dioxide	Hydrocarbons	Hydrogen Sulphide (H ₂ S)	Hydrogen Chloride	Hydrogen Fluoride	Dioxins/ Furans
Secondary Aluminium plants			10 – 30					20				*
Asphalt mixing batch plants			< 100 t: g/kg	2000	460	*	*	20				
			100 to 300 t: 22g/kg									
			300 to 500 t: 31g/kg									
			> 500 t: 33 g/kg									
Boilers		50	*	*	*	*	*					
Cement plants		50	400	1500	*	500	300					0.5ng /Nm ³
Ceramics manufacture			400		180-250 ppm							
Dairy		50										
Fertilizer plant		50	*	500			20	30			50	
Iron Foundry		50	560			*	*				5	
Brass bronze Foundry		50	20 - 50									
Glass Manufacture			20 - 50	Oil fired: 1,800	1000 - 2000					50	5	
				Gas fired: 700								
Galvanizing operations	*	50										
Incinerators	*	50	500	Existin g: 130-600 ppm	*		*					2.0 – 80 ng – TEQ/ Nm ³
				New: 60-400 ppm								0.1 – 5 ng – TEQ/ Nm ³
Domestic waste		100		300	*	*						
Medical waste		20 (PM _{2.5})	500	300	*	*	*		*			*
Industrial waste	*	50	150	460	*	*	*	*	*			*
Kraft pulp mills		100-150	500	600			20	15				*
Lead Recycling		20 (PM _{2.5})	400									*
Mineral Processing		50										
Mining & Quarry		20 %	400									
Incinerators	*	< 10 t: 4g/kg	*	Existin g: 130-600 ppm New: 60-400 ppm	*							*
		10 to 30 t: 10g/kg										
		30 to 50 t: 10g/kg										
		> 50 t: 17.5 g/kg										
Non-ferrous smelters, secondary	*	< 10 t: 7.5 g/kg (PM _{2.5})	800			*	*	20	15			*
		10 to 30 t: 22.5 g/kg (PM _{2.5})										
		30 to 50 t: 37.5g/kg (PM _{2.5})										
		> 50 t: 52.5 g/kg (PM _{2.5})										
Paint and varnish manufacturing		50 (PM _{2.5})					20	15	10			
Pesticides formulation		20 (PM _{2.5})					20		5			
Pesticide		20					20					

Air Pollutant mg/Nm ³	Opacity	Particulate (Dust) PM ₁₀	Sulphur oxide (SOX)	Nitrogen oxides (NOX)	Carbon monoxide	Carbon dioxide	Hydrocarbons	Hydrogen Sulphide (H ₂ S)	Hydrogen Chloride	Hydrogen Fluoride	Dioxins/ Furans
Industry											
manufacturing											
Petroleum Refineries		50	Sulphur recovery: 150 Combustion units:500	460	*		20	15			*
Pharmaceuticals manufacturing		20					80		10		
Pulp & Paper mills		100	1.0 kg/t ADP (kraft and other)	2 kg/t ADP				15			
Printing industry							20		10		
Steel mills	*	Existing-240 (PM _{2.5}) New-120 (PM _{2.5})	500	200	*						
Sulphuric acid Plants		50	SO ₂ : 2 kg/t acid SO ₃ : 0.15 kg/t acid								
			< 100 t: 3.75 g/kg 100 to 300 t: 10.5 g/kg 300 to 500 t: 34.5g/k g > 500 t: 48 g/kg								
Sugar Manufacture		(< 8.7 mw input boiler): 150 (>8.7 mw input boiler): 100	2000	Liquid fuels: 460 ppm Solid fuels: 750 ppm							
Soda ash Manufacture		50							*		
Tanneries		100	1000	1500			20	15	*		*
Textiles		50					20				
Thermal Plants		Coal:-120	(50- 100 MWth) : 850 (100 to 300 MWth) : 200 (> 300 MWth) : 200	350	*	*					*

Air Pollutant mg/Nm ³ Industry	Opacity	Particulate (Dust) PM ₁₀	Sulphur oxide (SOX)	Nitrogen oxides (NOX)	Carbon monoxide	Carbon dioxide	Hydrocarbons	Hydrogen Sulphide (H ₂ S)	Hydrogen Chloride	Hydrogen Fluoride	Dioxins/ Furans
		Oil:- 120	(50-100 MWth) : 850	180							
		(100 to 300 MWth) : 400 to 200; linear decrease	(> 300 MWth) : 200								
		Gas:- 60	(50-100 MWth) : 35				120				
		(100 to 300 MWth) : 35	(> 300 MWth) : 35								
		Zinc Foundry		10 – 30							

Source: The Environmental Management and Coordination (Air Quality Standards) Regulations, 2007 (Draft)

(3) Noise and Vibration**Table 11 Vibration Limit**

Type of Vibration	Excessive Vibration
Excessive Vibration that annoys, disturbs, injures or endangers the comfort, response, health or safety of others and the environment	0.5 cm/sec beyond any source property boundary or 30 m from any moving source
Construction, demolition, mining or quarrying work	0.5 cm/sec

Source: Environmental Management and Coordination (Noise & Excessive Vibration Pollution) (Control) Regulations, 2009

Table 12 Noise Limit

Types of Noise	Limit
Motor vehicles when accelerating	84 dB (A)

Source: Environmental Management and Coordination (Noise & Excessive Vibration Pollution) (Control) Regulations, 2009

Table 13 Maximum Permissible Intrusive Noise Levels (First Schedule)

Zone	Sound Level Limits dB(A) (Leq, 14h)		Noise Rating Level (NR) (Leq, 14h)	
	Day	Night	Day	Night
A. Silent Zone	40	35	30	25
B. Places of worship	40	35	30	25
C. Residential:				
Indoor	45	35	35	25
Outdoor	50	35	40	25
D. Mixed residential (with some commercial & places of entertainment)	55	35	50	25
E. Commercial	60	35	55	25

Note: Day: 6:01a.m.-8:00 p.m. (Leq, 14h); Night: 8:01p.m.-6:00a.m. (Leq, 10h)

Source: Environmental Management and Coordination (Noise & Excessive Vibration Pollution) (Control) Regulations, 2009

Table 14 Maximum Permissible Noise Levels for Construction Sites (Second Schedule)
(Measurement taken within the facility)

Facility	Maximum Noise Level Permitted (Leq in dB(A))	
	Day	Night
(i) Health facilities, educational institutions, homes for disables etc.	60	35
(ii) Residential	60	35
(iii) Areas other than those prescribed in (i) and (ii)	75	65

Note: Day: 6:01a.m.-6:00 p.m. (Leq, 14h); Night: 6:01p.m.-6:00a.m. (Leq, 14h)

Source: Environmental Management and Coordination (Noise & Excessive Vibration Pollution) (Control) Regulations, 2009

Table 15 Maximum Permissible Noise Levels for Mines and Quarries (Third Schedule)
(Measurement taken within the facility)

Facility	Limit Value in dB(C) Max
1. For any building used as a health facilities, educational institutions, convalescent home, old age home or residential building	109 dB (C)
2. For any building in an areas used for residential and one or more of the following purposes: commerce, small-scale production, entertainment, or any residential apartment in an area that is used for purposes of industry, commerce or small-scale production, or any building used for the purpose of industry, commerce or small-scale production.	114 dB (C)

Source: Environmental Management and Coordination (Noise & Excessive Vibration Pollution) (Control) Regulations, 2009

(4) Regulations of Pest Control Products

Table 16 Banned and Restricted Agricultural Chemicals

Banned Products

	Common Name	Use	Date Banned
1	2,4,5 T (2,4,5 - Trichloro-phenoxybutyric acid)	Herbicide	1986
2	5 Isomers of Hexachlorocyclo-hexane (HCH)	Fungicide	1986
3	Aldrin	Insecticide	2004
4	Benomyl,Carbofuran,Thiram combinations	Dustable powder formulations containing a combination of Benomyl above 7%, Carbofuran above 10% and Thiram above 15%	2004
5	Binapacryl	Miticide/Fumigant	2004
6	Captafol	Fungicide	1989
7	Chlordane	Insecticide	1986
8	Chlordimeform	Insecticide	1986
9	Chlorobenzilate	Miticide	2004
10	DDT (DichlorodiphenylTrichloroethane)	Agriculture	1986
11	Dibromochloropropane	Soil Fumigant	1986
12	Dieldrin	Insecticide	2004
13	Dinoseb and Dinoseb salts	Herbicide	2004
14	DNOC and its salts (such as Ammonium Salt, Potassium salt & Sodium Salt)	Insecticide, Fungicide, Herbicide	2004
15	Endrin	Insecticide	1986
16	Ethyl Parathion	Insecticide All formulations banned except for capsule suspensions	1998
17	Ethylene dibromide	Soil Fumigant	1986
18	Ethylene Dichloride	Fumigant	2004
19	Ethylene Oxide	Fumigant	2004
20	Fluoroacetamide	Rodenticide	2004
21	Heptachlor	Insecticide	1986
22	Hexachlorobenzene (HCB)	Fungicide	2004
23	Mercury Compounds	Fungicides, seed treatment	2004
24	Methyl Parathion	Insecticide All formulations banned except for capsule suspensions	1988
25	Monocrotophos	Insecticide/Acaricide,Soluble liquid formulations of the substance that exceeds 600g active ingredient/L	2004
26	Pentachlorophenol	Herbicide	2004
27	Toxaphene (Camphechlor)	Insecticide	1986

Restricted Products

	Common Name	Remarks
1	Benomyl, Carbofuran/Thiram combinations	Dustable powder formulations containing a combination of Benomyl below 7%, Carbofuran below 10% and Thiram below 15%
2	DDT (Dichlorodiphenyl trichloroethane)	Insecticide, restricted use to Public Health only for mosquito control for indoor residual spray by Ministry of Health. Banned for agricultural use.
3	Ethyl Parathion	Insecticide, capsule suspension formulations allowed in 1998
4	Lindane-pure gamma – BHC	Insecticide, restricted use for seed dressing only
5	Methyl parathion	Insecticide, capsule suspension formulations allowed in 1998
6	Monocrotophos	Insecticide/acaricide, soluble liquid formulations of the substance that are below 600g active ingredient/L
7	Phosphamidon	Insecticide, Soluble liquid formulations of the substance that is below 1000g active ingredient

Source: Pest Control Products Board website (www.pcpb.or.ke)