

KENYATTA UNIVERSITY
SCHOOL OF ENVIRONMENTAL STUDIES AND HUMAN SCIENCES

DEPARTMENT OF ENVIRONMENTAL SCIENCES

**CERTIFICATE IN ENVIRONMENTAL IMPACT ASSESSMENT, AUDITING
AND MONITORING**

1.1 PREAMBLE

The enactment of the Environmental Management and Co-ordination Act, 1999 and the current changes in Environmental Policy in Kenya requires institutions and organizations carrying out development projects to carry out Environmental Impact Assessment (EIA) and Environmental Auditing (EA). Many of the individuals working in these organisations and institutions are not aware of how to carry out an EIA and EA or its importance. There is therefore need for a short course on EIA and EA to train these individuals and organisations for the successful implementation of EIA and EA Regulations.

1.2 RATIONALE

The National Environmental Management Authority (NEMA) has formulated EIA and EA regulations in Legal Notice No. 101 of June 2003. These regulations clearly spell out the importance of EIA and EA. The successful implementation of EIA and EA Regulations depends on the availability of a pool of experts who are capable of carrying out Environmental Impact Assessment and Environmental Auditing. Recently, many organisations and individuals have approached the School of Environmental Studies and Human Sciences with request to be trained on short courses on Environmental Impact Assessment and Environmental Auditing. This short course certificate curriculum is therefore intended for those individuals who are already working in industries and other organisation and needs an exposure on Environmental Impact Assessment and Environmental Auditing.

1.3 MISSION

To train and produce individuals who are equipped with knowledge and skills necessary for carrying out an Environmental Impact Assessment and Auditing.

1.4 OBJECTIVES

- (i) To train officers working with different industries and organisation on the importance of Environmental Impact Assessment and Auditing
- (ii) To equip participants with necessary knowledge and skills for carrying out Environmental Impact Assessment and Auditing

2.0 ENTRY REQUIREMENTS

- 2.1 The common regulations for short course in the School of Environmental Studies and Human Sciences shall apply.
- 2.2 The following shall be eligible for admission for short course in Environmental Impact Assessment, Auditing and Monitoring.
 - (a) A holder of a university degree in related area from a recognized university.
 - (b) A holder of a Diploma Certificate in related area from a recognized institution with evidence of two years work experience.

3.0 DURATION AND TRAINING PATTERN

- 3.1 The Short course certificate in Environmental Impact Assessment, Auditing and Monitoring is by lectures, course work, practical and site visits.
- 3.2 The course is a full-time, part time, evening and weekends programme extending over a period of at least forty eight (48) contact hours.

4.0 MODE OF EVALUATION

- 4.1 The short course certificate in Environmental Impact Assessment, Auditing and Monitoring shall be evaluated by continuous course assessment. The assessment shall include site visits and case study reports (40%) and a three hour end of course examination (60%).
- 4.2 A certificate will be issued on successful completion of Short Course

5.0 COURSE CONTENT AND TOPICS OUTLINE

ENS C: 500: Environmental Impact Assessment, Auditing and Monitoring

Introduction to Environmental Impact Assessment, Auditing and Monitoring; Policy, Legal and Administrative Framework for EIA/EA in Kenya; Stakeholders and Public Participation in EIA/EA; Environmental Economic; Environmental Information Systems Standards; Environmental Information Systems for EIA/EA; EIA Methods; Environmental Audits; Strategic Environmental Assessment; Report Writing; EIA/EA Project Report; EIA/EA Review and Decision Making Process; Environmental Management Plan; EIA/EA Project Management; Social Impact Assessment (SIA); Industrial ecology; Occupational Health and Safety Management; Mainstreaming EIA/EA in Organizations: Opportunities and Challenges; Multilateral Environmental Treaties, protocols and Agreements; EIA Case Studies; EA Case Studies; Site Visits and Practicals

TOPICS OUTLINE

Topic 1: Introduction to Environmental Impact Assessment, Auditing and Monitoring

Environmental and Sustainable Development; Environment Management paradigms; Intergrated Environmental Management; Historical Development of Environmental Impact Assessment; Theory and Principles of Environmental Impact Assessment.

Topic 2: Policy, legal and administrative framework for EIA/EA in Kenya

Environmental policies and laws, Forest Act, Wildlife Act, Public Health Act, Land Adjudication Act, Agriculture Act, Water Act 2000, etc; Policy, legal and administrative framework for EIA/EA in Kenya (Legal Notice 101 of June 2003).

Topic 3: Stakeholder and public participation in EIA/EA

Need for public involvement; Typology of public participation; Types of conflicts; Framework for conflict resolution

Topic 4: Environmental economics

Concept of economic value; Cost-benefit analysis (CBA); Total economic value; Environmental valuation techniques; Incentives and disincentives for EIA/EA; Indicators of sustainable development.

Topic 5: Environmental Management Systems standard and practices

Best management practices; Standards of environmental management: ISO Series, KEBS; Effectiveness of Environmental management systems

Topic 6: Environmental information systems for EIA/EA

Documentation of EIA/EA information and dissemination; Sources of EIA/EA information; Application of IT in EIA/EA e.g. GIS, IDRISI, GPS; Database management Systems (DBMS)

Topic 7: EIA methods

Development of EIA/EA Terms of Reference; Risk assessment; EIA process (Screening, Scoping, Impact Analysis & Risk Assessment); EIA study team; Risk Assessment

Topic 8: Environmental Auditing

Nature and principles of EA; Procedure and monitoring of EA results; Developing, conducting and evaluating an EA

Topic 9: Strategic Environmental Assessment

Scope and objectives; Policy, institutional and legislative frameworks for SEA; SEA process/steps; Case Studies

Topic 10: EIA/EA report writing

Objectives of EIA/EA report; Types, structure & form of EIA/EA reports; Content of an EIA/EA report-NEMA Format; Appendices to EIA/EA reports; Common shortcomings of EIA/EA reports.

Topic 11: EIA/EA project report

Development of a comprehensive EIA/EA report (Each student identifies a case study and develops an EIA/EA report).

Topic 12: Review and decision making process

Objectives, methods and criteria for review of EIA/EA reports; Decision-making and communication.

Topic 13: Environmental management Plan

Components of an Environmental management Plan; Preparation of an Environmental management Action Plan; Roles and mandates of Environmental Management Institutions; Monitoring of Environmental Impacts and participatory Monitoring and Evaluation

Topic 14: EIA/EA Project management

EIA/EA TORs and selection of multidisciplinary team; Project cycle Management (PCM); Budgeting and cost control; Case studies

Topic 15: Social Impact Assessment (SIA)

Link between EIA/EA and SIA; SIA in project management; Case studies

Topic 16: Industrial Ecology

Project siting; Waste management; Industrial infrastructure; Cleaner production and energy conservation; Pollution control

Topic 17: Occupational Health & Safety Management

Occupational health and safety regulations (public health, industrial, factories, labour, workman's compensation, etc); Incident reporting, records and analysis; Working conditions and health; Accident minimization

Topic 18: Mainstreaming EIA/EA in organizations

Incentives for compliance to EIA/EA registrations; Intergration of EIA/EA in project cycle: legal requirements; Challenges and opportunities of mainstreaming; Role of Environmental Inspectors in ensuring compliance

Topic 19: Multilateral Environmental Agreements and EIA

Review of major MEA such as cartagena, Kyoto, UNCBD, RAMSAR, CITES, UNFCCC, UNMDG, UNWCSD, etc; Domestication of the MEAs-link to national policies and legislation; Case studies

Topic 20: EIA Case Studies

EIA Case Studies of at least 5 major sectors and presentation of seminars e.g. manufacturing, mining, and service sector.