

(Legislative Supplement No. 7)

LEGAL NOTICE NO. 19

THE ENVIRONMENTAL MANAGEMENT AND CO-
ORDINATION ACT

(Cap. 387)

THE ENVIRONMENTAL MANAGEMENT AND CO-
ORDINATION (ACCESS TO BIOLOGICAL RESOURCES AND
BENEFIT SHARING) REGULATIONS, 2025

ARRANGEMENT OF REGULATIONS

Regulation.

PART I—PRELIMINARY PROVISIONS

- 1—Citation.
- 2—Interpretation.
- 3—Objectives.
- 4—Application.
- 5—Competent National Authority.

PART II—CONSERVATION OF BIOLOGICAL DIVERSITY

- 6—Environmental impact assessment licence.
- 7—Conservation of threatened species.
- 8—Inventory of biological diversity.
- 9—Indigenous and local community biodiversity measures.
- 10—Monitoring.

PART III—ACCESS TO BIOLOGICAL RESOURCES

- 11—Application for access permit (non-commercial and commercial).
- 12—Prior informed consent and mutually-agreed terms.
- 13—Publication of application for access permits.
- 14—Determination of an access permit.
- 15—Grant or refusal to grant access permit.
- 16—Communication of decision.
- 17—Validity and non-transferability of access permits.
- 18—Terms and conditions of access permits.

19—Suspension, cancellation and revocation of access permits.

20—Register of access permits.

PART IV—MATERIAL TRANSFER AGREEMENTS

21—Material transfer agreements.

PART V—BENEFIT SHARING

22—Application of Part.

23—Benefit sharing.

PART VI—MISCELLANEOUS PROVISIONS

24—Confidentiality.

25—Transition.

26—Dispute resolution.

27—Offences.

28—Penalties.

29—Revocation.

SCHEDULES

First Schedule – Application for Access Permit

Second Schedule – Fees per locality

Third Schedule – Access Permit

Fourth Schedule – Prior Informed Consent (PIC)

Fifth Schedule – Mutually Agreed Terms

Sixth Schedule – Material Transfer Agreement

THE ENVIRONMENTAL MANAGEMENT AND CO-
ORDINATION ACT

(Cap. 387)

IN EXERCISE of the powers conferred by section 147 of the Environmental Management and Co-ordination Act, the Cabinet Secretary for Environment, Climate Change and Forestry, upon recommendation of the National Environment Management Authority, and upon consultation with the relevant lead agencies, makes the following Regulations—

THE ENVIRONMENTAL MANAGEMENT AND CO-
ORDINATION (ACCESS TO BIOLOGICAL RESOURCES AND
BENEFIT SHARING) REGULATIONS, 2025

PART I—PRELIMINARY PROVISIONS

1. These Regulations may be cited as the Environmental Management and Coordination (Access to Biological Resources and Benefit Sharing) Regulations, 2025.

Citation.

2. In these Regulations, unless the context otherwise requires—

Interpretation.

“access” refers to obtaining, possessing and utilizing biological resources and resultant progenies and their digital information, including DNA, RNA, Proteins, chromosomes, plasmids, derivatives, extracts, compound and derived products and associated intangible components, for purposes of research, bio-prospecting, conservation, industrial application or commercial use;

“access permit” means a permit that allows a person to access genetic resources issued under regulation 4;

“biological resource” includes—

- (a) the genetic resources, organisms, microorganisms, derivatives and parts of the genetic resources;
- (b) the populations and any other biotic component of an ecosystem with actual or potential use or value for humanity; and
- (c) any information relating to paragraphs (a) and (b);

“benefit sharing” means the sharing of benefits that accrue from the utilization of genetic resources;

“bio-survey and bio-utilisation” means survey or collection of species, sub-species, genes, components and extracts of biological resource for any purpose and includes characterisation, inventorisation and bioassay;

“clearing house mechanism” means a web-based information portal established by the Competent National Authority;

“commercialization” means trade of biological resources for financial gain;

“community” means a homogenous and consciously distinct group of the people who share any of the following attributes—

- (a) community ancestry;
- (b) similar culture or unique mode of livelihood or language;
- (c) geographical space;
- (d) ecological space; or
- (e) community interest;

“Community Protocols” means a broad range of practices or procedures both written and unwritten, developed by indigenous people or local communities in relation to their traditional knowledge, territories and associated biological resources;

“derivative” is a biochemical compound derived, developed, synthesized or engineered, from a biological resource or resulting from the genetic expression or metabolism of the biological or genetic resource, or part, tissue or extract, whether it contains functional units of heredity or otherwise, and information in relation to derivatives;

“Digital Sequencing Information” it is a biological data associated with, or derived from, genetic resources such as nucleotide sequences and epigenetic, protein, and metabolite data;

“endangered species” means any species which is in danger of extinction throughout all or a significant portion of its range (due to man-made or natural changes in the environment);

“exotic species” means any species of plant or animal or microorganism (life form) whose natural range does not, or did not in the past, exist in a specific part of, or the whole of, Kenya and which out-competes all other life forms;

“fair and equitable benefit sharing” means sharing of benefits;

“genetic resource” refers to any biological material which contains genes, or metabolic material that may be derived from genes of plant, animal, microbial or the origin containing functional units of heredity, with the gene being the basic physical and functional unit of heredity;

“habitat” means the place or type of site where an organism or population naturally occurs and includes areas colonized by introduced organisms;

“locality” refers to geographical area in Kenya where the biological resources are found in-situ or ex-situ;

“local community” means a community in whose location biological diversity resources are situated and includes a community of interest;

“holotype” means the single specimen chosen for designation of a new species;

“intangible components” refers any information held by persons that is associated with or regarding genetic resources accessed within the jurisdiction of Kenya;

“inventory” means a detailed list, report or record of resources, or the process of making such a list, report or record;

“material transfer agreement” means an agreement negotiated between the holder of an access permit and a relevant lead agency or community on access to genetic resources and benefit sharing;

“mutually agreed terms” means an agreement between the providers and users of genetic resources and/or traditional knowledge associated with genetic resources;

“natural environment system” means relatively intact ecosystems of unique value, such as perennial and seasonal wet lands, highly diverse aquatic ecosystems, or ecosystems promoting a high concentration of rare and unusual species;

“non-commercial” means for academic purposes or non-profit oriented;

“permit” means a written authorization issued by a Competent National Authority under these Regulations;

“permit holder” refers to an owner of a permit issued by a Competent National Authority under these Regulations;

“Prior Informed Consent” means permission given by Competent National Authority responsible for management of the particular biological resource in collaboration with local communities in the form of a signed agreement with legal entity prior to accessing biological resource;

“Provider” means either a Competent National Authority, County governments or a local community depending on where the resources to be accessed are located and the tenure regime in that specific land;

“resource provider” includes—

- (a) government agency, possessing biological resources in in-situ conditions;
- (b) government agency, in respect of ex-situ biological resource, where the resource originates;
- (c) a government agency holding a biological resource in ex-situ conditions, whether in a collection or otherwise;
- (d) government agency, from where the resource is accessed in situations where— the biological resource is held in ex-situ conditions by a private body;
- (e) the indigenous community and local community, where the resource is on land to which they have a right;
- (f) the indigenous community and local community, where they are the holders of the biological resource associated with traditional knowledge including members of the community who are traditional healers; or
- (g) an individual, where the biological resource is taken from;

“sustainable use” means the use of components of biological diversity in such manner and at such rate that does not lead to the long-term decline of the biological diversity thereby maintaining its potential to meet the needs and aspirations of present and future generations;

“threatened species” means any species of plant or animal which is likely to become an endangered species within the foreseeable future throughout all or significant portion of its range;

“traditional knowledge” means any knowledge—

- (a) originating from an individual, local or traditional community that is the result of intellectual activity and insight in a traditional context, including know-how, skills, innovations, practices and learning, embodied in the traditional lifestyle of a community; or
- (b) contained in the codified knowledge systems passed on from one generation to another including agricultural, environmental or medical knowledge, knowledge associated with genetic resources or other components of biological diversity, and know-how of traditional architecture, construction technologies, designs, marks and indications.

3. The objectives of these Regulations shall be to—

Objectives.

- (a) provide mechanisms to protect and prevent exploitation of endangered and threatened plant and animal species;
- (b) provide for access to and the fair and equitable sharing of benefits arising from the utilization of biological resources;
- (c) provide for the consultation of local communities and other stakeholders in the process of accessing biological resources for research, bio trade, commercial and other purposes;
- (d) safeguard access to biological resources, and biological resources associated with traditional knowledge held by local communities in conservation of biological resources; and
- (e) to domesticate relevant provisions of international conventions and protocols.

4. (1) These Regulations shall apply to—

Application.

- (a) the conservation of all biological resources in Kenya, whether or not they are found in their natural environment;
- (b) access to genetic resources in Kenya and the fair and equitable sharing of benefits derived from their utilization;
- (c) approved research and activities that relate to biological resources and biological resources with associated traditional knowledge;
- (d) commercialization and trade in biological resources; and
- (e) any digital sequence information relating to Kenya biological resources.

(2) These Regulations shall not apply to—

- (a) the exchange of biological resources, their derivative products, or the intangible components associated with them, carried out by members of any local Kenyan community amongst themselves and for their own consumption and benefits;
- (b) access to genetic resources derived from plant breeders in accordance with the Seeds and Plant Varieties Act and the International Treaty on Plant Genetic Resources for Food and Agriculture; or
- (c) human genetic resources.

Cap. 326.

5. The Authority shall be the Competent National Authority and shall be responsible for granting access or as applicable, issuing written evidence that access requirements have been met and is responsible for advising applicants, local communities, other Government agencies and any interested persons on the applicable procedures and requirements for obtaining prior informed consent and entering into mutually agreed terms.

Competent National Authority.

PART II—CONSERVATION OF BIOLOGICAL DIVERSITY

6. A person shall not engage in any activity that relates to access to biological resources and biodiversity that may—

- (a) have any adverse impact on any ecosystem;
- (b) lead to the introduction of any exotic species;
- (c) lead to the unsustainable use of natural resources; and
- (d) operate a facility for the conservation of any species outside its natural habitat,

Environmental impact assessment licence.

without a valid Environmental Impact Assessment License issued by the Authority.

7. The Authority may, in consultation with relevant stakeholders—

- (a) prohibit, restrict or impose similar measures on the access and use of any threatened species in order to ensure its regeneration and maximum sustainable yield;
- (b) on application by a qualified person, issue approvals for the establishment and maintenance of facilities for the recovery and rehabilitation of threatened species; and
- (c) determine full recovery and rehabilitation measures of threatened species to ensure its restoration into its natural habitat.

Conservation of threatened species.

8. (1) The Authority shall, in consultation with the relevant stakeholders, establish and maintain an inventory of all biological and genetic resources of the country.

Inventory of biological diversity.

(2) The Authority shall, at least once in every five years, in consultation with stakeholders, undertake an assessment of the status of such resources.

(3) The inventory under sub-regulation (1) shall include a register of threatened, endangered and rare species of plants and animals.

(4) The inventory established under sub-regulation (1) shall be regularly updated by the Authority in-between the five-year period.

(5) The inventory shall be a public record and shall be accessible in the manner prescribed by the Authority.

9. (1) The Authority shall, in consultation with relevant stakeholders, facilitate the recognition of traditional knowledge associated with genetic resources and practices in the management and conservation of biological resources.

Indigenous and local community biodiversity measures.

(2) The Authority, in consultation with relevant stakeholders, shall develop a community biodiversity register comprising of indigenous and local community practices for conserving biodiversity and uses of various biological resources.

(3) Each County Environment Committee shall, in consultation with indigenous and local communities in the County, develop and submit to the Authority community protocols for user engagement of biological resources.

(4) The Authority shall partner with local communities and incorporate their traditional knowledge and practices in the conservation of biological resources.

10. (1) The Authority shall, in consultation with the relevant stakeholders, establish measures for the purpose of monitoring and tracking the status and the components of biological resources or biological resources associated with traditional knowledge in Kenya and identify activities and processes that threaten the sustainability of the country's biological resources and diversity.

Monitoring.

(2) The Authority shall take corrective measures including any enforcement actions to deal with any threats to the biodiversity of Kenya or components of the biodiversity.

PART III—ACCESS TO BIOLOGICAL RESOURCES

11. (1) Any person who intends to access biological resources or biological resources associated with traditional knowledge in Kenya shall apply to the Authority in the form set out in the First Schedule and accompanied by the prescribed fees specified in the Second Schedule.

Application for access permit (non-commercial and commercial).

(2) Where an application under sub-regulation (1) is for non-commercial purposes and shall—

- (a) state the purpose and duration of seeking the access permit;
- (b) be accompanied by evidence of Prior Informed Consent and Mutually Agreed Terms, from interested persons and relevant stakeholders, and a research clearance certificate and any other clearances as applicable;

- (c) stipulate the specific locality to be undertaken with GPS coordinates; and
 - (d) contain the Material Transfer Agreement, where applicable.
- (3) The applicant shall be the Project Investigator as indicated in the funded proposal which will be submitted with the application form.

(4) Where an application under sub-regulation (1) is for commercial access, the application shall—

- (a) state the purpose and duration of seeking the access permit;
- (b) be accompanied by evidence of Prior Informed Consent and Mutually Agreed Terms from interested persons and relevant stakeholders where applicable;
- (c) include a benefit sharing agreement with interested persons and relevant stakeholders;
- (d) include the material transfer agreement; and
- (e) exclude any endemic species, rare species or any species protected under any written law or other relevant regulatory framework.

(5) Every applicant issued with an access permit in accordance with these Regulations shall strictly comply with the conditions of that permit.

(6) Where the purpose, locality or quantities for which the permit was initially issued changes, the applicant shall promptly notify the Authority of the change and apply for a new access permit.

(7) Any person who contravenes the provisions of this regulation commits an offence and shall be liable to the penalty specified in section 144 of the Act.

(8) Where a person who has been granted an access permit under this regulation contravenes the terms and conditions of the permit, the Authority shall cancel that permit.

12. (1) The Competent National Authority shall guide the applicant on the relevant biological resource providers from whom Prior Informed Consent is to be obtained.

Prior informed consent and mutually-agreed terms.

(2) The Prior Informed Consent of the relevant local community shall be obtained in accordance with customary laws, practices, protocols and procedures of the community for any access to—

- (a) biological resource which such local community has a right; and
- (b) biological resource associated with traditional knowledge that is held by such local community.

(3) The terms of such consent shall be agreed between the applicant and the genetic provider and developed into Mutually Agreed Terms.

(4) The applicant shall submit to the Authority the Prior Informed Consent set out in the Third Schedule and the Mutually Agreed Terms set out in the Fifth Schedule.

13. The Authority may, upon receipt of an application under regulation 11, publish the application in at least one local newspaper with national coverage and in such other manner as the Authority may consider appropriate at the cost of the applicant, specifying—

Publication of application for access permits.

- (a) the name and other particulars of the applicant;
- (b) the location of the biological resources for which access has been applied for;
- (c) the activity to be undertaken for which the access permit is required; and
- (d) the time within which representations or objections in respect of the proposed access permit may be made to the Authority.

14. (1) The Authority shall process an application for an access permit within thirty working days from the date of the receipt of that application.

Determination of an access permit.

(2) The decision of the Authority on application for an access permit shall be made in writing.

(3) Where an application submitted to the Authority is incomplete or an issue has been raised by the Authority, the period specified in sub-regulation (1) until the application has been completed or the issue raised by the Authority has been addressed, as the case may be.

15. (1) The Authority shall, on receipt of comments on the proposed application for access to biological resources, review the application and if satisfied that the activity to be carried out shall promote the sustainable management and utilisation of biological resources, issue an access permit specific to each locality.

Grant or refusal to grant access permit.

(2) Where the Authority has reasonable grounds to decline issuance of an access permit, it shall inform the applicant of the reasons of such decline in writing.

(3) A person aggrieved by the decision of the Authority may appeal against the decision to the Tribunal.

16. The Authority shall, within thirty working days of receipt of an application for an access permit, determine the application and communicate its decision in writing to the applicant.

Communication of decision.

17. (1) An access permit shall be valid for a period of one year from the date of issue and shall not be transferable.

Validity and non-transferability of access permits.

(2) Upon expiry, an access permit may be renewed for a further period of one year only—

- (a) upon payment of the fee prescribed in the Second Schedule; and
- (b) upon such terms and conditions as the Authority may impose.

18. (1) The Authority may impose terms and conditions on an access permit as it may determine in the circumstances.

Terms and conditions of access permits.

(2) In addition to any terms and conditions that may be imposed by the Authority on an access permit under sub-regulation (1), the following conditions shall apply in respect of each access permit—

- (a) any duplicates and holotypes of all genetic resources collected shall be deposited with the Authority and other relevant stakeholders;
- (b) the records of all intangible components of biological material collected shall be deposited with the Authority;
- (c) reasonable access to all biological resources collected shall be guaranteed to all Kenyan citizens whether such genetic resources and intangible components are held locally or abroad;
- (d) any agreements entered into with respect to access to biological resources shall be strictly for the purposes for which they were entered into;
- (e) the holder of the access permit shall furnish biannual and annual reports to the Authority on the status of research and commercialization including any discoveries from research involving biological resources or intangible components thereof;
- (f) the holder of an access permit shall inform the Authority of all discoveries made during the exercise of the right of access granted under the access permit;
- (g) the holder of an access permit shall provide the following reports—
 - (i) a semi-annual status report on the environmental impacts, conservation status and sustainable use of any ongoing collection of biological resources or intangible components thereof; and
 - (ii) a final status report on the environmental impacts, conservation status and sustainable use of collection of biological resources or intangible components thereof, in the event that the collection is of duration of three months or less; and
- (h) the holder of an access permit shall fully comply with the provisions of the Act, these Regulations and any other relevant written law relating to access to biological resources, benefits sharing, prior informed consent, material transfer agreement, trade in biological resources, the protection of traditional knowledge, and any other relevant matter.

(3) The Authority may, on its own motion or on the application by the holder of an access permit, vary the terms and conditions imposed on an access permit.

19. (1) The Authority may suspend, cancel or revoke any access permit issued under these Regulations where the holder of the access permit has contravened the provisions of the Act, these Regulations or any of the terms and conditions imposed on the access permit, or the terms and conditions contained in any agreement concluded pursuant to the grant of the access permit.

Suspension, cancellation and revocation of access permits.

(2) The Authority shall, before suspending, cancelling or revoking an access permit, give a written notice of its intention to suspend, cancel or revoke the permit to the holder of the access permit, and give the holder a reasonable opportunity to make presentations regarding the proposed suspension, cancellation or revocation within thirty working days from the date of such notice.

(3) Where the Authority suspends, cancels or revokes a permit, it shall notify the holder of the permit in writing, specifying the reasons for the suspension, cancellation or revocation.

(4) Upon the notification under sub-regulation (3), the permit holder shall immediately surrender the access permit, all research results and related documents, and the accessed biological resource to the Authority.

20. (1) The Authority shall keep, manage and update a register of all access permits which it has granted, and the register shall be a public record accessible to any person upon request.

Register of access permits.

(2) The Authority shall upload the access permits to the Access and Benefit Sharing Clearing House Mechanism of the Nagoya Protocol to be documented as the Internationally recognized Certificate of Compliance.

PART IV—MATERIAL TRANSFER AGREEMENTS

21. (1) A person shall not transfer biological resources outside Kenya unless a Material Transfer Agreement in the form set out in the Sixth Schedule has been executed and where applicable negotiated between the relevant competent national authorities and the users.

Material transfer agreements.

(2) A Material Transfer Agreement shall be executed by the applicant on the one part and the provider of the biological resource.

(3) Upon execution, the user of a Material Transfer Agreement shall file the Material Transfer Agreement with the Authority.

(4) A person exporting a biological resource shall be required to declare the resource at the port of departure and produce a copy of the Material Transfer Agreement.

(5) An exporter of a biological resource shall deposit a holo-type of the material being exported either with the entity granting a Material Transfer Agreement or any depository gazetted by the Authority for storage of such holo-types in Kenya.

(6) Any person who seeks to transfers any biological resources outside Kenya otherwise other than in accordance these Regulations commits an offence and shall be liable, upon conviction to the penalty prescribed in section 144 of the Act.

PART V—BENEFIT SHARING

22. This Part shall apply subject to the laws in force relating to intellectual property rights.

Application of Part.

23. (1) An applicant of an access permit to a biological resource or biological resource associated with traditional knowledge for non-commercial or commercial purposes shall enter into a benefit-sharing agreement with the biological resource provider.

Benefit sharing.

(2) A benefit sharing agreement shall be based upon Mutually Agreed Terms and provide for fair and equitable benefit sharing.

(3) Benefit sharing shall include both monetary and non-monetary benefits.

(4) Monetary benefits include—

- (a) access fees or fee per sample collected or acquired;
- (b) up-front payments;
- (c) milestone payments;
- (d) payment of royalties;
- (e) license fees shall be payable where biological resources are to be utilized for commercial purposes;
- (f) fees to be paid to trust funds supporting conservation and sustainable use of biodiversity;
- (g) salaries and preferential terms where mutually agreed;
- (h) research funding;
- (i) joint ventures;
- (j) joint ownership of relevant intellectual property rights.

(5) Non-monetary benefits include—

- (a) sharing of research and development results;
- (b) recognition;
- (c) collaboration, co-operation and contribution in scientific research and development programmes, particularly biotechnological research activities;
- (d) participation in product development;
- (e) admittance to ex-situ facilities of biological resources and to databases by participating institutions;
- (f) transfer to Kenya of biological resources of knowledge and technology under fair and most favourable terms, including

concessional and preferential terms where agreed, in particular, knowledge and technology that make use of biological resources, including biotechnology, or that are relevant to the conservation and sustainable utilization of biological diversity;

- (g) strengthening capacities for technology transfer to Kenya;
- (h) institutional capacity building;
- (i) human and material resources to strengthen the capacities for the administration and enforcement of access regulations;
- (j) training related to biological resources with the full participation of Kenya and where possible, in Kenya;
- (k) access to scientific information relevant to conservation and sustainable use of biological diversity, including biological inventories and taxonomic studies;
- (l) institutional and professional relationships that can arise from access and benefit sharing agreements and subsequent collaborative activities, and
- (m) joint ownership of relevant intellectual property rights.

PART VI—MISCELLANEOUS PROVISIONS

24. (1) The Authority may, on the request of an applicant of an access permit, hold some information relating to access to biological resources as confidential. Confidentiality.

(2) Where an access permit is granted, information held as confidential under paragraph (1), with respect to the relevant applicant, shall not be accessible to a person inspecting the register of access permits in accordance with regulation 17.

25. A person carrying out any activities involving access to biological resources immediately before the coming into force of these Regulations shall, within six months from the coming into force thereof, take all necessary measures to ensure full compliance with these Regulations. Transition.

26. The Authority shall encourage the use of Alternative Dispute resolution in disputes arising under these Regulations. Dispute resolution.

27. A contravention or failure to comply with any of the matters provided in these Regulations shall constitute an offence. Offences.

28. Any person convicted of an offence under these Regulations, for which no penalty is specified, shall be liable upon conviction, to the penalty specified in section 144 of the Act. Penalties.

29. The Environmental Management and Co-ordination (Conservation of Biological Diversity and Resources, Access to Genetic Resources and Benefit Sharing) Regulations are revoked. Revocation. (Sub. Leg.)

FIRST SCHEDULE

(Regulation 11(1))

APPLICATION FOR ACCESS PERMIT

Applicants applying as individuals should fill Part I.

Applicants applying as corporate (organizations) should fill Part II. All applicants must fill Part III.

All applicants must submit two (2) hard copies and one (1) soft copy of this application to the Authority.

PART I—FOR APPLICANTS WHO ARE INDIVIDUALS

- (a) Name of applicant
- (b) Identification Card No./Passport No.
- (c) Postal Address
- (d) PIN No.
- (e) Permanent Residential Address
- (f) Qualifications (Curriculum Vitae to be attached)
- (g) Letter of introduction confirming that the student is duly registered in the Academic or Research Institutions and is approved to undertake research.

Details of the relevant qualifications, roles and responsibility of each person proposing to take part in the research (i.e. access biological resources under this permit).

Name	Qualifications	Responsibility

PART II—FOR APPLICANTS WHO ARE CORPORATE ORGANISATIONS

	Applicant	Co Applicant 1	Co Applicant 2
Name of Applicant			
Name of Organization			
Permanent Address			
Phone Numbers			
Registration No. Attache copy of certificate of registration			
Qualifications of the individuals in the project (Curriculum Vitae to be attached)			
Affiliated institutions			
Any other relevant information			

Name of the contact person in regard to this application and the position held in the organization

PART III—FOR ALL APPLICANTS

1.0. Access purpose (Please tick one)

- (a) Non-commercial
- (b) Commercial

Title of the project/research/commercial action

2.0. Financial details sources

- (a) The total budget of the project
- (b) Details of any corporate or individual sponsors of the project

3.0. Technical particulars

- (a) What are the details of your previous collection/ research (if any) conducted in any of the East African Community?
- (b) With regard to biological resources for which access is sought, the following must be provided:
 - (i) Name of specific sites in which access will be undertaken and the GPS location
 - (ii) Identification (Scientific names of taxa) of biological resources and its traditional use where applicable
 - (iii) Parts of the biological resource to be collected (tissues, cells, seeds, leaves, microbes, etc)
 - (iv) Derivatives and/ or products
 - (v) Quantities of biological resources to be collected (give the schedule)
 - (vi) Description /nature of traditional knowledge of any known uses of the biological resources (oral/ documented)
 - (vii) In case of genetic resources held ex-situ, details of the relevant depository institution(s)
- (c) With regard to the planned collecting mission, the following must be provided:
 - (i) Identification of the provider(s) of the genetic resources for which access is sought
 - (ii) Collection methods to be used
 - (iii) Details of Kenyan nationals and institution which will participate in the Research and Development activities and their particulars

- (iv) expected date of commencement and completion of the activity
- (v) information regarding immigration status in Kenya of foreign individuals that will visit Kenya
- (d) Proposed use of genetic resources:
- (i) The purpose for which the access is requested including the type and extent of research, commercial use being derived and expected to be derived from it
- (ii) destination of accessed biological resource and geographic identity of the location where the R&D will be carried out
- (iii) Probable subsequent destinations
- (iv) Identify how access to these biological resources will benefit biodiversity conservation. Specify any likely benefits for the access area

Conservation Benefits	

- (v) Identify the use (if any) that is proposed to be made of Indigenous people's knowledge in determining the biological resources to be accessed or the particular areas to be searched
- (vi) Provide details of any person not already named on this form on whose behalf access is sought or who proposes to use the samples obtained

Name	Institution Address	Purpose of access

- (e) Proposed mechanism and arrangements for benefit sharing the Applicant offers for access to biological resources

Type of Benefit	Amount/Quantities

- (f) The economic and other benefits including those arriving out of any Intellectual Property Rights, patent obtained out of accessed biological

resources and knowledge that are intended, or may accrue to the applicant or to the country that he/she belongs

- (g) The biotechnological, scientific, social or any other benefits obtained out of accessed biological resources and knowledge that are intended, or may accrue to the applicant or to the country that he/she belongs
- (h) Estimation of benefits, that would flow to Kenya / communities arising out of the use of accessed biological resources and traditional knowledge.
- (i) Will the applicant require assistance to identify and access the genetic resources described in this application? If yes, give details of the assistance that will be required.
- (j) A copy of the Prior Informed Consent document signed by the relevant lead agencies, local community or private owner of the genetic resources.
- (k) copy of research clearance documents from relevant research institutions
- (l) Any other information in the possession of the applicant which might be useful for the National Environment Management Authority to make an informed decision in granting an access permit.

4.0. Renewal details

Is this an application for renewal of an access permit?

Yes No

Access Permit No.

Granted on(Date)

All applicants are forewarned that it is an offence to give false information to the National Environment Management Authority punishable under the Environmental Management and Co-ordination (Access to Biological Resources and Benefit Sharing) Regulations.

I undertake to provide progress and full reports as required under the Regulations.

I declare that to the best of my knowledge the information given in respect of this application is true. For individual applicants:

Name of Applicant

Signature

Date

For Companies/Institutions:

(Affix company seal)

In the presence of:

Name of Director

.....

Signature

Name of Director/Company Secretary:

.....

Signature

Date

SECOND SCHEDULE

(regulations 11(1), 17(2)(a))

Fees per locality

Non-commercial access

	Citizens (Ksh.)	Foreigners (Ksh.)
Individual fees	40,000	80,000
Corporate fees	100,000	200,000

Kenyan students fee

(This fee only applies for students researching in Kenyan academic and research Institutions, for foreign institutions the non-commercial fees apply)

	Ksh.
Masters Student Fees	3,000
PhD Candidate fees	10,000

Commercial access

	Citizens (Ksh.)	Foreigners (Ksh.)
Fee for commercialisation	500,000	1,000,000

Access permit renewal

	Citizens (Ksh.)	Foreigners (Ksh.)
Individual application	30,000	50,000
Corporate application	50,000	100,000

THIRD SCHEDULE

(regulation 12(4))

ACCESS PERMIT

This permit is hereby granted to M/s

.....
.....

(insert name, contact address and description of applicant) in accordance with regulation 11 of the Environmental Management and Co-ordination (Access to Biological Resources and Benefit Sharing) Regulations, 2023 for the collection of the following genetic resources:

.....
.....
.....

(insert description of the biological resource, its derivative product(s) or intangible component(s) as stated in the Materials Transfer Agreement) located at

.....

(Insert geographical description of the location of the biological resources)

This permit is issued subject to the Regulations and all agreements concluded pursuant to its grant, and maybe suspended, cancelled or revoked should the holder breach any of those agreements and the conditions of issue and those contained in the Regulations.

M/s(insert name of applicant) being the holder of this permit, including his agents and assignees, undertake to abide by the conditions of this permit and to promptly report to the National Environment Management Authority any matter that may prejudice the interests of Kenya and other parties concluded pursuant to the grant of this permit.

Signed:Date:

Director General,

National Environment Management Authority.

Dated the..... day of, 20

FOURTH SCHEDULE

(regulation 12(4))

PRIOR INFORMED CONSENT (PIC)

PRIOR INFORMED CONSENT FOR ACCESS TO AND UTILISATION OF
(Biological resource to be accessed and its utilisation)

(The title is derived from the access demand. The user has to state clearly what is being accessed. This comes last)

This Prior Informed Consent here in referred to as the PIC agreement is entered on this date _____ by and between: (the date is entered by the last signatory, in most cases the national competent authority granting the PIC)

I. STAKEHOLDERS *(the key stakeholders to be party to the PIC are to be clearly mapped out)*

Providers:

Insert the legally mandated providers at the national, county and local community where possible

The Users

Insert all the users who will be party to the agreement. These include the institutions where the collected material and resultant progenies, derivatives, extracts, DNA/RNA, Digital Sequence Information and compounds, data analysis /storage will be used within the value chain on research and development

II. WITNESSETH

These are whereas clauses on general principles of engagement for the providers and users

(In general it states the guiding laws, the parties to the agreement and the areas of mutual agreements)

III. NOW THEREFORE, IT IS HEREBY AGREED by the parties as follows:

This section state significance of the project. broad impact and intellectual merit which range from, but not limited to conservation (ex-situ and in-situ), scientific collaborations, benefit sharing and technology transfer

For example, significance/contribution of the project in the following areas but not limited to (this a very important area that brings out relevance of the project)

- *Legal framework, policy and institutional arrangements*
- *Locality of the projects and activities*
- *Contributions to science -the innovations the project brings on board*
- *Capacity building*
- *Partnerships-in line with CBD/Nagoya protocol -scientific*
- *Ethical compliance including respect to IPLC rights*
- *Contribution to resource mobilization strategy*

IV. PARTNERSHIP FRAMEWORK

These include the agreed the roles and responsibilities of each partner in the project, an agreed procedure on sample quantities and collection protocol

including labelling, verification, coding and key repositories. This is based on the outcome of the consultation process and stakeholders mapping and their roles. Key areas include:

- (a) *The parties, providers, and users (the lead institution)*
- (b) *The access demands. That is what is being accessed and utilized (this informs the title of the PIC)*
- (c) *Experimental. Details, what will be done where and by whom (informed by what has been agreed and involvement of the providers); Field (where), Lab work where and why, Data analysis and storage, whereby whom and why*
- (d) *Declarations of previous undertakings -eg accessed genetic resources and data related to the project/program where stored and access.*
- (e) *Protocols for access and verification*
- (f) *Involvement of resource providers in the activities where appropriate*

V. BENEFIT SHARING

A clear demonstration of outputs on benefit sharing both monetary and non-monetary as envisaged under Nagoya Protocol and the country's domestic laws. This may include but not limited to:

(a) Non-monetary benefits

Outcomes on technology transfer quite key arising from; Capacity development within the scientific community e.g skills, short term and long-term training, exchange programmes etc for both providers and users; equipment, infrastructure Capacity development at community level (rural target groups); Baseline IP audit; Dissemination of results. An outline of results uptake, inception meeting, scientific workshops to the relevant stakeholders, publications among others.

- (i) *Capacity building on skills – Training at certificate levels, diploma, undergraduates, Masters, PhDs, Post doc. State the number for both providers and users and at what level will benefit or have benefited from the program/project*
- (ii) *Specialized training and exchange program; Specialized course eg a method of detecting a rat poacher while in the office. Target group Wildlife rangers ,10 in number for 5 days etc, Pablo and team will be visiting the Antarctic to see ex-situ preservation of biological resources accessed from Sudan etc*
- (iii) *Technologies being transferred*
- (iv) *Facilities and equipment. State facilities and equipment that will be acquired by the project and where will they be hosted. This is determined from the provided detailed approved project proposal*
- (v) *Outreach plan; Inception and project completion; Media assets, sensitization/awareness creation, publication etc.*

(b) Monetary benefits

This will include the project seed money or venture capital, incentives, upfront, royalties, milestones, bonuses etc

- State the program/projects grants-as per the grant letter
- Any employed on the project/program
- IP assets exploitation and share of benefits -IPR on Patents and media assets for example

VI. COMPLIANCE WITH LEGAL REQUIREMENTS

1. The users complying with the permit requirements for access and utilization of the stated biological resources;
2. Provisions with the Intellectual Property rights;
3. Consider issues of third-party transfers and ownership;
4. Applicable laws and dispute resolutions. This to consider the accessed material utilization value chain and jurisdictions.
5. Amendments
6. These PIC agreed terms will form the basis for the collaborative Memorandum of Agreement (Memorandum of Agreement/Material Transfer Agreement) and Material Transfer Agreement to be signed between the (users) and providers.....

IN WITNESS THEREOF, the parties execute these agreed terms, and (provider) give consent to(user) under the(project) to undertake research and collect(biological material) for the proposed project activities.

FOR APPLICANTS:

THE USERS

Name of authorized entity
 Position in institution/Rank
 Institution and address
 Email address
 Signature
 Date
 Institutional stamp

THE PROVIDERS

Name of authorized entity
 Position in institution/Rank
 Institution and address
 Email address
 Signature
 Date
 Institutional stamp

Every page should be signed by the legal entity

MUTUALLY AGREED TERMS
MEMORANDUM OF AGREEMENT
BETWEEN
XXXXXXXXXXXXXXXXXXXX
and
YYYYYYYYYYYYYYYYYY
Provider of Biological Resources

PREAMBLE

Whereas:

1. Kenya is endowed with vast biological resources and is among the mega biodiversity rich countries globally, wherein the Constitution of Kenya is the crystallization of the welfare of the people of Kenya including the need for conservation and use of natural resources of Kenya, wherein the sovereign rights over biodiversity are vested in the State in trust for the people, and under Article 2 (5&6) the general rules of international law and any treaty or convention ratified by Kenya forms part of the Laws of Kenya.

2. Access to biological and genetic resources and associated knowledge is governed by various Multilateral Environmental Agreements (MEAs) including but not limited to CBD, Nagoya Protocol, International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), Convention on International Trade on Endangered Species (CITES) and World intellectual Property Organization Treaties (WIPO) among others, subject to domestic legislation

3. Access to biological/genetic resources and associated knowledge of Kenya is subject to the existing domestic laws, and subject to Access Permit, research licenses, Prior Informed Consent (PIC), Mutually Agreed Terms (MAT) and Material Transfer Agreement (MTA) between providers and users

4. -----

5. The governments of Kenya and -----are desirous in undertaking collaborative research in infectious diseases including xxxxxxxxxx, which is part of fulfilment of the cooperation in their bilateral agreements.

6. Research & Development (R&D) in biodiversity is key to conservation and sustainable use of biological resources for development done through partnerships in research and capacity building.

7. Resource management is devolved whereby we have shared responsibilities between the national government and the County governments including grant of user rights. The role of communities as custodians of indigenous knowledge and their contribution to conservation of biological diversity, they are entitled to equitable share of the benefits derived from utilization thereof and associated knowledge as per Kenya's Constitution, CBD and the Nagoya Protocol.

8. Under the Wildlife (Conservation and Management) Act 2013, KWS is mandated to conserve and manage wildlife wherever they may be found in Kenya including conducting research for the benefit of the people of Kenya, and KWS is a competent authority for prior informed consent (PIC), mutually agreed terms (MAT) and

material transfer agreements (MTA) for wildlife resources and associated knowledge on behalf of the Government of Kenya.

9. XXXXXXX

10. yyyyyyy

This Memorandum of Agreement (Memorandum of Agreement) recognizes the role of research and development for informed decisions on biodiversity conservation and livelihood support through control of vector xxxxxxxxxxxs and xxxxxxxxxxx.

Parties to this Memorandum of Agreement consent to implement the project -----
-----in line with the provisions of the CBD and its Protocols (Nagoya and Cartagena) and relevant national legislations.

NOW THEREFORE through the implementation of this Memorandum of Agreement, the parties hereto have agreed to pursue their common goals as hereunder:

ARTICLE 1 – DEFINITION AND INTERPRETATION OF TERMS

In this Memorandum of Agreement unless in consistent with the context, or otherwise specified, the following words and phrases shall have the meaning set out below:

- 1.1. Access shall mean obtaining, possessing and using genetic resources conserved, whether derived products and, where applicable, intangible components, for purposes of research, bio- prospecting, conservation, industrial application or commercial use as defined in the laws of Kenya.
- 1.2. Accession shall mean a sample or specimen of biological or genetic material and/or information held in any legally approved repository centers, such as herbaria or gene banks.
- 1.3. Acquisition shall mean obtaining biological material or resources through collection under the approved permit.
- 1.4. Affiliate shall mean any corporation, firm, limited liability company, partnership or other entity that directly or indirectly controls or is controlled by or is under the common control of a party to this Agreement.
- 1.5. Benefit sharing shall mean sharing of benefits from access and utilization of biological resources and biological materials, and their derivatives, progeny, genetic information associated knowledge whether, commercial or otherwise as stated in this Memorandum of Agreement and as defined in the CBD, Nagoya Protocol, Constitution of Kenya, Wildlife Conservation and Management Act 2013, and the relevant Laws of Kenya, where applicable.
- 1.6. Biodiversity shall mean variability among living organisms from all sources including, inter alia, terrestrial, marine, and other aquatic ecosystems and ecological complexes of which they are part, this shall include diversity within species, between species and ecosystems.
- 1.7. Biological resources shall mean genetic resources, organisms or part thereof, population, or any other biotic component of an ecosystem and their derivatives with actual or potential use or value for humanity.
- 1.8. Confidential Information shall mean scientific, business or financial information that has been reduced to writing and marked as “Confidential”, provided that such information does not include information in public domain or available from others

sources who are not under a confidentiality obligation to the source of information, information which has been made available by its owners to others without a confidentiality obligation, information which relates to potential hazards or cautionary warnings.

- 1.9. Conservation area includes but not limited to an area legally designated for conservation of biodiversity and shall include protected and unprotected areas.
- 1.10. Derivatives shall include but not limited to modified or xxxxxxxxxmodified extracts and any compounds or chemical structure based on/or derived from plant, microbial and animal biological and/or genetic resources and their progeny, including analogues
- 1.11. Designated Repositories shall mean institutions mandated to keep in safe custody different categories of biological resources, including voucher specimens and new taxa, deposited with them by various users.
- 1.12. Genetic materials shall mean any materials of plant, animal, microbial or other origin containing functional unit of heredity.
- 1.13. Genetic Resource shall mean information contained in any genetic material or their derivative of actual or potential use or value for humanity.
- 1.14. Holotype shall mean the organism known to have been used when the species was formally described.
- 1.15. Intellectual Property shall mean without limitation, intellectual property rights including patent rights, and unpublished patent applications, any invention improvements and all discoveries that may be not predictable, including all know how, trade secrets, research plans and priorities, research results and created reports, statistical models and computer programs and related reports, and market interests, trademarks, copy rights, plant breeders rights, and product ideas of any of the parties and affiliates in existence at the time of execution of this agreement or subsequently developed or acquired independently of this agreement.
- 1.16. Know how shall mean knowledge and skills that enables a person to accomplish a particular task or to operate a particular device or process.
- 1.17. License shall mean a written agreement granting permission to use an intellectual property right within a defined time context, market line or territory.
- 1.18. Material Transfer Agreement (MTA) shall mean a contract between the resource provider and recipient. For purpose of this Memorandum of Agreement shall also include a contract from KWS authorizing the use of biological resources and associated knowledge.
- 1.19. Partners shall mean institutions party to this Memorandum of Agreement.
- 1.20. Principal Investigator(s) shall mean the person or persons designated by parties to this Memorandum of Agreement responsible for the scientific and technical conduct of the Memorandum of Agreement's project activities.
- 1.21. Prior Informed Consent (PIC) shall mean permission given by the competent provider national authority and where possible in collaboration with county governments and local communities in the form of a signed agreement with legal entity prior to accessing genetic resources, in line with an appropriate national legal and institutional framework on access of biological diversity, biological resources or associated knowledge.

- 1.22. Products shall mean any subject of invention and any commercially valuable or otherwise useful material, compound, isolate, or useful combination of compounds, isolates or other materials discovered, recovered, obtained, derived, resulting or otherwise isolated from scientific research conducted on a research specimen or sample acquired from an authorized source, or any derivative of such material or compound, or other isolate, or discovery which is or may be patentable and/or protected under Intellectual property laws of Kenya and developed from research specimen acquired from the resource providers.
- 1.23. Progeny shall mean any xxxxxxxxxx modified descendant and/or hybrids from research specimens such as virus from virus, cell from cell or organism from organism that are cultivated by the user.
- 1.24. Project Implementation Committee shall mean key body within the governance structure of the project responsible for the research and management aspect of the project essential to the ensuring the delivery of the project outputs and the attainment of project outcomes.
- 1.25. Provider shall mean the custodian of biological or genetic resources associated knowledge as defined under the constitution and Kenyan laws. For all purposes and intent KWS shall be the Provider on behalf of Government of Kenya and County governments under this Memorandum of Agreement as per the Wildlife (Conservation and Management) Act 2013, Environment Management and Coordination Act 1999 and Constitution of Kenya.
- 1.26. Repository shall mean designated facility within institutions where different categories of biological reference collections, including voucher specimens, are preserved. For this Memorandum of Agreement, XXXXXXXXXXXX, XXXXXXXXXXXX and XXXXXXXXXXXX shall host such designated facilities.
- 1.27. Research specimen shall mean the biological resources, progeny, derivatives or product the recipient has authority from resource provider(s) through the PIC, Wildlife Permits and other relevant permits issued by KWS, National Environment Management Authority (NEMA) and National Commission for Science Technology and Innovation (NACOSTI) or which otherwise were originally and lawfully collected from Kenya.
- 1.28. Sample area of origin shall mean the locality from which the biological or genetic material is accessed.
- 1.29. Sample shall mean any distinct part of biological or genetic material or resource including its derivatives, compounds, extracts, progeny, modified or unmodified.
- 1.30. Research Data shall mean all recorded information generated during the implementation of this Memorandum of Agreement.
- 1.31. Technology shall mean technical information, product standards, know-how, formulation system, standards and data, equipment, procedures for the manufacture, and sales marketing program for the delivery of said product under this Memorandum of Agreement
- 1.32. Technology transfer shall mean the movement of or flow of technical knowledge, data, design, prototypes, materials, inventions, software, and or trade secrets from one purpose to another purpose.
- 1.33. Third party shall mean any person, company, organization and or any other legal entity that the parties to this Memorandum of Agreement may consult, collaborate

with, and enter into an agreement with either severally or jointed pursuant to the provisions of this Memorandum of Agreement or in the discharge of the party's obligations as set out here.

- 1.34. User shall mean the recipient of the biological material or genetic resources and their derivatives including associated knowledge. For all purposes and intent XXXXXXXXXXXX, XXXXXXXXXXXX, XXXXXXXXXXXX WUHS, shall be the Users under this Memorandum of Agreement.

ARTICLE 2 – SCOPE

Scope of what is accessed and utilized.

ARTICLE 3 – OBJECTIVES

The principal objectives of this Memorandum of Agreement are:

- 3.1. To contribute toward realisation of the objectives of the Convention on Biological Diversity, biodiversity conservation, sustainable use and equitable share of resultant benefits from utilization of biodiversity among the stakeholders.
- 3.2. To enhance Kenya's biodiversity conservation and management by understanding the taxonomy and ecology of xxxxxxxxxxxx and how biodiversity links with health as it contributes to xxxxxxxxxxxx control a neglected disease through research, monitoring, and information dissemination.
- 3.3. To provide a platform to promote technical capacity strengthening, scientific research and technology transfer between ----- and Kenya.
- 3.4. To contribute to an efficient system or mechanism of linking in-situ and ex-situ conservation of xxxxxxxxxxxx and xxxxxxxxxxxxs.
- 3.5. To collaborate in executing, implementation of the project xxxxxx in Kenya" (x is a copy of statement of work (annex I) and a project proposal (annex II).

ARTICLE 4 – INSTITUTIONAL OBLIGATIONS

4.1. Joint Partner obligations

- 4.1.1. The partners are to comply with the terms of this Memorandum of Agreement.
- 4.1.2. Develop relevant governance structures to operationalize this Memorandum of Agreement including Standard Operating Procedures (SOPs) for implementing projects and engaging students under this Memorandum of Agreement.
- 4.1.3. Undertake joint resource mobilization and ensure that the grant will be used exclusively for approved objectives, activities, and budget items in accordance with the relevant funding agreements.
- 4.1.4. Provide adequate project location facilities, local technical installations and other physical project framework, as specified in the project documents.
- 4.1.5. Comply with all relevant domestic legislations and international obligations defined in the Multilateral Environmental Agreements (MEAs) where Kenya is party to (as provided in the Constitution of Kenya, Article 2 (5) (6).
- 4.1.6. Establish a code of best practices on Access and Benefit Sharing (ABS)

value chain including setting up an ABS Intellectual Property desk office to promote and facilitate R&D based ABS contribution to valorization of genetic resources of Kenya.

- 4.2. Foreign partner institution obligations
 - 4.2.1. Provide Biological resource technical expertise in the joint research project
 - 4.2.2. Identify and develop appropriate technologies and build capacity for understanding of Kenya's xxxxxx,x and xxxxxxxxxxxx xx biodiversity through research and technology transfer
 - 4.2.3. Support taxonomic revision and characterization of xxxxxxxxxxx taxa, where necessary.
 - 4.2.4. Contribute to the development and implementation of effective xxxxxx ecological monitoring programs through joint fieldwork to enhance control and management of -----
 - 4.2.5. Ensure that all biological specimens and data collection in Kenya under this Memorandum of Agreement are sufficiently and accurately labeled as per KWS and ----- requirements, and are deposited in approved designated repositories.
 - 4.2.6. Develop a database in consultation with KWS for monitoring collections value chain linking ----- ex-situ and in situ conservation.
 - 4.2.7. Provide a list and duplicate specimens and database of previously collected biological materials from Kenya.
 - 4.2.8. Support digitization of ----- biodiversity collections at XXXXXXXXXXXX.
 - 4.2.9. Support the Kenyan partners to establish capacity for -----through technical expertise and technology transfer
 - 4.2.10. Support outreach programs that will contribute to conservation, management and sustainable utilization of Kenya's -----
 - 4.2.11. Contribute to the development of ----- biodiversity ecological monitoring tools, systems and procedures for collections in compliance with PIC, MTA and MAT.
 - 4.2.12. Train Kenyans in -----
- 4.3. Obligations of Kenyan partner institution
 - 4.3.1. Obligations of local partner
 - 4.3.1.1. Coordinate activities ----- Kenya”
 - 4.3.1.2. Review and establish ex-situ collections of xxxxxxxxxxxs and xxxxxxxxxxxs including but not limited to living libraries of xxxxxxxxxxxs and xxxxxxxxxxxs based on code of best practices at XXXXXXXXXXXX (PIC, MAT, MTA) in compliance with Nagoya Protocol.
 - 4.3.1.3. Together with partners, review and update biological information on xxxxxxxxxxxs and xxxxxxxxxxx fauna in Kenya.
 - 4.3.1.4. Develop a database in consultation with KWS for monitoring

- collections value chain linking ex-situ and in situ conservation.
- 4.3.1.5. Ensure that the resultant benefits arising from this project are used in line with Nagoya Protocol Article 9 and all the pertinent international laws.
- 4.3.1.6. Together with the other partners participate in the proposed research on the -----
- 4.3.1.7. In partnership with partner institutions build capacity for -----
 ---biodiversity resource managers and local communities in field ecological surveys.
- 4.3.1.8. Supervise and/or co-supervise MSc, PhD and Postdocs students with faculty advisors of -----
- 4.3.1.9. Develop uptake feedback pathway mechanism for R&D as per the Nagoya Protocol, Articles 16 to 19.
- 4.3.1.10. Together with ----- digitize and avail -----biodiversity data as per the approved data sharing policies.
- 4.3.1.11. Jointly develop outreach programs that will contribute to conservation, management and sustainable utilization of Kenya's --
 --- biodiversity.
- 4.3.2. Obligations of provider
- 4.3.2.1. Develop guidelines for PIC, MAT, MTA, and outreach materials to create stakeholder awareness for effective implementation of this project in line with the Laws of Kenya and the Nagoya Protocol.
- 4.3.2.2. Develop a database in consultation with ----- for monitoring collections value chain linking ex-situ and in situ conservation.
- 4.3.2.3. Work with -----I to use reasonable efforts to comply and enforce users adherence to relevant permitting processes in line with the Environmental Management and Coordination Act (EMCA, 2015), Wildlife (Conservation and Management) Act 2013, Science Technology and Innovation Act 2012 and all the other Laws of Kenya.
- 4.3.2.4. Ensure that resultant benefits are used in line with Nagoya Protocol Article 9 and all the pertinent international laws.
- 4.3.2.5. Act as link between project partners and local communities, while at the same time support the indigenous local community governance ABS through grant of PIC.
- 4.3.2.6. Together with the other partners participate in the proposed research project -----
- 4.3.2.7. Develop uptake feedback pathway mechanism for -----R&D as per Nagoya Protocol Article 16 to 19
- 4.3.2.8. Build capacity of participating institutions through outreach programs on access to the country's xxxxxxxxxx and xxxxxxxxxx biological resource requirements

ARTICLE 5 – ACCESS TO GENETIC RESOURCES AND ASSOCIATED

KNOWLEDGE

- 5.1. Kenya has sovereign rights over its natural resources where access and user rights are subject to international obligations where Kenya is party to, and national legislations.
- 5.2. In the event that the parties seek to access biological materials and genetic resources, derivatives, progeny, extracts, genetic information and associated knowledge held in situ both in protected areas and outside protected areas in pursuance to this Memorandum of Agreement, prior informed consent and material transfer agreements shall be executed by all relevant providers and users in accordance with all applicable laws.
- 5.3. The -----partner will make existing electronic inventory records of all biological materials of Kenyan origin under their custody available to the Government of Kenya through -----and Provider.
- 5.4. -----partner agrees to provide duplicate genetic resources specimens, derivatives and database in their custody collected during this project and in previous undertakings to the Government of Kenya through designated repositories in Kenya.
- 5.5. All access and transfer of biological material, resources, derivatives, progeny and associated information shall be subject to a Materials Transfer Agreement (MTA) (a copy of which is attached to this Memorandum of Agreement as Annex XX) between provider and users as defined in this Memorandum of Agreement.
- 5.6. All accessed and transfer of biological materials, resources, and derivatives shall be subject to an MTA between Provider, ----- and the designated recipient repositories. The biological materials, resources, their derivatives, progeny, products and associated information shall remain the property of the Government of Kenya.
- 5.7. All specimens collected from the wild, including accessions from ex-situ specimens of Kenyan origin shall be deposited in designated repository resource centres including gene banks and data bases.
- 5.8. In this respect, this Memorandum of Agreement is the MAT for the project titled --- -----in Kenya”, and shall form the basis of Provider granting a Prior Informed Consent (PIC) for the project.
- 5.9. When biological materials are accessed outside a protected area, KWS will provide a PIC jointly with relevant stakeholders as provided under the Wildlife Conservation and Management Act of 2013, and KWS is the competent authority for granting of PIC on wildlife resources within Kenya under the Wildlife Act.
- 5.10. Databases of all specimens accessed, transferred and utilized will be developed and kept in duplicate by the parties for tracking, monitoring and evaluation.
- 5.11. Guidelines shall be developed for ----- repository and transfer of biological resources from the *ex situ* collections based on the instruments of PIC, MAT and MTA as per the Laws of Kenya.
- 5.12. Given that the user partner institutions to this Agreement----- have previously accessed Kenya’s biological resources for utilization in various projects and purposes, by signing this Agreement and the users providing an inventory of records of all activities and all collected biological resources, progeny, derivatives

and associated information, the resource provider will release the users, and assume to have complied with CBD and Nagoya Protocol, and through appropriate MTA, transfer the biological resources to the national designated repositories.

ARTICLE 6 – INTELLECTUAL PROPERTY RIGHTS AND PROTECTION

- 6.1. Project implementation Committee will establish an intellectual property (IP) technical committee with clear TORs for Management of the IP rights resulting from undertaking the Project under this MOA.
- 6.2. The Project implementation Committee will undertake IP audit before, during and towards the end of the project to show the baseline and progress of existing and generated intellectual property. All generated and potential IP will be recorded in special notebooks and all parties to the IP generated will sign specific IP agreements as per the standard operating procedures.
- 6.3. All partner institutions will submit their IP policies to the Project Management Office and harmonized appropriately under this Memorandum of Agreement.
- 6.4. The accessed biological and genetic resources shall remain the property of the Government of Kenya and all voucher specimen duplicates will be deposited in designated repositories at XXXXXXXXXXXX and other designated repositories as per the established standards in conformity with the Nagoya Protocol instruments of PIC, MAT and MTA.
- 6.5. The users will provide and keep clear records of biological and genetic resources, progeny, derivatives, products and associated information with potential IP before commercialization that will be negotiated between the users and provider under this Memorandum of Agreement for further development.
- 6.6. The partners shall periodically review the results of joint research projects to determine if any research findings including processes and methods constitute intellectual property and determine which intellectual property is subject of legal protection.
- 6.7. In consultation with all the other partners, when filing for protection and administration of IP arising from research under this Memorandum of Agreement and application for IP rights will be accompanied by PIC, Access permit and voucher specimen reference.
- 6.8. Transfer of generated IP rights by partner to new ownership will be subject to authorization by the provider and consultations by all partners under this Memorandum of Agreement.
- 6.9. Technology jointly developed and owned shall not be transferred to a third party without the written consent of all parties.
- 6.10. Intellectual property generated from the project shall be jointly applied for and remain the joint property of the partners, with any revenues arising from commercialization of the products being equitably shared (as provided in Article---of this Memorandum of Agreement on Benefits Sharing).
- 6.11. Prior to any disclosure of proprietary information by any partner concerning specific aspects of this collaboration the partners shall execute a separate Confidentiality Agreement.
- 6.12. Any decision relating to the commercial exploitation or to the manner of disposal of the intellectual property right shall be made jointly by the parties taking into

consideration the intellectual property policies of each institution in particular the role of the inventor.

- 6.13. Material for publication or presentation arising from the project shall be submitted for clearance by the Project Implementation Committee to ensure that no inventions or innovations or discoveries are published prior to protection by applicable intellectual property laws or by trade secret.
- 6.14. In all activities including scientific publications resulting from the project including scientific papers, reports, books and proceedings of conferences, seminars, workshops and exhibitions will be authored jointly as appropriate to reflect where the relevant contributions have been made and in so doing quoting the names of authors and the partners. Such acknowledgement shall include but not be limited to display in equal prominence of the full names and symbols or logos of all institutions including the donor.
- 6.15. All the parties herein agree to respect rights of indigenous knowledge holders and shall negotiate with particular indigenous communities should any indigenous knowledge be used for any purpose in this project and PIC granted by the said communities.
- 6.16. Project Implementation committee will develop procedures for data and publication access as outlined in the SOPs. Project Implementation Committee will classify data deemed as restricted and non-restricted establishing access procedures through an Information Transfer Agreement.
- 6.17. Responsibility for expenses relating to registration, administration and further development and exploitation of the invention (including funds to the inventors to carry out further work to bring the invention to a stage where it can be commercially exploited, researching for commercial outlets, advertising expenses, and fees for patent advocates) will be agreed upon by all parties.

ARTICLE 7 – TRANSFER TO THIRD PARTIES

- 7.1. A partner in this project may transfer biological resources, derivatives, progeny, products, compounds, extracts and associated information to third parties only after consultation with all the other partners, and a written consent from the Provider (KWS).
- 7.2. Sub-contractors and third parties shall enter into legally binding undertakings with the partners before they can handle any resources and/or functions in the project. Such agreements will be annexed to and will form part of this Memorandum of Agreement.
- 7.3. The partners may assign, transfer or otherwise dispose, in whole or in part, to third parties any rights or obligations under this Memorandum of Agreement after a written permission is sought and procured by all the parties to this Memorandum of Agreement.
- 7.4. The Recipient shall ensure that the collection, storage, transfer, utilization, disposal and exportation of the genetic resources complies with all applicable Laws of Kenya on the protection of human health and the environment, on taxes, on customs and any other concern.
- 7.5. The Recipient shall indemnify and keep the provider its trustees, appointees, employees, agents and the State harmless from any claim, action and damage or cost deriving from or in connection with the Recipient's acquisition, use, storage or

disposal of the materials.

ARTICLE 8 – BENEFITS SHARING

- 8.1. Benefits resulting from utilization of biological resources by all partners will be used in accordance with the CBD and Nagoya Protocol and in line with the Constitution of Kenya and the domestic legislations such as Wildlife Conservation and Management Act 2013 and EMCA 2015.
- 8.2. Partners shall take inventory of all potential and derived benefits guided by the IP audit reports and develop agreeable benefit sharing plan.
- 8.3. Benefits shall include both monetary and non-monetary on the R&D value chain, which will include both academic and commercial steps. These benefits will be shared in accordance with the benefits sharing plan (provided in Annex V) and utilized as stipulated in the Nagoya Protocol Article 9.
- 8.4. The monetary benefit arising from IP commercialization shall include upfront, milestones and royalties as determined case by case. Copyrights shall be based on 15% royalty payments. Others will attract minimum of 10%. Payment will be annual based on submission audit report.
- 8.5. In the event of development and commercialization of a technology from the utilization of the accessed biological resources, the providers will be given access and use of the technology and where possible, one of the production sites to be at the country of origin. The venture to be owned on a 50:50 basis and in the event of sale of ownership rights by the user, the country of origin is given priority.
- 8.6. The benefits-sharing plan shall consider the communities living adjacent to the project sites and their indigenous knowledge.

ARTICLE 9 – CONFIDENTIALITY

- 9.1. All research, development and commercialization information created by parties to this Memorandum of Agreement shall be considered confidential information, subject to express written agreement to the contrary.
- 9.2. Where the release of research and development information created pursuant to this Memorandum of Agreement is required for the procurement of permits, licenses and other approvals necessary for the effective execution of this Memorandum of Agreement, or otherwise to comply with national legislation, regulations and policies the users shall:
 - (a) Provide such information as requested with the express stipulation that the same shall be considered confidential.
 - (b) Supply such information as part of compliance mechanisms in national processes.
- 9.3. Research and development information regarding discontinued activities that have not resulted in the development of a commercially applicable product to this Memorandum of Agreement shall be placed in the public domain after a minimum of five (5) years or in accordance to the Laws of Kenya. Aspects of publications will be handled as per article 10.9 on administration.
- 9.4. Partners will execute confidentiality agreement as per SOP.

ARTICLE 10 – ADMINISTRATION OF THIS MEMORANDUM OF AGREEMENT

- 10.1. The parties will establish coordination mechanisms for implementation of this Memorandum of Agreement and the various projects.
- 10.2. Parties will establish project implementation committee with clear TORs.
- 10.3. This project implementation committee shall be constituted as per the project document. The project implementation committee will be drawn from the partner institutions and will comprise the Principal Investigators (PIs).
- 10.4. Project implementation committee will develop the Standard Operating Procedures (SOPs) in line with the projects objectives and the Nagoya Protocol.
- 10.5. Research performed under this Memorandum of Agreement shall be in accordance with the “statement of work” (Annex I), and the SOPs.
- 10.6. Meetings, decision-making and monitoring will be done by the project implementation committee
- 10.7. The project will have an inception workshop to be held at the beginning of the project and a closing workshop at the end of the project as per the approved work plan
- 10.8. ‘Targeted products meetings’ will be held ad hoc whenever specific-product-oriented efforts yield promising and potentially exploitable results.
- 10.9. Decisions on scientific, technical and organizational aspects of the project will be handled by project implementation committee based on the approved work plans. There will be frequent meetings to review progress on R&D related to the project.
- 10.10. Final decisions on intellectual property protection and commercialization will be handled by the project implementation committee who will prepare a report and present it to the providers.
- 10.11. The inventory of project equipment bought under the grant shall be established and will remain in the custody of the host institution.

ARTICLE 11 – REPORTS

- 11.1. Research Reports:
 - (a) All research activities undertaken shall be recorded in official research and field notebooks.
 - (b) All participating researchers shall prepare research reports as per the SOPs on a quarterly basis.
- 11.2. Payment reports
This will be as defined under the benefit sharing arrangement.
- 11.3. Copyright reports
This will be as defined under the benefit sharing arrangement.
- 11.4. Records
 - (a) An inventory of all the relevant records shall be identified.
 - (b) Records shall include among others, permits, licenses, database.

- (c) The partners will ascertain that the project records are safely kept and available for inspection, external and internal audit.
 - (d) The project records shall consist of scientific reports, legal, ethics and IP reports, letters, memos, financial reports and partnership reports, minutes of all meetings, among other project documents.
 - (e) After expiry of the project, the records shall be kept for a minimum of five years, subject to the laws of Kenya.
 - (f) Records based on sales to be well kept by the user and availed to provider upon request. The records will be kept for a minimum period of five (5) years after project completion
- 11.5. Verification of records
- The users agree to permit identified auditor by the provider to examine their books and records from time to time during their ordinary business hours.
- 11.6. Donor narrative and financial reports
- Both narrative and financial reports shall be prepared according to institutional financial arrangements and the donor requirements.
- 11.7. Declaration by the users to the provider
- (a) The users shall declare reports to the provider on financial position, technology transfer, IP, accruing IP royalties, dividends, income, pertinent investments, and distribution of partner shares, among others, derived from the utilization of the biological resources accessed under this project.
 - (b) Partners commit to availing all the records pertinent to the project for inspection.
- 11.8. Legal, ethical and IP Reports
- The partners will prepare periodic legal, ethical and IP reports on a quarterly basis and presented to all the parties.
- 11.9. Final Report
- (a) There will be a final report within three months of the project completion under this Memorandum of Agreement.
 - (b) A final report shall be prepared at the expiry of the Memorandum of Agreement.

ARTICLE 12 – SPECIFIC SUBSIDIARY AGREEMENTS

- 12.1. Without prejudice to their respective role and obligation under this Memorandum of Agreement, the parties may enter into further agreements to give effect to any provisions of this Memorandum of Agreement.
- 12.2. Any agreement or agreements entered into shall specify at least the following details
- (a) Nature of agreement.
 - (b) Objectives and duration of particular activities.
 - (c) The terms of reference of activities to be undertaken by each party.

- (d) All financial terms and conditions applicable to each party.
 - (e) Any other provision as may be applicable in the specific circumstances.
- 12.3. Each subsidiary agreement shall be in English and shall be signed by the chief executive officers of the parties.
- 12.4. The subsidiary agreements shall be annexed to this Memorandum of Agreement and may be reviewed at specific intervals as specific in such agreements.

ARTICLE 13 – LIMITATIONS

- 13.1. This Memorandum of Agreement does not in any way restrict parties from participating in any similar activities with other organizations or individuals.
- 13.2. This Memorandum of Agreement and annexes constitute the internal agreement between the parties and no modification or addition will be valid unless signed by the parties and appended to this Memorandum of Agreement.

ARTICLE 14 – NO LEGAL PARTNERSHIP

- 14.1. Nothing herein contained shall constitute or be construed to be or create a legal partnership or agency between the parties.
- 14.2. Neither party shall have the power or right to act as an agent or representative of the other party, or transact business or incur obligation in the name of the other party or for the other party or to pledge the credit of the other party or any joint credit.
- 14.3. Where a party acts as an agent or representatives of the other party in contravention of the prevention of sub clause, the other party shall not be held liable of any such Acts or representation.

ARTICLE 15 – ASSIGNMENT

This Memorandum of Agreement is specific to the parties and no party shall have the right to assign or otherwise dispose of the benefits of this Memorandum of Agreement.

ARTICLE 16 – ACKNOWLEDGEMENT AND COMMUNICATION

Each party agrees to explicitly acknowledge the other party's support and logo provided pursuant to this Memorandum of Agreement on all media announcements, documentations, programs, reports or publications.

ARTICLE 17 – MONITORING AND EVALUATION

Shall be executed:

- (a) In reference to article on article 10 on administration.
- (b) In compliance with Nagoya protocol, Article 17, on the role of Check Points in monitoring and evaluation

ARTICLE 18 – INSURANCE AND INDEMINIFICATION

Each party shall be solely responsible for payment of any and all claims of loss personal injury, death, property damage, or otherwise or arising from any act, or mission of its employers or agents in connection with performance of this Memorandum of Agreement.

ARTICLE 19 – DURATION OF MEMORANDUM OF AGREEMENT

- 19.1. This Memorandum of Agreement will come into effect on the effective date (date of the last signature to this Memorandum of Agreement) and, subject to the provision of this sub- clause, will subsist for at least ten years.
- 19.2. The parties will review the Memorandum of Agreement and progress during annual meetings to determine whether it should be revised, renewed or terminated, and define the specific obligations, inputs and activities to be delivered by each party in the succeeding year. The parties shall alternately take the lead convening those meetings through mutually acceptable communication mediums, including physical meetings, telephone conferences and email discussions as may be appropriate.
- 19.3. Either party may terminate the Memorandum of Agreement by giving 90 days prior written notice to the other parties

ARTICLE 20 – AMENDMENT

The Memorandum of Agreement may be amended from time to time by mutual consent of the parties. Any such amendments shall be in writing and shall be signed on behalf of each party by the Chief Executive Officer of that party.

ARTICLE 22 – APPLICABLE LAW

This Memorandum of Agreement shall be governed by and construed in accordance with the Laws of Kenya.

ARTICLE 23 – DISPUTE RESOLUTION

In the event of any dispute arising between the parties touching on any provision of this Memorandum of Agreement, each party shall use their best endeavors in good faith to resolve such disputes. Any dispute that cannot be amicably settled can only bring a suit or make a claim against the other, can be brought exclusively in the agreed arbitral tribunal based on international standards.

ARTICLE 24 – FORCE MAJEURE

- 24.1. Any party shall not be liable to the other for any delay or any performance of its obligations under this Memorandum of Agreement arising from any cause beyond its reasonable control unless conclusive evidence to the contrary is provided.
- 24.2. The party claiming the Force Majeure event shall promptly notify the other party in writing of the reasons for the delay or stoppage, and the likely duration of such delay or stoppage, and shall take all reasonable steps to overcome the delay or stoppage.
- 24.3. For the purpose of this agreement, a Force Majeure shall mean circumstances beyond the reasonable control of the party affected there by without prejudice to the generality of the foregoing, the following shall be regarded as such circumstances:
- (a) Act of God, explosion, lightning, flood, tempest, fire, or accident;
 - (b) War, (whether war be declared or not), invasion, act of foreign enemies;
 - (c) Outbreaks of hostilities, riot, civil disturbance, act of terrorism;
 - (d) Act, restrictions, regulations, by-laws, refxxxxxxxxx to grant any license or permission, prohibitions or measures of any kind on the part of any governmental authority;

- (c) Relevant and approvals of projects/ work plans/budgets
- (d) Monitoring and evaluation of the Memorandum of Agreement/ activities
- (e) Resource mobilization.

Annex V – Benefits sharing Plan (attached)

SIXTH SCHEDULE

(regulation 21)

MATERIAL TRANSFER AGREEMENT

1.0. Preamble

Whereas the sovereign rights over biodiversity are vested in the State;

Aware of the letter and the spirit of the 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the 1992 Convention on Biological Diversity (CBD), Nagoya Protocol (2010), the 2004 International Treaty on Plant Genetic Resources for Food and Agriculture, Biological and Toxins Weapon Convention (BTWC) 1972 UN resolution 1540 (2004),

Recognizing that Kenyan Government has put in place various legislative measures for sustainable utilization and conservation of biodiversity such as; the Constitution of Kenya (2010), Environmental Management Co-ordination Act (EMCA) 1999, the Wildlife (conservation and Management) Act, Amendment 1989, the Forest Act of 2005, Industrial Property Act, 2001, Plants and Seed Varieties Act, Cap 326, Kenya Agriculture Research Act, 2012, the Environmental Management and Coordination (Conservation of Biological Diversity and Resources, Access to Genetic Resources and Benefit Sharing) Regulations 2006.

Noting the diversity, varied origins and inherent value of Kenya's genetic resources and their contribution to environmental health and socio-economic development.

Acknowledging: The rights of local communities to associated traditional knowledge on biological resources and its contribution to science, technology and innovation:

The parties hereby agree as follows:

2.0. Parties to the Agreement

2.1. This Material Transfer Agreement hereinafter referred to as the agreement is the official document for transfer of biological/genetic materials for Kenya.

2.2. The party(ies) to the agreement shall be recognised legal entities.

2.3. Private resource owners, international research organizations and nongovernmental organizations shall become party through relevant national agencies.

2.4. This agreement is between:

Provider.....(insert legal contacts of providing institution, names of authorized officers)

And

Recipient(insert legal contacts of receiving institution, names of authorized officers)

3.0. Terms and conditions of this Agreement

3.1. The purpose and objectives:

State the purpose whether: Academic, Research or commercial, taxonomy, collection, and expected outputs; include the title of the project and the abstract

3.1.1. Objectives

.....

Indicate type of material, sources, and GPS points

.....

3.1.2. Provide documentary evidence of the following (Attach as annex):

- (a) Deposition of duplicate specimen in designated repository center
- (b) PIC and MAT

3.1.3. Provide associated traditional knowledge and source (if any)

.....

4.0. Rights and obligations of providers and recipients

4.1. Both the provider and the recipient shall notify the NEMA and any other relevant lead agency on the MTA implementation, material transfer to Third party, any discoveries and further use of the material through reports

4.2. TK, information and data disclosed and or generated during access to the GR shall not be disclosed to third parties without consent of the provider.

4.3. Confidential or proprietary GR information shall not be disclosed unless the information is in the public domain or is disclosed in public interest.

4.4. Rights and obligations of the provider:

- (a) The provider retains ownership of the genetic material including any material contained or incorporated in modifications.
- (b) The provider may repatriate genetic resources held by recipient with adequate prior written notice.
- (c) The provider also retains rights to any intellectual property it owns in genetic resource.
- (d) The provider retains the right to access, audit and monitor the use and application of the genetic material provided under this MTA.
- (e) No rights under any intellectual property of Kenya or rights in any other material or confidential information provided by the Kenyan to the recipient under this agreement is granted or implied as a result of providing this material to the recipient, other than as expressly set forth herein.

4.5. Rights and obligations of the recipient:

- (a) The Recipient shall use the genetic resource(s) for the purpose stated in this agreement only

- (b) The Recipient is responsible for ensuring that all permits required for the movement of the material are obtained and that sufficient proof of such permits is provided to the provider whenever required to provide such proof.
 - (c) In no circumstances shall the recipient collect materials in such a way that adversely affects the environment or in any way alter the genetic diversity of the source material
 - (d) No commercialization shall take place without notice and a negotiated agreement with the provider.
 - (e) In the event of commercialization whether by the recipient, its servants and or agent or any party acting under it regardless of whether there was an act or omission on the part of the recipient resulting in the use and commercialisation of the GR without re- negotiation for the commercial license agreement the recipient will pay 50% of the gross income arising from the GR. In any case the provider shall become the duly recognised supplier of the genetic resource.
 - (f) The Kenya Government shall have unrestricted access to the technologies and processes developed from the access and use of the GR.
 - (g) the event of commercialisation, the recipient and provider are enjoined in ownership of patents of inventions arising from utilization of genetic resources accessed as agreed.
 - (h) The GR obtained under this agreement shall only be transferred by the recipient to a third party with prior written authorization from the provider and MTA between the recipient and the third party.
 - (i) The recipient shall indemnify and keep provider indemnified from any claim, action, and damage or cost deriving from or in connection with the recipient's use of the GR.
 - (j) The recipient may file patent application(s) claiming rights over its inventions made by recipient through the use of GR or modifications and in the event of technology transfer to third party or commercialization, the recipient shall negotiate with the provider prior to such use.
- 5.0. Repatriation of genetic resources from foreign depositories
- 5.1. Due to national interests such as food or environmental security, the Government of Kenya may require the return of the remaining GR as required by the circumstances and recipient shall return such GR, to such institution as may be designated by NEMA without any condition.
 - 5.2. The recipient shall use the genetic resource and/or associated traditional knowledge for the purpose(s) contained in this agreement and/or continue to keep the genetic resource in safe custody in accordance with standard procedures and practice.
- 6.0. Termination of agreement
- 6.1. This agreement is binding throughout the existence of the accessed GR.
 - 6.2. On termination of this agreement, the recipient shall destroy (unless requested by provider to return the said remaining material) and shall provide proof immediately to the provider

- 6.3. Any procedurally duplicated GR/biological material shall survive the lifetime of this agreement and should be freely accessible to the Kenya government and the provider upon request.

7.0. Warranty

- 7.1. The Provider makes no warranties as to the safety of or title to the GR material, nor as to the accuracy or correctness of any information provided with the Material. Neither does it make any warranties as to the quality, viability, or purity (genetic or mechanical) of the Material being furnished.
- 7.2. The phytosanitary condition of the Material is warranted only as described in any attached phytosanitary certificate. The Recipient assumes full responsibility for complying with the recipient nation's quarantine regulations and rules as to import or release of genetic material.

8.0. Applicable laws

The applicable law shall be the domesticating national laws of Kenya, the relevant provisions of the Nagoya protocol, and, when necessary for interpretation, the decisions of the NEMA.

9.0. Dispute resolution

Any dispute arising from this Agreement shall be resolved in the following manner:

- (a) Amicable dispute settlement: The parties shall attempt in good faith to resolve the dispute by negotiation.
- (b) Mediation: If the dispute is not resolved by negotiation, the parties may choose mediation through a neutral third-party mediator, to be mutually agreed.
- (c) Arbitration: If the dispute has not been settled by negotiation or mediation, any party may submit the dispute for arbitration under the Arbitration Act No. 4 of 1995 of laws of Kenya and in accordance with the procedure laid down in part 1 of Annex II of the Convention on Biological Diversity.

10.0. Force majeure

- 10.1. Neither party shall be liable to the other party for any delay or non-conformance of its obligations under this Agreement arising from any clause beyond its reasonable control, including, but not limited to, any of the following: government Act, war, fire, drought, explosion, civil commotion or industrial disputes of a third party or impossibility of obtaining gas or electricity or materials.
- 10.2. The affected party must promptly notify the other party in writing, but in no circumstances no later than fourteen days, of the cause and likely duration of the cause.
- 10.3. Such notice having been given, the performance of the affected party's obligations, to the extent affected by the cause, shall be suspended during the period the cause persists.
- 10.4. Without prejudice to the above, the affected part must take all reasonable measures to minimize the impact of any force majeure on the performance of its obligations under the Agreement and to ensure, as soon as practicable, the resumption of normal performance of the obligations affected by the force majeure.

11.0. Notices

Any notice or other document to be served under this Agreement must be delivered by hand or sent by registered mail or by international courier service to be served at the addresses below:

Designated National Authority

Insert the name of the Institution and the address

Competent Authority

Insert the name of the Institution and the address

Provider

Insert the name of the Provider(s) and the address

Recipient

Insert the name of the Institution and the address

All notices or documents shall be deemed to have been served at the date and time of delivery of the said notices or documents to the recipient party.

Signature/Acceptance

For provider

Name and Signature of Head of institution

Name and signature of Authorizing officer

For recipient

Name and Signature of authorized official

Name and signature of principal investigator

Witnessed by

Made on the 23rd January, 2025.

ADEN DUALE,
Cabinet Secretary for
Environment, Climate Change and Forestry.

LEGAL NOTICE NO. 20

THE ENVIRONMENTAL MANAGEMENT AND CO-
ORDINATION ACT

(Cap. 387)

THE ENVIRONMENTAL MANAGEMENT AND CO-
ORDINATION (DEPOSIT BONDS) REGULATIONS, 2025

ARRANGEMENT OF REGULATIONS

Regulation.

PART I—PRELIMINARY PROVISIONS

- 1—Citation.
- 2—Interpretation.
- 3—Application.
- 4—Purpose of the Regulations.

PART II—MANAGEMENT OF DEPOSIT BONDS

- 5—Management of deposit bonds.
- 6—Maintenance of Register.
- 7—Contents of Register.
- 8—Determination of a Deposit Bond for facilities in operation.
- 9—Review and approval by the
- 10— Authority.
- 11—Non-applicability of the deposit bond.
- 12—Reassessment of a deposit bond.
- 13—Review of the deposit bond payable.
- 14—Refund of a Deposit Bond.
- 15—Confiscation of a deposit bond.

PART III—MISCELLANEOUS PROVISIONS

- 16—Appeals.
- 17—Offences and penalties.
- 18—Liability on transfer.
- 19—Transitional Clause.

SCHEDULES

First Schedule – Activities, industrial plants or undertakings
eligible for deposit bonds

Second Schedule – Deposit Bond Discharge Certificate

THE ENVIRONMENTAL MANAGEMENT AND CO-
ORDINATION ACT

(Cap. 387)

IN EXERCISE of the powers conferred by section 147(1) of the Environmental Management and Co-ordination Act, the Cabinet Secretary for Environment, Climate Change and Forestry, on the recommendation of the National Environment Management Authority and on consultation with the lead agencies, makes the following Regulations—

THE ENVIRONMENTAL MANAGEMENT AND CO-
ORDINATION (DEPOSIT BONDS) REGULATIONS, 2025

PART I—PRELIMINARY PROVISIONS

1. These Regulations may be cited as the Environmental Management and Co-ordination (Deposit Bonds) Regulations, 2025. Citation.
2. In these Regulations, unless the context otherwise requires— Interpretation.
 - “abandoned land” means a degraded environment where the perpetrator is not identifiable;
 - “affected media” means land, water, air, or any other natural resource that has been polluted, contaminated or degraded;
 - “applicant” means any person who submits a Deposit Bond Assessment Report to the Authority for consideration and approval;
 - “bond discharge certificate” means an authorisation issued by the Authority certifying that the remediation works have met all completion criteria, specifications and standards for the refund of a deposit bond;
 - “Committee” means the Technical Advisory Committee established under regulation 18;
 - “competent expert” means a multi-skilled team having knowledge in environmental valuation, law or actuary and led by an environmental assessment expert or firm licensed by the Authority;
 - “environmental emergency” means the sudden onset of disasters, accidents or unexpected condition or situation resulting from technological or human-induced factors, or a combination of both, that in the reasonable opinion of the Authority, materially or adversely, or is likely to materially or adversely cause severe damage to all or to a significant part thereof, or which presents a physical threat to persons or property or the environment;
 - “facility” means a place where any of the activities set out in the First Schedule is undertaken;
 - “good environmental practice” means a sustainable or environmentally responsible practice that is undertaken in accordance with the provisions of the Act or any other existing law;
 - “industrial plant” means any plant undertaking manufacturing, engineering or trade activities as set out in the First Schedule;

“notice of confiscation” means a notice issued by the Authority for the purposes of confiscation of a deposit bond;

“operator” means a registered proprietor of the any of the activities set out in the First Schedule;

“proponent” means a person proposing or executing any project, programme or undertaking set out in the First Schedule;

“Register” means a Deposit Bond Register maintained under these Regulations; and

“remediation” means rehabilitation, clean-up, restoration, post-care, maintenance and compatible after-use activities.

3. These Regulations shall apply to activities, industrial plants and undertakings set out in the First Schedule which have or are likely to have adverse effects on the environment. Application.

4. The purpose of these Regulations is to prescribe the procedure for managing a deposit bond. Purpose of the Regulations.

PART II—MANAGEMENT OF DEPOSIT BONDS

5. (1) The Director-General shall be responsible for the management of deposit bonds. Management of deposit bonds.

(2) The Director-General shall, with respect to the management of deposit bonds—

- (a) prepare and maintain a register of activities, industrial plants and undertakings that require deposit bonds;
- (b) review the terms of reference developed by the competent experts in carrying out a deposit bond assessment;
- (c) review the Deposit Bond Assessment Report to determine the adequacy and reliability of deposit bonds payable to the Restoration Fund;
- (d) issue approvals on Deposit Bonds Assessment Reports and notices of the deposit bonds payable to the persons liable to pay the deposit bond;
- (e) make recommendations to the Cabinet Secretary on the prescription of payments of deposit bonds by the Cabinet Secretary responsible for finance, pursuant to section 28(2) of the Act;
- (f) undertake a joint inspection and monitoring with the relevant county government or lead agency to determine compliance with good environmental practices in line with the approval on terms and conditions based on the Deposit Bond Assessment Report;
- (g) receive periodic status reports of any on-going remediation work from the operators;
- (h) prepare annual reports on deposit bonds received, refunded, confiscated, status of sites remediated and matters which

have been determined or are pending before the Tribunal;
and

- (i) undertake any other activity, as may be conferred on it under the Act or any other law.

6. Pursuant to section 28(1) of the Act, the Authority shall keep and maintain a Deposit Bonds Register of activities, industrial plants or undertakings which are likely to have adverse effect on public health and the environment.

Maintenance of Register.

7. The Register referred to under regulation 6 shall contain the following particulars—

Contents of Register.

- (a) name of the facility;
- (b) location of the facility;
- (c) name and address of the contact person;
- (d) the activity being undertaken at the facility;
- (e) Integrated Environmental Assessment licence number and, where relevant, Environmental Audit reference number;
- (f) initial deposit bond payable;
- (g) adjusted deposit bond payable; and
- (h) any other relevant information.

8. (1) Each project proponent shall ensure that a Deposit Bond Assessment Report is prepared on the any project set out in the First Schedule likely to have significant adverse effects on the environment when operated in a manner that is not in conformity with good environmental practices

Determination of a Deposit Bond for facilities in operation.

(2) The Deposit Bond Assessment Report prepared under sub-regulation (1) shall be prepared by a competent expert in accordance with terms of reference approved by the Authority.

(3) A Deposit Bond Assessment Report shall include—

- (a) the proposed location of the project;
- (b) site characteristics for a facility in operation;
- (c) a clear description of the activities being undertaken at the facility;
- (d) evidence of integrated environmental assessment or environmental audit where applicable;
- (e) the environmental management systems in place;
- (f) the existing environmental levies or other insurance covers that the facility may have;
- (g) a remediation, post-care and maintenance plan, including the required standards of remediation works, the activities involved, time frame, cost and the monitoring mechanism;

- (h) an analysis of the amount of deposit bond payable in respect of the projected cumulative risks of the project activities to the recipient environment and affected media and persons as shall be prescribed by the Cabinet Secretary responsible for matters relating to finance on the recommendation of the Cabinet Secretary; and
- (i) details of the operator or proponent who shall be responsible for the execution and completion of remediation works.

(4) A person who provides information or data which is false, incorrect or intended to mislead in relation to this regulation, commits an offence.

9. (1) The Authority shall, in consultation with the relevant lead agencies, review and make a decision on the Deposit Bond Assessment Report based operational standards set by the Authority.

Review and approval by the Authority.

(2) Upon review of the report under sub-regulation (1), the Authority shall, in writing, communicate its decision—

- (a) to the operator of the facilities in operation, within thirty days of the submission of the report; and
- (b) to the proponent of a proposed project, within thirty days after the issuance of the Integrated Environmental Assessment Licence.

(3) Where the Authority is satisfied with the contents of the Deposit Bonds Assessment Report, the Authority shall—

- (a) issue an approval of the Deposit Bond Assessment Report; and
- (b) issue a notice of the deposit bond payable.

(4) Where the Authority is not satisfied with the adequacy or reliability of information provided in the Deposit Bond Assessment Report, the Authority may—

- (a) make a decision on the basis of the Authority's estimate of the deposit bond amount; or
- (b) undertake a reassessment of the deposit bond payable.

(5) The project proponent shall pay the deposit bond notified under sub-regulation (3) to the Restoration Fund within a period of thirty days of the date of the notice or such other period depending on the complexity of the operation, regularity and quantum of payment required.

10. The payment of a deposit bond shall not operate as—

- (a) an exemption for non-compliance to applicable provisions of the Act; and
- (b) a defence to any civil action or to prosecution that may be brought or preferred against a proponent or operator in

Non- applicability of the deposit bond.

respect to the manner in which an activity, industrial plant or undertaking is executed, managed or operated.

11. The Authority may, at any time after the bond has been paid but before the completion of the affected project, reassess the amount payable as deposit bond, if—

Reassessment of a deposit bond.

- (a) there has been an error in the original assessment;
- (b) there is a substantial change or modification in an activity, industrial plant or undertaking or in the manner in which an activity, industrial plant or undertakings is being operated;
- (c) an activity, industrial plant or undertaking poses an environmental threat requiring greater remediation interventions which could not be reasonably foreseen at the time of the original assessment was approved;
- (d) it is established that the information or data given by the applicant was false, inaccurate or intended to mislead; or
- (e) the deposit bond amount has been partially or fully utilised before the completion of the affected project.

12. (1) The Authority may conduct a review of the deposit bond payable under these Regulations to ensure adequacy of the deposit bond with regard to the approved remediation plan.

Review of the deposit bond payable.

(2) The review under sub-regulation (1) may be—

- (a) conducted depending on the complexity of the operation, long-term care and progressive remediation works required; or
- (b) carried out every three years, or any other period as may be approved by the Authority.

13. (1) The Authority shall, pursuant to section 28(3) of the Act, issue a refund of a deposit bond amount after inspecting an operation and establishing that the operator has observed good environmental practices.

Refund of a Deposit Bond.

(2) An operator shall within sixty days of nearing completion of an operation, notify the Authority when an operation is approaching closure and end of remediation works by submitting a remediation report demonstrating the completion of the remediation works is done in accordance with the parameters set out under sub-regulation (4).

(3) The Authority shall inspect the facility within sixty days from the date of submission of the remediation report under sub-regulation (2), to ensure compliance with the conditions, specifications and standards set out in the approval document, annual environmental audit reports, remediation, post care and maintenance plans and initiate the processing of a bond discharge certificate as set out in the Second Schedule.

(4) The Authority shall take into account the following factors during an inspection—

- (a) the public safety of the site;
- (b) the stability of the site under a range of seasonal conditions representative of that climate;
- (c) the ecological system recovery at the site;
- (d) the sampling and analysis of applicable parameters;
- (e) the state of recovery in comparison to the surrounding area;
- (f) the aesthetic value of the site;
- (g) the time scales to meet the required remediation level;
- (h) the compliance history of the operator;
- (i) the compatible after-use plans of the site;
- (j) the involvement of stakeholders, project affected populations and surrounding community; and
- (k) any other factor as may be determined by the Authority.

(5) The deposit bond determined in accordance with these Regulations shall be refunded without interest to the operator within six months after issuance by the Authority of the bond discharge certificate.

14. (1) The Authority may, pursuant to section 28(4), confiscate a deposit bond where the operator breaches the provisions of the Act and these Regulations.

Confiscation of a deposit bond.

(2) Where the Authority intends to confiscate a deposit bond, the Authority shall issue a notice, in writing, of the intended confiscation to the operator.

(3) The operator shall be required to respond to the notice under sub-regulation (2) within fourteen days of receipt of the notice.

(4) Where the operator fails to respond to the notice as required under sub-regulation (3), the Authority may confiscate the deposit bond without any further reference to the operator.

(5) Where the Authority receives a response from the operator under sub-regulation (3), the Authority shall grant the operator an opportunity to be heard and in this regard, schedule a date for the hearing that shall be at least fourteen days after the response by the operator.

(6) The decision of the Authority shall be communicated to the operator within fourteen days from the date of the hearing.

(7) Upon hearing a matter under this regulation, the Authority may—

- (a) issue a notice requiring the operator to restore the affected media within the time specified by the Authority;
- (b) where the operator fails to remediate the affected media to the satisfaction of the Authority, the Authority shall

confiscate and within sixty days initiate the process to use the deposit towards restoration of the affected media and thereafter prepare and publish a financial report in the *Gazette* on how the funds in the deposit bond were utilised; or

- (c) cancel any license issued to the operator under the Act on the advice of the Committee, where the operator has become a habitual offender.

(8) Where the cost of remediation exceeds the deposit bond amount confiscated, the balance of such costs shall be recovered from the operator.

(9) Where the Authority confiscates a deposit bond and the operator is dissatisfied with the confiscation, the operator may, pursuant to section 28(5) of the Act, refer the matter to a competent court of law within sixty days of the decision of the Authority.

15. (1) A person may appeal to the Tribunal or competent court of law in accordance with the provisions of the Act if that person is aggrieved by—

Appeals.

- (a) the determination of the amount of the deposit bond payable under these Regulations;
- (b) the confiscation of a deposit bond by the Authority;
- (c) the refundable amount of a deposit bond;
- (d) the imposition by the Authority of any condition, limitation or restriction in the approval condition pertaining to deposit bond; or
- (e) any other decision made by the Authority relating to the payment of a deposit bond by that person.

PART III—MISCELLANEOUS PROVISIONS

16. A person who commits an offence under these Regulations for which no specific penalty has been provided shall be liable, on conviction, to the penalty specified under section 144 of the Act.

Offences and penalties.

17. The transferee as well as the transferor of an undertaking set out in the First Schedule shall be liable for all liabilities and the observance of all obligations imposed by the transfer in respect of the operation transferred, but the transferor shall not be responsible for any future liabilities or any obligations so imposed with regard to the operation from the date of the transfer.

Liability on transfer.

18. (1) A person who is carrying out an activity, industrial plant or undertaking set out in the First Schedule shall, within twelve months of the commencement of these Regulations, comply with the provisions of these Regulations.

Transitional Clause.

(2) A person who fails to comply with sub-regulation (1) commits an offence.

FIRST SCHEDULE

(rr. 2, 3, 8(1), 18(1))

Activities, industrial plants and undertakings eligible for deposit bonds

The activities, industrial plants or undertakings that have or are likely to have significant adverse effects on the environment when operated in a manner not in conformity with good environmental practices and would attract the payment of a deposit bond, include the following—

1. Extractive Activities
 - (a) exploration of oil and gas activities (onshore and offshore);
 - (b) exploitation or extracting of oil and gas activities (onshore and offshore);
 - (c) underground and open cast mining operations including gas and solid minerals; or
 - (d) quarrying.
2. Industrial Plants
 - (a) breweries;
 - (b) distillery;
 - (c) Sugar factories;
 - (d) Paper pulping and recycling;
 - (e) batteries manufacturing and recycling;
 - (f) Pharmaceutical industries;
 - (g) steel mills;
 - (h) tanneries;
 - (i) cement industries;
 - (j) chemical and petrochemical industries;
 - (k) storage facilities for petroleum products including depots and petroleum service stations; or
 - (l) refineries of petroleum products.
3. Agricultural
Large scale horticultural and flower farms exceeding 100 hectares
4. Transportation
 - (a) transportation of petroleum products;
 - (b) transportation of hazardous chemicals.

where transportation is part of the activities of the main facility operator, this will be covered by the deposit bond paid by the operator for the facility.
5. Infrastructure projects
 - (a) Power generation plants —

- (i) geothermal power plants;
 - (ii) coal plants;
 - (iii) nuclear power plant;
 - (iv) Storage and multipurpose dams of more than 500,000 cubic metres; or
 - (v) thermal power plants.
- (b) Pipelines —
- (i) operation of a main transmission pipeline for liquid (other than water) or gas; or
 - (ii) operation of sewerage reticulation systems.
- (c) Management and disposal of waste—
- (i) disposal of hazardous waste through incineration, treatment, re-processing, recycling and destruction;
 - (ii) sanitary landfills and waste disposal sites; or
 - (iii) publicity and advertisement materials including posters, photographs, banners, papers and any other materials incidental to campaigns.
6. Introduction of alien or invasive species of fauna and flora into ecosystems.
 7. Introduction and testing of genetically modified organisms.
 8. Refugee camps.

SECOND SCHEDULE

THE ENVIRONMENTAL MANAGEMENT AND CO-ORDINATION (DEPOSIT BONDS) REGULATIONS, 2024

DEPOSIT BOND DISCHARGE CERTIFICATE (r13(3))

Deposit Bond Discharge Certificate No.....

Deposit Bond Assessment Report/Approval No.....

Issued to (Name of proponent or operator)

Address

Nature of the operation

Physical Location (Plot No. L.R. No., GPS coordinates) of the operation

The Authority is satisfied that the remediation works undertaken by the proponent or operator is compliant with the conditions, specifications and standards as set out in the remediation, post care and maintenance plan and has therefore observed good environmental practices.

The Authority shall issue a refund of a deposit bond amount (Kshs)

.....

Date issued: Signature:

Director-General (seal)

Made on the 23rd January, 2025.

ADEN DUALE, Cabinet Secretary for Environment, Climate Change and Forestry.

LEGAL NOTICE NO. 21

THE ENVIRONMENTAL MANAGEMENT AND CO-ORDINATION ACT

(Cap. 387)

IN EXERCISE of the powers conferred by section 147 of the Environmental Management and Co-ordination Act, the Cabinet Secretary for Environment, Climate Change and Forestry, makes the following Regulations —

THE ENVIRONMENTAL MANAGEMENT AND CO-ORDINATION (AIR QUALITY) (AMENDMENT) REGULATIONS, 2025

1. These Regulations may be cited as the Environmental Management and Co-ordination (Air Quality) (Amendment) Regulations, 2025. Citation.

2. Regulation 10 of the Environmental Management and Co-ordination (Air Quality) Regulations, 2024 (hereinafter referred to as L.N.180/2024.

the “principal Regulations”), is amended in subregulation (1), by deleting the words “and prescribe the permissible levels thereof”.

3. Regulation 12 of the principal Regulations is amended in subregulation (4), by deleting the words “or as may be deemed fit by the Authority”.

4. Regulation 20 of the principal Regulations is amended in subregulation (4), by deleting the words “a fine not exceeding four million shillings or imprisonment for a term not exceeding four years or both such fine and imprisonment” and substituting therefor the words “the penalty prescribed under section 144 of the Act”.

5. Regulation 30 of the principal Regulations is amended by deleting the words “Designated Emissions Testing Centre” and substituting therefor the word “Authority”.

Made on the 15th January, 2025.

ADEN DUALE,
*Cabinet Secretary for Environment
Climate Change and Forestry.*

LEGAL NOTICE NO. 22

THE ENVIRONMENTAL MANAGEMENT AND CO-
ORDINATION ACT

(Cap. 387)

IN EXERCISE of the powers conferred by section 147 of the Environmental Management and Co-ordination Act, the Cabinet Secretary for Environment, Climate Change and Forestry, makes the following Regulations —

THE ENVIRONMENTAL MANAGEMENT AND CO-
ORDINATION (SAND HARVESTING) (AMENDMENT)
REGULATIONS, 2025

1. These Regulations may be cited as the Environmental Management and Co-ordination (Sand Harvesting) (Amendment) Regulations, 2025.

Citation.

2. Regulation 6 of the Environmental Management and Co-ordination (Sand Harvesting) Regulations, 2024, is amended in subregulation (2), by deleting the words “civil society organisation” appearing in paragraph (h) and substituting therefor the words “public benefit organisation”.

L.N. 179/2024.

Made on the 15th January, 2025.

ADEN DUALE,
*Cabinet Secretary for Environment
Climate Change and Forestry.*

LEGAL NOTICE NO. 23

THE ENVIRONMENTAL MANAGEMENT AND CO-
ORDINATION ACT

(Cap. 387)

IN EXERCISE of the powers conferred by section 147 of the Environmental Management and Co-ordination Act, the Cabinet Secretary for Environment, Climate Change and Forestry, makes the following Regulations –

THE ENVIRONMENTAL MANAGEMENT AND CO-
ORDINATION (WATER QUALITY) (AMENDMENT)
REGULATIONS, 2025

1. These Regulations may be cited as the Environmental Management and Co-ordination (Water Quality) (Amendment) Regulations, 2025.

Citation.

2. Regulation 14 of the Environmental Management and Co-ordination (Water Quality) Regulations, 2024, is amended in subregulation (1), by deleting the words “or as the Authority may prescribe” appearing in paragraph (b).

L.N. 177/2024.

Made on the 15th January, 2025.

ADEN DUALE,
*Cabinet Secretary for Environment
Climate Change and Forestry.*

LEGAL NOTICE NO. 24

THE ENVIRONMENTAL MANAGEMENT AND CO-
ORDINATION ACT

(Cap. 387)

IN EXERCISE of the powers conferred by section 147 of the Environmental Management and Co-ordination Act, the Cabinet Secretary for Environment, Climate Change and Forestry, makes the following Regulations –

THE ENVIRONMENTAL MANAGEMENT AND CO-
ORDINATION (WASTE MANAGEMENT) (AMENDMENT)
REGULATIONS, 2025

1. These Regulations may be cited as the Environmental Management and Co-ordination (Waste Management) (Amendment) Regulations, 2025.

Citation.

2. Regulation 21 of the Environmental Management and Co-ordination (Waste Management) Regulations, 2024, is amended in subregulation (2), by deleting paragraph (f).

L.N. 178/2024.

Made on the 15th January, 2025.

ADEN DUALE,
*Cabinet Secretary for Environment
Climate Change and Forestry.*