

PROCEDURES AND GUIDELINES FOR ACCESS AND COLLECTION OF PLANT AND ANIMAL GENETIC RESOURCES IN MALAWI

National Commission for Science and Technology

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NATIONAL COMMISSION FOR SCIENCE AND TECHNOLOGY

PROCEDURES AND GUIDELINES FOR ACCESS AND COLLECTION OF PLANT AND ANIMAL GENETIC RESOURCES IN MALAWI

National Commission for Science and Technology

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ACRONYMS

CBD	Convention on Biological Diversity
CITES	Convention on International Trade in Endangered
	Species
EMA	Environment Management Act.
GOM	Government of Malawi
GPS	Global Positioning System
ITPGRFA	International Treaty on Plant Genetic Resources
	for Food and Agriculture
NACANS	National Committee on Agriculture and Natural
	Sciences
NCST	National Commission for Science and Technology
NEAP	National Environmental Action Plan
NEP	National Environmental Policy
PIC	Prior Informed Consent
SADC	Southern Africa Development Community
SPGRC	SADC Plant Genetic Resources Centre
TRIPs	Trade Related Intellectual Property Rights
UPOV	Union for the Protection of New Variety
WTO	World Trade Organization

Definitions

Access is the ability or right to approach, enter, exit, communicate with, or make use of

Affiliating Institutions are those institutions that the researcher will work with in conducting research work

Benefit Sharing is the fair and equitable sharing of benefits from the use of resources

Biological diversity is the degree of variation of life forms

Biopiracy are **a**ctivities relating to access or use of genetic resources in contravention to national and or international regimes based on the Convention on Biological Biodiversity

Certifying Institutions are those government institutions designated to control certain sectors of genetic resources

Collection is the act or process of obtaining

Endangered means threatened

Endangered species is a population of organisms which is at risk of becoming extinct because it is either few in numbers, or threatened by changing environmental or predation parameters

Foreign researchers or institutions: These are researchers or institutions wishing to conduct research that involves the

collection and/or export of genetic resources from Malawi. These are sub-divided into the following:

- i) Academics and Research Institutions: These are students/scholars, academic and research institutions registered outside Malawi seeking to conduct research that involves the collection and/or access of genetic resources for academic research use.
- **ii)** Non-Profit institutions: These are institutions registered outside Malawi seeking to conduct research that involves the collection and access of genetic resources for natural products research and development.
- **iii) Commercial Public or Private Institutions**: These are commercial companies registered outside Malawi seeking to conduct research involving the collection and/or export of genetic resources for natural products research and development and eventually to market the products on the international markets.

Gene banks are collections of specimens and genetic material. Gene banks help preserve genetic material.

Genetic data is DNA based structural data

Genetic materials means any material of plant, animal, microbial or other origin containing functional units of heredity.

Genetic resources means genetic material of actual or potential value.

Germplasm is a collection of genetic resources for an organism. For plants, the germplasm may be stored as a seed collection or, for trees, in a nursery.

National researchers or institutions: These are researchers ordinarily resident in Malawi and institutions wishing to export genetic resources to researchers and institutions outside Malawi for analysis or on exchange basis. These may fall under the following:

- i) Academics and Research Institutions: These are students/scholars, academic and research institutions within Malawi
- ii) **Non-Profit institutions**: These are institutions within Malawi. These include registered charity organizations, NGOs and trusts

Commercial public or Private Institutions: These are companies within Malawi seeking access of genetic resources or natural products for research and development and eventually to market the products

Material Transfer Agreement is an agreement involving the transfer of biological material from a provider to a recipient with restrictions on what the recipient may do with the material

National Scientists are scientists who are permanent residents in the country

Non-proprietary research is research from which the results are open for publication. This includes most academic and charitable research.

Prior Informed Consent is a phrase often used in <u>law</u> to indicate that the <u>consent</u> a person gives meets certain minimum standards

Proprietary research is research for which users request confidentiality of proposal, data and results for a certain period of time

Special studies: In terms of genetic resources, special studies are defined as those studies involving:

- i. sensitive areas such as sharing of certain traditional knowledge on use of genetic resources;
- ii. endangered rare plant and animal species.

Traditional Knowledge is that body of evolving knowledge, including the innovations of individuals and communities, that operates outside the dominant Eurocentric paradigm and that is concerned with the use of plants for social, environmental, medicinal and therapeutic purposes

A. PREAMBLE

Malawi is endowed with rich biological diversity and genetic resources with great potential to provide diverse chemicals, enzymes and genes. These resources, if used properly and in a sustainable manner, can contribute to the socio-economic development of the country. The uses for these resources can vary from plant extracts for herbal products, naturally occurring enzymes in industrial manufacturing to organic molecules used to design new pharmaceutical drugs. They can also be used as a source of diverse genes in the breeding of crop and animal varieties with high performance.

Malawi is party to a number of international treaties, conventions and agreements that have implications on genetic resource utilization and exploitation. These include the Convention on Biological Diversity (CBD) to which Malawi acceded in 1992. The CBD places great emphasis on national and community sovereignty over genetic resources and biodiversity and moves away from the notion that these resources and knowledge are the common heritage of mankind. The World Trade Organization (WTO) Agreement on Trade-Related Intellectual Property Rights (TRIPs) calls for parties to adopt a wide range of intellectual property rights regimes, including patents, plant breeders rights, and trade secrets. Agricultural genetic resources agreements are treated within the International Union for the Protection of New Variety (UPOV Convention), which defines rights to new varieties which may be created by plant breeders to which Malawi is not yet a party. In addition to this Convention, the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), an agreement pertaining exclusively to the management of plant and genetic resources for food and agriculture recognizes the concept of rights to traditional land

races, which may be created or preserved by rural and indigenous communities throughout the developing world.

These treaties bind the government of Malawi under international enact the necessary regulations for their agreement to implementation. Hence since 1992, the Government of Malawi (GOM) and key stakeholders on the environment have been devising new approaches and formulating the requisite policies and legislation to guide Malawi forward in its environmental management endeavours. The National Environmental Action Plan (NEAP), adopted in 1994, documented the depletion of the country's natural resources and provided a guideline for actionoriented programming. The NEAP included loss of biodiversity among the nine major environmental problems in Malawi. The National Environmental Policy (NEP), approved by cabinet in 1996, places emphasis on the management of the environment and genetic resources by the community. The NEP is enshrined in the Environment Management Act (EMA), approved by Parliament in 1996. The Act, among other things, imposes restrictions on the collection and export of genetic resources without the prior informed consent of the responsible Minister. The Act ensures that the country's genetic resources are protected and sustainably utilized for future generations. It is, therefore, important that this protection adequately covers all avenues that can be used by unscrupulous prospectors to collect and export Malawi's valuable genetic resources. It is also important that proper documentation be kept on genuine research efforts that involve the collection and export of such genetic resources.

The National Commission for Science and Technology (NCST) is empowered under the Science and Technology Act of 2003 to coordinate all research activities conducted in this country and to ensure that any research project proposed for execution is geared

to national development needs and goals. The NCST's National Committee on Agriculture and Natural Sciences (NACANS) is, therefore, mandated to grant approvals for the access and collection of genetic resources. Such approvals are granted only on advice from designated national institutions. Through this mechanism the committee is expected to monitor and document genetic materials that are accessed and collected. However, due to the absence of regulations on access and collection of genetic resources under Environment Management Act, 1996, these guidelines and procedures are not being fully implemented. As a result, Malawi's genetic resources continue to be accessed and collected without proper approvals, permits and records. It has, therefore, become necessary to develop guidelines that set up the procedures for access and collection of genetic resources, which should be used together with the relevant regulations. The guidelines are intended for use by:

- 1. Foreign scientists and research institutions that plan to conduct research involving the collection of genetic resources;
- 2. National scientists and research institutions that plan to collect and access genetic resources for analysis or as part of an exchange programme with a foreign institution, scientists;
- 3. National scientists and research institutions that are funded by an external source on research projects involving the collection of Malawi's genetic resources;
- 4. All others interested in accessing and collecting genetic resources; and

5. Malawi Government officials at ports of entry.

The guidelines are not intended to restrict innovative research in genetic resources but serve to ensure that Government is committed to promote research in the sustainable management and utilization of biodiversity for research so that local communities and the country benefit from the utilization of the resources.

The Commission expects that access and collection of Malawi's genetic resources should follow a set of clear guidelines to ensure that the resources remain valuable assets for socio-economic development of Malawi.

B. OBJECTIVES OF THE GUIDELINES

The guidelines shall serve to achieve the following objectives:

- 1. Ensure that collection and access of Malawi's genetic materials does not lead to loss of biological diversity, degradation of the environment and natural resources;
- 2. Ensure that exchange and utilization of genetic resources is done in such a way that Malawi, and particularly local communities benefit;
- 3. Promote the establishment of gene banks and genetic data banks (*in-situ and ex-situ*) and formation of strong linkages with the banks including the SADC Plant Genetic Resources Centre (SPGRC) and other relevant institutions;
- 4. Ensure that research projects that involve exchange of genetic resources and germplasm are conducted in a

manner that encourages collaboration and prevents bio piracy, particularly with foreign researchers;

- 5. Ensure that foreign researchers/collectors work closely with competent national researchers to safeguard Malawi's interest; and
- 6. Promote research projects that ensure conservation, sustainable utilization and equitable sharing of benefits that arise from use of genetic resources.

C. PROCEDURES AND REQUIREMENTS FOR APPLICATION

The procedure to conduct research that involves access and collection of genetic resources shall involve several institutions including affiliating institutions, and the National Commission for Science and Technology (NCST). Affiliating institutions will need to have requisite resources (equipment, facilities and staffing) to undertake the proposed work. Researchers will also be required to comply with relevant local access and collection requirements of the institutions with the jurisdiction for the particular resources. In addition, applicants wishing to export any genetic resource will need to seek export license from the Minister responsible for Natural Resources and Environmental Affairs as stipulated by the Environment Management Act, 1996.

The following shall guide applications for authorization to carry out research requiring access and collection of genetic resources:

1. The national applicants shall be from or affiliated to a recognized research, academic or legally registered private institutions while foreign applicants shall be those that are

affiliated to a recognized foreign and local research, academic or legally registered private institutions;

- 2. Each application shall be submitted directly to the Commission, at least 2 months before the commencement of the collection of the genetic resources and shall include a *curriculum vitae* of the applicant and the profile of the applicant's institution;
- 3. A non-refundable fee submitted to the National Commission for Science and Technology shall accompany each application as follows:
 - a) Foreign researchers and institutions wishing to carry out research that requires access and collection of genetic resources in Malawi.
 - i) Academics and research institutions -US\$ 1200
 - ii) Non-profit institution -US\$ 2000
 - iii) Commercial public or private institution

-US\$5000

- b) National institutions wishing to carry out research that requires access and collection of genetic resources in Malawi.
 - i) Academics and research institution

- MK 150,000.00

- ii) ¹Non-profit institution MK 200,000.00
- iii) Commercial public or private institution

¹ Must indicate a collaborating national research institution

- MK 500,000.00

The fees are subject to review from time to time.

- 4. Each application shall be submitted according to the format in Appendix 1. The application shall include an attachment with the following details:
 - a) Title of the research;
 - b) Names of researchers;
 - c) Research objectives;
 - d) Description of problem areas;
 - e) Research hypothesis, materials and methods;
 - f) Work plan; and
 - g) Expected outputs.
- 5. In the case of a foreign applicant, each application shall include evidence of affiliation to national and foreign academic, research or legally registered private institutions (e.g. a signed contract or an agreement). It will be up to the applicant to negotiate for the affiliations. The Commission regards the affiliation as *a contract* between the foreign applicants and the affiliating institution. Approval shall not be granted unless affiliations are confirmed by the national affiliating institution.
- 6. The applicant shall specify the quantity of the genetic resources to be collected. The Director General of the NCST shall reserve the right and authority to authorize research that require access and collection of the genetic resources.

D. RESPONSIBILITIES OF AFFILIATING INSTITUTIONS

- 1. Ensure responsible and appropriate collection and promote research collaboration.
- 2. Ensure that foreign collectors on field trips are always accompanied by national counterparts. The collectors must meet expenses of the counterpart such as transport, accommodation and daily allowances.
- 3. Verify that duplicate specimens of all collections are deposited with an appropriate designated Malawian organization/ institution.
- 4. Ensure that endangered species listed in the Convention on International Trade in Endangered Species (CITES) and Malawian endangered species are not collected without a valid waiver obtained from National Commission for Science and Technology (NCST). No Collection of rare and endangered germplasm is allowed without a valid waiver obtained from NCST.
- 5. Ensure that all collections of genetic resources have necessary approvals and certificates before commencement and in case of export, that a valid export license is obtained from the responsible Minister.
- 6. Ensure that the collector compiles a complete list of all collected genetic resource materials, including locations (names and GPS readings) and quantities, and a copy must be submitted to the National Commission for Science and Technology upon completion of collection.

- 7. Ensure that the collector carries out his/her investigations according to the standard and agreed collection methods and collect the genetic materials following the set guidelines; have the progress of his/her investigations monitored; affiliating institution to make available to NCST copies of all findings (electronic and hard copy).
- 8. Ensure that prior informed consent (PIC) has been obtained from communities/authorities under whose jurisdiction falls the desired genetic resources prior to commencement of any collection.
- 9. Must ensure that these guidelines are adhered to for proper management and sustainable utilization of Malawi's genetic resources, germplasm and associated traditional knowledge.

E. RESEARCH AND MATERIAL TRANSFER AGREEMENTS AND CERTIFICATES

Research and Material Transfer Agreements shall be used to define research collaborations between national research institutions and foreign research partners and to define rights and obligations respectively between parties in the collection and use of genetic resources. In supporting the cause and spirit of these national procedures and guidelines for access and collection of genetic resources as set out in here, collectors shall be obliged to sign relevant material transfer agreement that shall be available in force. These agreements shall be provided by Designated institutions (provider) subject to conditions, rules and regulations of Malawi Government. Designated institutions (provider) shall facilitate the administering of the material transfer agreements at an institutional level and shall forward them to EAD for final certification and endorsement.

F. ISSUANCE AND WITHDRAWAL OF CERTIFICATES OR PUNISHMENT FOR NON- COMPLIANCE

- 1. The NCST reserves the right to give or withdraw or suspend any certificates and reasons for the action shall be provided.
- 2. Violators of Malawi's laws on research requiring access and collection of genetic resources shall be punishable by fine or imprisonment or both and may be subject to further prosecution.

G. PUBLICATIONS AND DATA

- 1. External researchers are required to acknowledge Malawian collaboration and participation in all publications.
- 2. Copies of all publications arising from research that involved the collections in Malawi shall be sent to the affiliating institution as soon as they are available.
- 3. In the case of academic, proprietary, non-proprietary research or otherwise, all collection data obtained by the collector shall be deposited upon completion of collection with the Commission.

APPENDIX 1: LIST OF CERTIFYING INSTITUTIONS

(Subject to revision from time to time)

Categories of Genetic Resources

A. Agricultural Resources

1. Department of Agricultural Research Services (DARS)

Contact Address: The Director, DARS, P.O. Box 30779, Capital City, Lilongwe 3, Malawi. Tel: 01707 378

2. Department of Animal Health and Industry

Contact Address:	The Director, P.O. box 2096,
	Lilongwe 3, Malawi.
	Tel: 01744 455

B. Natural Resources

3. Forestry Research Institute of Malawi (FRIM),

Contact Address:	The	Deputy	Director	of	Forestry
	(Rese	earch), FR	RIM,		
	P.O.	Box 270	, Zomba		
	Tel:	(265) 015	524 866		
	Fax:	(265) 01	524548		

4. Department of Fisheries,

Contact Address:	The Director of Fisheries, P.O. Box
	593, Lilongwe, Malawi.
	Tel: (265) 01721766
	Fax: (265) 01721117

5. Department of National Parks and Wildlife

Contact Address:	The Director for National Parks and Wildlife,
	P. O. Box 30131, Capital City,
	Lilongwe 3. Tel: (265) 01784 059, 01782982
	Fax: 01784 059, 01782982, 01740
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APPENDIX 2: APPLICATION FORM

APPLICATION FOR AUTHORISATION TO CARRY OUT RESEARCH IN MALAWI REQUIRING ACCESS AND COLLECTION GENETIC RESOURCES

APPLICATION REFERENCE NUMBER______(for official use)

SECTION A

(To be filled by the Applicant)

- **Note:** This application form is not for the purpose of exportation of genetic resources
- 1. Name of the Applicant

Profession		
Address		
		<u>.</u>
		<u>.</u>
Tel:	Fax:	
E-mail	Website	

Address	
Tel:	Fax:
E-mail	Website
Name of the coll	aborator
Qualification and	l area of expertise

2. Name of the institution to which the applicant is affiliated

Tel:	Fax:
E- Mail	Website
Name of the institu	tion to which the collaborator is affiliated
Address	
 Tel:	Fax:
E-mail	Website

5. What type of agreement is there between the collector (foreign researcher) and a collaborator (attach evidence)

Memorandum of Understanding	Contract	other agreements (specify)

6. Type of materials to be collected

Common and local names	Scientific name	Family	Order	Quantity	Part(s) of Material to be collected e.g. roots, leaves	Collection Site (s)

7. Purpose of collections (*Tick where applicable*)

- a) Research
- b) Propagation
- c) Teaching
- d) Export
- e) Other(s) (Specify)

8. State the importance and relevance of the proposed study/work to Malawi

9. Where will the list and duplicate collections be deposited?

10.	Summary of collection method and equipment to be used
13.	Proposed collection dates
14.	If the material is going to be exported explain why?
15.	Signatures: Applicant
	Collaborator

SECTION B

(To be filled by the Certifying Institution)

15. Type of materials to be collected (Append copy of request)

- a) Botanical
- b) Zoological
- c) Others (specify)

16. State the importance and relevance of the proposed work to Malawi

17 Has any similar work been done in Malawi? If so explain.

18. Conservation Status of Requested Materials (*Tick where applicable*)

Species name		Туре		Conservation Status					
Common and local	Scientific	Family	order	Endangered	Vulnerable	Rare		Inter- Mediate	

19. Recommendations of the Certifying Institution.

20. Name of the Certifying Institution.

21. Name of the Certifying
Officer_____

22 Title of the Certifying
Officer_____

Address_____

Tel:_____ Fax: _____

E-mail_____Website_____

Signature of the Certifying Officer____ (Official stamp)

SECTON C.

[Approval by National Commission for Science and Technology]

15. Application of ______to

Carry out research requiring access and collection of

_____materials has been:

(a) Decision_____

(b) Reasons (If Rejected)

(c) Application reference					
16. Name of	the Approving Officer				
	he Approving Officer				
Fax:					
E-mail					
Website					
Signature of t	he Approving Officer				
NOTE:	Payment of fees can be made at NCST offices or through the bank and bring the deposit slip to NCST.				
Name of Account	NCST Review fees				

Account Number	1001670847
Bank Name	National Bank of Malawi
Service Centre	Capital City
City	Lilongwe
Country	Malawi
Swift Code	NBMAMWMW008