



# **Tree Genetic Resources Policy**

## **Version 3**

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### Document Control

The Genetic Resources Unit Head will be responsible for the periodic review of this document.

### Document Responsibility

<b>Title</b>	Tree Genetic Resources
<b>Directorate</b>	Research
<b>Unit</b>	Genetic Resources Unit (GRU)
<b>Manager</b>	Genetic Resources Unit Head
<b>Applicable to</b>	All staff

### Document Revision History

Version	Endorsed by	Meeting Reference	Date Endorsed	Approved by	Meeting Reference	Effective Date	Sections Modified
3.0	Senior Leadership Team	SLT-SI-01-19	21-Jan-2019	Board of Trustees	ICRAF69-D16	1-May2019	New template
2.0	Senior Leadership Team	SLT-SI-06-16	29-May-2014	Board of Trustees	BOT60-D31	1-Dec-2014	n/a
1.0	Senior Leadership Team	n/a		Board of Trustees		June 2004	n/a

## Acronyms and abbreviations

AF	Agroforestry
AF-TGR	Agroforestry Tree Genetic Resources
CBD	Convention on Biological Diversity
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CGIAR	Consultative Group on International Agricultural Research
FAO	Food and Agricultural Organization of the United Nations
GRU	Genetic Resources Unit
IA	Intellectual Assets
ICRAF	International Centre for Research in Agroforestry (Also known by the brand name, World Agroforestry Centre)
IPPC	International Plant Protection Convention
IP	Intellectual Property
IPR	Intellectual Property Rights
ITPGRFA	International Treaty on Plant Genetic Resources for Food and Agriculture
MAT	Mutually Agreed Terms
MTA	Material Transfer Agreement
NCA	National Competent Authority
NP	Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization
PGRFA	Plant Genetic Resources for Food and Agriculture
PIC	Prior Informed Consent
PIP	Plant Import Permit
SDG	Sustainable Development Goal
SMTA	Standard Material Transfer Agreement
SOP	Standard Operating Procedure
SRF	Strategic Results Framework

## 1. Purpose

- 1.1 The International Centre for Research in Agroforestry (ICRAF) also known by the brand name- World Agroforestry Centre advocates for the need to raise awareness and ensure implementation of adequate measures for the sustainable utilization and conservation of agroforestry tree species for their intrinsic biodiversity value, their existence and potential uses in transforming livelihoods and landscapes.
- 1.2 This policy is intended to facilitate awareness of and ensure compliance to the international agreements and national legislation on plant genetic resources such as the [Convention on Biological Diversity \(CBD\)](#), [Nagoya Protocol \(NP\)](#) and the [International Treaty for Plant Genetic Resources for Food and Agriculture \(ITPGRFA\)](#), which are relevant to ICRAF's agroforestry tree research activities.
- 1.3 The policy will guide in decision-making in pursuit of ICRAF's goal of promoting ecosystem resilience through use of wide intra- and inter-specific tree diversity under the Sustainable Development Goals (SDGs), CGIAR Strategic Results Framework (SRF) and National Development Plan initiatives.
- 1.4 In addition to this policy guideline, ICRAF researchers shall observe national legislations and regulations relating to acquisition and utilization of tree genetic resources in their host countries.

## 2. Scope

- 2.1 This is a Centre-wide Policy and is applicable to all ICRAF staff, including students, research fellows and consultants, located in all countries where the Centre operates, including ICRAF-mediated germplasm dispatch from those countries to parties in countries where the organization does not operate.

## 3. Definitions

The following are definitions of key words or phrases used in this policy:

- 3.1 *Accession*: A distinct, uniquely identifiable sample of germplasm representing a seedlot of an individual tree (i.e., a half-sib family or a full-sib family), population, cultivar or a breeding line, which is maintained in storage for conservation and use.
- 3.2 *Contracting party*: State that has ratified an international convention and thus must implement its obligations on a national level.
- 3.3 *Country of origin*: The country which possesses the genetic resources in situ conditions.
- 3.4 *In situ/Ex situ*: Genetic resources can be wild or domesticated, and cultivated or uncultivated. 'In situ' genetic resources are those found within their natural ecosystems and habitats. 'Ex situ' genetic resources are those outside their normal ecosystem or habitat, such as in botanical gardens or seed banks, or in commercial or institutional collections.
- 3.5 *Material transfer agreements (MTAs)*: Agreements in commercial, academic and other research partnerships involving the transfer of biological materials, such as germplasm, microorganisms and cell cultures to exchange of materials from a provider to a recipient and setting conditions for access to public germplasm collections, seed banks or in situ genetic resources.

- 3.6 *Mutually agreed terms (MAT)*: An agreement between the provider(s) of genetic resources and users on the conditions of access and utilization of the resources, and on the benefits to be shared between both parties.
- 3.7 *National competent authority (NCA)*: Any person or organization that has the legally delegated or invested authority, capacity or power to perform a designated function in a country.
- 3.8 *Plant Import Permit (PIP)*: A permit issued by the competent authority that allows the importation of plants or plant parts into a country.
- 3.9 *Phytosanitary certificate*: A certificate that confirms that plant and plant products are free from regulated pests and conforms with other phytosanitary requirements as specified from the importing country.
- 3.10 *Prior informed consent*: Permission granted by the Competent National Authority of a country to an individual or institution seeking to obtain access to genetic resources, complying with an appropriate legal and institutional framework ([CBD Secretariat Information Kit](#)).
- 3.11 *Provider*: Institution that according to the domestic legislation or regulatory requirements has the competence to grant access to plant genetic resources. It may be different from the Competent National Authority or act in addition to the Competent National Authority.
- 3.12 *Standard Material Transfer Agreement (SMTA)*: An agreement that regulates the use of plant genetic resources for food and agriculture for specific categories of germplasm.
- 3.13 *Tree genetic resource*: Genetic material of tree containing functional units of heredity (seeds, cuttings, buds).

#### 4. Policy Statement

ICRAF is committed to operating in conformity with all international treaties and international or national legislation relating to acquisition, curation and distribution of plant genetic resources. Additionally, it is committed to best practice in all its operations relating to plant genetic resources, and to promote and enhance their use. The measures aimed at meeting these assumed obligations are detailed in this section (4), sections 5 to 7 and the Annexes (section 9).

##### 4.1 Acquisition of AF tree genetic resources by the ICRAF Genebank and ICRAF-led projects

- 4.1.1 ICRAF recognizes the sovereign rights of states over their natural resources and that the authority to determine access to genetic resources rests with national governments and is therefore subject to national laws and agreements.
- 4.1.2 Where a provider does not have an existing acquisition agreements template, the [ICRAF Germplasm Acquisition Agreement](#) template will be used.
- 4.1.3 ICRAF recognizes that access to such resources is subject to prior informed consent (PIC) and on mutually agreed terms (MAT) of the country of origin on the fair and equitable sharing of benefits deriving from their use, in accordance with the CBD and its Nagoya Protocol, and the ITPGRFA.
- 4.1.4 All ICRAF staff will consult the Genetic Resources Unit Manager and ICRAF Legal Office before the signing of germplasm acquisition agreements, PICs and MATs.
- 4.1.5 ICRAF will not claim legal ownership nor apply intellectual property (IP) protection on the wild germplasm it holds, but will adhere to the principle of unrestricted availability as set out in the ICRAF [Intellectual Assets Policy](#) and [CGIAR IA Principles](#).

## **4.2 Curation of agroforestry tree genetic resources at ICRAF Genebank**

- 4.2.1 Management of agroforestry tree genetic resources will be in line with the [FAO's Genebank Standards for Plant Genetic Resources for Food and Agriculture](#) for seed and field genebanks to retain genetic integrity and conserve materials for current and future use.
- 4.2.2 ICRAF notes that some of the FAO Genebank Standards (especially those relating to regeneration, multiplication and safety duplication) may not be applicable to long-lived, highly outcrossing agroforestry tree species. As such, the ICRAF Genebank collection will be managed efficiently and cost-effectively based on the biology of specific species and accepted best practices.
- 4.2.3 ICRAF will work with partners to ensure that accessions are maintained in the most cost-effective way possible. Improved models for conservation will be developed to take into account multiple functions (conservation, evaluation, domestication and distribution of planting material) of the materials in the field genebanks which aim to combine conservation with use.

## **4.3 Distribution of tree genetic resources held at the ICRAF Genebank**

- 4.3.1 ICRAF will distribute and promote the use of agroforestry tree germplasm for the benefit of the international community according to the terms agreed with the germplasm provider under the germplasm acquisition agreements, MTA or SMTA.
- 4.3.2 All tree genetic resources shall be distributed using the SMTA or ICRAF MTA.
- 4.3.3 All tree genetic resources acquired before 16 October 2006 will be distributed under the terms and conditions of the SMTA.
- 4.3.4 All SMTAs/MTAs will be signed by the Genetic Resources Unit Manager on behalf of ICRAF.

## **4.4 Use of germplasm acquired from the ICRAF Genebank**

- 4.4.1 ICRAF will make such agroforestry materials freely available for research as set out in Article 4.3 above. Recipients will be required not to take any steps which could restrict further availability of genetic resources to other interested parties for research and training purposes.
- 4.4.2 Recipients of agroforestry tree germplasm from the ICRAF Genebank will be required to recognize ICRAF as the source of the material; this should be included in publications arising from the research material.
- 4.4.3 If necessary, ICRAF shall request recipients of agroforestry tree germplasm to share performance data collected during the evaluation.
- 4.4.4 ICRAF recognizes the role of farmers in providing feedback on performance of long-lived tree species that have long generation intervals. ICRAF will therefore make germplasm available to farmers for direct cultivation. This material received can be shared with other farmers for direct cultivation. In such cases, ICRAF should be notified of such exchanges as guided by the seed acquisition information sheet.
- 4.4.5 ICRAF recognizes the importance of the International Plant Protection Convention (IPPC) Framework for the harmonization of national phytosanitary measures. In this regard, ICRAF will carry out safe transfer of agroforestry tree genetic resources across international borders in line with the national phytosanitary regulations of countries where it operates.
- 4.4.6 ICRAF reaffirms that it will only distribute threatened, endangered or rare agroforestry

tree species in accordance with the term and conditions of CITES, as appropriate. The CITES agreements ensure that trade or transfer of plants and animals do not threaten their survival.

- 4.4.7 ICRAF is aware of the dangers of introducing tree species that may be invasive within new environments. The organization will ensure that its scientists fully abide by the [ICRAF Invasive Alien Species Policy](#), as well as international agreements and regulations that control the introduction of invasive alien species to new areas.

#### **4.5 Distribution and use of tree genetic resources under development**

‘Tree genetic resources under development’ refers to clones, breeding materials, elite agroforestry tree genetic resources and parental lines of hybrid trees and shrubs that are derived from domestication activities carried out by ICRAF. Access to these tree genetic resources will be granted as set out in Article 4.3 above under the following considerations:

- 4.5.1 ICRAF’s domestication activities are mainly farmer-participatory. In such cases, ICRAF will seek to ensure that the rights and benefits of farmers are protected in accordance with [Article 9 of the ITPGRFA](#) and national agreements on farmers’ rights.
- 4.5.2 ICRAF will not seek intellectual property protection on the clones, breeding lines, elite germplasm and parental lines of hybrid trees emanating from its domestication programme unless the organization considers it necessary to ensure effective delivery of the improved material to farmers.
- 4.5.3 ICRAF will make clones, breeding lines, elite agroforestry tree genetic resources and parental lines of hybrid trees freely available to both public sector institutions and private organizations on the understanding that:
- The material will remain freely available for other users, and when a fee is charged it shall not exceed the minimal production costs involved;
  - ICRAF will retain the right to distribute the same material to other organizations;
  - The use of ICRAF materials will be publicly recognized when a derived variety, hybrid or analogous material (e.g., seed orchard progeny) is released or made available.
- 4.5.4 Collaboration with profit-making organizations for the production and development of superior germplasm will proceed, where appropriate, after consultation with relevant partners.

#### **4.6 Distribution and use of inventions or biological material derived from biotechnology research with tree genetic resources**

This clause refers to any kind of information, invention or biological material developed from tree genetic resources through biotechnology by ICRAF scientists or on ICRAF premises. This material will be made available as set out in Article 4.3 above under the following considerations:

- 4.6.1 Where applicable, publication or contractual provisions will be used to ensure that such information, inventions or material remains in the public domain.
- 4.6.2 Exceptions to this principle will only be made where the acceptance of limitations on distribution or publication is essential to ensure availability to developing nations or their inhabitants, especially smallholder farmers.



- 4.6.3 In exceptional cases, ICRAF will apply for intellectual property protection for the technologies or materials or provide them to a collaborator on a restricted basis. In all such cases, ICRAF will disclose the reasons for seeking protection.
- 4.6.4 In obtaining and exercising any form of intellectual property rights (IPR) over biological material, ICRAF will observe the principles of CBD, the Nagoya Protocol, the ITPGRFA, national access and benefit-sharing laws and other relevant agreements.
- 4.6.5 In all its biotechnology-associated work, and in biotechnology-oriented collaborative agreements, ICRAF will meet appropriate biosafety standards and include clauses designed to ensure, as far as possible, that its collaborators meet such standards as to protect the global community and to protect itself against any corresponding liabilities.

#### **4.7 Capacity building in conservation and sustainable use agroforestry tree genetic resources**

- 4.7.1 ICRAF intends to build the capacities of scientific staff regarding management strategies for the conservation and sustainable use of biological diversity; access and benefit-sharing policies and procedures; and knowledge of important international conventions and agreements on genetic resources.
- 4.7.2 ICRAF will enhance organizational and personnel skills in the conservation and sustainable use of plant genetic resources. In this regard, the organization intends to:
  - Develop educational materials on policy issues on the conservation and sustainable use of agroforestry tree genetic materials, in the form of booklets;
  - Inform newly appointed scientific staff on the content and implications of international policies, agreements and conventions on plant genetic resources;
  - Assess the level of awareness of, and compliance to, terms and conditions of the policy and implementation measures by conducting occasional seminars and courses for staff directly involved in the conservation of plant genetic resources; and
  - Update all scientific staff, consultants and students on new developments in international policies and instruments on the conservation and sustainable use of tree resources.

#### **4.8 Genetic resources publications and agroforestry databases**

ICRAF is committed to providing AF-TGR information free-of-charge, by sharing publications and agroforestry databases with developing nations and collaborating partners on request.

- 4.8.1 ICRAF may claim intellectual property protection on scientific publications and agroforestry database information and exercise its rights to ensure that these are freely available to partners and farmers from developing nations.
- 4.8.2 ICRAF publications and agroforestry databases will be protected by copyright in accordance with normal publishing practices.
- 4.8.3 ICRAF will exercise its rights to ensure that any new publications and updated versions of agroforestry materials and databases are freely accessible to partners and farmers.

#### 4.9 Place of trees in regulations affecting genetic resources

- 4.9.1 ICRAF recognizes that the uniqueness of tree genetic resources (compared to those of annual crops), may present challenges in compliance with some international legislation. In such cases, international best practices shall be followed.
- 4.9.2 ICRAF is an Article 15 Centre of the [International Treaty on Plant Genetic Resources for Food and Agriculture](#) (the Treaty). However, while the Treaty is confined to food, forage and fibre species, ICRAF is not confined to working solely under the Treaty and therefore no group of useful tree species (e.g., timber and medicinal species) is excluded from its mandate.

### 5 Procedure

- 5.1 This policy will be implemented through the following ICRAF Genebank Standard Operating Procedures (SOPs):
- (i) Distribution and exchange of agroforestry tree germplasm at ICRAF ([SOP ICRAF-DIS-v.1.0](#)). ICRAF Genebank, 2016.
  - (ii) Acquisition of agroforestry tree genetic resources at ICRAF ([SOP ICRAF-ACQ-v.1.0](#)). ICRAF Genebank, 2017.
  - (iii) Conservation of agroforestry tree germplasm at ICRAF ([SOP ICRAF-SEEDCONS- v.1.0](#)). ICRAF Genebank, 2016.
  - (iv) Field conservation and regeneration of agroforestry tree genetic resources at ICRAF ([ICRAF-FCONS&REG-001 v1.1](#)). ICRAF Genebank, 2017.
- 5.2 Centre adherence to this policy will be facilitated through use of the [Genetic Resources Unit Proposal Checklist](#) during project proposals development, review and implementation. Compliance evaluations will be carried out during the 'project start-up' and 'project close-out' meetings.

### 6 Roles and Responsibilities

Individuals involved in overseeing the implementation and compliance of the policy include:

- ICRAF Proposal Review Committee will ensure compliance with the GRU Proposal Checklist.
- ICRAF Genebank Manager will ensure genebank adherence to the relevant SOPs.
- Regional genebank focal persons will ensure genebank adherence to the relevant SOPs.
- ICRAF Legal Officer will clarify where there are doubts on the application of legal instruments on the acquisition and distribution of agroforestry tree germplasm.

## 7 Related Documentation

The following documents provide guidance in the application of this policy:

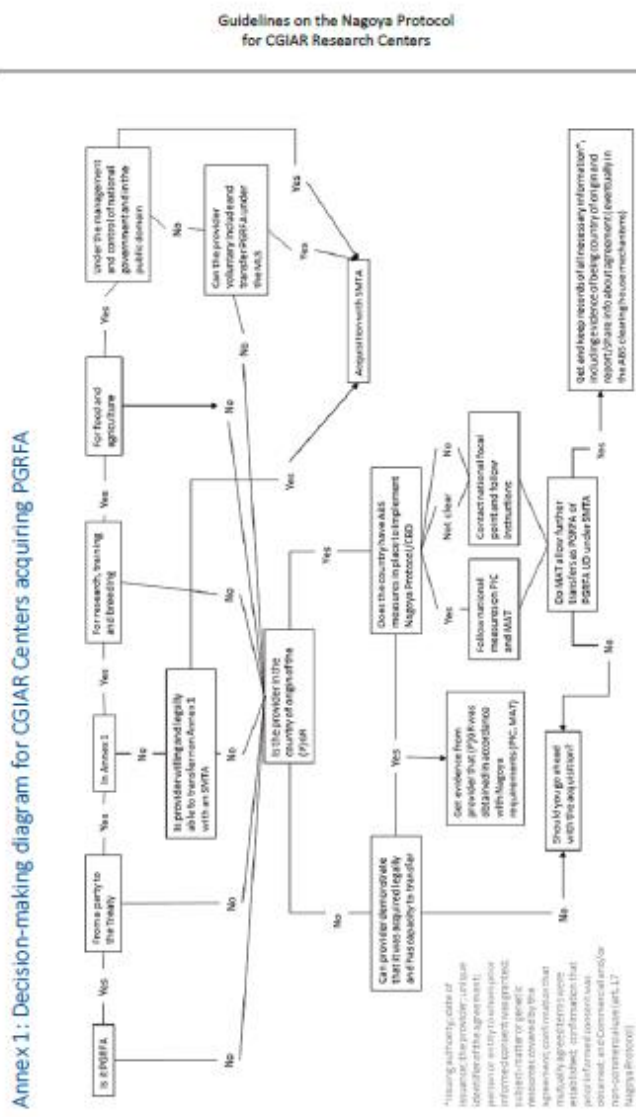
- [ICRAF Invasive Alien Species Policy](#)
- [ICRAF Genebank Acquisition and Curation Strategy 2017](#)
- [ICRAF Intellectual Assets Policy](#)
- [International Treaty on Plant Genetic Resources for Food and Agriculture](#)
- [FAO's Genebank Standards for Plant Genetic Resources for Food and Agriculture](#) (2014)
- [Standard Material Transfer Agreement](#)
- [CGIAR IA Principles](#)
- [CGIAR Open Access Policy](#)
- [Guidelines on Nagoya Protocol for CGIAR centres](#)

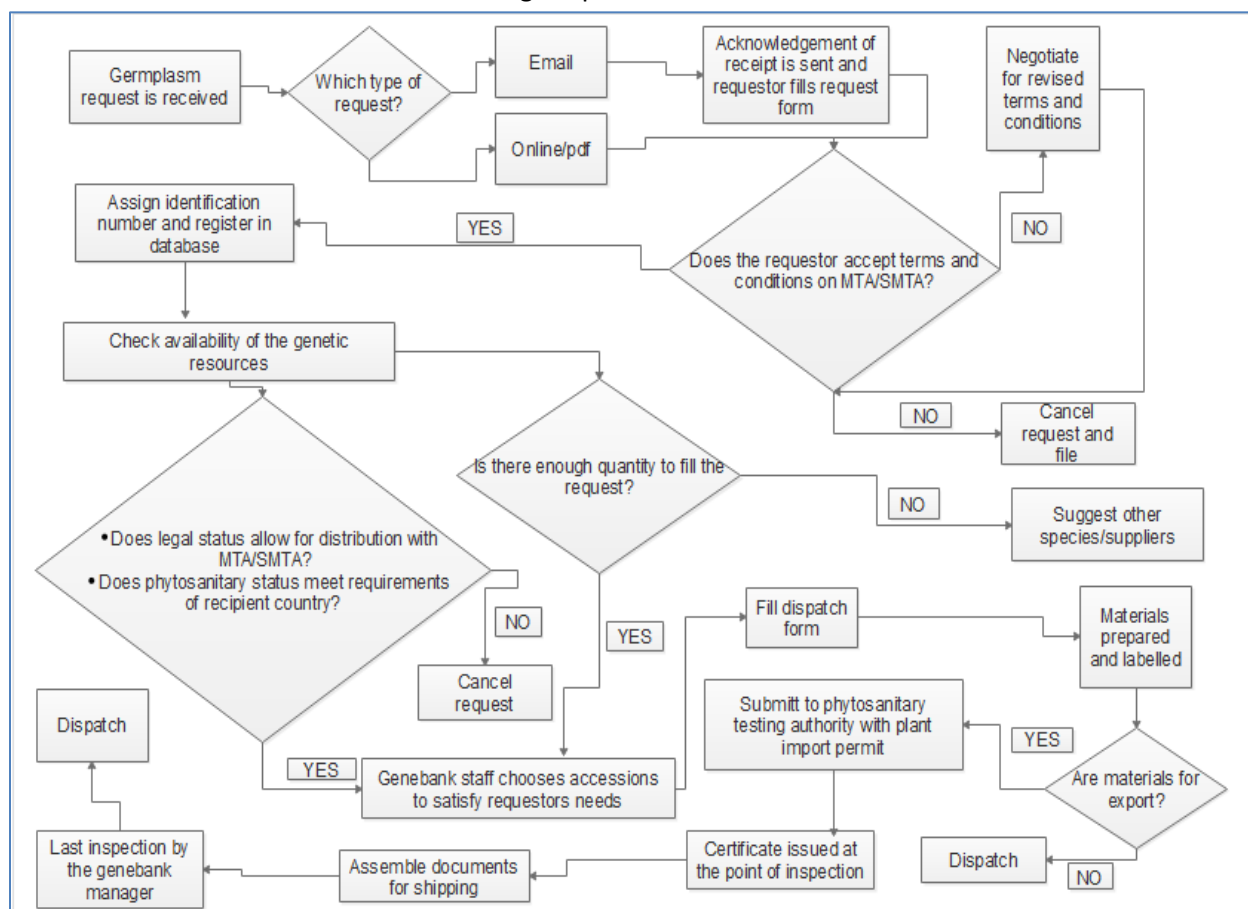
## 8 Policy Review

- 8.1 This policy will be reviewed every three years, or earlier if required, by the Genetic Resources Unit.
- 8.2 Any changes made to the Policy will be presented to the Senior Leadership Team for endorsement and thereafter submitted to the Board of Trustees for approval.

## 9 Annexes

## Annex 1. Flowcharts on use of SMTA ([Guidelines on Nagoya Protocol for CGIAR centres](#))



**Annex 2. Flowchart for distribution of tree germplasm at ICRAF Genebank**


**Annex 3.** Flowchart for acquisition of tree germplasm at ICRAF Genebank