



ICRAF Policy Series

Tree Genetic Resources Policy

November 2014

Key statement

The World Agroforestry Centre (ICRAF) advocates the need for awareness and implementation of adequate measures for the sustainable utilization and conservation of a full range of agroforestry tree species for their intrinsic biodiversity value, their existence and potential uses in transforming livelihoods and landscapes.

ICRAF Vision

ICRAF's vision is a rural transformation in the developing world as smallholder households increase their use of trees in agricultural landscapes to improve their food security, nutrition, income, health, shelter, social cohesion, energy resources and environmental sustainability.

ICRAF Mission

ICRAF's mission is to generate science-based knowledge about the diverse roles that trees play in agricultural landscapes, and to use its research to advance policies and practices, and their implementation that benefit the poor and the environment.

The ICRAF Genetic Resources Unit has a global responsibility to collect, conserve, document, characterize and distribute a diverse collection of agroforestry tree species, mainly indigenous trees.

Acronyms and abbreviations

ABS	Access and Benefit-Sharing
AF-TGR	Agroforestry Tree Genetic Resources
CBD	Convention on Biological Diversity
CGIAR	Consultative Group on International Agricultural Research
CGRFA	Commission on Genetic Resources for Food and Agriculture
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
FAO	Food and Agricultural Organization of the United Nations
GPA	Global Plan of Action for Conservation and Sustainable Use of Plant Genetic Resources for Food and Agriculture
ICRAF	World Agroforestry Centre
IPR	Intellectual Property Rights
ITPGRFA	International Treaty on Plant Genetic Resources for Food and Agriculture
MSB	The Millennium Seed Bank
NP	Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization
PBRs	Plant Breeders' Rights
PVRs	Plant Variety Rights
PGRFA	Plant Genetic Resources for Food and Agriculture
SMTA	Standard Material Transfer Agreement
TRIPS	Trade-Related Aspects of Intellectual Property Rights of the World Trade Organization
UPOV	International Union for the Protection of New Varieties of Plant

1. Introduction

This document addresses ICRAF's policy for acquisition and distribution of tree genetic resources, access and benefit sharing, including of technologies and information related to tree germplasm. The policy is intended to facilitate awareness of and compliance to the international agreements that guide access to germplasm and information.

1.1 Policy framework

ICRAF is committed to operating in conformity with all international agreements relating to plant genetic resources. This policy documents issues related to international agreements and legislations on plant genetic resources relevant to ICRAF's agroforestry tree research activities. The policy recognizes the integration of conservation efforts within development activities at all levels. This policy is updated from the 2004 ICRAF Genetic Resources Policy.

1.2 Target group

All ICRAF scientific staff, consultants, students, partners and collaborators.

1.3 Objectives

Through application of this policy, ICRAF intends to:

- a) Increase access to clean, high quality agroforestry tree germplasm of priority species as defined within each ICRAF working region and ensure efficient supply of relevant genetic and information resources in accordance with the relevant agreements;
- b) Support the design national and international *ex situ* and *circa situ* conservation strategies for agroforestry tree species;
- c) Improve agroforestry technologies, tree selection and characterization activities and ensure maximum utilization of these technologies in different agro-ecological zones to enhance ecosystem services;
- d) Work with global development agencies, government services, other international non-governmental organizations and policy makers to advocate for use of participatory tree domestication techniques that will contribute to the sustainable use and conservation of tree genetic resources; and
- e) Strengthen programmes for scientific and technical education and training in conservation and sustainable use of tree genetic resources. ICRAF will carry out educational and scientific research in fields where they are needed in partnership with national institutions.

2. Principles

2.1 ICRAF abides by all relevant international agreements concerning IPR issues and agroforestry tree genetic resources. The organization adheres to national laws in the countries in which it operates as well as to the terms of contracts it enters into.

- 2.2 In line with the CGIAR Intellectual Assets Principles¹, ICRAF considers its tree germplasm collections as global public goods and will manage them in ways that maximize their global accessibility and/or ensure that they lead to the broadest possible impact on target beneficiaries in furtherance of the ICRAF and CGIAR vision.
- 2.3 ICRAF reaffirms its continuing commitment to the principles of its 26th October 1994 agreement with FAO, which placed CGIAR germplasm *ex situ* collections under the auspices of FAO. ICRAF holds designated *ex situ* germplasm collections of agroforestry tree species “*in trust*” for the benefit of the international community, in particular developing countries, under Article 15 of the ITPGRFA², in accordance with ICRAF’s agreement with the Governing Body of the ITPGRFA, signed on 16th October 2006.
- 2.4 ICRAF recognizes the FAO Second Global Plan of Action for plant genetic resources and its importance to the ITPGRFA and other international agreements. It is ICRAF’s mandate to promote effective implementation of the action plan for agroforestry trees through a coherent framework of capacity building, and the development of *ex situ* and *circa situ* conservation strategies.
- 2.5 ICRAF recognizes the sovereign rights of states over their natural resources and that the authority to determine access to genetic resources rests with the national governments and is subject to national legislation. It also recognizes that access to such resources is subject to the prior informed consent of the country of origin and to the fair and equitable sharing of benefits deriving from their use, in accordance with the CBD and, as applicable, its Nagoya Protocol, without prejudice to the application of the ITPGRFA. All agroforestry tree germplasm accessed after the coming into force of CBD (on 29th December 1993) and not covered by the use of the SMTA shall be provided according to national ABS laws and in accordance with CBD and, as applicable, its Nagoya Protocol.
- 2.6 ICRAF recognizes the importance of the International Plant Protection Convention 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.
- 2.7 ICRAF reaffirms that it will only distribute threatened, endangered or rare agroforestry tree species in accordance with the term and conditions of CITES,

¹ CGIAR IA principles relating to Genetic Resources for Food and Agriculture under the Common Operational Framework as of 7 March 2012

² <http://www.planttreaty.org/>

as appropriate. [The CITES agreements ensure that trade or transfer of plants and animals do not threaten their survival].

- 2.8 ICRAF is aware of the dangers imposed by introducing tree species that may be invasive to new environments. ICRAF will ensure that its scientists fully abide by the ICRAF Invasive Species Policy, as well as international agreements and regulations that control the introduction of invasive alien species to new areas such as the CBD and Global Invasive Species Programme (GISP) .

3.0 Categories of agroforestry tree resources

3.1 AF tree genetic resources for food and agriculture

- 3.1.1 ICRAF has a global role to collect, conserve, document, characterize and distribute a diverse collection of agroforestry trees, mainly focusing on indigenous species from ICRAF working regions. ICRAF genebanks hold agroforestry tree species with several functions such as fodder, medicine, fruit, soil improvement, timber and bio-energy. However only the fruit and fodder trees species are recognised as genetic resources for food and agriculture under the ITPGRFA Annex 1 categorisation. .

- 3.1.2 These collections are managed under different category arrangements as follows:

i. Designated germplasm (in-trust collections under the ITPGRFA) distributed for the purposes of training, research and breeding for food and agriculture:

These are designated accessions put in-trust under an agreement between ICRAF and FAO signed on 26th October 1994, which placed its *ex situ* collection of plant germplasm under the auspices of FAO. This agreement was succeeded in 2006 by an agreement between ICRAF and the Governing Body of the ITPGRFA, which brought all ICRAF *ex situ* collections under Article 15 of the ITPGRFA. PGRFA in Annex I of the ITPGRFA and subject to the Multilateral System of Access and Benefit-sharing of the ITPGRFA include 35 crops and 29 forages. Any PGRFA held by ICRAF in its *ex situ* collections and listed in Annex I under the Multilateral System shall be made available using the SMTA, whether collected prior to or after the entry into force of the Treaty (on 29th June 2004).

ICRAF will manage designated agroforestry tree germplasm for the benefit of the international community according to the terms of its agreement with the Governing Body of the ITPGRFA. This includes:

- a) Informing the Governing Body of the ITPGRFA about the SMTAs entered into, according to the schedule established by the Governing Body (i.e. every two calendar years);

- b) Repatriating duplicates of accessions to the countries in whose territories PGRFA were collected from *in situ* conditions on demand without any MTA;
- c) Promoting the use of benefits arising from the SMTA for conservation and sustainable use of PGRFA, particularly in national and regional programmes in developing countries and countries with economies in transition, especially in centres of diversity and the least developed countries;
- d) Managing the *ex situ* collections in accordance with internationally accepted standards
- e) Recognizing the authority of the Governing Body of the ITPGRFA to provide policy guidance relating to the *ex situ* collections subject to the provisions of the ITPGRFA.

ii. Non-Annex I germplasm distributed for the purposes of training, research and breeding for food and agriculture:

These are materials of species not listed in Annex I of the ITPGRFA and not part of the Multilateral System.

According to Article 15.1 (b) of the ITPGRFA, plant genetic resources for food and agriculture other than those listed in Annex I of the ITPGRFA and collected before its entry into force that are held by IARCs shall be made available in accordance with the provisions of the MTA. However from 1st February 2008, CGIAR Centres started using the SMTA in the distribution of non-Annex I. Therefore, ICRAF shall transfer non-Annex I materials using the SMTA, if they were collected before the entry into force of the ITPGRFA (on 29th June 2004). Non-Annex I PGRFA received and conserved by ICRAF in its *ex situ* collections after the coming into force of the ITPGRFA will be available for access on terms consistent with those mutually agreed between ICRAF and the country of origin of such resources (or the country that has acquired those resources in accordance with the CBD or other applicable law), in accordance with Article 15.3 of the ITPGRFA and Article 3 of the agreement signed between ICRAF and the governing body of the ITPGRFA on 16th October 2006. This is without prejudice to the use of the SMTA for Non-Annex I PGRFA received and conserved by ICRAF in its *ex situ* collections after the coming into force of the ITPGRFA, if so mutually agreed between ICRAF and the country of origin of such resources (or the country that has acquired those resources in accordance with the CBD or other applicable law).

iii. Other Non-Annex I germplasm not covered under (ii) above distributed for the purposes of training, research and breeding for food and agriculture:

These are AF-TGR held at ICRAF *ex situ* genebank that may not be covered under the two categories given above for food crop and forage species. This AF-TGR list include tree species with several functions and services on farm such as soil improvement, timber, medicine and bio-energy that contribute to the small holder livelihoods. This germplasm will be available for access on

terms consistent with those mutually agreed between ICRAF and the country of origin of such resources (or the country that has acquired those resources in accordance with the CBD or other applicable law). Such conditions will be set forth in a Material Transfer Agreement (MTA) developed for this purpose.

iv) Germplasm distributed for industrial purposes:

In cases where germplasm held in ICRAF's genebank is requested for industrial purposes, such requests will be referred to the original provider of the AF-TGR. This policy provision is without prejudice to any future standardized MTA that may be developed.

3.1.3 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 use for cultivation. This material can be passed on to other farmers for direct cultivation and ICRAF should be notified of such exchanges as guided in the seed acquisition information sheet.

3.1.4 Management of AF-TGR accessions will be in line with the FAO Revised Genebank Standards³ for seed and field genebanks to retain genetic integrity and conserve materials for current and future use. However, ICRAF notes that some of these FAO standards (especially those relating to regeneration, multiplication and safety duplication) may not be applicable to long-lived, highly out-crossing agroforestry trees species.

3.1.5 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 the multiple uses (conservation, evaluation, domestication, distribution of planting material) of the materials in the field genebanks, combining conservation with use.

3.1.6 All AF-TGR in the seed genebank will be safety duplicated in black box and a system for long term storage and safety duplication of accessions conserved only in field genebanks will be developed with the possibility of using DNA or pollen banking.

3.2 AF tree genetic resources of wild origin

3.2.1 ICRAF adheres to the principle of unrestricted availability of the genetic resources of wild origin it holds. However, in relation to genetic resources accessed after the entry into force of CBD, it recognizes the sovereign rights of states over their natural resources and that the authority to determine

³ <http://www.fao.org/docrep/meeting/027/mf804e.pdf>

access to genetic resources rests with the national governments and is subject to national agreements. It also recognizes that access to such resources is subject to the prior informed consent of the country of origin and to the fair and equitable sharing of benefits deriving from their use, in accordance with CBD and its Nagoya Protocol, and the ITPGRFA.

- 3.2.2 ICRAF will not claim legal ownership nor apply intellectual property protection on the wild germplasm it holds for humankind.
- 3.2.3 ICRAF will make genetic resources of wild origin that it holds in trust freely available. Such access will be granted in line with the AFPGR category as given in 3.1 above.
- 3.2.4 ICRAF will make non-in trust agroforestry materials of wild origin freely available for research as set out in article 3.1.2 above. Recipients will be required not to take any steps which could restrict further availability of genetic resources to other interested parties for research purposes. Where appropriate, they will be required to recognize ICRAF publicly as the source of the origin of the material.
- 3.2.5 ICRAF may request recipients of AF-TGR to furnish ICRAF with performance data collected during evaluation.

3.3 Genetic resources under development

- 3.3.1 All clones, breeding materials, elite AF-TGR and parental lines of hybrid trees and shrubs that are derived from domestication activities carried out by ICRAF will be made freely available. Such access will be granted in line with the AFPGR category as given in 3.1 above.
- 3.3.2 The majority of ICRAF's domestication activities are 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.
- 3.3.3 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 ICRAF and the farmers involved in its participatory tree domestication programs consider it to be necessary to ensure effective delivery of the improved material to farmers.
- 3.3.4 ICRAF will make clones, breeding lines, elite AF-TGR 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 retains the right to distribute the same material to other organizations;
- The use of ICRAF materials will be publicly recognized when a derived variety or hybrid is released.

3.3.5 The ICRAF will make available superior planting material resulting from its research and improvements to smallholders to support their livelihoods and the sustainable use of tree diversity on farms

3.3.6 Collaboration with profit-making organizations for the production and development of superior germplasm will proceed, where appropriate, after consultation with relevant partners.

3.4 Genetic resources and inventions derived from biotechnology programmes

3.4.1 Any kind of information, invention or biological material developed through biotechnology at ICRAF will be made freely available. Where applicable, publication or contractual provisions will be used to ensure that such information, invention or material remains in the public domain.

3.4.2 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.

3.4.3 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.

3.4.4 In obtaining and exercising any form of intellectual property rights 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.

3.4.5 In all of its biotechnology associated work, and in biotechnology orientated collaborative agreements, ICRAF will meet appropriate biosafety standards and include clauses designed to ensure, as far as possible, that its collaborators meet such standards to protect itself against any corresponding liabilities.

3.4.6 This policy does not cover AF-TGR derived from genetic engineering.

3.5 Agroforestry tree genetic resources and capacity building

3.5.1 ICRAF intends to build the capacities of scientific staff on management strategies for the conservation and sustainable use of biological diversity, in access and benefit sharing, and in the important international conventions and agreements on genetic resources.

3.5.2 ICRAF will promote organizational and personnel skills in the conservation and sustainable use of plant genetic resources to its scientific staff. In this regard, the organization intends to:

- Develop educational materials in the form of simple booklets that will address policy issues on the conservation and sustainable use of agroforestry tree genetic materials;
- Inform newly appointed scientific staff on the contents of international policies, agreements and conventions on plant genetic resources;
- Assess the level of awareness and compliance with 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 events in international policies and instruments on the conservation and sustainable use of tree resources.

3.6 Genetic resource publications and agroforestry databases

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

3.6.2 ICRAF may claim intellectual property protection on scientific publications and agroforestry database information and exercise its rights in order to ensure that these are freely available to developing nation partners and farmers. ICRAF publications and agroforestry databases will be protected by copyright in accordance with normal publishing practices. ICRAF will exercise its rights to ensure that any new publications and updated versions of agroforestry materials i.e. CD-ROMs, pamphlets, etc. are freely accessible to farmers.

3.6.3 Application of the ICRAF logo to AF-TGR-related publications and agroforestry databases shall be undertaken to obtain exclusive rights for the use thereof.

3.6.4 This policy will be applied in line with ICRAF's Intellectual Assets Policy⁴.

⁴ World Agroforestry Centre Policy Series: Intellectual Assets Policy, 2012