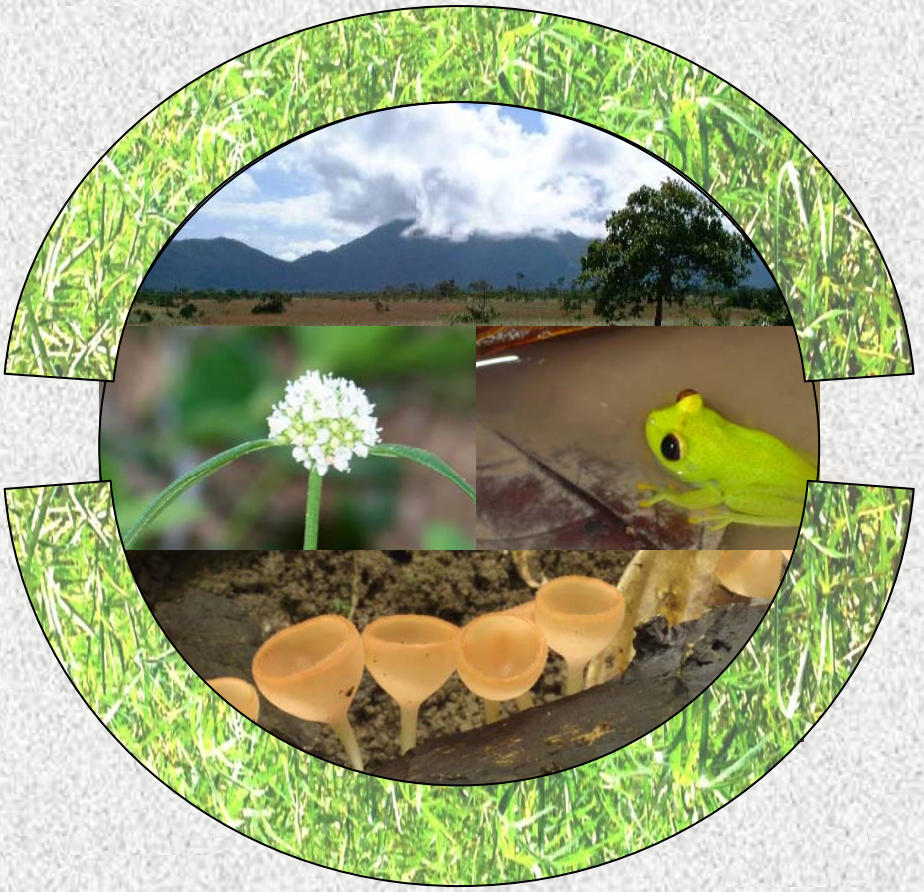
National Policy
on
Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization



Environmental Protection Agency

United Nations Development Programme

NATIONAL POLICY

ON

ACCESS TO GENETIC RESOURCES

AND THE FAIR AND EQUITABLE SHARING

OF BENEFITS ARISING FROM THEIR UTILISATION

Environmental Protection Agency
Georgetown, Guyana

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CONTENTS

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PREFACE

Guyana is endowed with a rich biodiversity, a resource which has attracted the interest of many foreign parties in their attempt to access genetic resources. Guyana has sovereign rights over its genetic resources for which there are cultural, biological, and economic values. Guyana would like to derive benefits from the use of its biological resource by these international interests. These benefits to Guyana, in the form of 'in-kind' and economic mechanisms, are expected to contribute to the conservation and sustainable use of its biological resources and reduction of poverty to support sustainable livelihoods and health, and promote cultural integrity.

International interest in the biodiversity of Guyana has so far been on academic research. The Environmental Protection Agency (EPA) has facilitated research for academic purposes to several research institutes as well as exports of specimens representative of both fauna and flora collected by researchers[1].

This international interest has strengthened the need for policies and regulations on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits arising from their Utilisation. Policies, guidelines and regulations will assist Guyana to control and to keep track of academic and commercial research activities on its genetic resources originating within its territory. These instruments will further ensure that benefits accrue to Guyana in general and to its people, specifically as owners and custodians of Guyana's genetic resources and related knowledge.

The Government of Guyana (GoG) has opted for a collaborative approach in granting access to genetic resources and welcomes international researchers and companies to share in the sustainable use of its genetic resources. Besides the global benefits to be derived from this collaboration, the facilitated access to the genetic resources of Guyana - on the basis of free and prior informed consent and on mutually agreed terms - will enable Guyana to optimize benefits for its people. Such benefits will serve as an incentive for the sustainable use and conservation of genetic resources.

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[1] For academic purposes; the EPA granted approval to seven research institutes in the year 2005, with about eight researchers conducting research in Guyana. In 2004 and 2003, these were 18 institutes with 20 researchers, and 19 institutes with 31 researchers, respectively. The number of researchers, however, does not reflect the number of applications since some researchers made several trips per year. In 2005, a total of 557 specimens were exported. In 2004 and 2003, these numbers were 16,076 and 17,303, respectively.
For commercial purposes; no application was received since the establishment of the EPA.

This National Policy on Access and Benefit Sharing was developed through a consultative and participatory process and building on existing documentation. This involved a wide range of stakeholders providing continuous input from the earliest stages of policy formulation allowing the policy to be continually reformulated as a result of partner interactions. This approach was utilised to make optimum use of existing knowledge and experience and to make this compilation a truly national policy.

This document begins with a short introduction to biodiversity in Guyana, followed by some background information on Access and Benefit Sharing (ABS) and a discussion on Guyana and the Convention on Biological Diversity (CBD). The Policy Statement and the Objectives of this policy are then presented. The policy continues by defining the mandates and responsibilities of national authorities to implement the ABS Policy and proposed Regulations and the participation of associated stakeholders. The document then discusses the need for free and prior informed consent, mutually agreed terms, and the sharing of benefits. The next chapter is devoted to intellectual property rights, and the last chapter addresses specifics in genetic resources. This policy document is accompanied by proposed Regulations on ABS of Biological Resources developed under the provisions of the Environmental Protection Act 1996 (No. 11 of 1996).

ABBREVIATIONS

ABS	Access and Benefit Sharing (Access to Genetic Resources and Equitable Sharing of Benefits Arising out of their Utilisation)
CBD	Convention on Biological Diversity
CBO	Community Based Organisation
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
COP	Conference of the Parties
EPA	Environmental Protection Agency
EPA-NRMD	EPA – Natural Resource Management Division
FAO	Food and Agriculture Organisation of the United Nations
GMO	Genetically Modified Organism
GoG	Government of Guyana
GRDB	Guyana Rice Development Board
GUYSUCO	Guyana Sugar Corporation
ICPPGR	International Conference and Programme for Plant Genetic Resources
IPR	Intellectual Property Rights
MoAA	Ministry of Amerindian Affairs
MoA	Ministry of Agriculture
NARI	National Agricultural Research Institute
NBAC	National Biodiversity Advisory Committee
NGO	Non-Governmental Organisation
PGR	Plant Genetic Resources

USE OF TERMS[2,3]

"ABS-compliant Agency" means agencies/institutions abiding by rules on access to genetic resources and benefit-sharing.

"Agrobiodiversity" means any biodiversity of actual or potential value for food, forage and agriculture.

"Amerindian" means any citizen of Guyana who (a) belongs to any of the native or aboriginal peoples of Guyana, or is a descendant of any of person mentioned in (a).

"Amerindian community" means a group of Amerindians organised as a traditional community with a common culture and occupying or using State lands which they have traditionally occupied or used.

"Amerindian community lands" means land owned communally by a community under title granted to the Village Council to hold for the benefit of the community.

"Amerindian Knowledge" - see Traditional Knowledge

"Biodiversity or Biological diversity" means the variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.

"Biological resources" includes genetic resources, organisms or parts thereof, populations, or any other biotic component of ecosystems with actual or potential use or value for humanity.

"Bio-prospecting" means the research, collection and utilisation of biological resources and related knowledge, mainly intended for commercial purposes.

"Biotechnology" means any technological application that uses biological systems, living organisms, or derivatives thereof, to make or modify products or processes for specific use.

"Bonn guidelines" are guidelines under the CBD, drafted in Bonn Germany in October 2001 and adopted in April 2002, that are intended to help establish legislative, administrative or policy measures on ABS and/or when negotiating contractual arrangements for ABS (CBD 2002).

"Community Counterpart" is a representative of an Amerindian or Local Community appointed or assigned by the Village, District and Community Council as part of the research team.

"Competent Authority" means an ABS-compliant Agency, CBO or NGO accredited by the National Authority (EPA) as being conversant in one or more specific areas of ABS Policy.

[2] For the purposes of this Policy, most terms conform to Article 2 of the CBD, the Amerindian Act 2005, and the FAO Treaty on PGR for Food and Agriculture.

[3] Definitions confirm to the Amerindian Act 2005.

"Country of origin of genetic resources" means the country which possesses those genetic resources in *in situ* conditions.

"Country providing genetic resources" means the country supplying genetic resources collected from *in situ* sources, including populations of both wild and domesticated species, or taken from *ex situ* sources, which may or may not have originated in that country.

"Ecosystem" means a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit.

"*Ex situ* conservation" means the conservation of components of biological diversity outside their natural habitats.

“Free” as in “Free and Prior Informed Consent” means without any form of deception, coercion or fraud.

"Genetic material" 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.

"Habitat" means the place or type of site where an organism or population naturally occurs.

"*In situ* conditions" means conditions where genetic resources exist within ecosystems and natural habitats, and, in the case of domesticated or cultivated species, in the surroundings where they have developed their distinctive properties.

"*In situ* conservation" means the conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings and, in the case of domesticated or cultivated species, in the surroundings where they have developed their distinctive properties.

“Local community” means a group of Guyanese people living in a community anywhere in Guyana.

“National counterpart” is a national or institution of Guyana appointed by the EPA to represent national interests and is part of the research team.

“Plant Genetic Resources for food, forage and agriculture” means any genetic material of plant origin of actual or potential value for food, forage and agriculture.

“Prior Informed Consent” is usually the first step in an ABS arrangement with:

‘Prior’ – before project is approved (or other licensing process, or third partner involvement, etc);

‘Informed’ - obtained after fully disclosing the intent and scope of the activity, in a language and process understandable to the community;

‘Consent’ - to be determined in accordance with their respective customary laws and practices; and/or consent expressed through local governments.

"Protected area" means a geographically defined area which is legally designated, regulated and managed to achieve specific conservation objectives.

"Sustainable use" means the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations.

“Traditional Knowledge/Local Knowledge/Amerindian Knowledge/Ethno-biological Knowledge” (TK/LK/AK/EK) means - for the purpose of this policy - knowledge that has been distilled from experience over centuries and adapted to local culture and environment: it tends to be held collectively by local communities / Amerindian peoples, and some aspects of it are handed down orally from generation to generation. It captures many aspects of culture and is constantly interacting and evolving with new contexts and influences. It is defined as the practices or ideas generated locally, or imported from outside and transformed by the local people and incorporated into their way of life. Their dynamic and flexible nature and their adaptability to changing conditions are fundamental features of TK/LK/AK/EK.

“Village Council” means a village council established under the authority of the Amerindian Act, the Annai District Council, Konashen Village Council, Baramita Village Council and any Village Council established by order of the Minister under the Amerindian Act.

1. INTRODUCTION

1.1 BIODIVERSITY IN GUYANA

The biodiversity (as defined by the CBD) that we see today is the result of billions of years of evolution, shaped by natural processes and increasingly by the influence of humans. It forms the web of life of which we are an integral part and upon which we so fully depend. Biological resources include genetic resources (chromosomes, genes, and DNA) that are the building blocks of life and which determine the uniqueness of each individual, each population, each species and each ecosystem.

At the 1992 Earth Summit in Rio de Janeiro, world leaders agreed on a comprehensive strategy for "sustainable development" - development that meets our needs while ensuring that we leave a healthy and viable world for future generations. One of the key agreements adopted at Rio was the Convention on Biological Diversity (CDB). The CBD, as signed by governments, sets out commitments for maintaining the world's ecological base for economic development. This Policy, like the CBD, does not include genetic resources of human origin.

Guyana is part of the Amazon region and is endowed with a rich biodiversity. The national territory of approximately 216,000 sq. km consists of four major ecosystems: forest ecosystems, marine/coastal ecosystems, inland aquatic ecosystems, and agro-ecosystems. Each of these macro-ecosystems can be further sub-divided into a diverse range of sub-ecosystems. High levels of biodiversity in Guyana are due to the following factors: being on the edge of the Amazon, overlying the geologically old Guiana Shield, position on the Atlantic Coast, and its low population pressure with low conversion of natural habitats. Guyana’s biodiversity has a high level of endemism which also contributes to the uniqueness of its genetic resources.

Precise data on the wealth of the biodiversity are not available and consequently, levels of biodiversity change can only be estimated. Nevertheless, it is evident that current disturbances are greater than in the pre-Colombian period, but it is reasonable to assume that no major losses of biodiversity have occurred and that the rich base of genetic resources remains intact.

From another perspective, Guyana is well known for its cultural diversity. Inhabitants consist of people of several indigenous cultures as well as cultural influxes from Europe, Africa, India and China. These cultures have evolved in Guyana and hold a vast resource base of biodiversity-related local knowledge systems. Amerindian communities, in particular, must be identified for this characteristic of Guyanese knowledge systems. This resource base is an important asset in the use and conservation of biological diversity, both for national and international benefits, and is typified by preferences for access to indigenous knowledge systems through activities such as bio-prospecting.

The biodiversity of Guyana has attracted researchers and institutions from all over the world. Cognisant that no country is self sufficient in the use of its genetic resources and that all countries are dependent on continued international exchange, Guyana realises that its genetic resources as well as the related knowledge of its people could be of global benefit[4].

1.2 ACCESS TO GENETIC RESOURCES AND BENEFIT-SHARING

The third objective of the CBD as set out in Article 1, is the

> *"fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding"*.

A framework for the implementation of this objective is provided in Article 15 of the CBD, A*ccess to Genetic Resources.* In addition, Article 8(j) contains provision to encourage the equitable sharing of the benefits arising from the utilization of knowledge, innovations and practices of Amerindian and local communities embodying traditional lifestyles that are relevant for conservation and sustainable use of biological diversity. These provisions are also linked to those on *Access to and Transfer of Technology* (Article 16), *Exchange of Information* (Article 17), *Technical and Scientific Cooperation* (Article 18), *Handling of Biotechnology and Distribution of its Benefits* (Article 19, paragraphs 1 and 2); and, *Financial Resources* and F*inancial Mechanisms* (Article 20 and Article 21, respectively).

[4] An example of Guyana's commitment to this principle is the creation in 1989, of the Iwokrama International Centre for Rain Forest Conservation and Development (Iwokrama) in central Guyana, when 371,000 hectares of pristine forest were set aside by the Government for research and other purposes. The Centre is an autonomous non-profit institution established by Guyana and the Commonwealth.

The Conference of the Parties developed the Bonn Guidelines on access and benefit-sharing which are meant to assist Parties and stakeholders with the implementation of the access and benefit-sharing provisions of the CBD. These guidelines include elements of free and prior informed consent, mutually agreed terms and fair and equitable benefit sharing; guidance in the roles, responsibilities and participation of stakeholders; biodiversity conservation and use; and means to ensure the respect, preservation and maintenance of knowledge, innovations and practices embodying traditional lifestyles.

The GoG recognizes that in 2006, the CBD Working Group on ABS will negotiate an international regime[5] to promote and safeguard the fair and equitable sharing of benefits arising out of the utilization of genetic resources. This shall be reviewed in the existing guidelines for research.

1.3 GRANTING ACCESS TO THE GENETIC RESOURCES OF GUYANA

Guyana's vast biological diversity and local knowledge has cultural, biological and economic values. Guyana would like to gain benefits from its resource base for the purpose of increasing incentives to sustainably use and conserve biological resources.

Granting access is a means for Guyana to obtain biological, social and economic benefits. Researchers and companies will be issued an agreement by EPA (the National Authority for ABS) to access biological resources of Guyana under mutually agreed terms. Access to Guyana's genetic resources will not be granted unless there are mutually agreed terms and a fair and equitable benefit sharing regime. Specifically, access to the genetic resources and the associated knowledge for purposes of biological, agricultural and biotechnological research (commercial or non-commercial) shall not be granted at the disadvantage of its citizens or hinder other national interests. Specific arrangements are in place to use and conserve the knowledge-base, including gender specific knowledge, of

[5] Following the sixth meeting of the Conference of the Parties at the World Summit on Sustainable Development in Johannesburg in September 2002 Paragraph 44 (o) of the Plan of Implementation. This will be within the framework of the CBD and bearing in mind the Bonn Guidelines.

Amerindian[6] and other local communities who are often unaware of the value of the information they hold and the negotiating power that goes with this resource.

The above realization has led to the recognition by Guyana of the need for a policy/legislative framework that ensures proper oversight of national genetic resources. This framework is necessary in order to contribute optimally to the sustainable use and conservation of genetic resources, and to promote social, cultural and economic development.

1.4 GUYANA AND THE CONVENTION ON BIOLOGICAL DIVERSITY

Guyana was one of the first groups of countries to sign the Convention on Biological Diversity (CBD) on June 13, 1992 at the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro, Brazil. Guyana ratified the CBD two years later on August 29, 1994. As a contracting Party, Guyana has opted to comply with the provisions of this international treaty, and to follow its guidelines. These include the 2002 Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization. The three main objectives of the CBD are: (i) the conservation of biological diversity, (ii) the sustainable use of its components, and (iii) the fair and equitable sharing of the benefits derived from the use of genetic resources. The CBD also addresses access to genetic resources and appropriate transfer of relevant technologies, taking into account all rights over these resources and technologies, through appropriate funding.

Guyana has adopted the CBD's principle, in accordance with the Charter of the United Nations and the principles of international law, that it has the sovereign right to exploit its own natural resources pursuant to its own environmental policies, and the responsibility to ensure that activities within its jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction. This national policy is a response to addressing national needs and adhering to the terms embodied in international treaties, undertakings and agreements. Particular focus has been given in this policy to those provisions of the CBD that are of national importance to

6 For instance the Amerindian Act 2005, Part II Entry and Access, Section 5- Entry and Access; scientific and other research, Sub-section 3.

Guyana, i.e., Article 15 *Access to Genetic Resources* and Article 19 *Handling of Biotechnology and Distribution of its Benefits.*

This national policy on ABS also aims to facilitate access to Guyana's genetic resources through promoting fair and equitable sharing of the benefits arising out of their use. It is particularly concerned with the knowledge, innovations and practices of Amerindian and local communities in Guyana. It covers all genetic resources, excluding human genetic resources, that are within the territorial limits of Guyana, including its territorial sea[7]. This national policy will inform the proposed Regulations on the access and benefit sharing process, including aspects as:

a. Obligation for users to seek free and prior informed consent of providers and /or owners;
b. Identification of the basic requirements for mutually agreed terms;
c. Definition of the main role and responsibilities of users and providers/owners;
d. Importance of the involvement of stakeholders; and
e. Institutional arrangements for monitoring compliance.

[7] Including Guyana's territorial sea is up to a limit of 12 nautical miles from the baseline.

2. POLICY STATEMENT AND OBJECTIVES

The general objective of this ABS policy is to contribute to the conservation and sustainable use of biological resources of the country in order to reduce poverty, be supportive to sustainable livelihood and health, and promote cultural integrity.

The specific objectives of this Policy are to:

a. Articulate a national policy on Access and Benefit-Sharing that is consistent with other national policies and regulations, and with international treaties to which Guyana is a contracting Party.
b. Set the conditions to facilitate access to the genetic resources of Guyana and enable the GoG to access the genetic resources of other contracting Parties of the CBD, as well as those Parties that are not as yet CBD-compliant. This scope of access includes *in situ* or *ex situ* genetic resources and data.
c. Facilitate access on the basis of free and prior informed consent on mutually agreed terms, with respect to national sovereignty and the rights of citizens, with particular regard to the genetic resources and knowledge held by Amerindian and local communities.
d. Establish conditions and promote cooperation/collaboration among the national subject agencies, foreign parties, and companies in fields such as research, development and commercialisation of genetic resources and associated knowledge in Guyana.
e. Promote fair and equitable sharing of the benefits arising from the use of genetic resources and associated knowledge between the Government of Guyana and Foreign Parties; and among national partners (GoG, Amerindian and local communities, and other stakeholders).
f. Define clear roles and responsibilities of national stakeholders and to provide a transparent and secure framework for national and foreign partners for access to genetic resources and fair and equitable sharing of benefits.
g. Assign additional values (such as short- and long-term benefits) to the genetic resources to increase local and national incentives for the sustainable use and conservation of biodiversity.

3. AUTHORITIES AND NATIONAL STAKEHOLDERS

3.1 THE NATIONAL AUTHORITY AND COMPETENT AUTHORITIES

1. The GoG has designated the Environmental Protection Agency (EPA) as the National Focal Point for the CBD and the National Authority for regulating ABS.
2. An ABS Sub-Committee of the National Biodiversity Committee (NBC) is the national body for making recommendations on ABS to the EPA. The NBC can also make recommendations to the EPA for matters referred to it for further consideration by the ABS Sub-Committee. EPA gives effect to the recommendations of the ABS Sub-Committee or the NBC in granting research approval to applicants. The EPA's Natural Resource Management Division (NRMD) acts as the Secretariat of the ABS Sub-Committee.
3. Competent Authorities recommended by the ABS Sub-Committee and accredited by the EPA can include agencies with direct and indirect mandates that consist of, or relate to, genetic resources - including knowledge - and/or ABS. Subject to national laws and mandates, Competent Authorities may include, but are not restricted to, authorities in research, economic and social development, education, land use (including coastal and marine), culture, health, diplomacy, finance or law enforcement, including district or local authorities, or authorities targeted at specific subsets of the population such as gender, religion, youths, the elderly or ethnic groups.
4. Subject to national laws and mandates, the type of the research on genetic resources requested shall determine the specifics of ABS arrangements, such as the scope of agreements, consultations, and inclusion of relevant competent authorities in ABS negotiations.
5. The GoG recognises that Guyana can benefit from collaborative research activities with foreign researchers and companies and that it is the responsibility and right of all Competent Authorities and other Guyanese stakeholders to initiate and follow up on these collaborative research activities.

3.2 THE NATIONAL AUTHORITY: THE ENVIRONMENTAL PROTECTION AGENCY

1. The EPA, as the National Authority for access and benefit-sharing, shall make information on ABS available through its Clearing-House Mechanism. This mechanism would inform applicants of the procedures for acquiring free and prior informed consent, and mutually agreed terms, including benefit-sharing. EPA should also inform applicants about the possibilities for collaboration with the relevant Competent Authorities, Amerindian and local communities and other stakeholders.
2. The EPA, in general and through the ABS Sub-Committee, shall promote the national interest to make the most efficient use, optimise access and ensure the fair and equitable sharing of benefits arising from the use of Guyana's genetic resources.
3. Any Competent Authority, individual, entity, or other agencies is free to initiate collaboration relating to Access to Genetic Resources and Benefit-Sharing but giving effect to these efforts is subject to the ultimate endorsement of the EPA. EPA's role here is not only to endorse but also to perform a monitoring function. Facilitation and coordination is requested from both parties: EPA and national stakeholder(s).

Responsibilities of the EPA

4. The EPA, in accordance with applicable national legislative, administrative and policy measures, is the only National Authority responsible for granting access to genetic resources. However, in relation to titled Amerindian lands, this also includes other relevant Authorities (see Amerindian Act, 2005). The EPA, in consultation with other Competent Authorities, is responsible for advising national stakeholders and international researchers and companies on:
    a. Administrative processing of applications and formal approval of agreements;
    b. Accrediting Competent Authorities and national counterparts
    c. Monitoring[8] of Access and Benefit-Sharing agreements;
    d. Implementation of Access and Benefit-Sharing agreements and monitoring compliance;
    e. Conservation and sustainable use of the genetic resources to be accessed;

[8] Monitoring of individual ABS arrangements is the primary responsibility of the national partners in the research, EPA can only monitor when informed by the national partner.

f. Mechanisms for the effective participation of different stakeholders in accordance with the different steps in the process of Access and Benefit-Sharing, including Amerindian and local communities;

g. Mechanisms for the effective participation of Amerindian and local communities while promoting the objective of having decisions and processes available in an understandable language to stakeholders.

5. Specifically, the EPA will follow up on and ensure that the research findings will be forwarded to the national partners, including Amerindian and local communities;
6. Subject to national law, the EPA has the overall power to grant permission for access, but may delegate this power to accredited Competent Authorities, as appropriate. The scope of the Competent Authorities will be limited to their area of competence. In doing so, EPA has the responsibility to ensure that accredited Competent Authorities are complying with this policy and proposed Regulations.

3.3 THE ABS SUB-COMMITTEE

1. The ABS Sub-Committee is the national body for making recommendations on ABS to the EPA. Its Secretariat is held by the EPA (Chapter 3.1.2).
2. The ABS Sub-Committee will receive processed research applications on ABS from the EPA.
3. The ABS Sub-Committee's responsibility includes the formulation and evaluation of ABS agreements. The ABS Sub-Committee negotiates the terms of these contracts/agreements, including the requirements for obtaining free and prior informed consent and entering into mutually agreed terms.
4. Depending on the specific nature of the genetic resources involved in the ABS arrangement, and subject to national laws and mandates, the ABS Sub-Committee may co-opt suitably qualified individuals or institutions, or designate an ABS Sub-Committee from among its members, relevant stakeholders, and resource persons to assess the application, and negotiate an agreement, as deemed necessary.
5. The ABS Sub-Committee will identify and recommend Competent Authorities and National Counterpart(s) to the EPA.

6. In providing prior approval, it is the role of the ABS Sub-Committee to ensure that individual research or collaborations do not hamper more encompassing national interests, for instance the social, economic and environmental consequences of the activities.
7. The ABS Sub-Committee's recommendations would be given effect by the EPA to reject the application or to enter into an endorsement of the agreement.

THE APPLICATION PATHWAY

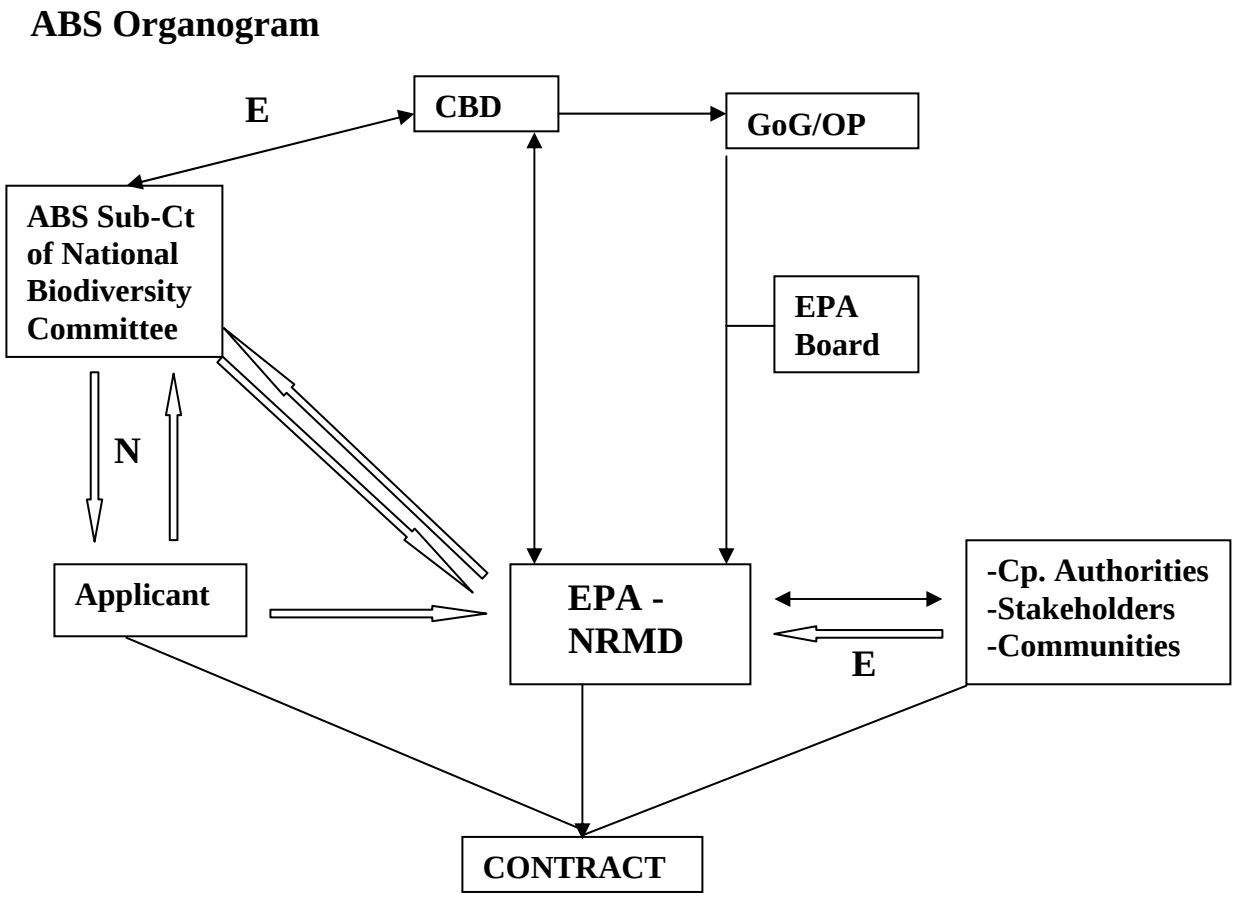

Figure 1. ABS Organogram showing Authorities, Structures and Application Pathway[9].

1. Applicants from international research and business companies will send their research applications on access to genetic resources to the EPA (Figure 1). Research applications delivered to other Competent Authorities, communities or other stakeholders will be forwarded to the EPA, either directly or by the applicant. Depending on the content or interdisciplinary nature of the

[9] The ABS Sub-Committee is in principle the negotiator (N) in ABS arrangements; however collaborating Agencies, EPA included, can also directly discuss and negotiate research proposals with applicants (see 3.2.3). All connections include consultations and the arrows only give the main direction.

research application, the EPA shall consult with the relevant stakeholders, to correctly process the application.

2. EPA, through its Secretariat of the ABS Sub-Committee, will forward the application to the ABS Sub-Committee to review the research proposal, and for guidance on benefit-sharing. Negotiations will be conducted by the Secretariat with the applicant. The EPA will report to the ABS Sub-Committee for deliberations on the proposed benefit-sharing regime, and any relevant issues. The EPA then gives effect to the Sub-Committee's findings (Figure 1).
3. The final contract will be negotiated by the EPA, through its Secretariat, with the applicant. When more stakeholders are involved, the Secretariat and applicant shall, for instance, include an Amerindian community in the negotiations. This will be on the basis of free and prior informed consent and in accordance with the provisions of the Amerindian Act and other relevant national laws and regulations. Stakeholders can choose to be advised by the ABS Sub-Committee but may also seek external advice in the negotiations.
4. Stakeholders[10] are also free to directly negotiate research proposals with applicants (chapter 3.2.3).

3.5 PARTICIPATION OF NATIONAL STAKEHOLDERS

1. The GoG encourages national stakeholders to take part in research activities.
2. National stakeholders shall be given scope and support by the GoG to facilitate, coordinate and enter into collaborative activities on ABS, and to monitor compliance of the research partner. These efforts will be in collaboration with EPA.
3. EPA, as National Authority, will facilitate the involvement of relevant stakeholders to ensure adequate development and implementation of ABS agreements.
4. EPA, through the ABS Sub-Committee, and relevant supporting Competent Authorities, will ensure that relevant stakeholders are consulted and their views taken into consideration in each step of the process, including:
    a. When determining access, negotiating and implementing mutually agreed terms, and in the sharing of benefits;

[10] This may include EPA in its role as national counterpart in research applications.

b. In the development of a national strategy, policies or regimes on Access and Benefit-Sharing.

5. However, due to the diversity of stakeholders and their diverging interests, their appropriate involvement can only be determined on a case-by-case basis. To facilitate involvement of relevant stakeholders, appropriate consultative arrangements, such as the ABS Sub-Committee and national consultative committees comprising relevant stakeholder representatives, would be made.
6. This involvement of relevant stakeholders will be promoted by:
    a. Providing information, especially regarding scientific and legal advice, enabling them to participate effectively;
    b. Providing support for capacity-building, in order for them to be actively engaged in various stages of access and benefit-sharing arrangements.
    c. Facilitating both information and capacity building through the EPA in its ABS monitoring role. EPA, through the ABS Sub-Committee, will increasingly have the capacity to assist stakeholders with information and decision making in the development and implementation of mutually agreed terms and contractual arrangements, particularly for the relatively standard research and development requests.
    d. Soliciting additional support for the EPA, the ABS Sub-Committee and other involved stakeholders in negotiating newly developed or more complex ABS arrangements[11]. Specifically, stakeholders involved in access to genetic resources and benefit-sharing have the option of employing "alternative dispute resolution" mechanisms, when negotiating mutually agreed terms.

3.6 GUYANA AS USER OR WITH USERS UNDER ITS JURISDICTION

While this policy mainly covers Guyana as a provider of genetic resources, in some cases Guyana may be a user or have users of genetic resources originating from outside of its jurisdiction. Accordingly:

1. The GoG will strive to ensure that the terms and conditions effective upon the access by recipients of Guyana's genetic resources are reciprocally respected. Guyana as user or with users of genetic

[11] Costs should be covered by:
1. Project (= foreign entity wanting genetic resources);
2. GoG, it should be seen as an investment, it should pay itself back in time; or / and
3. External donors, wanting to ensure genetic resources and IK rights to be respected.

resources under its jurisdiction, shall take appropriate legal, administrative, or policy measures to support compliance with free and prior informed consent of the country providing such resources and mutually agreed terms on which access was granted.

2. The EPA, as the National Authority, will function in partnership with the focal point of the providing country. However, since the EPA is not the actual user of the genetic resources, the users of genetic resources shall be held directly responsible for upholding collaborative agreements but the enforcement of these arrangements is with the Guyana law enforcement agencies.
3. Specifically, the GoG shall take the following measures directed to national users of genetic resources and law enforcement Agencies:
    a. Ensure that users fulfil their roles and responsibilities in a clear, objective and transparent manner;
    b. Seek to ensure that the commercialization and any other use of genetic resources would not prevent traditional uses of genetic resources;
    c. Use genetic resources only for purposes consistent with the terms and conditions under which they were acquired;
    d. Ensure that uses of genetic resources for purposes other than those for which they were acquired, only take place after renewed free and prior informed consent and mutually agreed terms are given;
    e. When supplying genetic resources to third parties, honour all terms and conditions regarding the acquired material;[12]
    f. Maintain all relevant data regarding the genetic resources, especially documentary evidence of the free and prior informed consent and information concerning the origin and the use of genetic resources and the benefits arising from such use;
    g. As far as possible, endeavour to carry out the use of genetic resources with the participation of the providing country;
    h. Establish mechanisms to provide information to potential users on their obligations regarding access to genetic resources;

[12] Third parties will be provided with relevant data on their acquisition, including free and prior informed consent and conditions of use. Special conditions may be established under mutually agreed terms to facilitate taxonomic research for non-commercial purposes.

i. Take measures to encourage the disclosure of the country of origin of the genetic resources in the application for intellectual property rights;
j. Take measures aimed at preventing the use of genetic resources obtained without the free and prior informed consent of the provider and/or owner;
k. Facilitate cooperation between Contracting Parties to address alleged infringements of access and benefit-sharing agreements;
l. Support and promote voluntary certification and verification schemes for institutions relating to fair and equitable sharing of benefits from genetic resources; and
m. Take measures discouraging unfair trade practices.

4. FACILITATING ACCESS TO GENETIC RESOURCES AND THE FAIR AND EQUITABLE SHARING OF THE BENEFITS ARISING FROM THEIR USE

1. Guyana has a sincere commitment to facilitate access to the genetic resources for research. It is believed that this will contribute to the conservation and sustainable use of biological resources (see also objectives in chapter 2.3).
2. Guyana highly values its ownership and control over its national genetic resources and this need to be respected by visitors conducting research in Guyana. Applicants conducting research activities need to comply with the terms and conditions as stated in the Biodiversity Research Agreement and applicants should abide by all guidelines, local laws and government regulations. Particular emphasis will be on the availability of research results in appropriate format, the role of the National and Community counterparts, and respect for customs, traditions, values and customary practices of Amerindian and local communities.
3. Access to genetic resources for research purposes may include genetic material, ethno-biological knowledge, audiovisual material and any other relevant data. Genetic material resources shall be collected in a sustainable manner.
4. Access is facilitated on the basis of free and prior informed consent, on mutually agreed terms and with fair and equitable sharing of benefits, as stated in the guidelines on Free and Prior Informed Consent, Mutually Agreed Terms and Benefit Sharing.
    a. Access to genetic resources of Guyana is subject to free and prior informed consent of the National Authority (EPA) and Competent Authorities so designated. Final approval must be obtained from EPA under all circumstances and these approvals are subject to national law.
    b. This policy aims to assist Parties and stakeholders in the development of mutually agreed terms to ensure the fair and equitable sharing of benefits. A basic requirement in the development of mutually agreed terms is legal certainty and clarity. The GoG recognises the need to raise awareness among local, national and regional partners, of the requirements and existing mechanism for mutually agreed terms and contractual arrangement to facilitate agreements on ABS.
    c. What is fair and equitable sharing of benefits will be determined by all stakeholders in the ABS arrangement and by the appropriate Competent Authorities, and will be agreed through free and prior informed consent. Benefits may, for instance, include various kinds

of monetary benefits, goods or equipment, information, collaborative activities, transfer of technology, training and capacity building and will be agreed through free and prior informed consent among stakeholders and Competent Authorities.

5. Access and benefit-sharing systems are based on an overall access and benefit-sharing strategy at the national, institutional and community levels. This access and benefit-sharing strategy is aimed at the objectives as described in chapter 1.3 of this policy, and is part of the national biodiversity strategy and action plan that promotes the equitable sharing of benefits.
6. As Contracting Party to the CBD, the GoG shall endeavour to create conditions to facilitate access to genetic resources for environmentally sound uses by other Contracting Parties and fair and equitable sharing of benefits arising from such uses. But in facilitating access to genetic resources to non-contracting parties of the CBD, the GoG is not obliged to comply with the principles and agreements of the CBD if these do not serve national interests.

5. INTELLECTUAL PROPERTY RIGHTS

5.1 INTELLECTUAL PROPERTY PROTECTION

1. Guyana has the sovereign right to exploit its own genetic resources and the GoG and people of Guyana have all rights over those resources.
2. The GoG facilitates access to those resources for the benefit of research and development, and commercial application of research results according to this national ABS policy and in conformity with the principles of the CBD.
3. On mutually agreed terms, a foreign entity may, on free and prior informed consent, apply for patent or other forms of intellectual property protection conforming to national legislation.
4. Competent Authorities and other stakeholders in Guyana, including communities, have the right to seek patent or other forms of intellectual property protection.
5. This policy shall be informed and guided by present and future policies, laws and regulations governing IPR and other relevant international and national agreements, to which Guyana is a contracting Party or Signatory.

5.2 COLLECTIVE IPRS

The existing statutory regime in Guyana includes conventional approaches to Intellectual Property Rights (IPRs) that embody individualistic notions of property rights and property ownership. But the GoG also acknowledges collective forms of ownership of IPRs. Specifically, this policy recognises that Amerindian and traditional knowledge is as much intellectual property as scientific knowledge which, *prima facie*, conforms to the prerequisites for protection under a conventional IPR regime. Accordingly, the GoG supports:

1. Amerindian and local communities as guardians of their knowledge and having the right to protect and control the dissemination of that knowledge;
2. Amerindian and local communities in their right to create new knowledge based on cultural traditions;
3. Mechanisms for the protection of the knowledge of Amerindian and local communities; and

4. Gender-specific rights to protect, control, and create traditional knowledge.

5.3 PRODUCTION OF KNOWLEDGE AND RENEGOTIATION

1. This policy recognises that research on traditional knowledge of genetic resources is not as much 'extracted' as generated through joint activities of local participants in collaboration with researchers and scientists. And for this reason, the production of knowledge cannot be easily predicted. Consequently the respective contribution of Amerindian and local information providers and researchers in transforming collected information into useful knowledge is particularly difficult to quantify.
2. Further, in the process of identifying a genetic resource and transforming this into a useful product, the value and possible profit levels of this product will be difficult to quantify.
3. For these two reasons, it is necessary to provide room for renegotiation of agreements at various stages of research and development. Progressive decisions on intellectual property and potential value of a product, for instance, could be programmed to take place at key points, for example, an initial evaluation phase, a review of research progress, and assessments of specific research outcomes. These and other specific elements for re-negotiations shall be documented in the research agreement.

6. SPECIFICS IN GENETIC RESOURCES

This ABS policy covers a wide variety of genetic resources in all the ecosystems of Guyana (see Introduction). Specifics may exist for sampling genetic resources depending on where they occur. Conforming to the ABS policy objectives in Chapter 2, these specifics in genetic resources are also in line with their respective policies and regulations, such as the Amerindian[13] Act, Forestry Act, Maritime Act, etc., or policies and regulations under formulation, such as those on Protected Areas. This chapter provides some additional information on a number of specific types, conditions or uses of genetic resources.

6.1 AGRO-BIODIVERSITY

1. The National Agricultural Research Institute (NARI) is the national focal point for the management of plant and animal genetic resources for food, forage and agriculture in Guyana. NARI is also the focal point for the International Conference and Programme for Plant Genetic Resources (ICPPGR).
2. NARI's mandate does not include Sugar Cane and Rice. These mandates are with Guyana Sugar Corporation (GUYSUCO) and Guyana Rice Development Board (GRDB) respectively, and include other genetic resources related to Sugar Cane and Rice production, such as genetic resources for integrated pest management.
3. EPA, as national focal point, should be informed about all exports and imports of genetic resources for food, forage and agriculture. EPA can delegate this power for granting access to the accredited Competent Authorities - NARI, GRDB and GUYSUCO. However, EPA has the responsibility to ensure that these designated Competent Authorities are complying with the ABS policy and regulations.
4. Access shall be provided solely for the purpose of utilization and conservation for research, breeding and training for food, forage and agriculture, provided that such purpose does not include chemical, pharmaceutical and/or other non-food/feed industrial uses. In the case of multiple–use

[13] For instance the Amerindian Act 2005, Part II Entry and Access, Section 5- Entry and Access; scientific and other research, Sub-section 3.

crops (food and non-food), their importance for food security should be the determinant for their availability for facilitated access (conforming to FAO treaty on PGRFA).

5. GMOs are not currently produced in Guyana. Access and Benefit-Sharing arrangements on GMOs will adhere to the ABS regulations and will be in conformity with the national policy on GMOs.

6.2 TOURISM

1. The tourist sector heavily relies on the biodiversity of Guyana as the main attraction for tourists. Therefore, the sustainable use and conservation of biodiversity, including ABS, is in the interest of the tourist sector.
2. Consequently, tour operators will be responsible for informing their clients about national laws and regulations governing ABS of biological resources.
3. Tourists are not allowed to collect biodiversity specimens, even for home-based ornamental purposes. These include, but are not limited to, samples of herbarium material, feathers, seeds or minerals. Tourists will be given notice upon entering the country through an official document at airports and other ports of entry.
4. When specimens are part of local craft works, tourist are allowed to purchase and export these works, however:
    a. Only if these are in line with local and national ABS regulations and CITES provisions.
    b. When seeds are included in local craft works, their propagation is forbidden.
    c. Commercial use of craftwork or ethno-biological knowledge is not allowed without free and prior informed consent of the creator or knowledge holder, respectively.
5. Tourists and tour operators should take note that no species collected from one (tourist) site is permitted to be introduced or reintroduced into another site. Therefore, specific care needs to be taken with food remains such as, for example, seeds of fruits for human consumption.
6. Tourists, on entering Amerindian and local communities, must respect their culture, traditions, customary laws, and community laws and regulations. This show of recognition may include not entering locations, including abandoned locations, to respect particular sensitivities, such as the occurrence of traditional activities, sacred sites, ceremonial burials, etc.

6.3. CONSERVATION OF GENETIC RESOURCES

1. Accessing genetic resources within the ABS policy (e.g. taking samples for research) should not threaten the sustainable use and conservation of those genetic resources (see guideline for sustainable collection).
2. As stated in the ABS Policy objectives, this policy contributes to the sustainable use and conservation of biodiversity. More specifically, as stated in objective 2.g, putting additional values to the genetic resources is intended to increase the local and national incentives for their sustainable use and conservation.
3. Activities or policies without an ABS component fall outside the scope of this policy. These include economic or agricultural research and development activities, and specifically, activities that negatively affect the conservation of biodiversity, including agro-biodiversity[14]. However, by putting an added value on the genetic resources, ABS will influence the decision-making process in local and national research and development activities, including conservation and sustainable use.

6.4 EIA AND ACCESS TO GENETIC RESOURCES

1. Guyana exploits its natural resources for economic, agricultural and other development. To conduct these activities, Guyana's laws demand an Environmental Impact Assessment (EIA) that includes a variety of components, such as an assessment of environmental and social impacts caused by the activity.
2. Economic exploitation of natural resources may especially have an access to genetic resources component, including the fair and equitable sharing of the benefits arising out of these activities. The EIA policy is designed to include ABS components and, in harmonization with this ABS policy, an EIA may suitably specify a component on ABS arrangements.

[14] Through encroachment of habitat and other specific activities exploiting species or ecosystems, such as logging, agriculture, NTFP extraction, fishing, mining, petrochemical exploration, or any other kind of research and development activities, including biosafety, phytosanitary and biotechnology issues.

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