OVERVIEW OF BRAZILIAN LEGISLATION ON ACCESS BENEFIT SHARING

MANUELA DA SILVA - FIOCRUZ - OSWALDO CRUZ FOUNDATION - BRAZIL



THE NEW BRAZILIAN ABS LEGISLATION

5/21/2015

L13123



Presidência da República Casa Civil Subchefia para Assuntos Jurídicos

LAW Nº 13.123, FROM 20 OF MAI 2015

Regulates the section II of § 1 and § 4 of article 225 of the Federal Constitution, Article 1, point j of Article 8, point c of Article 10, Article 15 and §§ 3 and 4 of Article 16 of the Convention on Biological Diversity, promulgated by Decree No. 2519 of 16 March 1998, provides for access to genetic heritage, on the protection and access to associated traditional knowledge and the benefit sharing for conservation and sustainable use of biodiversity; revokes the Provisional Act 2.186/2001, 23 August 2001, and takes other measures.

The law was published on May 21, 2015 and entered into force on November 17, 2015

After almost 6 months since the

law came into force, the Decree

regulating it was published

13/05/2016

Decreto nº 8772



Presidência da República Casa Civil Subchefia para Assuntos Jurídicos

DECREE Nº 8.772, FROM 11 OF MAY 2016

Regulates Law No. 13,123, of May 20, 2015, which provides for access to genetic resources, the protection and access to associated traditional knowledge and the sharing of benefits for conservation and sustainable use of biodiversity.



ABS NATIONAL COMPETENT AUTHORITY

The Brazilian ABS National Competent Authority is the **Genetic Heritage Management**Council - CGen

CGen consists of representatives from bodies and entities of the federal public administration that are competent on the various actions of this law and the representation of civil society.

There are 11 Ministries and 9 representatives of civil society, 3 of each of the following sectors:

- Business sector
- Academia
- Indigenous peoples, traditional communities and traditional farmers



THE LAW
COVERS THE
ACTIVITY OF

- RESEARCH
- TECHNOLOGICAL DEVELOPMENT

ACCESS = UTILIZATION

ECONOMIC EXPLOITATION



- FINISHED PRODUCT OR
- REPRODUCTIVE MATERIAL

THIS IS THE MOMENT WHEN THERE IS BENEFIT SHARING

ORIGINATED FROM THE ACCESS OF GENETIC HERITAGE

ORIGINATED FROM THE ACCESS OF ASSOCIATED TRADITIONAL KNOWLEDGE



ECONOMIC EXPLOITATION

FINISHED PRODUCT

Product whose nature does not require any additional production process, arising from access to genetic heritage or associated traditional knowledge, in which the component of the genetic heritage or associated traditional knowledge is a key element of added value to the product, being able to be used by the final consumer, whether natural or legal person

REPRODUCTIVE MATERIAL

It refers to plant propagation material or animal reproduction of any genus, species or cultivation from sexual or asexual reproduction



DIFERENTLY FROM THE PREVIOUS LEGISLATION, THE NEW LAW:

REACHES ALL RESEARCH
(EXPERIMENTAL OR
THEORETICAL) CONDUCTED
WITH THE BRAZILIAN

GENETIC HERITAGE

DEFINITION

information of genetic origin from plants, animals, microorganisms or species of other nature, including substances derived from the metabolism of these living beings



BASIC RESEARCH SUCH AS:

- EPIDEMIOLOGY
- MOLECULAR ECOLOGY
- MOLECULAR TAXONOMY
- PHYLOGENY



DIFERENTLY FROM THE PREVIOUS LEGISLATION, THE NEW LAW:

REACHES ALL RESEARCH
(EXPERIMENTAL OR
THEORETICAL) CONDUCTED
WITH THE BRAZILIAN

GENETIC HERITAGE

DEFINITION

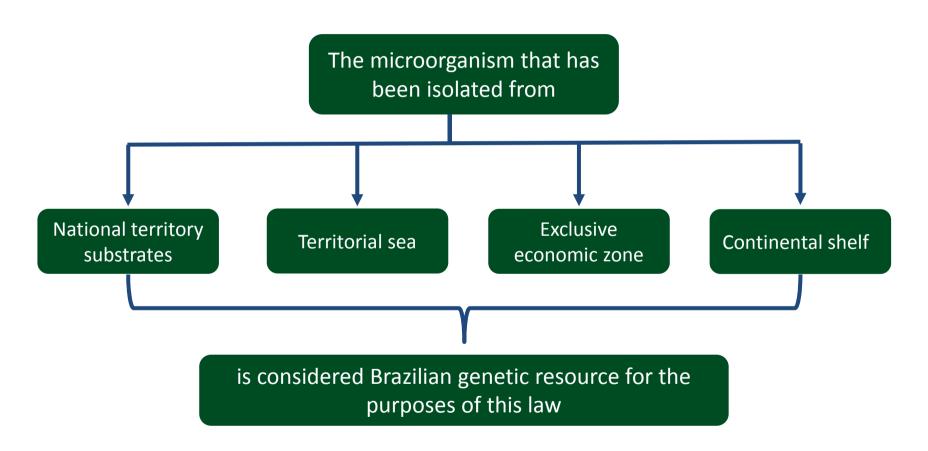
information of genetic origin from plants, animals, microorganisms or species of other nature, including substances derived from the metabolism of these living beings



USE OF INFORMATION FROM GENETIC SEQUENCES PUBLISHED IN PUBLIC DATA BASES (Ex: GenBank)



OTHER NOVELTY IN THE LAW IS THE PARAGRAPH ON MICROORGANISMS



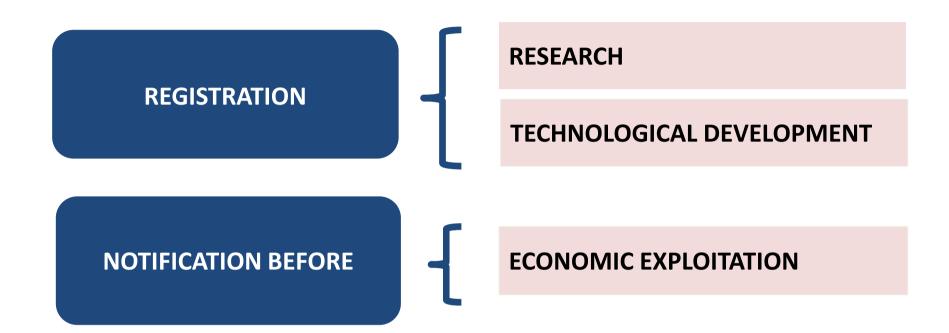


ACTIVITIES THAT ARE SUBJECT TO THE LAW

- I. Access to genetic heritage and associated traditional knowledge;
- II. Shipment abroad of genetic heritage
- III. Economic exploitation of finished product or reproductive material from access to genetic heritage and associated traditional knowledge



FOR COMPLYING WITH THE LAW



FOR COMPLYING WITH THE LAW

REGISTRATION

RESEARCH

TECHNOLOGICAL DEVELOPMENT

THE REGISTRATION SHOULD BE CONDUCTED PRIOR TO:

- Shipment abroad
- Request of any intellectual property right
- Commercialization of any intermediate product
- Release of results, final or partial, in scientific or communication circles
- Notification of finished product or reproductive material developed as a result of the access



NOTIFICATION

For economic exploitation will be required:

- I. prior notification of the finished product or the reproductive material to CGen
- II. presentation of the benefit-sharing agreement (BSA) within 1 year from the time of notification, except in the case of finished product or reproductive material from access to ATK of identifiable origin. In this case, the agreement must be presented at the time of notification



AUTHORIZATION

THE AUTHORIZATION SHALL BE CARRIED OUT PRIOR TO:

- Access to GH or ATK in area indispensable to national security
- Access to GH or ATK in Brazilian territorial waters, continental shelf and exclusive economic zone

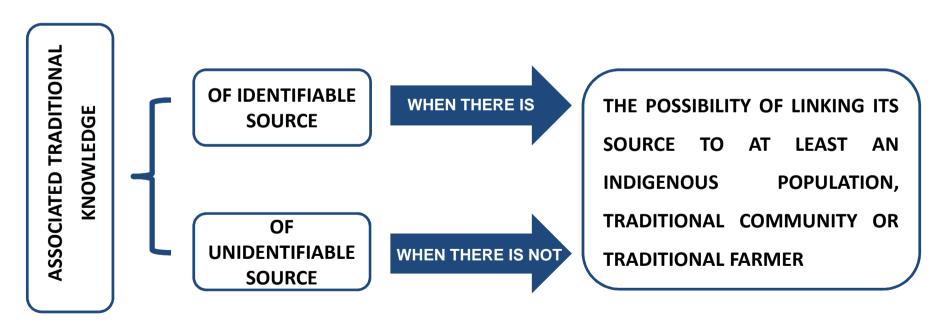
The authorization will be required only in cases where there is some involvement of foreigners:

- I National legal entity whose controlling shareholders or members who are natural or legal foreign persons
- II national institution of scientific research and technology, public or private, when access is made in association with legal entity based abroad
- III Brazilian natural person associated, funded or contracted by a legal entity based abroad

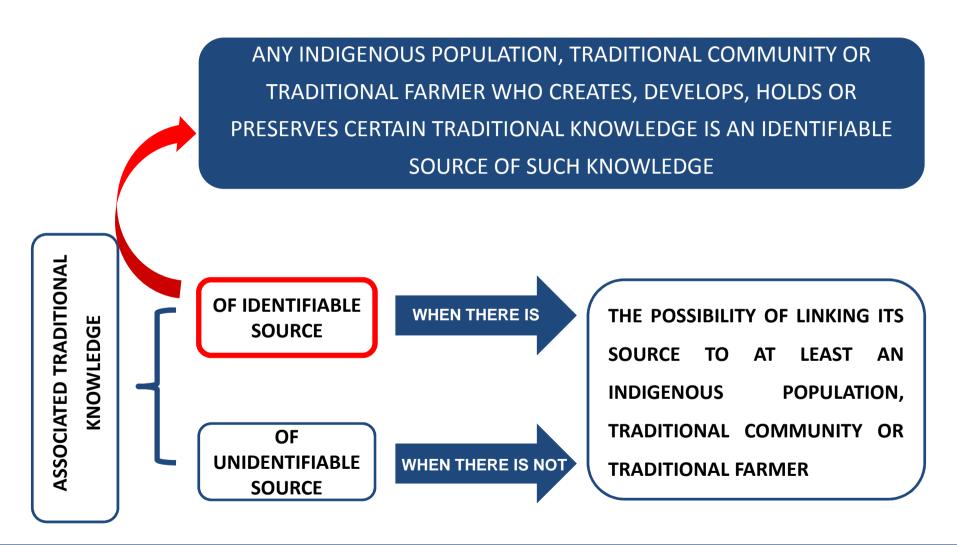


ACCESS TO ASSOCIATED TRADITIONAL KNOWLEDGE

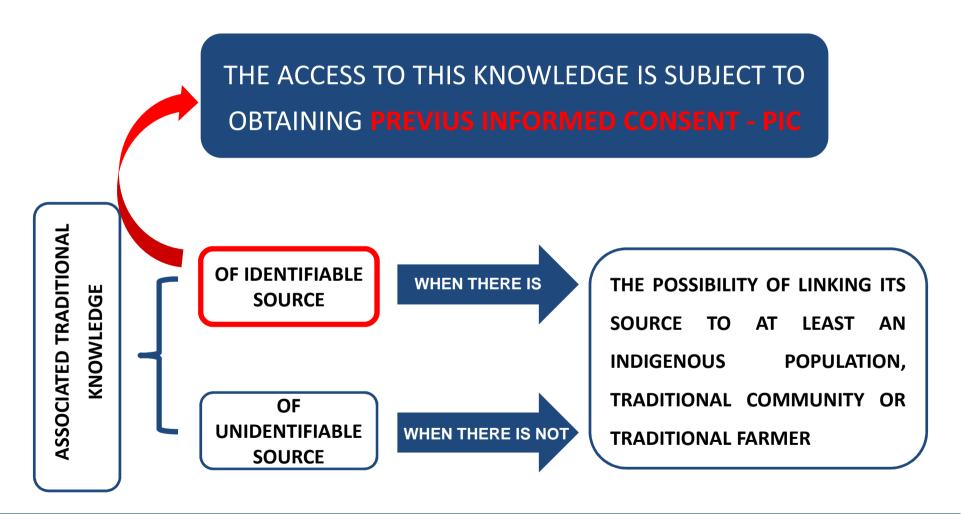
THE TRADITIONAL KNOWLEDGE ASSOCIATED TO GENETIC HERITAGE CAN BE RECOGNIZED IN SCIENTIFIC PUBLICATIONS, RECORDS IN REGISTERS OR DATABASES AND CULTURAL INVENTORIES



ACCESS TO ASSOCIATED TRADITIONAL KNOWLEDGE



ACCESS TO ASSOCIATED TRADITIONAL KNOWLEDGE





SHIPMENT ABROAD OF GENETIC HERITAGE

DEFINITION: TRANSFERENCE OF GENETIC HERITAGE TO AN INSTITUTION LOCATED IN ANOTHER COUNTRY WITH THE PURPOSE OF ACCESS, IN WHICH THE RESPONSABILITY OF THE GH IS TRANSFERRED TO THE RECEPIENT INSTITUTION

SHIPMENT ABROAD WILL HAVE TO BE REGISTERED IN CASES WHERE ACCESS TO GENETIC RESOURCES ARE CONDUCTED BY:

- LEGAL ENTITY LOCATED ABROAD THAT IS ASSOCIATED TO NATIONAL INSTITUTION (PUBLIC OR PRIVATE)
- NATIONAL INDIVIDUAL OR LEGAL ENTITY (PUBLIC OR PRIVATE) THAT IS ABROAD



SHIPMENT ABROAD OF GENETIC HERITAGE

DEFINITION: TRANSFERENCE OF GENETIC HERITAGE TO AN INSTITUTION LOCATED IN ANOTHER COUNTRY WITH THE PURPOSE OF ACCESS, IN WHICH THE RESPONSABILITY OF THE GH IS TRANSFERRED TO THE RECEPIENT INSTITUTION

REGISTRATION FOR SHIPMENT ABROAD MUST BE PERFORMED PRIOR SHIPMENT AND DEPENDS ON:

- THE SIGNATURE OF **MATERIAL TRANSFER AGREEMENT MTA**
- THE SUPLY OF INFORMATION ABOUT THE PROVIDER AND RECIPEINT INSTITUTIONS, GENETIC HERITAGE AND INTENDED USE



MATERIAL TRANSFER AGREEMENT

The MTA formalizes the shipment abroad of samples of genetic heritage accessed or available for access

It will predict that:

- It shall be interpreted in accordance with Brazilian law
- The recipient institution will not be considered provider of the GH

It will contain clauses that:

- Inform on access to ATK when applicable
- Authorizes or prohibits the transfer of the GH to third parties

In the case of authorization, the transfer of genetic heritage to third parties will also depend on a MTA containing the above requirements. This obligation will be applied to all subsequent transfers



SENDING OF GENETIC HERITAGE

DEFINITION: SENDING OF GH FOR SERVICES PROVIDED ABROAD, AS PART OF A RESEARCH OR TECHNOLOGICAL DEVELOPMENT, IN WHICH THE RESPONSIBILITY FOR THE GH IS NOT TRASFERED

SERVICES PROVIDED

ABROAD ARE CONSIDERED

TESTS

SPECILIZED TECHNIQUES

PERFORMED BY AN INSTITUTION COLABORATING WITH THE NATIONAL INSTITUTION RESPONSIBLE BY THE ACCESS OR BY WHICH IT WAS HIRED



LEGAL OPINION: DIFFERENCES BETWEEN SHIPMENT AND SENDING

PARECER n. 00037/2017/CONJUR-MMA/CGU/AGU

NUP: 02000.000358/2016-33

INTERESSADOS: SECRETARIA DE BIODIVERSIDADE E FLORESTAS DO MINISTÉRIO DO MEIO

AMBIENTE

ASSUNTOS: CONSULTA E ORIENTAÇÃO DE ATUAÇÃO - OUTROS ASSUNTOS

EMENTA: CGAJ. CONSULTA. DEPARTAMENTO DE PATRIMÔNIO GENÉTICO. NOVA CONCEPÇÃO DE ATUAÇÃO DO ESTADO DIANTE DA LEI Nº 13.123/15. PONDERAÇÃO DE INTERESSES CONSTITUCIONAIS. INCENTIVO AO DESENVOLVIMENTO CIENTÍFICO. OMISSÃO JURÍDICO-NORMATIVA DE DECRETO REGULAMENTADOR (JÁ SUPRIDA PELO DECRETO Nº 8772/2016) NORMA DE APLICABILIDADE PLENA. HIPÓTESES. VIABILIDADE DE PESQUISA. DIFERENCIAÇÃO ENTRE ENVIO E REMESSA DE COMPONENTE DO PATRIMÔNIO GENÉTICO. LIMITES. POSSIBILIDADE DO ENVIO MESMO SEM DECRETO REGULAMENTADOR. SEGURANÇA JURÍDICA.

I- RELATÓRIO

- Trata-se de consulta formulada pela área técnica especializada deste Ministério do Meio Ambiente, Departamento de Patrimônio Genético, provocada por constantes dúvidas de usuários/administrados em face do advento da lei nº 13.123/2015. A dúvida ocorre em face da possibilidade de realizar pesquisa científica em virtude da ausência momentânea de Decreto que regulamente a referida lei.
- 2.
- 3. Em que pese a referida regulamentação tenha sido publicada, o Decreto nº 8772/2016, a área técnica manteve o interesse na presente consulta, que segue como meio de sanar dúvidas porventura remanescentes.
- Diante da situação em tela, propõe o Departamento de Patrimônio Genético os seguintes pontos para análise desta CONJUR:
 - (i) há diferença entre "envio" e "remessa", nos termos da Lei nº 13.123, de 20 de maio de 2015, merecendo os referidos institutos tratamento normativo diverso?
 - (ii) existe a possibilidade de mero envio, considerando-se seu conceito definido no referido diploma legal, como "envio de amostra para prestação de serviços no exterior como parte de pesquisa ou desenvolvimento tecnológico (...)"; e
 - (iii) como dar cumprimento à exigência de cadastramento das atividades previstas no caput do art. 12, quando a finalidade do acesso ao patrimônio genético é pesquisa, em face da ausência de Decreto regulamentador da Lei nº 13.123, de 20 de maio de 2015.

DIFFERENCES BETWEEN SHIPMENT AND SENDING IN CASES OF SCIENTIFIC PARTNERSHIPS

Sending:

- There is no need of a previous registration;
- There is no transfer of responsibility on the sample;
- The sample is accompanied by a legal instrument;
- Access is initially made in Brazil and then abroad for further studies:
- The sample is destroyed or returned.

Shipment:

Needs to be registered in advance;

There is transfer of responsibility on the sample;

The sample is accompanied by a Material Transfer Term;

Access is only made abroad, under the responsibility of the recipient.



RESEARCH BY FOREIGNERS

BRAZILIAN BIODIVERSITY CAN ONLY BE ACCESSED BY

FOREIGN INSTITUTION
(LEGAL ENTITY LOCATED
ABROAD)

in partnership with

BRAZILIAN INSTITUTION (PUBLIC OR PRIVATE)

THAT WILL BE RESPONSIBLE FOR THE **REGISTRATION AND** UPDATING SisGen (REGISTRY, NOTIFICATION, BENEFIT SHARING PAYMENT)





If access occurs in Brazil, an Authorization's
Request for Collecting and Research
(Scientific Expeditions) has to be obtained
from the Brazilian Institution for the Foreign
Institution before the Registration in SisGen

NATIONAL COUNCIL FOR SCIENTIFIC AND TECHNOLOGICAL DEVELOPMENT





CLEAR AND FIXED RULES FOR BENEFIT SHARING WERE ESTABLISHED

THAT CAN BE:

- MONETARY, WITH THE PERCENTAGE OF 1% OF ANNUAL NET REVENUE OR UP TO 0.1% BY SECTORIAL AGREEMENT, OR
- NON MONETARY

ONLY THE MANUFACTURER OF THE FINISHED PRODUCT OR THE PRODUCER OF THE REPRODUCTIVE MATERIAL WILL BE SUBJECT TO BENEFIT-SHARING, REGARDLESS OF WHO PREVIOUSLY PERFORMED THE ACCESS



CLEAR AND FIXED RULES FOR BENEFIT SHARING WERE ESTABLISHED

THAT CAN BE:

- MONETARY, WITH THE PERCENTAGE OF 1% OF ANNUAL NET REVENUE OR UP TO 0.1% BY SECTORIAL AGREEMENT, OR
- NON MONETARY
- a. projects for conservation, sustainable use of biodiversity, protection and maintenance of knowledge, innovations and practices of populations holders of traditional knowledge
- b. technology transfer
- c. training of human resources on issues related to conservation and sustainable use of genetic heritage or associated traditional knowledge
- d. free distribution of products in programs of social interest, etc...



IN THE CASE OF ACCESS TO:

Genetic Heritage and Associated TK of unidentifiable source

The beneficiary of benefit sharing:

Is the Government, represented by the Ministry of the Environment

Associated TK of identifiable source

The beneficiary of benefit sharing:

Are the indigenous people, traditional communities and traditional farmers



THE PAYMENTS FROM THE BENEFIT SHARING AND FINES DUE TO NONCOMPLIANCE OF THE LAW SHALL BE DEPOSITED IN



THE NATIONAL FUND FOR BENEFIT SHARING - FNRB

ESTABLISHED FOR VALORIZING GENETIC HERITAGE AND ASSOCIATED
TRADITIONAL KNOWLEDGE AS WELL AS TO PROMOTE THEIR USE IN A
SUSTAINABLE WAY



WHEN THE BENEFIT SHARING COMES FROM:

Genetic Heritage



The payments will go entirely to the FNRB

Associated Traditional Knowledge of unidentifiable source



The payments will go entirely to the FNRB

Associated Traditional Knowledge of identifiable source



The TK holders negotiate freely the benefit sharing and additional 0.5% of annual net revenue from the economic exploitation of the knowledge will go to the FNRB and will be administered by providers



THE MONETARY FUNDS DEPOSITED IN THE NATIONAL FUND OF BENEFIT SHARING (FNRB) ARISING FROM ECONOMIC EXPLOITATION OF FINISHED PRODUCT OR REPRODUCTIVE MATERIAL OBTAINED FROM THE ACCESS TO:

Genetic Heritage from *ex*situ Collections

Will be **partially (60 to 80%)** intended for the benefit of these collections

Associated Traditional Knowledge



Will be used **exclusively** for the benefit of traditional knowledge holders



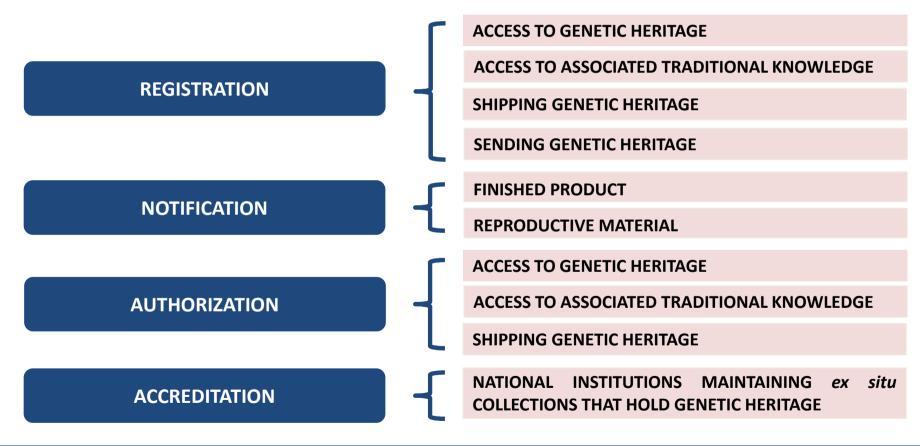
Through the National Fund of Benefit Sharing the National Program of Benefit Sharing – PNRB will be established in order to promote, among others:

- Conservation of biological diversity
- Survey and inventory of genetic heritage
- Recovery, creation and maintenance of *ex situ* collections
- Training of human heritage associated with the use and conservation of genetic heritage and associated traditional knowledge
- Support for the efforts of indigenous peoples, traditional communities and traditional farmers in the sustainable management and conservation of genetic heritage

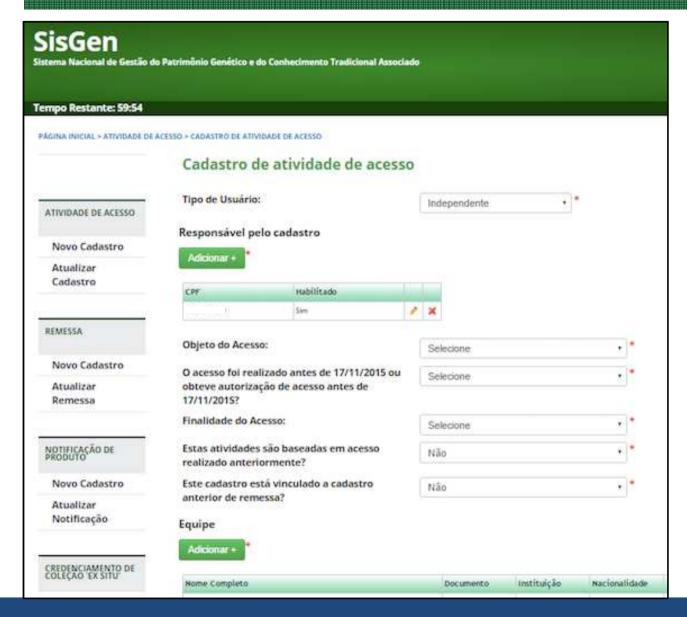


CGEN CREATED ELECTRONIC SYSTEM

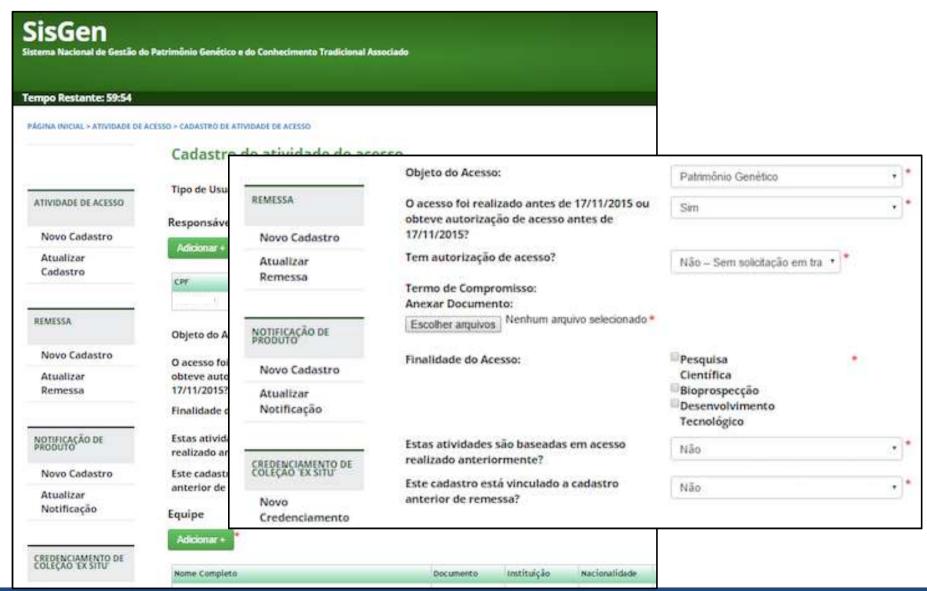
The National System for Genetic Heritage and Associated Traditional Knowledge Management (SisGen) was created to manage:



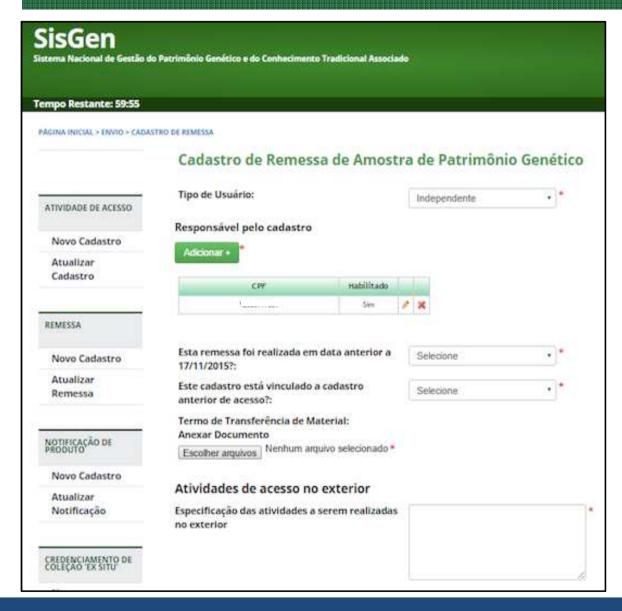


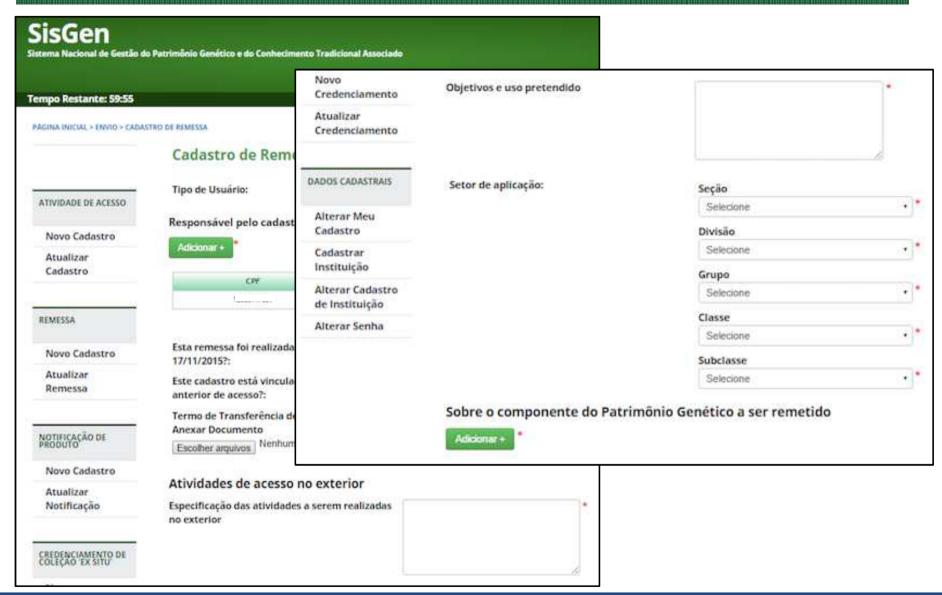




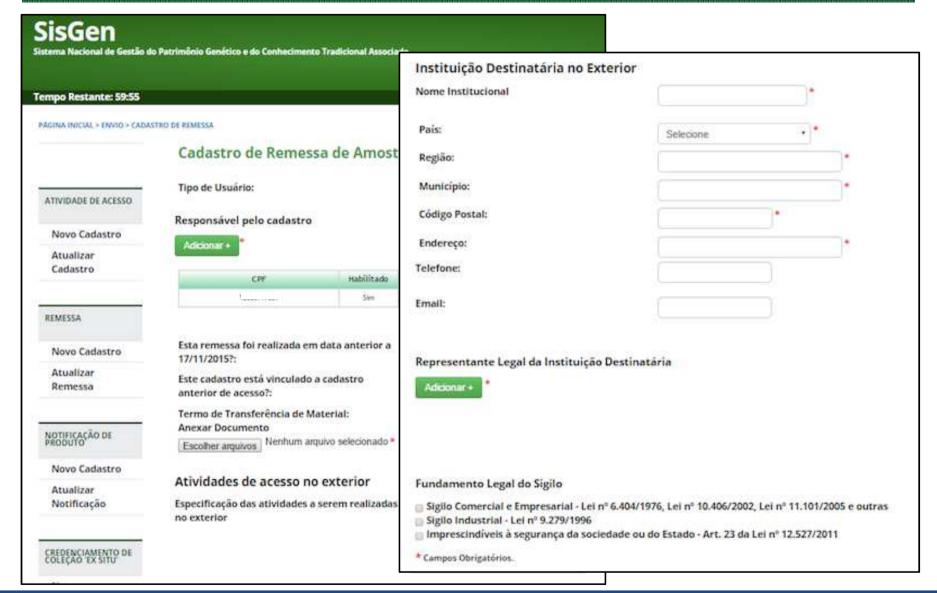




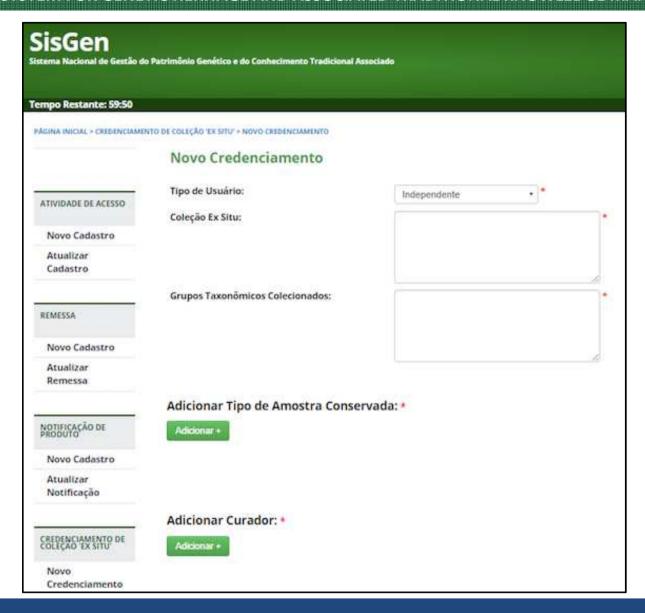




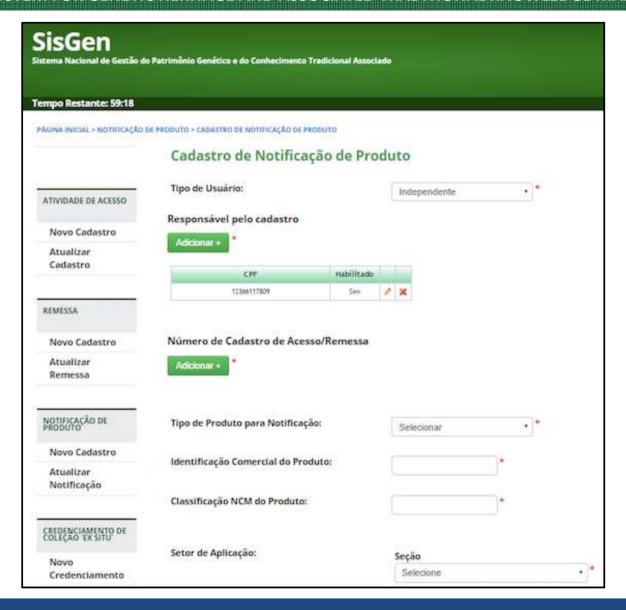




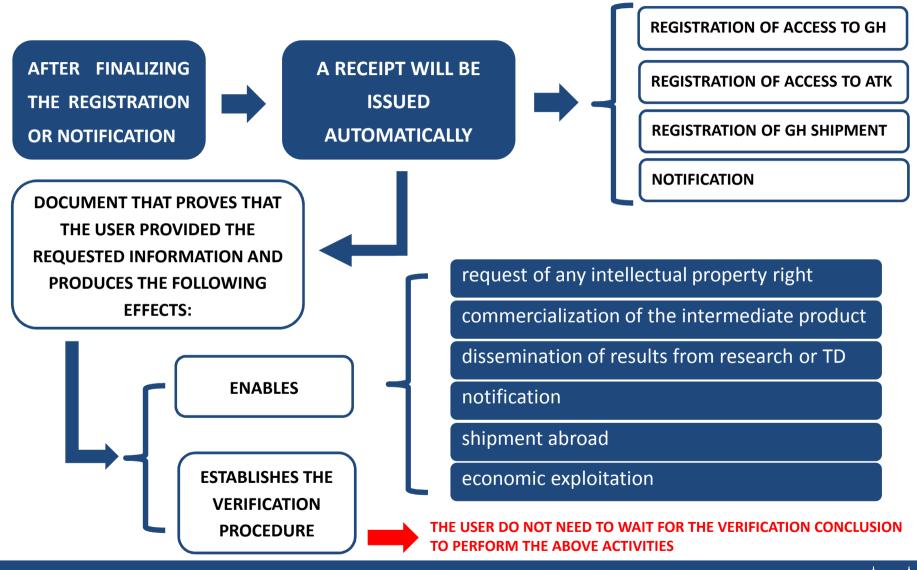




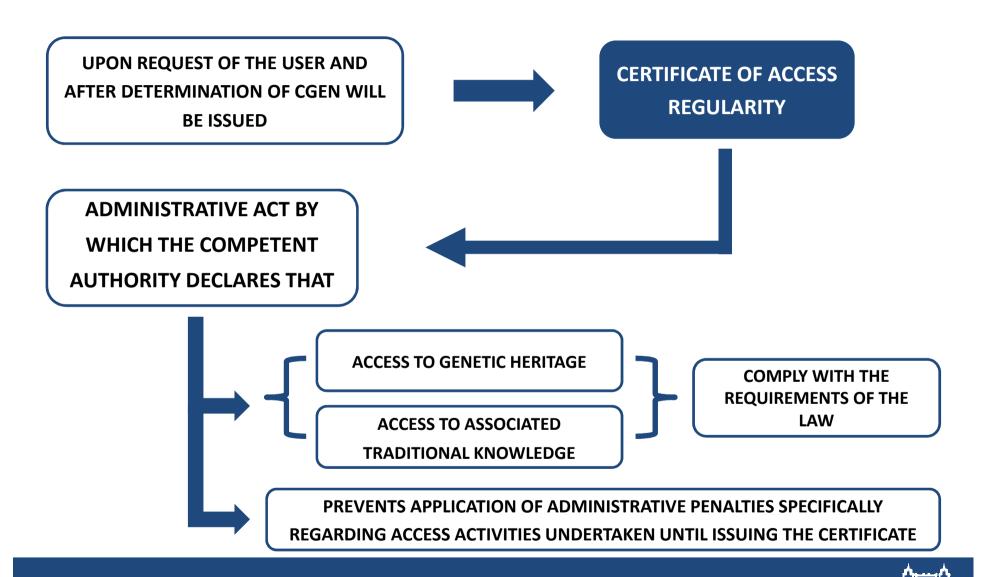
NATIONAL SYSTEM FOR GENETIC HERITAGE AND ASSOCIATED TRADITIONAL KNOWLEDGE MANAGEMENT



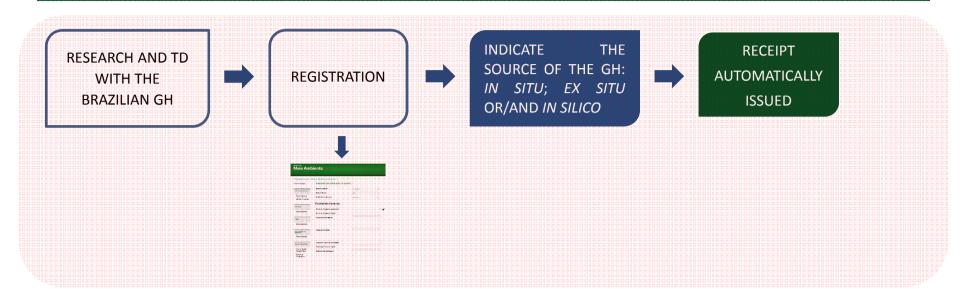
NATIONAL SYSTEM FOR GENETIC HERITAGE AND ASSOCIATED TRADITIONAL KNOWLEDGE MANAGEMENT

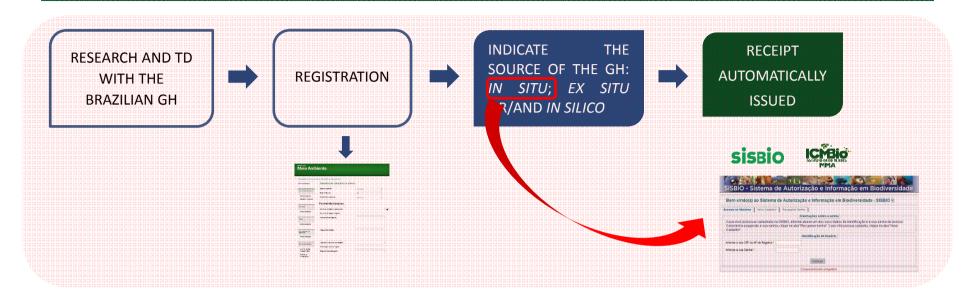


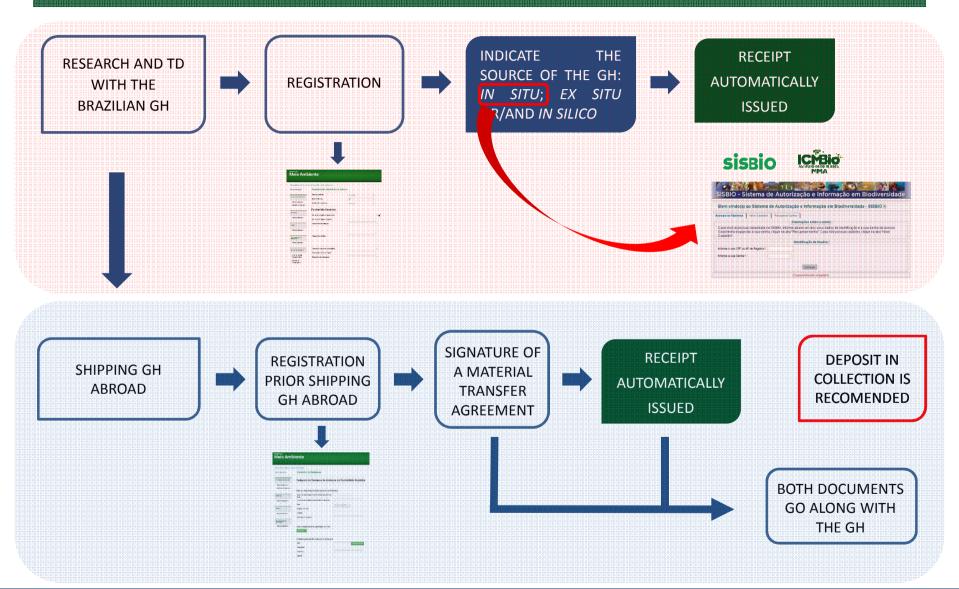
CERTIFICATE OF ACCESS REGULARITY



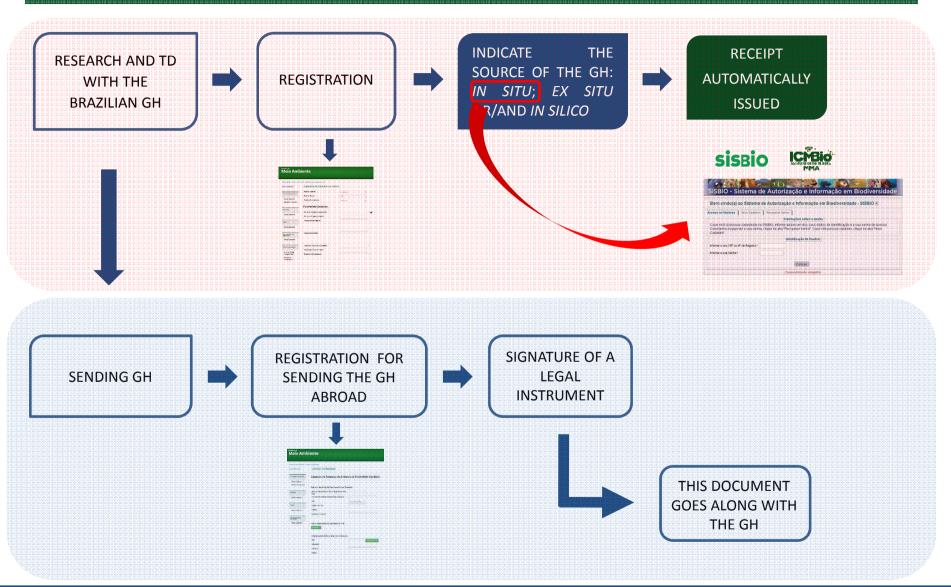
www.fiocruz.br

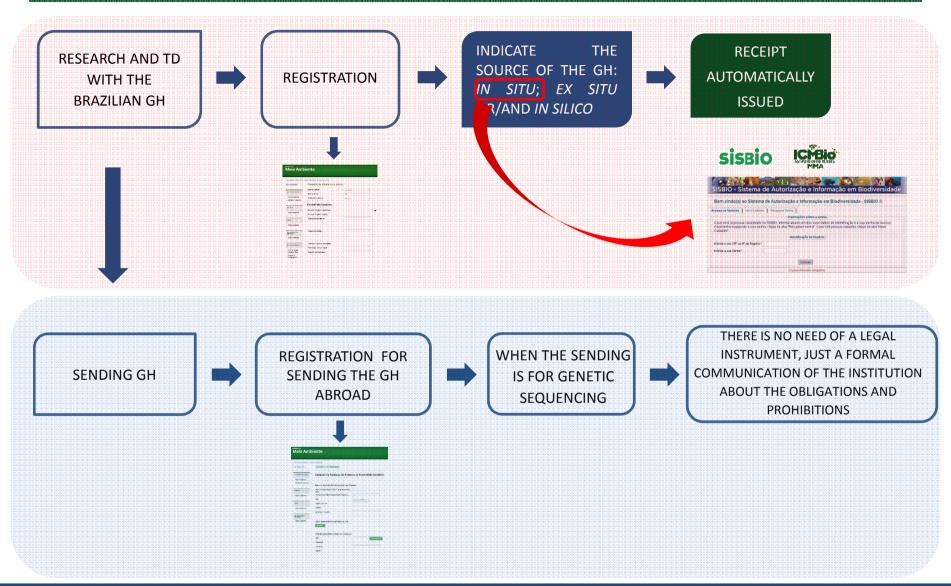




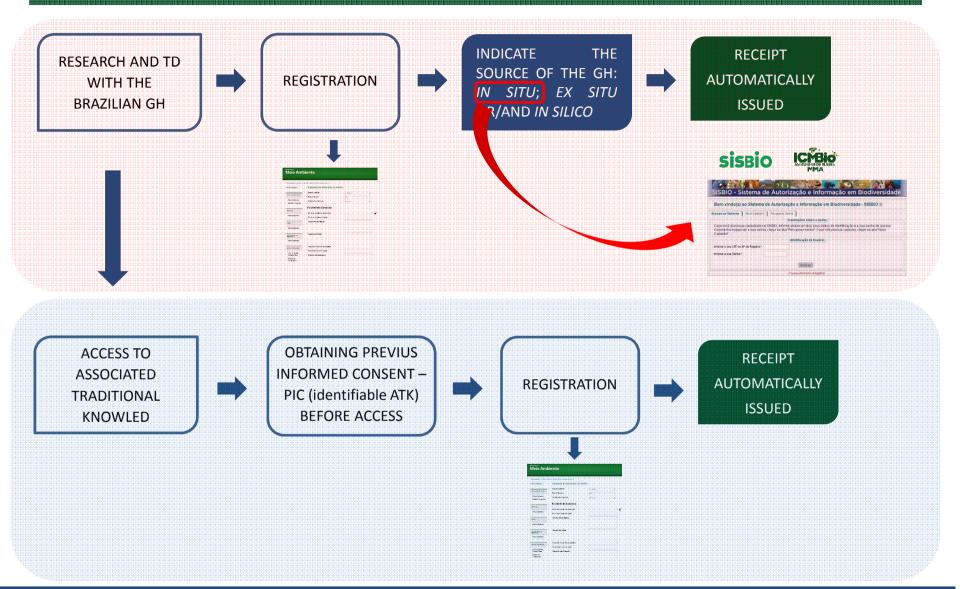




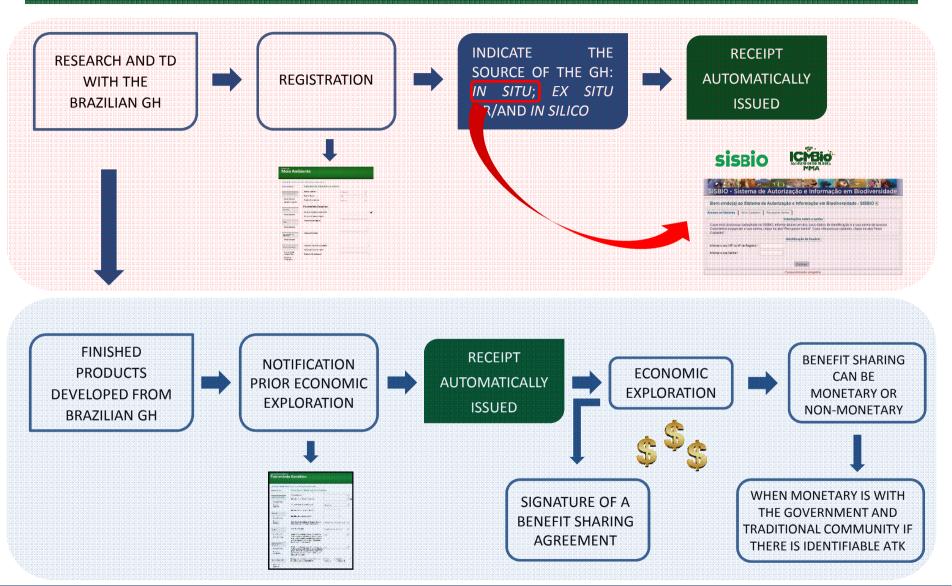




FOR COMPLYING WITH THE LAW: ACCESS TO GR AND ATK



FOR COMPLYING WITH THE LAW: ECONOMICAL EXPLORATION



Flexible rules were established for the regularization of the liability resulting from the failure to comply with the Provisional Act 2.186/2001. All the penalties were extinguished, with the exception of fines

RESEARCH

TECHNOLOGICAL DEVELOPMENT

100% fine exemption

with the remaining balance with the possibility to be reversed, for instance, conservation projects, in the distribution of products in programs of social interest



Flexible rules were established for the regularization of the liability resulting from the failure to comply with the Provisional Act 2.186/2001. All the penalties were extinguished, with the exception of fines

RESEARCH

TECHNOLOGICAL DEVELOPMENT

100% fine exemption

The regularization is conditioned to the signature of a Commitment Agreement



Flexible rules were established for the regularization of the liability resulting from the failure to comply with the Provisional Act 2.186/2001. All the penalties were extinguished, with the exception of fines

RESEARCH

TECHNOLOGICAL DEVELOPMENT

100% fine exemption

In the case of access to genetic heritage or associated TK for research purposes, the user will be exempted from signing the Commitment Agreement, regularizing through the registration



Flexible rules were established for the regularization of the liability resulting from the failure to comply with the Provisional Act 2.186/2001. All the penalties were extinguished, with the exception of fines

RESEARCH

TECHNOLOGICAL DEVELOPMENT

100% fine exemption

REMEMBERING THAT THIS REGULARIZATION IS IN RELATION TO THE ACTIVITIES THAT WERE IN THE SCOPE OF THE LAST LEGISLATOIN (MP 2.186/2001), OR WHATSO, RESEARCH INVOLVING TAXONOMY, EPIDEMIOLOGY, PHILOGENY, ETC ... ARE OUT OF THIS REGULARIZATION!



VIOLATIONS AGAINST GH AND ATK

THOSE WHO FAIL TO MEET THE REQUIREMENTS OF THE LAW REGARDING ACCESS TO GENETIC RESOURCES AND TRADITIONAL KNOWLEDGE, INCLUDING, AMONG OTHERS:

- Explore economically finished product or reproductive material from access to GH or ATK without notification
- Shipping GH abroad without prior registration or in disagreement with this
- Disseminate results, final or partial, in scientific or communication circles without prior registration
- Access ATK of identifiable source without obtaining prior informed consent or in disagreement with this
- Failing to indicate the origin of ATK of identifiable source in publications, utilizations, explorations and disclosures of results from the access

CAN BE PUNISHED WITH PENALTIES SUCH AS:

- Warning
- Fine
- Suspension of certificate
- Cancellation of certificate
- Embargo on the specific activity related to the offense
- Apprehension of materials
- Temporary suspension of the manufacture and sale of the finished product or reproductive materials
- Partial or total prohibition of the establishment, activity or enterprise





You are here » Home » Research and teaching » Access to genetic resources

Access to genetic resources

- * Biodiversity Law
- * Figorus and Law 13.123
- * Nagova Protocol

And associated traditional knowledge



Since 2015, Brazil has a new legislation which provides for the use of Brazilian biodiversity by science and production chain. It is the Law 13.123, known as the Biodiversity Law. Its rules define, in the jargon of the area, "access to genetic resources, protection, access to associated traditional knowledge and benefit sharing for the conservation and sustainable use of biodiversity". The new legal framework was regulated by Decree 8.772/16, on May 12, 2016.

In the scientist's routine, it is very common to have to use to biodiversity resources. It means that, in their research, they will isolate and study the genome of plants, animals, micro-organisms and fungi. Observing the genetic information from these different forms of life, it is possible to better understand phenomena related to cell and molecular biology, allowing that biological and chemical structures are reproduced in the creation of numerous products and technologies.

27 JOSE W 2550

The Law and Fiocruz

- New ABS Brazilian legislation Law: presentation (Portuguese
- The new institutional procedures (Portuguese)
- Material Transfer Agreement (Portuguese)
- Material Transfer Agreement (English)
- Biodiversity Fiboruz 's electronic system (Portuguese)

► Biological Collections



 Audio-visual (Portuguese)

Video of lecture on Brazilian ABS legislation in Enso/Fioorus

▶ VPPLR



Know the Vice-Presidency of Research and Reference Laboratory of Ficonus

▶ News



Fiocruz took part of the thirteen meeting of the Conference of the Parties to the Convention on Biological Diversity (Portuguese)

► Legislation

- Read, in the whole, the new Brazilian ABS legislation (Portuguese)
- Know the Decree 8.772, which regulates the Biodiversity Law

▶ Document

*Implementation of the Nagoya Protocol on access and benefit-sharing

► Cooperation

- * Presentation on the Brazilian ABS legislation
- Report of the workshop on international exchange of genetic resources between Brazil and the FU
- Subsidies for the workshop on Monitoring and sectoral workflows on ABS legislation

► Read More

- Brazilian mission discusses flow of genetic resources in Europe
- Featured in the Journal of Science - New Biodiversity Law; Challenges and prospects for R&D
- Workshop makes recommendations for exchange of components of Brazilian biodiversity
- * Fiocruz at COP 12, World Conference on Biological Diversity





You are here » Home » Research and teaching » Access to genetic resources

Access to genetic resources

- * Biodiversity Law
- * Figorus and Law 13.123
- * Nagova Protocol

And associated traditional knowledge



Since 2015, Brazil has a new legislation which provides for the use of Brazilian biodiversity by science and production chain. It is the Law 13.123, known as the Biodiversity Law. Its rules define, in the jargon of the area, "access to genetic resources, protection, access to associated traditional knowledge and benefit sharing for the conservation and sustainable use of biodiversity". The new legal framework was regulated by Decree 8.772/16, on May 12, 2016.

In the scientist's routine, it is very common to have to use to biodiversity resources. It means that, in their research, they will isolate and study the genome of plants, animals, micro-organisms and fungi. Observing the genetic information from these different forms of life, it is possible to better understand phenomena related to cell and molecular biology, allowing that biological and chemical structures are reproduced in the creation of numerous products and technologies.

27 2020 37 2520

The Law and Fiocruz

- New ABS Brazilian legislation Law: presentation (Portuguese
- The new institutional procedures (Portuguese)
- Material Transfer Agreement (Portuguese)
- Material Transfer Agreement (English)
- Biodiversity Figoruz 's electronic system (Portuguese)

► Biological Collections



 Audio-visual (Portuguese)

Video of lecture on Brazilian ABS legislation in Enso/Fioorus

▶ VPPLR



Know the Vice-Presidency of Research and Reference Laboratory of Fiochus

▶ News



Fiocruz took part of the thirteen meeting of the Conference of the Parties to the Convention on Biological Diversity (Portuguese)

► Legislation

- Read, in the whole, the new Brazilian ABS legislation (Portuguese)
- Know the Decree 8.772, which regulates the Biodiversity Law

▶ Document

*Implementation of the Nagoya Protocol on access and benefit-sharing

► Cooperation

- Presentation on the Brazilian ABS legislation
- Report of the workshop on International exchange of genetic resources between Brazil and the EU
- Subsidies for the workshop on Monitoring and sectoral workflows on ABS legislation

► Read More

- Brazilian mission discusses flow of genetic resources in Europe
- Featured in the Journal of Science - New Biodiversity Law; Challenges and prospects for R&D
- Workshop makes recommendations for exchange of components of Brazilian biodiversity
- * Fiocruz at COP 12, World Conference on Biological Diversity



THANK YOU!

Manuela da Silva
manuela.dasilva@fiocruz.br
FIOCRUZ
FUNDAÇÃO OSWALDO CRUZ
HEALTH MINISTRY

