



European Marine Biological Resource Centre Biobank (EBB)

D5.3 Updated EBB Inventory of Marine Biological Resources
WP 5 ABS compliance for collections and fundamental research using marine biological resources (MBRs)
Action 3 Ensure “retrospective” compliance with ABS regulations.

ABS compliance for collections and fundamental research using MBRs

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Table of Contents

Table of Contents	1
1. Introduction	2
2. Scope of the audit	3
3. National ABS frameworks	3
4. Risk management proposition for the EBB project	7
4.1. Heterogeneity of ABS frameworks	7
4.2. Dynamic ABS frameworks	10
5. Annex	11

Audit on the compliance of EBB collections with Access and Benefit Sharing (ABS) frameworks of provider countries

1. Introduction

The European Marine Biological Resource Centre (EMBRC-ERIC⁷, hereinafter referred to as EMBRC) is a distributed pan-European research infrastructure that provides access to coastal marine ecosystems and marine biological resources for both fundamental and applied research. Providing access to marine genetic resources is one of EMBRC's primary services.

The EMBRC is committed to facilitating access to and supply of marine biological and genetic material to users in compliance with international, European and national legal frameworks regarding Access and Benefit Sharing (ABS). The European Blue Biobank (EBB) project, under the umbrella of EMBRC, supports this aspiration by promoting compliance with ABS regulations derived from the Nagoya Protocol and implemented in Europe through the EU ABS Regulation that came into force in 2014 as well as Member State's access legislations, where applicable. This regulatory framework, although effective in protecting the rights of the provider country, puts burden on the user to demonstrate lawful utilization. In this context, research infrastructures, facilities, biobanks and collections may play a role by facilitating legal compliance and lawful use of the genetic resources they provide.

In order to support implementation of ABS regulations in EBB's biobanks and culture collections two internal audits of the resources held in collection were carried out. The initial audit was finished on May 2019 and the second audit was started in September 2020. Any material currently held may be subject to national ABS regulations (since 1993 when the Convention on Biological Diversity (CBD) entered into force), hence all available information for this material in EBB collections was compiled, and an inventory was made. In this audit of EBB collections the results of the inventory are presented and discussed. This information will be the basis to seek retrospective agreement from the countries of origin to ensure compliance of marine biological resources deposited in EBB's collections.

⁷ <http://embrc.eu/> EMBRC has the legal status of a European Research Infrastructure Consortium (ERIC), which was awarded by the European Commission on 20 February 2018.

2. Scope of the audit

There are 10 collections within EBB partnership; however, the audit was only undertaken in 8 of them. As detailed in Table 1, in 2019, Marbank's holdings were obtained from areas beyond national jurisdiction (not in scope of ABS regulations) and from Norway (in scope of the ABS regulations), and this collection was only included in the 2020 audit. CCMAR and Marine Biodiscovery collections were not included in the audits because the collections' data were not provided.

Table 1. Total EBB collections. The fourth and fifth columns indicate if the collection was or not accounted in the 2019 and 2020 audits respectively.

Partner no.	Institute	Country	Collection name	Accounted in the 2019 audit? (Yes/No)	Accounted in the 2020 audit? (Yes/No)	Notes
1	UVigo	Spain	ECC	YES	YES	
2	CIIMAR	Portugal	LEGE	YES	YES	
			BMCC	YES	YES	
3	UPV/EHU	Spain	BEBBB	YES	YES	In this collection, 1 individual may generate multiple samples each corresponding to a genetic resource in terms of transcriptome, proteome or metabolome because around 7 organs can be collected separately.
4	UALG	Portugal	CCMAR	NO	NO	No data provided.
5	SU	France	RCC	YES	YES	
6	IMR	Norway	Marbank	NO	YES	Origin of genetic resources: International waters in 2019 (out of scope) and Norway in 2020.
7	MBA	UK	PCC	YES	YES	
8	NUIG	Ireland	Marine Biodiscovery	NO	NO	No data provided.
17	SAMS	UK	CCAP	YES	YES	

3. National ABS frameworks

One hundred fourteen provider countries/areas/regions of genetic resources have been identified in the 7 analysed EBB collections on the first audit. In the second audit 3 new provider countries (Haiti, Papua New Guinea and Mongolia) were identified and two provider countries (Soviet Union and Iraq) that were included in the initial audit were removed from the list of countries due to strains disposal (i.e. the genetic material is no longer kept in the collection).

Provider areas (in the most of the cases they were countries) included in tables 2 and 3 can have an ABS legal framework whether they are parties to the Nagoya Protocol or not. National focal points of these countries were contacted to seek further information on their ABS framework when there was not enough information on the ABS Clearing House platform (<https://absch.cbd.int>). Specific ABS regulations for “ex-situ” genetic resources (i.e. those resources held in culture collections/biobanks, which are off site of, or away from their natural or original location) were also sought.

Tables 2 and 3 show where accessing, transferring and using genetic resources is free and unconditional, and where an authorisation (in any form: declaration, license, permit, IRCC...) is required.

Table 2. ABS framework of provider countries/areas/regions of the EBB collections on May 2019 (first audit). Genetic Resources: GRs, Nagoya Protocol: NP. Cells in red correspond with countries/areas/regions that have implemented an ABS framework that regulates access to and utilization of genetic resources from within their jurisdiction (dark red for Nagoya Protocol parties, light red for non-parties to the Nagoya Protocol). Cells in orange correspond with countries/areas/regions that are implementing an ABS framework, and we do not know yet if these new frameworks will require authorization applications for accessing and using genetic resources. Cells in green correspond with countries/areas/ regions that do not restrict ex situ access and use of genetic resources from within their jurisdiction in basic research. Cells in white correspond with countries/areas/regions that have not provided information on their ABS framework so far.

Country/area/region	Total GRs	Party to NP?	Country/area/region	Total GRs	Party to NP?	Country/area/region	Total GRs	Party to NP?
France	1966	Yes	Tunisia	23	No	Kuwait	4	Yes
UK	889	Yes	Bermuda	20	No	Nigeria	3	No
Spain	655	Yes	Tahiti	19	Yes	Reunion	3	Yes
Canada	615	No	Denmark	19	Yes	Sylt, German Bight	3	No
USA	496	No	Austria	17	Yes	Lebanon	3	Yes
Chile	458	No	China	16	Yes	Romania	3	No
Portugal (Azores area?)	379	Yes	Czech Republic	15	Yes	Singapore	3	No
Japan	291	Yes	Malaysia	15	Yes	Syria	3	Yes
Italy	290	No	Algeria	14	No	Zambia	3	No
Germany	253	Yes	Hungary	14	Yes	Uganda	2	Yes
Norway	211	Yes	Cuba	14	Yes	Dominica	2	No
International waters	206	-	Mexico	13	Yes	Dominican Republic	2	Yes
New Zealand	148	No	South Korea	13	Yes	Ethiopia	2	Yes
Brazil	110	No	Cabo verde	13	No	Laos	2	Yes
Israel	103	No	New Caledonia	12	Yes	Palau	2	Yes
Antarctica	97	-	Angola	12	Yes	Soviet Union	2	No
Peru	96	Yes	Malta	11	Yes	Australasia	1	No
Greenland	89	No	Slovenia	10	No	Bahamas	1	No
Egypt	88	Yes	Thailand	10	No	Bahrain	1	No
Netherlands	72	Yes	Indonesia	9	Yes	Bangladesh	1	No
South Africa	65	Yes	Madagascar	9	Yes	Chad	1	Yes
Australia	64	No	Belgium	9	Yes	Costa Rica	1	No
Vietnam	64	Yes	Ukraine	9	No	Guatemala	1	Yes
Mayotte	60	Yes	Colombia	8	No	Iraq	1	No
Switzerland	57	Yes	Nicaragua	8	No	Kazakhstan	1	Yes
Finland	48	Yes	Philippines	7	Yes	Micronesia	1	Yes
India	40	Yes	Namibia	7	Yes	Oman	1	No
Kenya	36	Yes	Western Sahara	7	No	Pakistan	1	Yes
Former Czechoslovakia	34	No	Ecuador	7	Yes	Madeira	1	Yes
Libya	33	No	Bulgaria	6	Yes	Saudi Arabia	1	No
Greece	33	No	Kiribati	6	No	Seychelles	1	Yes
Morocco	32	No	Jamaica	5	No	Slovakia	1	Yes
Sweden	32	Yes	Fiji	5	Yes	Somalia	1	No
Cyprus	28	No	Monaco	5	No	Tanzania	1	Yes
Russia	28	No	Poland	5	No	Turkey	1	No
Argentina	28	Yes	Uruguay	5	Yes	Vanuatu	1	Yes
Ireland	25	No	Croatia	4	Yes	Venezuela	1	Yes
Guadeloupe	24	Yes	Iceland	4	No	Regions of Azores		Yes
						Non-informed country	1549	

Table 3. ABS framework of provider countries/areas/regions of the EBB collections on September 2020 (second audit). Genetic Resources: GRs, Nagoya Protocol: NP. Cells in red correspond with countries/areas/regions that have implemented an ABS framework that regulates access to and utilization of genetic resources from within their jurisdiction (dark red for Nagoya Protocol parties, light red for non-parties to the Nagoya Protocol). Cells in orange correspond with countries/areas/regions that are implementing an ABS framework, and we do not know yet if these new frameworks will require authorization applications for accessing and using genetic resources. Cells in green correspond with countries/areas/regions that do not restrict ex situ access and use of genetic resources from within their jurisdiction in basic research. Cells in white correspond with countries/areas/regions that have not provided information on their ABS framework so far.

Country/area/region	Total GRs	Party to NP?	Country/area/region	Total GRs	Party to NP?	Country/area/region	Total GRs	Party to NP?
Norway	211	Yes	Tunisia	23	No	Kuwait	4	Yes
France	1966	Yes	Bermuda	20	No	Nigeria	3	No
UK	889	Yes	Tahiti	19	Yes	Reunion	3	Yes
Spain	655	Yes	Denmark	19	Yes	Sylt, German Bight	3	No
Canada	615	No	Austria	17	Yes	Lebanon	3	Yes
USA	496	No	China	16	Yes	Romania	3	No
Chile	458	No	Czech Republic	15	Yes	Singapore	3	No
Portugal (Azores area?)	379	Yes	Malaysia	15	Yes	Syria	3	Yes
Japan	291	Yes	Papua New Guinea	15	No	Zambia	3	No
Italy	290	No	Algeria	14	No	Uganda	2	Yes
Germany	253	Yes	Hungary	14	Yes	Dominica	2	No
International waters	206	-	Cuba	14	Yes	Dominican Republic	2	Yes
New Zealand	148	No	Mexico	13	Yes	Ethiopia	2	Yes
Brazil	110	No	South Korea	13	Yes	Laos	2	Yes
Israel	103	No	Cabo verde	13	No	Palau	2	Yes
Antarctica	97	-	New Caledonia	12	Yes	Mongolia		
Peru	96	Yes	Angola	12	Yes	Australasia	1	No
Greenland	89	No	Malta	11	Yes	Bahamas	1	No
Egypt	88	Yes	Slovenia	10	No	Bahrain	1	No
Netherlands	72	Yes	Thailand	10	No	Bangladesh	1	No
South Africa	65	Yes	Indonesia	9	Yes	Chad	1	Yes
Australia	64	No	Madagascar	9	Yes	Costa Rica	1	No
Vietnam	64	Yes	Belgium	9	Yes	Guatemala	1	Yes
Mayotte	60	Yes	Ukraine	9	No	Kazakhstan	1	Yes
Switzerland	57	Yes	Colombia	8	No	Micronesia	1	Yes
Finland	48	Yes	Nicaragua	8	No	Oman	1	No
India	40	Yes	Philippines	7	Yes	Pakistan	1	Yes
Kenya	36	Yes	Namibia	7	Yes	Madeira	1	Yes
Haiti	35	No	Western Sahara	7	No	Saudi Arabia	1	No
Libya	33	No	Ecuador	7	Yes	Seychelles	1	Yes
Greece	33	No	Bulgaria	6	Yes	Slovakia	1	Yes
Morocco	32	No	Kiribati	6	No	Somalia	1	No
Sweden	32	Yes	Jamaica	5	No	Tanzania	1	Yes
Former Czechoslovakia	34	No	Fiji	5	Yes	Turkey	1	No
Cyprus	28	No	Monaco	5	No	Vanuatu	1	Yes
Russia	28	No	Poland	5	No	Venezuela	1	Yes
Argentina	28	Yes	Uruguay	5	Yes	Soviet Union	2	No
Ireland	25	No	Croatia	4	Yes	Iraq	1	No
Guadeloupe	24	Yes	Iceland	4	No	Regions of Azores		Yes
						Non-informed country	1549	

Each country/area/region presents its own ABS legal framework and, therefore, has its own requirements. Annex 1 shows the diversity of country/area/region requirements that regulate the access to, and/or the transfer of and/or the sharing

of benefits arising out of the utilization of genetic resources, linked or nor to the Nagoya Protocol.

4. Risk management proposition for the EBB project

4.1. Heterogeneity of ABS frameworks

The EBB partner institutions managing the culture collections and biobanks do not have enough staff to achieve the full compliance of its collections with 114 different frameworks (reading and analysing the national legislation, auditing the activities undertaken by the collections, negotiating for each genetic resource). Therefore, EBB project suggests establishing priorities among the genetic resources that need to be regularized. The endorsement of EBB Deliverable D5.1 Handbook on implementation of EBB Best Practices and Sample Identification System⁸ by EMBRC will help its culture collections and biobanks to organize the ABS process for the future. Table 4 shows that **86.30% of genetic resources in the 8 EBB collections come from only 20 countries** in the first audit made on 2019. The situation in 2020 shows even a higher grouping of genetic resources, reflecting that 91.15% of them come from only 20 countries. This suggests we should first regularise resources that come from these 20 countries.

⁸ The endorsed version of the EBB deliverable D5.1. by EMBRC is “The EMBRC guide to ABS compliance. Recommendations to institutions with collections and users of marine biological resources”.

Table 4. Percentage of EBB genetic resources from provider countries identified on the first audit (2019). Genetic Resources: GRs, Nagoya Protocol: NP. *1549 genetic resources from an unknown country of origin were not taken into account in the calculation of the percentages.

Country	Percentage*	Total GR	Party to NP?	ABS Status	Cumulative percentage (%)
France	22.68	1966	Yes	A permit is required for each use	53.30% (Top 5 countries cumulative %)
UK	10.25	889	Yes	No ABS measures	
Spain	7.56	655	Yes	A permit is required for each use	
Canada	7.09	615	No	No ABS measures	
USA	5.72	496	No	No ABS measures, but no confirmation was received from the NFP.	
Chile	5.28	458	No	ABS framework in development	32.99% (Cumulative % for the next 15 countries)
Portugal (Azores area included)	4.37	379	Yes	No ABS measures in Portugal mainland and Madeira (ABS measures in Azores)	
Japan	3.36	291	Yes	No ABS measures	
Italy	3.35	290	No	No ABS measures	
Germany	2.92	253	Yes	No ABS measures	
Norway	2.43	211	Yes	No ABS measures	
International waters	2.38	206	x	No ABS measures	
New Zealand	1.71	148	No	No ABS measures	
Brazil	1.27	110	No	Foreigners are not allowed to access to GRs	
Israel	1.19	103	No	No ABS measures, but no confirmation was received from the NFP.	
Antarctica	1.12	97	-	No ABS measures	
Greenland	1.03	89	No	No ABS measures, but no confirmation was received from the NFP.	
Egypt	1.02	88	Yes	ABS framework unknown because written in Arabic: expecting an answer in English	
Netherlands	0.83	72	Yes	No ABS measures	
South Africa	0.75	65	Yes	A permit is required for each use	

Table 5. Percentage of EBB genetic resources from provider countries identified on the second audit (2020). Genetic Resources: GRs, Nagoya Protocol: NP. *1549 genetic resources from an unknown country of origin were not taken into account in the calculation of the percentages.

Country	Percentage*	Total GR	Party to NP?	ABS Status	Cumulative percentage (%)
Norway	38.83	5425	Yes	No ABS measures	68.38% (Top 5 countries cumulative %)
France	14.09	1969	Yes	A permit is required for each use	
UK	6.36	889	Yes	No ABS measures	
Spain	4.69	655	Yes	A permit is required for each use	
Canada	4.40	615	No	No ABS measures	
USA	3.55	496	No	No ABS measures, but no confirmation was received from the NFP.	24.98% (Cumulative % for the next 15 countries)
Chile	3.28	458	No	ABS framework in development	
Portugal (Azores area included)	2.71	379	Yes	No ABS measures	
Japan	2.08	291	Yes	No ABS measures	
Italy	2.08	290	No	No ABS measures	
Germany	1.81	253	Yes	No ABS measures	
International waters	1.47	206	-	No ABS measures	
New Zealand	1.06	148	No	No ABS measures	
Brazil	0.79	110	No	Foreigners are not allowed to access to GRs	
Israel	0.74	103	No	No ABS measures, but no confirmation was received from the NFP.	
Antarctica	0.73	102	-	No ABS measures	
Peru	0.69	96	Yes	A permit is required for each use	
Greenland	0.64	89	No	No ABS measures, but no confirmation was received from the NFP.	
Egypt	0.63	88	Yes	ABS framework unknown because written in Arabic: expecting an answer in English	
Netherlands	0.52	72	Yes	No ABS measures	

The collections based in the European Union are bound by the EU regulation on ABS compliance, therefore they are expected to acquire material in respect with ABS. EBB efforts will support first the compliance on the countries that are party to the NP and that have developed an ABS framework (Tables 3 and 4) because the results of the second audit showed that 20% of EBB genetic resources are provided by only four of them (France, Spain, Peru and Egypt).

4.2. Dynamic ABS frameworks

ABS frameworks may change. Non-parties may become parties, and Nagoya Protocol parties can decide to develop their own ABS legislation. Thus, it highlights the importance of the ABS Clearing House, where links to updated documentation on ABS-related regulations can be found, and the follow up of changes in ABS frameworks, especially those in orange (Tables 2 and 3), which correspond to countries that are developing their ABS framework.

Moreover, EBB collections acquire and transfer new samples all year round. In addition to new strain deposits, the list of provider countries may evolve through time. For instance, in the audit 2020 three new provider countries were included and two other provider countries were removed from the list of provider countries due to strain disposal by the collections. The Technical Guideline 1 and 2 on the acquisition and depositing of genetic resources in collection of “The EMBRC guide to ABS compliance. Recommendations to institutions with collections and users of marine biological resources”⁹ will have to be implemented to maintain the compliance with ABS regulations, since new resources will be deposited in the future in the collections. Otherwise, over time, the audit results will become unusable.

A real time access to EBB databases would enable a more efficient way to monitor the compliance of EBB genetic resources and regularise them. EMBRC-ERIC has been the vector to promote such a single access point to ABS compliance of the EBB databases, and a common marine biological resource catalogue will be up and running by the end of EBB project.

⁹ This document was developed in the frame of EBB project and corresponds to the endorsement of the EBB deliverable “D5.1 Handbook on implementation of EBB Best Practices and Sample Identification System” by EMBRC in October 2020.

5. Annex

Annex 1. ABS frameworks of provider countries in alphabetical order that have implemented requirements for accessing, transferring or using genetic resources from within their jurisdiction. Updated on the 13th November 2020.

Countries	Total GRs (2020)	Party to NP?	Notes
Angola	12	Yes	Angola does not have yet a specific legal framework on ABS. Nonetheless, as part of the Nagoya Protocol it has been granting PIC and MAT since February 2018 based on its national environmental law.
Australia	64	Not yet	Part 8A of Australia's Environment Protection and Biodiversity Conservation Regulations (2000). From 1st December 2005, applications for permits can be made via a website. 19 strains have been collected after 2005 (CCAP)
Brazil	110	Soon	Brazil Law 13.123, Chapter IV, Article 11 (2015): Foreigners are not allowed to access to GRs Factsheet from Union for Ethical BioTrade: "Research or technological development involving genetic heritage may be started without prior procedure. However, registration must have taken place prior to sending samples abroad, applying for intellectual property rights, commercialising intermediate or final products, or publishing research results. Also, foreign companies and institutions may only conduct such research and development in partnership with local institutions."
Bulgaria	6	Yes	Article 66 (6) of the Biodiversity Act. A written permission for access and use is issued by the Competent Authority after a filled request from the applicant. Article 66 (4) provides for gratuitous provision of genetic resources if the said resources are intended for non-commercial purposes: scientific research, education, conservation of biological diversity, or public health.
Colombia	8	No	Colombia Law 165 of 1994, Article 15: It is stipulated that access to genetic resources shall be subject to PIC and MAT
Croatia	4	Yes	Nature Protection Act (Official Gazette No 80/2013): Articles 88 to 98: PIC/MAT required. Art. 92.2: Transfer to third parties Art. 94.1; 94.2: Gene banks and other ex situ sources of genetic material
Cuba	14	Yes	PIC: The Ministry of Agriculture and the Ministry of Food Industry issue permits for the capture, collection or prospecting of terrestrial and marine biological resources, which are presented to the CICA (Citma) to demonstrate the authorization to carry out the activity of these governing bodies, which in fact constitutes a form of prior informed consent. MAT: In the clauses of the contract signed by the National Authority, the distribution of the benefits obtained from the use of genetic resources is defined, but only when it comes to national parties. If there are foreign parties involved, they are not specifically addressed.
Dominican Republic	2	Yes	Biodiversity Law 333-15 (2015) and Regulation of Access to Genetic Resources and Distribution of Benefits (2018). PIC and MAT are required for every new utilization of genetic resources (for in situ and ex situ access).
Ecuador	7	Yes	Reglamento al régimen común sobre acceso a los recursos genéticos. Art 2: Excluded from the scope of application: (4). The uses of genetic and biological material for scientific purposes such as: systematics taxonomy, conservation, evolution, population biology, biogeography and plant geography. Research projects for such scientific purposes shall be supported by [...] research center duly recognized by the National Component Environment Authority and the National Secretariat for Higher Education, Science, Technology and Innovation as well as to enter into a Framework Contract for these purposes.

Countries	Total GRs (2020)	Party to NP ?	Notes
Egypt	88	Yes	PIC/MAT are probably required but informations are written in Arabic on the Egypt Interim national report on the implementation of the Nagoya Protocol (abs.cbd.int website) . A summary in English to confirm it is expected. 83 strains in the BBCC (EMBRC-France) .
Ethiopia	2	Yes	Access to Genetic Resources and Community Knowledge, and Community Right Proclamation No. 482/2006 PIC and MAT are required (Art. 12.1, Art 16.12) According to the national focal point this proclamation applies to ex situ GR collected before 2006 and to every new user.
France	1969	Yes	LOI n° 2016-1087 du 8 août 2016 pour la reconquête de la biodiversité, de la nature et des paysages . A declaration of access, conservation and utilisation is required
India	40	Yes	Biological Diversity Act, 2002. The approval of National Biodiversity Authority is a pre-requisite for carrying out research [...] and Third Party transfer of the already accessed biological resources.
Indonesia	9	Yes	Information on the abs.cbd.int website has been removed... Expecting a new contact
Jamaica	5	No	Beach Control Act, section 5 (1956): No access and utilization without a license granted by the Beach Control Authority (NRCA/NEPA).
Kenya	36	Yes	In Kenya the grant of access permit is based on provision of PIC and the MAT. The country has an ABS toolkit that gives users obligations and guidelines on PIC and MAT acquisition procedures (available on the ABS-CH). In Kenya, the ABS is governed by The Environmental Management and Co-ordination (Conservation of Biological Diversity and Resources, Access to Genetic Resources and Benefit Sharing) Regulations, 2006.
Laos	2	Yes	While the country is currently developing the specific ABS decree, there are access requirements from individuals and organizations internationally to National Focal Point. National registration and ABS permit are applied temporarily based on existing system and regulations.
Madagascar	9	Yes	Decree n°2017-066. January 31, 2017. Collaboration required (Art.24). Informing the national competent authority transferring resources (access form).
Malta	11	Yes	Legal Notice 379 - Access to Genetic Resources and the Fair and Equitable Sharing of Benefits arising from their Utilisation Regulations, 2016. Enter into force on 08 Nov 2016 - PIC/MAT required.
Mexico	13	Yes	Looks like a permit is needed but a summary in English was requested and the NFP is consulting different ministries to answer my questions.
Namibia	7	Yes	The Interim Bioprospecting Committee (IBPC) facilitate and ensure the granting of prior informed consent by local communities for an application to access genetic resources. Furthermore, The Access to Biological and Genetic Resources and Associated Traditional Knowledge Act 2 of 2017 notes that the access and benefit sharing agreement must contain mutually agreed terms and other prescribed conditions and minimum standards.
Nigeria	3	No	According to the Nigeria report (absch.cbd.int website): PIC/MAT are required.
Peru	96	Yes	PIC and MAT are required, an authorization of transfer to third parties is required, need to inform (in Spanish) the Competent National Authority about progress, results and publications arising from the research conducted. Reglamento de Acceso a los Recursos Genéticos (February 6, 2009) Art. 20 to 33.

Countries	Total GRs (2020)	Party to NP ?	Notes
Philippines	7	Yes	1) Non-commercial research (DAO DA-DENR-PCSD No. 01 of 2004) , requires the execution of a Memorandum of Agreement with any of the agencies aforementioned and subsequent issuance of a Gratuitous Permit to collect wildlife. The general requirements include research proposal, engagement of a local collaborator, and prior informed consent. 2) Access of genetic resources for commercial research/bioprospecting (DA-DENR-PCSD-NCIP Administrative Order No. 01 of 2005) requires the execution of a Bioprospecting Undertaking (BU) by the applicant with the Philippine government through the Department of Agriculture (for marine resources except marine turtles, dugongs and crocodiles), the DENR (for terrestrial resources including marine turtles, dugong, crocodiles) or with the Palawan Council for Sustainable Development) for biological resources found within the province of Palawan. The general requirements for securing a BU includes engagement of a local collaborator, prior informed consent from local authorities of study/collection sites, payment of bioprospecting fee, upfront payment for concerned communities and performance bond, and payment of royalties). 3) To regularise non-compliant strains: Notify the Department of Agriculture and the Biodiversity Management bureau, the BCH focal point which shall deliberate on the instrument needed.
Portugal (Region of Azores)	*	Yes	Regional Decree-Law 9/2012/A Regional Regulatory Decree 20/2012/A A legal framework for (i) the access to, the transfer of and the sharing of benefits arising out of the utilization of natural (including genetic) resources.
Slovenia	10	Not yet	According to the Slovenia Focal Point: A permit is required to access endemic and rare fauna and flora (but not a PIC/MAT).
South Africa	65	Yes	The Government of South Africa through the National Department of Environmental Affairs promulgated its ABS legal framework in 2004 and thereafter promulgated the Bioprospecting, Access and Benefit Sharing Regulations, which entered into force on 01 April 2008. National Environmental Management, Biodiversity Act (2004): Chapter 6 (ABS), Section 81, 82, 83, 84 - Chapter 7 (Permits) "For bioprospecting and any other kind of research". The Bioprospecting, Access and Benefit Sharing Regulations (2008) details these last sections.
Spain	655	Yes	The third entity that accesses a Spanish genetic resource in a collection located in Spain for its utilization must request the access authorization in accordance with the provisions of Royal Decree 124/2017 . If the third entity accesses to a Spanish resource from a foreign collection and the resource has been deposited before 15 March 2017 then the access authorization is not required, however if the resources has been deposited after that date then the access authorization is required.
French Polynesia (including Tahiti)	13	Yes	The Polynesian framework is different from the French framework. A PIC is required and conditions of access are lay out in the law of the country n° 2012-5 of 23 janvier 2012 .
Uganda	2	Yes	PIC and MAT are requirements in the national legislation on ABS. the collector shall not transfer GR to a third party without the consent in writing, of the Competent National Authority. ABS is regulated by The National Environment Regulations (8 March 2005).
Uruguay	5	Yes	According to Regulación de Acceso a Recursos Genéticos y Derivados (20 February 2020) . An access permit is required (and genetic sequences are included in the scope of application).

* GR not identified per region in Portugal.

Countries	Total GRs	Party to NP ?	Notes
Venezuela	1	Yes	<p>Law of Management of Biological Diversity (Gazette Official 39,070, 01/12/2008) If you require access to (in situ or ex situ) Venezuelan genetic resources, you must make your formal request at the following address. Lcdo. Edison Mayorga. General Director of Biological Diversity (DGDB), email: diversidadbiologicaven.dg@gmail.com The National Focal Point would like to know if there is the possibility of training Venezuelan personnel or any way to participate in projects.</p>
Vietnam	64	Yes	<p>Decree 59/2017/ND-CP: A license to access GR is required. License shall be no longer than 3 years. Need to notify the competent authority to transfer GR (Art. 14). Organizations and individuals which have accessed genetic resources from July 1st, 2009 up to the effective date of this Decree, and which wish to continue to utilize genetic resources but have not yet been granted a license, shall have to register and request the license in accordance with the provisions of this Decree (Art 27.3).</p>