THE ABS CAPACITY DEVELOPMENT INITIATIVE

L'INITIATIVE DE RENFORCEMENT DES CAPACITES POUR L'APA

ABS Implementation Options

Policy and administrative options for implementing the Nagoya Protocol on Access and Benefit Sharing (ABS)

ABS Capacity Development Initiative

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Disclaimer

This paper on implementation options for the Nagoya Protocol on ABS is based on

- earlier internal discussion papers of the ABS Initiative, such as “Implementing the Nagoya Protocol - Policy Options for Governments” by Geoff Burton (2012),
- a mission presenting basic implementation options that was conducted by the ABS Initiative in Cameroon in late 2017, and
- numerous country presentations on national ABS systems during various international ABS events.

The document is the result of a team effort by experts of the ABS Initiative. The potential advantages and disadvantages that are presented for different implementation options reflect the experiences of the ABS Initiative and do not necessarily represent the views of individual countries. The document is not meant to be comprehensive and makes no claim to completeness regarding the listed options, their explanations or the country examples. Rather, it intends to provide an overview of some important options and decisions to be made when developing a strategic approach to implement the Nagoya Protocol on ABS at national level.

Table of content

1 List of acronyms and abbreviations

ABS	Access and Benefit Sharing	IPLC	Indigenous Peoples and Local Communities
ABS-CH	ABS-Clearing House Mechanism	ITPGRFA	International Treaty on Plant Genetic Resources for Food and Agriculture
aTK	associated Traditional Knowledge	MAT	Mutually agreed Terms
BCP	Biocultural Community Protocol	MLS	Multilateral System
BfN	Federal Agency for Nature Conservation	NP	Nagoya Protocol
BS	Benefit Sharing	PA	Protected Areas
BS4C	Benefit Sharing for Conservation	PIC	Prior Informed Consent
CNA	Competent National Authoritiy	R&D	Research and Development
DSI	Digital Sequence Information	SME	Small and Medium Enterprises
GR	Genetic Resource	SMTA	Standard Material Transfer Agreement
IP	Intellectual Property	WIPO	World Intellectual Property Organization

Country Index

AUS	Australia	JPN	Japan
BEN	Benin	KEN	Kenya
BRA	Brazil	MEX	Mexico
CMR	Cameroon	MYS	Malaysia
CHE	Switzerland	NAM	Namibia
CIV	Ivory Coast	NOR	Norway
DEU	Germany	PER	Peru
COD	Democratic Republic of the Congo	PHL	Philippines
ESP	Spain	PLW	Palau
ETH	Ethiopia	UGA	Uganda
EU	European Union	VNM	Viet Nam
FRA	France	VUT	Vanuatu
GBR	Great Britain	WSM	Samoa
GUY	Guyana	ZAF	Republic South Africa
IND	India		

2 Introduction / Rationale

The Nagoya Protocol (NP) on access to genetic resources and the fair and equitable sharing of benefits arising from their utilization (ABS) consists of three pillars: (i) all parties are obliged to enforce **compliance** with the ABS requirements of providing countries; (ii) parties can choose whether or not they want to set up measures to regulate **access to genetic resources (GR)** and/or associated traditional knowledge (aTK) within their jurisdiction; and (iii) whether or not they want to impose conditions for equitable **benefit-sharing (BS)**. Most developing and emerging countries chose to first concentrate efforts on implementing the protocol's "access" and "benefit-sharing" aspects. To do so, they need to translate the NP into national policies, legislation and administrative procedures or measures, and set up or mandate the corresponding institutions. Since the NP provides only an overall framework on ABS, there are many different ways to turn the NP into national practice. There is no "one size fits all". Before countries can elaborate meaningful legislative and administrative measures, they need to define their overall strategic approach to ABS. The basic strategy then provides guidance to technical and legal experts in drafting texts that correspond to constitutional requirements, legal and administrative realities, and the environmental, economic and social goals that the country wishes to achieve with ABS.

Since ABS is an emerging, fairly technical and complex issue, many policy makers are finding it challenging to oversee, fully understand and assess all the different options – and their consequences – that the NP provides for implementation. If the necessary funds, time and technical means are available, a full impact assessment of the legal and economic aspects of NP implementation may provide the most comprehensive insights[1]. However, if such a wide-ranging approach is not doable for financial or other reasons, policy makers still need a good understanding of the basic implementation options, their consequences and impacts.

To be able to make informed decisions about the overall orientation of their ABS systems (legal and administrative measures; institutional setup), many countries have asked for an overview of the different NP implementation options. The paper at hand aims at helping interested countries to put the process of developing the national ABS system on good track from the start – or to assess and possibly reorient processes that have already started. Countries that already have an ABS system in place which might not have fulfilled the initial expectations can use this paper to revise and adapt their system. For each implementation option described below, one or more examples are provided of countries that have chosen and adopted the respective approach. These country examples serve merely as illustrations and are not exhaustive. They are an attempt to respond to many requests from partner countries of the ABS Initiative for real-life examples of ABS systems. For the most part, the country examples have been identified through the 2017 and 2018 Vilm-Dialogues "Informing about Domestic Measures for Access to Genetic Resources" organized by the German Federal Agency for Nature Conservation (BfN). For a better understanding, interested readers are invited to

[1] The European Union took this approach; the resulting 300-page study is available here.

consult the respective reports[2] to learn more about the ABS systems of 20 countries with fairly advanced ABS systems in place.

Chapter 3 defines four fundamental policy issues that need to be decided for national NP implementation. For each of these issues, two general options will be presented and briefly described with their main characteristics, potential advantages and disadvantages. Policy makers can use this information to discuss and decide upon a suitable approach for their country.[3] Chapter 4 then looks at some additional, more detailed issues that arise when working on regulatory texts for NP implementation. Again, different options will be described with their potential advantages and disadvantages. Finally, Chapter 5 discusses some key findings and lessons learnt from accompanying ABS implementation processes in various countries.

All options presented, as well as all descriptions of characteristics, examples, advantages and disadvantages, and all possible implications for legal and administrative measures are to be taken merely as a collection of thoughts of the ABS Initiative on the respective matters. They are meant to spark policy discussions at the national level and do not intend to be complete or accurate for each and every situation. There are indefinite possibilities to interpret the different options and the respective arguments, as well as indefinite ways of combining the presented approaches.

In this context, it is important to note that the options presented for each policy or regulatory issue are usually described as the ends of a spectrum. In reality, many countries choose mixed forms. For example, few countries will adopt a purely market-oriented or a fully protective approach, but will combine some features of both. However, care needs to be taken, as some characteristics of options – or indeed, their objectives – may be mutually exclusive. It is therefore important to carefully consider the implications of adopting specific combinations of policies, regulations and processes.

3 Fundamental implementation options

The term „fundamental implementation options“ is used in this paper to describe some very broad but essential decisions that establish a country's overall ABS strategy. A first question is whether the national ABS system is to promote and facilitate international partnerships with research and industry, or whether the overall aim is rather to protect the national genetic resources from unregulated exploitation by international users. Another fundamental question is how to set up the legal framework: whether to include ABS elements and measures in the legislations of all related sectors, or to elaborate a separate ABS legislation that refers to existing sectoral legislations. Once the main political and juridical choices have been made, the actual shape and functioning of the national ABS systems will be further determined by the choice of more specific options. The fundamental implementation options are thus like the first big branches of the ABS-tree that grow from the trunk and then split into many smaller

[2] Final reports of the dialogues available for 2017 and 2018

[3] A main source for chapter 3 is the paper "Implementing the Nagoya Protocol – Policy Options for Governments" by Geoff Burton (2012).

branches. These smaller branches, i.e., the specific implementation options, will ultimately carry the leaves and flowers, which represent access procedures, benefit-sharing and compliance measures. The overall set-up of the ABS system would be the full picture of a tree: a combination of location, trunk, branches, leaves and flowers that determine which organisms will come to live on, of, with and under the tree. In this metaphor, the organisms represent industry and researchers who intend to access and utilize the genetic resources.

3.1 Overall approach

Market-oriented approach	Protective approach
Characteristics • Aims at attracting (international and national) partners to invest in Research and Development (R&D) • Lean procedures for accessing GR • Possibly lower hurdles for national and local users	**Characteristics** • Aims at protecting national GR from being accessed and thus misappropriated • In depth scrutiny of access applicants and applications • Possibly lower hurdles for national and local users
Country examples • BRA (new system), ZAF, AUS	**Country examples** • BRA (old system), PER
Possible advantages • Maximizes the potential valorization of national GR • Boosts bioprospecting activities, including potential research collaborations • Supports national and/or international research and attracts the private sector • Potentially better access to international markets through int. enterprises • Motivates national institutions to offer / prepare GR and Intellectual Property (IP) for the international market	**Possible advantages** • Minimizes the risk of biopiracy • Allows to deeply analyze and select potential bioprospecting activities • Minimizes the risk that benefits stay predominantly with international enterprises • May boost local economy through locally owned value chains
Possible disadvantages • Makes access for international researchers and thus potential biopiracy easier • May facilitate quick and possibly dirty deals • Risk that bulk of benefits stays with an international enterprise instead of a local enterprise and/or community • Risk that users do not come back to re-negotiate PIC / MAT in case of change of intent / new use (contractually difficult to enforce)	**Possible disadvantages** • "Race to the bottom": risk that international users shift sourcing to countries with market-oriented ABS systems that harbor the same GR • Risk that national enterprises are not able to realize the full market potential of a given species • High transaction costs for regulators, providers and users • Difficulties for national research to enter into international research collaborations

3.2 Regulatory framework

Cross-sectoral ABS framework	Stand-alone regulatory framework
Characteristics • Aims at integrating ABS relevant measures in concerned sectoral documents (strategies, guidelines, legislations, etc.)	**Characteristics** • Aims at elaborating an ABS-specific regulatory framework (law, decree, etc.) that in most cases will need to make reference to existing sectoral documents (strategies, guidelines, legislations, etc.)
Country examples • KEN	**Country examples** • BEN, NAM, IND, BRA, PLW
Possible advantages • Can evolve in smaller steps (evolutionary approach) • ABS aspects become integrated in all relevant sectoral legislation • No need for an entire, sometimes lengthy, process for developing a stand-alone ABS law	**Possible advantages** • Can be coordinated by the ABS Focal Point / Competent National Authority (CNA) or a specific department with the given mandate • Host ministry / department can be given the mandate to create the necessary multi-stakeholder committees including line ministries • Lobbying and sensitization can be done in a centralized manner • Procedures can be described in one text that can be made available on the ABS Clearing-House Mechanism (ABS-CH) • Comparatively low costs for developing one centralized set of procedures
Possible disadvantages • Development of sectoral regulations can be difficult and time consuming to harmonize content • ABS Focal Point might have no mandate to push line ministries towards developing sector specific regulations • Significant sensitization and continuous lobbying needed in line ministries • Diversity of sectoral approaches might make the national ABS system difficult to understand for external users • Costs implications for sectoral access and monitoring procedures	**Possible disadvantages** • Potentially costly and lengthy process of developing a stand-alone regulatory framework • Challenging to align the new regulatory framework with existing sectoral laws and regulations • A single ministry can potentially block the development of the entire ABS regulatory framework • Political validation process is difficult to manage
Possible implications for legal and administrative measures • Multitude of legal measures and administrative procedures need to be developed which must not be contradictive	**Possible implications for legal and administrative measures** • Creation of a multi-sectoral ABS committee is necessary in most cases • Based on an adapted law, implementing regulations need to be developed in most cases

3.3 Permitting systems

Centralized permitting system	Decentralized permitting system
Characteristics • Demands for access to GR, no matter what kind of GR or where the GR is foreseen to be accessed, are channeled through a single authority	**Characteristics** • Several options for obtaining an ABS permit do exist. Differentiation can be done according to different types of GR, different access locations, different uses of the GR, etc.
Country examples • BEN, BRA (new), ETH, VUT	**Country examples** • IND, AUS, FRA, PER
Possible advantages • Easy to understand for national and international users • One contact for all ABS related enquiries • One procedure (possibly including PIC criteria and MAT model clauses) for access in different sectors • Low costs for developing and running the respective system • Monitoring and communication with the ABS-CH and User-CNA is easy • Harmonization with all other relevant permits only needs to be done once • Good ground for a potential online permitting system	**Possible advantages** • Potentially higher specific expertise in scrutiny of access applications • Feedback from and communication with the local level and/or different sectors is potentially easier • More transparency for the local level and/or different sectors • Benefits could be channeled more efficiently to the providers • Less need for inter-sectoral harmonization of approaches
Possible disadvantages • Feedback from and communication with the local level can be difficult • Consensus between different sectors and providers is needed to develop a centralized system	**Possible disadvantages** • Difficulties for national and international users to understand • High costs for developing and maintaining several, potentially different systems • Monitoring and communication with the ABS-CH and User-CNAs challenging • Difficult to establish an online permitting system • PIC criteria and MAT “model clauses” potentially to be developed for different sectors and/or provinces
Possible implications for legal and administrative measures • One agency (CNA) in charge of receiving and processing access demands of all users needs to be created/nominated	**Possible implications for legal and administrative measures** • Several agencies (CNAs) need to be created, equipped and trained for the different sectors and/or provinces

3.4 Access requirements with respect to the provenance of the user

Varying access requirements	Uniform access requirements
Characteristics • Access requirements are applicable for international users only, while national users have no or easier access requirements to fulfill ("simplified access")	**Characteristics** • Uniform access requirements are applicable for international and national users alike
Country examples • VNM, CMR, IND (national non-commercial excluded)	**Country examples** • BEN, FRA, ZAF, ETH, PLW, VUT
Possible advantages • Can support local research and possibly SME development • Can motivate international users to enter into collaboration with national research facilities	**Possible advantages** • One procedure for all makes implementing and monitoring easier • No market distortion
Possible disadvantages • Can result in arrangements between international and national users trying to avoid extra burden for international users	**Possible disadvantages** • Might hinder local and national research if the permitting procedure is too lengthy and/or costly • Might put local SME at a disadvantage vis-à-vis international enterprises with higher research budgets
Possible implications for legal and administrative measures • Two distinct processes need to be elaborated, communicated, implemented and monitored	**Possible implications for legal and administrative measures** • Only one process needs to elaborated, communicated, implemented and monitored

4 Detailed ABS implementation options

Once the decisions about the fundamental implementation options have been made, the actual shape and functioning of the national ABS systems will be further determined by the choice of more specific options. A political discussion and decisions about these more detailed implementation options will orientate the technical and legal experts in shaping the regulatory framework, the administrative set-up and the procedures that will translate the overall policies into practice. For ease of reference, the following presentation of specific options is sub-divided into four categories: (1) General, (2) Access, (3) Benefit-sharing, and (4) Monitoring and Compliance.

4.1 General

4.1.1 ABS legal framework

Descriptive ABS law	Broad framework ABS law
Characteristics • Detailed law including detailed procedural aspects	**Characteristics** • "Enabling" ABS / Biodiversity law that is setting out powers to make additional, specific ABS regulations (decree, etc.) e.g. for different sets of GR and/or aTK
Country examples • BRA (old), ETH	**Country examples** • COD, ZAF, NAM, PLW
Possible advantages • Only one text needs to be validated and adopted at national level • Users / stakeholders only need one legal text to understand the entire ABS system of a country	**Possible advantages** • Framework law can be developed without having to solve all detailed procedural questions • Elaboration of framework law can be done relatively quickly and thus can help to prevent continuing biopiracy • Sensitization of policy / decision makers can be done progressively • Subsequent changes in or adaptations of the ABS system are fairly easy to implement (in form of decrees, guidelines etc.)
Possible disadvantages • Elaboration process might take a long time • Intense sensitization needed since decision makers need to fully understand ABS in all its dimensions during the elaboration of the descriptive law • Subsequent changes in or adaptations of the ABS system are difficult to implement (law needs to be changed)	**Possible disadvantages** • Several hierarchical documents needed to understand the national ABS system • Elaboration process for the different cascading texts is naturally interrupted, can take a long time where staff / expertise may be shifting

4.1.2 Functional scope of ABS regulation

ABS procedures triggered by access for utilization as defined in the NP: R&D only	ABS procedures triggered also by access different (broader) from the scope of the NP
Characteristics • ABS is only triggered when utilization as defined in the NP is taking place	**Characteristics** • ABS is more broader applied, e.g. also if biological or indigenous resources are used
Country examples • MAD, ESP, FRA, AUS	**Country examples** • ZAF, NAM, IND, VUT
Possible advantages • Very close to the original NP text • Compliance measures in user countries are more likely to detect ABS cases	**Possible advantages** • More benefits potentially shared • No need to check whether R&D is taking place or not
Possible disadvantages • Difficult to prove whether R&D is taking place or not • No ABS-conform benefit sharing for the bulk of biological resources exported	**Possible disadvantages** • Users likely to source in countries where access would not trigger ABS • High numbers of applications need to be treated, decided upon, monitored • Might impact negatively on ongoing trade of biological resources • Would not fall under compliance measures in user countries
Possible implications for legal and administrative measures • A clear definition of R&D (triggering ABS obligations) needs to be established	**Possible implications for legal and administrative measures** • Inclusion of biotrade in law / regulations (ZAF)

For both options

a) Decision whether utilization / use of derivatives fall under scope of ABS framework

b) Additional procedures for aTK may be needed
- within the legal ABS framework (ETH)
- in a separate legal framework (IND, ZAF)

c) Consideration to integrate specific provisions about gene sequencing and use of information generated – Digital Sequence Information (DSI) (BRA)

4.1.3 Nagoya implementation and International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA)

Exclude access to plant genetic resources for food and agriculture from the Nagoya – ABS scope	Include access to plant genetic resources for food and agriculture in the Nagoya – ABS scope
Characteristics • National ABS procedures are **not** triggered if access occurs to a plant genetic resource used for food and agriculture which is not falling under the multilateral system of the ITPGRFA	**Characteristics** • National ABS procedures are triggered if access occurs to a plant genetic resource used for food and agriculture which is not falling under the multilateral system of the ITPGRFA
Country examples • FRA, MAD	**Country examples** • BEN
Possible advantages • Facilitated access to species important for national / global food production through Standard Material Transfer Agreement (SMTA) • No conflicts between MLS and bilateral benefit sharing	**Possible advantages** • Potentially more direct benefits through bilateral national ABS system shared
Possible disadvantages • Potentially less monetary benefits through SMTA approach	**Possible disadvantages** • Potential conflicts between MLS and bilateral benefit sharing
Possible implications for legal and administrative measures • May require separate regulatory framework by the ministry of agriculture to ensure BS from PGRFA is outside the MLS • Clear reference needs to made to the exclusion of utilization of species covered by MLS of ITPGRFA in the respective legal texts • PGRFA species need to be notified at Food and Agriculture Organization (FAO)	**Possible implications for legal and administrative measures** • May require close coordination between responsible ministries during development AND implementation of regulatory frameworks

4.1.4 Special considerations (NP Art. 8 b) under the Nagoya Protocol

Allow facilitated access for research aiming at conservation and sustainable use and/or in case of emergencies	No facilitated access
Characteristics • If access occurs for research aiming at conservation and sustainable use and/or in case of emergencies, a facilitated ABS procedure is triggered	**Characteristics** • All access has to follow the regular ABS procedure
Country examples • BEN, IND	**Country examples** • ETH, PLW, VUT
Possible advantages • Supporting research aiming at conservation and sustainable use • Ability to act quickly in case of health emergencies (e.g. vaccine for a quickly spreading disease)	**Possible advantages** • Less administrative procedures to establish • More benefits potentially shared
Possible disadvantages • Potentially less benefits shared • Less time for scrutiny of applications	**Possible disadvantages** • Research and research cooperation aiming at conservation and sustainable use might be hindered • Negative impacts on health situation if e.g. vaccines cannot be developed timely
Possible implications for legal and administrative measures • Processes and conditions for simplified measures need to be clearly defined	**Possible implications for legal and administrative measures** • Case by case decisions (i.e. in emergency situations) might be necessary

4.2 Access

4.2.1 Form of research

No distinction between the commercial and non-commercial research	Two distinct permitting procedures at point of access according to intent	Phased system
Characteristics • Commercial and non-commercial research in the scope of the national ABS system triggers the full ABS procedure	**Characteristics** • A differentiation between non-commercial and commercial access is being made, resulting in two different applications and distinct procedures	**Characteristics** • A biodiscovery phase or initial research phase can be launched after a simplified access procedure (e.g. notification) • If the user decides to proceed with a commercialization, a full ABS procedure needs to be followed
Country examples • PHL (differentiation applies only to national researchers), PLW, VUT	**Country examples** • IND, ETH, FRA	**Country examples** • ZAF, AUS, CMR
Possible advantages • Straightforward for all forms of research • Only one procedure needs to be developed • All potential benefit sharing is contractually agreed upon at the time of first access • Easy to monitor	**Possible advantages** • ABS does not hinder fundamental research	**Possible advantages** • Potential (non- commercial and) commercial users are attracted by low hurdles to do initial research • Large scale screening of GR and aTK can take place at relatively low (transaction) cost
Possible disadvantages • High costs for following the full ABS procedure might hinder national and international fundamental researchers and SME from obtaining access permits • Race to the bottom: non-commercial researchers might source in neighboring countries having the same GR but lighter access procedures for non-commercial research	**Possible disadvantages** • Difficult to decide at outset whether an access demand is purely non-commercial or potentially commercial • During the research phase commercially interesting results may occur • Once the GR or aTK has left the country, the use is difficult to monitor	**Possible disadvantages** • Once the GR or aTK has left the country, the use is difficult to monitor • Contractually difficult to force the user having obtained a biodiscovery permit to come back and follow the full ABS procedure for commercialization

4.2.2 Responsibility of CNA

Centralized CNA (receiving and processing access demands)	Semi-centralized CNA (receiving and distributing access demands)	Decentralized CNA's (receiving and processing access demands)
Characteristics • Receiving and processing all access applications • All ABS permits from one entity	**Characteristics** • Receiving all access demands and forwarding the demands to the responsible entities • Different ABS permits from different entities (such as protected areas (PA), marine, forest authorities)	**Characteristics** • Different entities receive and process access demands • Different permits from different entities
Country examples • ZAF, BEN	**Country examples** • KEN	**Country examples** • PHL, MEX, PER
Possible advantages • One contact for all users • Only one procedure needs to be developed • Easy to monitor	**Possible advantages** • One contact for all users • Specialized entities may better judge the pertinence of individual access demands	**Possible advantages** • Specialized entities can better judge the pertinence of individual access demands
Possible disadvantages • Limited knowledge of local conditions regarding individual species and their potential uses	**Possible disadvantages** • Monitoring and follow-up can be difficult with several entities involved	**Possible disadvantages** • Difficult for users to identify the correct entity • Monitoring and follow-up can be difficult with several entities involved

4.2.3 Role of sectoral permits (such as research-, export, collection permits)

CNA uniquely focuses on ABS permit	CNA orients user on sectoral permits which are not conditional for ABS permit	Presentation of sectoral permits conditional for obtaining ABS permit
Characteristics • CNA does not provide user with information on any sectoral permits • ABS permit is completely independent of sectoral permits	**Characteristics** • Information on other, non ABS permits to be obtained is given by CNA • ABS permit can be given without sectoral permits being presented	**Characteristics** • Information on other, non ABS permits to be obtained is given by CNA • ABS permit is only given when sectoral permits have been presented
Country examples –	**Country examples** • ZAR, IND	**Country examples** • CIV, NAM

Possible advantages • The ABS process remains an independent process and cannot be blocked by missing permits from other entities • No need to collect information on sectoral permits	**Possible advantages** • The ABS process remains an independent process and cannot be blocked by missing permits from other entities • Easy for users to learn about all necessary permits	**Possible advantages** • The CNA becomes the entity that is overseeing if all paper work has been respected before exportation of a resource • Easy for users to learn about all necessary permits
Possible disadvantages • CNA obtains less information on utilization patterns which might be of use for policy advice, e.g. on valorization strategies • Difficult for users to learn about all necessary permits	**Possible disadvantages** • CNA obtains less information on utilization patterns which might be of use for policy advice, e.g. on valorization strategies • CNA has to collect and regularly update the information on sectoral permits from the respective entities	**Possible disadvantages** • The ABS process becomes dependent on other processes and can be blocked by a missing permit • Additional workload to make sure the presented permits are correct • Other sectors might question the role of the CNA as controlling sectoral permits • Difficult to control permits that are "post-access" like the export permit and phytosanitary certificate in many countries
Possible implications for legal and administrative measures • No need to make reference to any sectoral permits	**Possible implications for legal and administrative measures** • All sectoral procedures must be officially communicated to the CNA	**Possible implications for legal and administrative measures** • All sectoral procedures must be officially communicated to the CNA • The need to present the sectoral permits needs to be clearly stipulated in the respective legal texts

4.2.4 Entity granting PIC

One centralized entity grants PIC	Multiple entities grant PIC
Characteristics • No matter what the GR and/or aTK accessed is, it is always the same entity (most likely the CNA) that grants PIC	**Characteristics** • According to the nature of and ownership rights on the GR and/or aTK accessed, PIC can be given by different entities
Country examples • CIV, CMR, ETH	**Country examples** • PER, GUY, PLW, VUT
Possible advantages • Easy for the user to understand • Only one procedure needs to be developed • Easy to monitor	**Possible advantages** • Possibly better expertise at provider end when consent is obtained from the owner of the GR / aTK itself or a local / sectoral entity

Possible disadvantages

- The individual consent from the owner of the GR and/or aTK is not being obtained through the PIC itself

Possible disadvantages

- Several procedures need to be developed
- More difficult to monitor

Possible implications for legal and administrative measures

- An alternative form to obtain the PIC from the owner of the GR / aTK needs to be developed

Possible implications for legal and administrative measures

- A method to ensure that individually given PICs are legally recognized needs to be developed

4.2.5 Role of IPLCs

The role of indigenous peoples and local communities (IPLC) in the ABS process can vary considerably from country to country, and also from one specific ABS case to another. The variation is mainly due to national differences in the legal recognition of IPLCs and, more specifically, in the rights they are granted regarding land tenure, ownership of GR and aTK. This means that there are many options for countries to integrate IPLC in the ABS process. Because of this variety, and because it is not possible to generalize advantages and disadvantages of different choices, the following options for IPLC implication are described in the form of lists rather than tables. The country examples for each option are provided in parentheses.

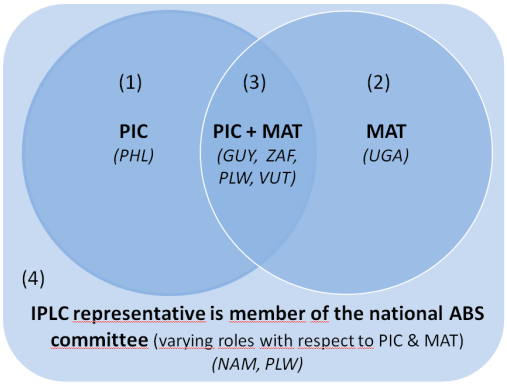
Role regarding PIC and MAT

(1) IPLC grant PIC (PHL)

(2) IPLC establish MAT (UGA)

(3) IPLC grant PIC and establish MAT (GUY, ZAF, PLW, VUT)

(4) IPLC representative is member of the national ABS committee (advising the CNA or taking decisions on PIC and/or MAT) (NAM, PLW)



Form and timing of IPLC approach

(1) IPLCs approached by CNA after access request by user (IND)

(2) IPLCs approached by user after contacting CNA (PHL, CMR, NAM, PLW, VUT)

(3) IPLCs approached by user directly for MAT and PIC, CNA contacted at a later stage for the permit only (UGA, GUY)

Legitimation of IPLC

(1) Legal provisions for IPLC legitimation in ABS law or other laws (GUY, PHL, PLW, VUT)

(2) Legally recognized Bio-cultural Community Protocols (BCP) or an equivalent (KEN)

(3) Endorsement of IPLC in PIC/MAT process by the CNA (CMR)

4.3 Benefit Sharing

4.3.1 Entity negotiating MAT

One central entity negotiates MAT	Multiple entities negotiate MAT	Central entity is supervising MAT negotiation by multiple entities
Characteristics • No matter what the GR and/or aTK accessed is, it is always the same entity (most likely the CNA) that negotiates MAT	**Characteristics** • According to the nature of the GR and/or aTK accessed, MAT are being negotiated by different entities (the respective providers of the GR and/or aTK)	**Characteristics** • MAT are being negotiated by different entities (the respective providers of the GR and/or aTK) and central entity is supervising/taking part in the negotiation
Country examples • ETH	• Country examples • BEN, BRA, MEX	**Country examples** • CIV, CMR, PLW
Possible advantages • Only one actor needs to be trained in negotiating contracts • Cost efficient	**Possible advantages** • MAT can better meet the needs of the respective provider • Providers are self responsible for the outcomes of their negotiation	**Possible advantages** • MAT can better meet the needs of the respective provider • Central entity can ensure that negotiations are fair and equitable
Possible disadvantages • MAT do not necessarily meet the views and needs of the provider • Possible complaints of the provider regarding the outcomes of the negotiations, feeling of disempowerment of resource / aTK holders	**Possible disadvantages** • Several stakeholder groups need to be trained in contract negotiation • More cost intensive and time consuming	**Possible disadvantages** • Several stakeholder groups need to be trained in contract negotiation • Most cost intensive and time consuming

Which option a country chooses regarding the negotiation of MAT depends on the ownership of the GR and/or the aTK and thus the respective provider. While most countries define the owner of aTK as the individual and/or community that holds it, there is great variety in how countries deal with ownership of GR. The following list provides some major options to define ownership of GR and thus to determine who is considered the provider. Country examples are, again, given in parentheses.

(1) Provider is defined through land and resource ownership (public, community, private ownership) (UGA, PHL, AUS, PLW)

(2) The owner/provider for all GR is per definition the government (ETH, CMR)

In both cases, if the provider is the government, there are several further options to determine which section of the government is responsible for a given GR:

a. National/federal government - only one providing entity for all GR (ETH, CMR)

b. National government - different providing entities according to the respective mandate (marine, agriculture, forest, PA, collections, etc.) (PHL, VNM)

c. Provincial/state government - only one providing entity (e.g. Sarawak province in MYS)

d. Provincial government - different providing entities according to mandate (marine, agriculture, forest, PA, collections, etc.) (AUS)

e. Municipal government (PHL)

4.3.2 Form of benefit sharing (BS)

Bilateral BS	BS through a national/provincial fund	Combination of bilateral and fund
Characteristics • All BS is done with individual provider of GR / aTK (general practice)	**Characteristics** • All BS is done through a national/provincial fund (e.g. an environmental fund for biodiversity conservation)	**Characteristics** • BS is channeled through individual providers bilaterally and through a fund at the same time
Country examples • CMR, MAD	**Country examples** • ETH, FRA	**Country examples** • BRA (for aTK of unknown origin) • WSM (draft ABS law of Samoa) • PLW
Possible advantages • Providers can profit directly from BS • Impact on the ground can be more easily monitored	**Possible advantages** • Benefit Sharing for Conservation (BS4C), as foreseen in the NP, can be better guided • Monetary flow easy to monitor • Possibly only one method of payment needs to be established	**Possible advantages** • Combines the advantages of both options
Possible disadvantages • Difficult to ensure BS4C • Benefit sharing patterns can vary greatly from case to case • Monetary flow is difficult to monitor	**Possible disadvantages** • Providers can only hardly profit directly from access to "their" GR • Impact on the ground is difficult to monitor	**Possible disadvantages** • Criteria which BS channel applies need to be clearly defined to avoid confusion

4.3.3 Negotiation of benefit sharing

Individual negotiation	Fixed conditions / amounts / percentages	Combination of individual and fixed
Characteristics • The conditions and amounts of benefits to be shared are negotiated case by case between user and provider	**Characteristics** • The conditions and amounts of benefits to be shared are determined for all users • Amounts for upfront and lump sum payments and/or percentages of various volumes dependent on use / user	**Characteristics** • Pre-determined BS percentages as default, however individual BS agreements may alternatively be negotiated.
Country examples • CMR, PLW	**Country examples** • IND	**Country examples** • BRA
Possible advantages • Benefits (especially non-monetary like information sharing, capacity building and technology transfer) can be best adapted to the respective conditions • No risk that a too high predefined BS would hinder the development of a value chain from the outset	**Possible advantages** • Users can calculate the upcoming costs quite precisely and factor this in the value chain model (Pharma, BioTec) • Easy to monitor	**Possible advantages** • Attractive for users as it offers users the choice between • a) transparent and low transaction cost pre-determined BS amounts and • b) possibility to negotiate individually where appropriate
Possible disadvantages • Difficult for users to estimate costs before entering into the BS negotiations • Difficult to monitor	**Possible disadvantages** • Difficult to adapt to specific sectoral conditions, i.e. use of formulations based on different GR (cosmetics, flavor / fragrance)	**Possible disadvantages** • Possible overlaps • Higher administrative efforts to run two systems in parallel

4.4 Monitoring and Compliance

4.4.1 Checkpoints and their functions

Checkpoints for domestic users of foreign GR / aTK are obligatory for all parties to the NP. In addition, two other forms of checkpoints, one for domestic users of domestic GR / aTK and one to avoid illicit export of domestic GR / aTK, are currently being debated in some countries. However, these two other forms are not part of the NP and therefore do not support fulfilment of obligations under the Protocol. For countries that are still in the process of setting up their access system, it is strongly recommended to focus on implementing checkpoints as foreseen by the NP Article 17. (Monitoring / checkpoints for domestic users of foreign GR / aTK.)

Checkpoint for domestic users of foreign GR / aTK (obligatory under the NP)	Checkpoint for domestic users of domestic GR / aTK	Checkpoint to avoid GR leaving the country without permit
Characteristics • Ensuring that domestic users of foreign GR / aTK have respected the ABS regulation of the providing country • Verifies only the existence of PIC, MAT and Permit • Checkpoint as described in Art. 17 of the NP • Obligatory for all NP parties	**Characteristics** • Ensuring that domestic users of domestic GR / aTK have respected the domestic ABS regulation • Checkpoint not mentioned in the NP • Not obligatory	**Characteristics** • Ensuring that domestic and/or foreign users of domestic GR / aTK do not leave the country of origin without a permit • Checkpoint not mentioned in the NP • Not obligatory
Country examples • EU, CHE, NOR, JPN	**Country examples** • IND, ZAF, ESP, FRA	**Country examples** –
Possible advantages • Fulfillment of the obligations of the NP • Contributing to the international flow of information necessary for a functioning monitoring and compliance system	**Possible advantages** • Helps to avoid illicit utilization of domestic GR / aTK by domestic users • Could be combined with checkpoint for domestic uses of domestic GR	**Possible advantages** • Could potentially make illicit export of domestic GR / aTK more difficult
Possible disadvantages • Set-up is time- and cost intensive	**Possible disadvantages** • Is not an obligation of the NP • Set-up is time- and cost intensive	**Possible disadvantages** • Is not an obligation of the NP • Set-up of a custom / border post system is time- and cost intensive • Illicit export of small quantities (e.g. microbes, plant samples, DSI) is very difficult to detect

4.4.2 Legal provisions in case of misappropriation of GR

Any checkpoint for domestic users of foreign GR / aTK, as stipulated by the NP, requires adequate executive power to fulfill its role of controlling and, if necessary, sanctioning non-compliance. Some possible legal provisions for checkpoints that can be applied in cases of non-compliance with the ABS procedures of a providing country are:

1. Administrative fines (DEU, FRA)
2. Criminal sanctions (e.g. imprisonment) (GBR, NOR, FRA, MEX)
3. Disallowing further utilization of GR (DEU, FRA, MEX)
4. Confiscation of GR (DEU, MEX)

5 Reflections

As stated in the introduction, the implementation options presented in this paper are a collection of thoughts of the ABS Initiative. They are intended to spark discussions on various levels about these matters. National circumstances vary greatly and each party to the NP needs to find its own way of translating the international framework into national realities. All interested ABS practitioners are invited to use this document to initiate multi-sectoral and participative discussions on the overall orientation a national ABS system. During these initial discussions with the relevant stakeholders, further questions will arise and help policy makers shape a vision of the ABS system to be developed or revised. It is this vision that will enable the legal and administrative experts to design an ABS system that corresponds to the goals and ideas of the political decision makers.

Looking at the many implementation options and country examples, and keeping in mind that the collection presented in this paper is far from comprehensive, the enormous diversity of ABS approaches that already exist becomes evident. With a growing number of countries designing and developing their ABS systems, this diversity will continue to grow. No single country or regional organization will be able to create “the” perfect ABS system that other countries could simply copy-paste. Every country needs to make a number of choices for the ABS system to suit its own circumstances.

However dialogue, exchange of experiences and mutual learning remain essential for ABS to function across the globe. Some initial events have brought together ABS National Focal Points, CNAs and other relevant stakeholders from using and providing countries, to exchange views on and experiences with different implementation options, e.g. the above mentioned 2017 and 2018 Vilm-Dialogues “Informing about Domestic Measures for Access to Genetic Resources” organized by BfN. Only if the ABS systems of using and providing countries are compatible, and if procedures are set up in way that the ABS-CH can serve its monitoring purpose, will ABS be able to deliver on conservation and sustainable use of biodiversity while boosting the socio-economic development of the providing countries.

All relevant stakeholders are therefore encouraged to continue looking for opportunities to foster exchange between those involved in implementing and developing ABS systems worldwide. Setting up a regular mechanism for information sharing and exchange could be a first step towards long-term harmonization of ABS systems. An interesting model is the internationally harmonized patent system, which started off with individual country systems and developed, over centuries, into a global patent system that is governed by the World Intellectual Property Organization (WIPO). Envisioning a similar future for ABS might not be too far-fetched.

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