

Genetic Resources, Traditional Knowledge and the Law

Solutions for Access and Benefit Sharing

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Streamlining Access Procedures and Standards

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Introduction

Whereas Article 15.1 of the Convention on Biological Resources (CBD) recognizes the sovereign rights of states over their natural resources, as well as their authority to determine access to GRs subject to their national legislations, Article 15.2 requires that contracting parties facilitate access to GRs and do not impose restrictions that run counter to the objectives of the CBD. Article 15 tries to engage both providers and users to collaborate in order to achieve mutual benefits for both parties, as well as benefits for the environment. Such collaboration, however, seems still far from being achieved. A mismatch of expectations has largely led to a deadlock; part of which is related to access procedures. In many cases, provider regimes have created too many constraints, making access to GRs extremely strenuous. In some instances, users have opted for synthetic raw materials in place of biological ones. Lack of legislative capacity has also contributed to the constraints. Users have also contributed to the stalemate. Until now, no user country has implemented the Article 15.7 obligation by putting in place 'legislative, administrative or policy measures with the aim of sharing in a fair and equitable way the results of research and development and the benefits arising from the commercial and other utilization of GR with the Contracting Party providing such resources'. To protect their interests, many provider countries have one-sidedly opted for stringent measures. As a result, they introduce often-insurmountable conditions for access.

This chapter investigates procedural and substantive requirements of access authorizations with a view to identify unnecessary transaction costs and suggest possibilities of streamlining procedures and criteria. Access regulation in Kenya is taken as an example, but represents many others. Upon analysis of the main shortcomings of the regime, the authors suggest how the situation could be improved by simplified procedures and criteria.

They recommend taking the integrated permit used in some countries in environmental law as a model.

In this chapter we suggest that access procedures could be simplified without reducing the provider states' control of the access and participation in benefits.

Sovereignty over GR: A right with obligations

Prior to the CBD, GRs were widely regarded as a common good (SamPATH, 2005, p127). In other words, they were believed to be an inheritance of all mankind. The CBD made it clear that they fall under the territorial sovereignty of individual countries where they are found (Preamble; Article 15.1). Some authors argue that the CBD did not bring any significant change. Ruiz Muller (2003), for example, says that the CBD just re-affirmed and expressed 'in an unambiguous manner, a right that, theoretically, the States had always had and had never lost'. According to him, the quasi-erroneous, international customary notion that GRs were *res nullius* bred the impression that GRs were 'something over which everybody and, at the same time, nobody had rights' (Ruiz Muller, 2003). For one section of GR, however, there was a formal statement in the non-binding International Undertaking on Plant Genetic Resources for Food and Agriculture (1983) that plant GRs are a common heritage of mankind, a provision which gave rise to a *res nullius* approach at least in crop GRs. However, also Ruiz Muller's statement seems to confirm that the CBD actually brought about a significant change. If the international customary notion gave everybody and nobody specifically the right to access and use GRs, then the state's right could only be understood within the context of everybody's right. That would imply that states in whose territories the GR are found have the right to use GRs, but not to impede any GRs connected activities¹ of other states in their territories. If the *res nullius* doctrine did not clearly delineate the rights of states over GRs, at least the CBD endorsed the sovereign right of countries possessing GRs (ten Kate and Laird, 1999, p15) to determine the rules of access and other conditions attached thereto subject to national legislation (Article 15.1), a right that had never been granted an international formal (legal) recognition before.

Was Article 15.1 meant to give provider states the right to arbitrarily deny others access to GRs found in their territories? Absolutely not; it merely allows states to make access subject to conditions in support of the CBD objectives, such as the fair and equitable sharing of benefits. Putting emphasis on the right to deny would be a wrong interpretation and one that is against the spirit of the CBD (Mugabe et al, 1997, p8; ten Kate and

Laird, p15f). The provision granting providers the right to regulate access cannot be interpreted in isolation from the rest of the provisions of the Convention. Article 15.2 in particular states: 'Each Contracting Party shall endeavour to create conditions to facilitate access to genetic resources for environmentally sound uses by other Contracting Parties and not to impose restrictions that run counter to the objectives of this Convention.' This provision obviously addresses providers. It could, hence, also read: 'Each Provider State shall ...'. It implies that providers have a right to regulate access subject to national legislations, but they also have obligations to (1) create conditions to facilitate access and (2) not to impose restrictions that are contra CBD objectives. What are conditions to facilitate access? Which restrictions would be against the CBD objectives and which ones would not?

Legal and scholarly work has not yet ventured into trying to dissect these two obligations. It is especially difficult to distinguish them because the outcomes might often be the same. However, the concepts seem to differ. Whilst the first seem to revolve around procedural obstacles, which cause unjustifiable transaction costs, the second seem to anchor on the kind of substantive criteria the administrative agency is allowed to apply when supervising access. We will attempt to make this distinction in the next two sections.

Facilitation of access

Before looking at conditions for facilitation of access, it is good to first ask, what does the term 'facilitate' mean in the context of Article 15.2? To facilitate here could be interpreted to mean ease, enable or even assist (access). While designing access regimes, provider countries are thus expected to put in place legislative, administrative and policy measures that ameliorate and not impede access. The CBD does not offer a list of conditions that would be necessary to facilitate access. The Bonn Guidelines (BG) likewise did not attempt to elaborate this requirement. It is hard to imagine conditions that would be uniformly applicable to all or most providing states. However, since some experience exists showing why ABS regimes of many provider countries fail, we might get better results if we first ask the following question from the existing ABS regimes: Which conditions act counter to facilitation of access? Are there procedural requirements that do not serve the purpose of allowing the authorities to take a grounded decision, but unnecessarily cause or increase transaction costs?

An answer to the above question would be more vivid if an analysis of a complex ABS regime is made. Below we examine the access procedures of the Kenyan Regulations 2006, taking this as an example that exemplifies many others. Subsequently, we will discuss the possibilities of simplifying such procedures.

Access procedures: The case of Kenya

In full, the law that regulates ABS in Kenya is the Environmental Management and Co-ordination (Conservation of Biological Diversity and Resources, Access to Genetic Resources and Benefit Sharing) Regulations, 2006. The ABS provisions are found in parts III (Section 9–18) and IV (Section 19–20) of Regulation 2006. Part III states clearly that any person intending to access GRs in Kenya, whether an individual or a legal person, must be in possession of an access permit obtainable from the NEMA. Before an application is acceptable to NEMA, it must include other authorizations, as well as PICs.

The access procedure begins with a research authorization from the National Council for Science and Technology (NCST).² The procedure at the NCST takes approximately six weeks (Kamau, 2009, p83).³

In addition, a permit to enter into territories may be required. The Forests Act 2005 (FA) and the Wildlife (Conservation and Management) Act Cap 376 (WCMA) indicate clearly that any person intending to enter into territories placed under their jurisdictions, or collect or remove any type of biological resources, or carry out extraction for export, must be in possession of a licence or permit. The WCMA restricts access to and exploitation of wildlife resources (Mugabe and Otieno-Odek, 1997, p98). Any person seeking access to such resources or parts thereof must obtain a permit from the Minister for Tourism and Wildlife (Mugabe and Otieno-Odek, 1997).⁴ The FA also stipulates that any removal of forest produce⁵ without a licence or permit contravenes the Act (Section 52.1a) and is punishable by law (Section 52.2, 55.1). It is also illegal to extract, remove or cause to be removed, any tree, shrub or part thereof for export from any forest area (Section 54.8d). The Minister determines the circumstances in which licences/permits and other agreements are applied for, granted, varied, refused or cancelled, and the manner in which a person to whom a licence is granted may exercise a right or privilege conferred upon him by the licence (Section 59.2d). He also makes rules to control the entry of persons into forests (Section 59.2f) or nature reserves (Section 59.2h), how long they should remain there and under which conditions they may do so (Section 52.1b). Likewise, the Minister determines the amount of royalties or fees payable for any activities licensed under the Act (Section 59.2b). According to Section 4(j), such charges are collected by the Kenya Forest Service (KFS). Before an approval for a licence/permit is granted, a period of 90 days, after such an intention is published in the Gazette and in at least two newspapers of national circulation, is given to the public to make objections (Section 44.3). If there are any objections, 60 more days from the time of the receipt of the objection are needed to deliberate and deliver a decision to the objector (Section 44.4).

Concerning entry into forests and collection, harvesting, removal or extraction of forest produce, only activities undertaken within a management plan⁶ are exempted from a licence/permit and an Environmental Impact Assessment Report (EIAR) in respect of the proposed activity (Section 44.1, 44.2). An application by a foreign institution (researcher) to conduct a basic research aimed at improving sustainable use and management capabilities, for example, might, hence, enjoy the ease created by this provision. Advanced research aimed at commercialization, on the other hand, would be caught by the provision.

PIC from local communities in Kenya might be complicated by the fact that there are few organized and issue-sensitized communities. It might be difficult, therefore, to trace the true representation of a local community. It could also imply that one might have easy access to PIC which is not representative and that might be challenged later by the legitimate local community.

It is only after all these hurdles have been overcome and the requirements above have been met that an application for an access permit is acceptable to the NEMA. The applicant has to seek all the clearances, licences and permits, even from government institutions, before applying for the access permit at the NEMA. Upon receipt of the application, the Authority shall, nonetheless, publish a notice in the Gazette and at least one newspaper with nationwide circulation, or in any other appropriate way (Regulation 2006, Section 10). This is meant to give the public an opportunity to bring representations or objections (Regulation 2006, Section 11). It takes 60 days from receipt of an application to the time the Authority decides to grant or refuse the permit (Section 13).

Drawing an example of a procedure that would be relatively short from Figure 19.1 if the applicant succeeds to get a research clearance from the NCST/MST within two months, PIC from KFS within 90 days and access permit from the Authority within 60 days, the duration of the process would amount to seven months. It is also very expensive as there are different fees to be paid, as well as other likely expenses to be incurred by the applicant. If an applicant succeeds in obtaining research authorization and access permits with the first attempt, he or she would have paid US\$100–500 at NCST/MST and US\$260–650 at NEMA as administrative fees. But this still does not include the fee(s) of the lead agency(ies) (LA) under whose jurisdiction the resources are to be found and without whose PIC NEMA cannot issue an access permit. Assuming the applicant needs a permit from only one LA with a fees estimate to that of NCST/MST or NEMA, the applicant will have paid a total of US\$460–1650 or US\$620–1,810.

This is the shortest access procedure one can imagine under Regulations 2006. If the applicant requires PIC from more lead agencies or ex situ

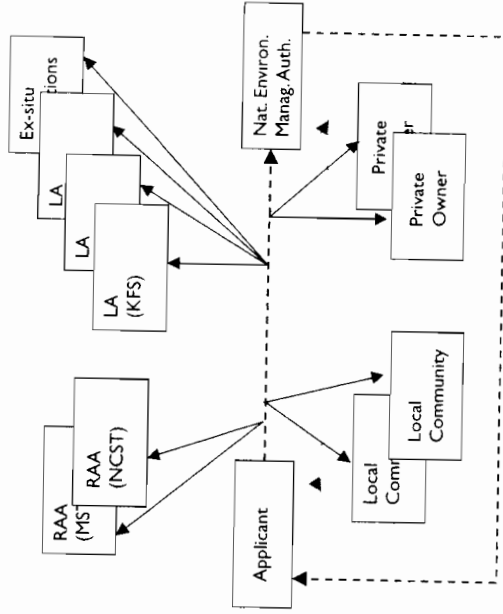


Figure 19.1 Current access procedure in Kenya
 FID Fisheries Department; KFS Kenya Forest Service; KWS Kenya Wildlife Service; LA Lead Agency; RAA (MST) Research Authorizing Authority (Ministry of Science and Technology); NCST National Council for Science and Technology; NEMA National Environment Management Authority

collections and perhaps one or two local communities, the procedure becomes extremely complicated and expensive.

It should also be kept in mind that an applicant has no assurance that the application will succeed at all (Section 11) and if it does, after how many attempts. In addition, the validity of the permit after such a great effort lasts only one year (Section 14.1). The renewal provision (Section 14.2) does not mitigate the situation, but creates more uncertainty. First, by stating that 'an access permit may be renewed', it gives the impression it might not. Second, it allows for new terms and conditions to be imposed, which might force the researcher/bioprosector to give up a project that had already been started. Third, the second renewal also lasts for only one year. Fourth, a new fee for renewal has to be paid.

From the three regulations analysed above, the following conditions are easily identifiable: (1) lengthy procedures; (2) cumbersomeness; (3) high costs; (4) multiple permits; (5) overlapping procedures; (6) long delays; (7) vagueness; (8) uncertainty; and (9) ambiguity. Such procedures would most likely discourage basic researchers. Likewise, they might not be capable of attracting potential commercial bioprosectors.

Table 19.1 illustrates in a condensed form the negative characteristics (for access) identified in Regulations 2006 – which are also prevalent in

ABS regimes of many other countries, including those of forerunner countries such as the Philippines (Executive Order 247) and Brazil (Provisional Measure No 2.186-16) – and the negative impacts they are likely to produce.

In light of the outcome of the analysis above, it is justifiable to conclude that the above ABS regime does not facilitate, but rather impair, access to GRs. Hence, it does not comply with Article 15.2 of the CBD and needs to be revised.

Simplifying access procedures

There are two different possibilities to improve the situation and simplify the procedure: coordination by an LA, and the concentration of licensing. Coordination by an LA is the simplest way of easing the citizen's struggle with the multitude of administrative bodies. It is also called procedural integration by European Union (EU) environmental legislation. For instance, Article 7 of the Integrated Pollution Prevention and Control (IPPC) Directive⁷ states:

Member States shall take the measures necessary to ensure that the conditions of, and procedure for the grant of, the permit are fully coordinated where more than one competent authority is involved, in order to guarantee an effective integrated approach by all authorities competent for this procedure.

Table 19.1 Characteristics identified in and impacts created by Regulations 2006

Identified (negative) characteristics	Possible negative impacts					
	Delay	Expensive	Complicated	Cumbersome	Uncertainty	Ambiguity
1 Long procedure	✓					✓
2 Multiple permits	✓	✓	✓	✓	✓	✓
3 Multiple PICs	✓	✓	✓	✓	✓	✓
4 Multiple fees		✓				✓
5 Other likely fees		✓				✓
6 Overlapping procedures	✓	✓	✓	✓	✓	✓
						High transactional costs

This means that the different administrative agencies that are competent to provide a permit are asked to coordinate their procedures and conditions of granting the permit. This shall avoid consecutive decision-making, a time-consuming practice where the single agencies presuppose that the permit of another agency must first be obtained before it deals with the matter. The citizen shall be entitled to file all applications at one time, and the agencies addressed shall handle them simultaneously. Moreover, the agencies must coordinate their decision and the conditions they attach to the permit. In this way, contradictions shall be avoided which may arise in cases of overlap of the material objectives and criteria for which different agencies are competent. For instance, the agency providing a research permit may wish to reject the application or impose very strict conditions, while the agency in charge of access to GRs may follow a more generous line. They should be coordinated in order to take a harmonized decision. Such coordination must be organized. The most appropriate way to do this is to designate an LA and provide it with competences to coordinate and even combine the publication of the application, the receipt of comments, the holding of hearings and the drafting of decisions.

The concept of an LA was, for instance, introduced by the German provision, which transposed Article 7 IPPC Directive. Section 10(5)(2) of the German Federal Immission Control Act (Bundesimmissionsschutzgesetz, BImSchG) says:

Insofar the project ... requires authorization according to other laws, the authority competent for the authorization [according to the Immission Control Act] must ensure a full coordination of the licensing procedures and conditions.

If applied to the Kenyan ABS regime, procedural integration would mean that one agency – possibly NEMA – is entrusted with the function of an LA. NEMA would then be obliged and entitled to coordinate procedures, decisions and conditions of KWS, KFS, NCST and so on.

Even more simplification of procedures is possible by what is called material integration. This appears in two variants: the concentration of permits; and the full integration of permits. Only the first shall be discussed here.⁸

Concentration means that the various permits are consumed in one. Only one permit is required for an activity, and this permit comprises all other permits, which would otherwise have to be obtained. An example of such concentration can be found once more in the BImSchG. In doing so, the German Act goes further than the IPPC Directive, which settles for procedural integration:

The licence shall include other official decisions with a bearing on the installation, in particular public-law licences, approvals, grantings, permits and authorizations – with the exception of plan approvals, ... and authorizations under water law pursuant to Articles 7 and 8 of the Federal Water Act.⁹

This concept, if applied to ABS, would mean that – taking Kenya as an example – only one permit would be necessary, most probably the one provided by NEMA. The person seeking access to GRs would have to file only one application. However, he or she would have to submit all data relevant for the different permits according to legislations other than Regulations 2006. NEMA would have to consult the agencies normally responsible for the other permits. The comments of other agencies could either be framed as recommendations or even as consent requirements.¹⁰ It would have to respect all material criteria of the other permits. But NEMA would have the exclusive competence to take the final decision. However, following the proviso of the cited German provision, if the access activity involves larger works such as the construction of a building or road, the permit requirements related to this would remain separated from the concentrated permit.

Non-imposition of restrictions that run counter to the CBD objectives

The CBD requires that restrictions imposed in regulating access do not run counter to the objectives of the Convention. The objectives of the CBD are listed in Article 1. They are the conservation of biological diversity; the sustainable use of its components; and the fair and equitable sharing of the benefits arising out of the utilization of GR. It is restrictions that hinder the realization of these objectives that Article 15.2 forbids and not all restrictions in general. Which restrictions are these?

Neither the CBD nor the BG give a clue as to what such restrictions might entail. The BG simply reproduced CBD's Article 15.2 wording by stating that '*Providers should strive to avoid imposition of arbitrary restrictions on access to genetic resources*' in Article 16(c)(ii).

Again, restrictions that are likely to run counter to the three objectives of the CBD would apparently emanate from laws and/or regulations. They are especially easier to understand in regard to basic research, which tends to be conveniently disadvantaged (Erdos, 1999; Ruiz Muller, 2003, p195ff; Swiderska et al, 2001), in spite of its utmost importance for conservation, as well as sustainable use of biodiversity.¹¹

Let us try to conceive some likely restrictions in regard to foreign researchers/bioprosectors. They are not uniformly applied by provider

countries, but appear with some frequency. They are presented here with comments on whether they are compatible with the three objectives of the access regime. They may include:

- prohibition of collection of samples of a degraded species – protection of biodiversity
- issuance of access permit on condition that a defined benefit-sharing agreement is reached forthwith – benefit sharing; means to coordinate permit and contract
- issuance of access permit on condition that the researcher/biopro prospector employs some or a certain number of local collectors for the duration of collecting – benefit sharing
- issuance of access permit on condition that the researcher/biopro prospector collects not more than a certain amount of sample specimens – protection of biodiversity
- issuance of permit on condition that the researcher/biopro prospector will continue paying a standing fee during the course of the research – benefit sharing
- issuance of access permit on condition that ensuing research will only take place in the resource state – benefit sharing
- issuance of access permit on condition that the researcher will make available/reveal the results of the research before publication – benefit sharing.

The wording of Article 15.2 CBD (*not to impose restrictions that run counter to the objectives of this Convention*) must be understood to mean that there can be regulatory objectives, which do not run counter to the CBD objectives because they do not belong to the realm of the Convention. For instance, the CBD does not address questions of military use of lands. Therefore, preventing access to these areas is a legitimate objective.

What would be examples of reasons that ‘run counter to the objectives’? For instance, legitimate objectives may be pursued in a too strict and possibly counter-productive manner. This would be the case if the access permit was issued on condition that the researcher/biopro prospector collaborates only with local partners or scientists recommended by a national authority, thus prohibiting collaboration with a partner of his or her own choice. This could jeopardize independent, high-quality research.

Let us once more take a look at the Kenyan example in order to identify actual and better practices for alerting licensing to the CBD objectives. Two aspects must be distinguished: the scope of application of access requirements; and the criteria for access permits.

Scope of activities subject to licensing

The Kenyan Regulation 2006 states in Section 9(1): ‘Any person who intends to access GR in Kenya shall apply to the Authority for an access permit’. ‘Access’ is defined by Section 2 to mean ‘obtaining, possessing and using GR conserved, whether derived products and, where applicable, intangible components, for purposes of research, biopro specting, conservation, industrial application or commercial use’.

It appears that the scope of the permit requirement is too broadly and vaguely delimited by this provision. ‘Obtaining’ GRs would include, for instance, the purchase of a plant on a market. Shall this really be subject to authorization? ‘Possessing’ GRs would include the growing of plants on any property in Kenya. Must the owner really ask for authorization for this? ‘Using’ would include eating, burning and crafting. Is all this to be authorized? ‘Purposes of research’ would cover any research related to the genetic characteristics of the resource, but are not all properties of an organism related to its genetics? ‘Biopro specting’ is not defined in the Regulation, although it is a technical term not used in ordinary language. The definition of ‘conservation’ is again very broad. For instance, if someone plants a rare tree on her farmland in order to conserve the species, shall this be subject to authorization? The examples show that the realm of activities that fall under the permit regime must more narrowly be designed in order to become manageable and be directed to the objectives of the Convention. Otherwise, legal certainty lacks and authorities may use their powers of requiring permits arbitrarily.

It is core that the law properly defines what is meant by ‘genetic resource’. The definition given by the CBD, that GR is ‘genetic material of actual or potential value’ (Article 2 CBD), must be specified in order to draw a line between the value of the genetic material and the value of the organism as such (of its bulk use, as it is sometimes called). Those activities, which aim at researching and using the immediate value of the organism, should not be covered by the ABS regime. Examples include the carving, carpeting and burning of wood, the growing and collecting of plants and the catching of animals for food and feed, and the consumption of organisms. Unfortunately, the CBD does not make clear what the value of genetic material means. After all, even the nutritive value of corn is a value of the functional units of heredity of corn. Nevertheless, a line must be drawn, and it is up to the national state to fill the gap of the CBD and decide where to draw the line. It is here suggested that a state should distinguish between an immediate and an elaborate use of a resource. The mere consumption of corn is not making use of the genetic material. The latter starts if an organism’s hereditary traits are identified and exploited for specific purposes, thus if the genetic material is developed further in

order to improve its usability beyond the immediate use of its organism of origin.

Criteria for the access permit

Section 11(1) of the Kenyan Regulation 2006 states:

The Authority shall, on receipt of representations or objections to the proposed access permit from the public, review the application and if satisfied that the activity to be carried out shall facilitate the sustainable management and utilization of genetic resources for the benefit of the people of Kenya, issue an access permit to the applicant.

The yardstick for the granting or refusal of the permit is thus that the activity 'shall facilitate the sustainable management and utilization of genetic resources'. It appears that this is very broad language that does not give much guidance, thus allowing the authorities a very wide margin of discretion. Authorities may be tempted to grant or refuse permits arbitrarily or even ask for bribes. Although the yardstick (sustainable management and utilization) is related to the three CBD objectives (conservation, utilization and benefit sharing), it does not fulfil the task of national implementation of international agreements, that is, to specify the general principles of such agreements. For instance, 'conservation' could be defined as protection of wild fauna and flora, rare as well as common, 'utilization' as research in and development of the genetic characteristics plants, animals and micro-organisms, and 'benefit sharing' as the provision of employment for local people, joint ventures of research and development activities, communication of scientific results, crediting of authorship and shares in monetary income from using GRs.

In addition, guidance may be laid down about conditions of permits. This may be done on the kind and calculation of fees and down payments, on time limits, on allowed uses, on come-back clauses for new uses, on the transfer of material to third persons, on employment of locals, on joint ventures, and so on.

Criteria and conditions must also be clarified concerning other permits. For instance, as stated above, in Kenya as in many other legal systems a permit for conducting research in the country is required. The relevant law should clearly state the purpose of this requirement and specify it by yardsticks to be applied by the competent authority. Is it ensuring participation in research and technology activities and the sharing of results? Is it the generation of state income from research results? Or might it simply be due to traditions of authoritarian states to closely supervise societal activities? The authors suggest that the latter reason is not defensible in a liberal state. Still,

if the sharing of research and research results as well as of monetary benefits is the objective and yardstick for research permits, would this not amount to an overlap with the access regime, if the research concerns GRs?

In cases of such overlap the concentration principle as introduced above would allow that one permit includes others, and is only provided if the material yardsticks of the other permits are also respected. In the case of the research permit, the law on access to GRs could provide that the access permit also includes the research permit, and that the agency responsible for the access permit must fully consider the yardsticks concerning the research permit. The administrative agency responsible for the access permit would be required to invite the research agency to comment on the project. But a separate permit would not be required in such cases.

Likewise, there must be clarity about the criteria and conditions if the GR to be accessed is located in a protected area. In Kenya, besides the general permit provided by NEMA, a permit must be obtained from KWS, the agency responsible for the protected areas. The objective for the second permit could be that due regard must be given to the specific value and vulnerability of the protected area. Once again, the concentration principle could be introduced in this case.

Finally, a special permit must be obtained from the Forest Service if the GR is located in a forest. Once again, clarity is necessary as to the objectives and criteria of this permit. Is it to ensure that environmental damage is prevented? Is it the generation of state income from a public resource? Is it the protection of local communities? It is submitted that in the case of access to GRs this permit too could be concentrated in the access permit, and that the Forest Service must be heard in the decision-making process?

Conclusion

As the Kenyan example shows, and a broader study of many more legal systems would reveal, time has come for an evaluation of existing ABS legislations of provider states. The first round of laws was heavily – and legitimately – influenced by policy considerations. How to establish full control of the access process was the primary concern. This led sometimes to over-ambitious and loosely framed concepts that caused legal uncertainty and bureaucratic overkill. There is priority need and indeed potential for bringing legal doctrinal scrutiny into play. After all, access procedures are administrative law and must correspond to its general concepts and ambitions. Clear and parsimonious criteria and procedures not only reduce transaction costs, but also further the purpose they shall serve, that is, the sustainable use of GRs. Our concrete suggestion is that the procedures and

conditions for access permits should better be coordinated, most appropriately by one agency entrusted with such a lead function. Even better would be to comprise the different permits in one concentrated permit.

Notes

- 1 IU-PGRFA: www.fao.org/ag/cgrfa/iu.htm, Article 1: 'This Undertaking is based on the universally accepted principle that plant genetic resources are a heritage of mankind and consequently should be available without restriction'.
- 2 The NCST is under the Ministry of Science & Technology.
- 3 Generally for access procedure before and after 1999, see Kamau (2009).
- 4 The WCMA is not clear concerning regulation of access to flora (in parks and reserves). Provisions to this effect can only be hypothetically derived from sections 13 and 16, which forbid a variety of other activities against both fauna and flora without authorization, and empowers the minister to make entry regulations, as well as establish the fees to be paid for such entry. Now a draft bill, the Wildlife (Conservation and Management) Bill 2007, which incorporates research and bioprospecting concerns, has been developed and is pending in Parliament for approval. If it is adopted, the law will establish a clear requirement for basic and commercial researchers to seek for an access permit and pay the required fee before any activities are conducted. Bioprospectors would still have to possess PIC, material transfer and benefit-sharing agreements from stakeholders whose interests are involved before a permit can be issued by the wildlife department. A copy of the bill is available at <http://www.fankenya.org/downloads/wildlife-conservation&managementbil2007.pdf>, accessed 29 October 2008.
- 5 According to section 2 of the Act, 'forest produce' includes bark, creepers, fibres, fruit, grass, gum, honey, leaves, limestone, plants, rubber, sap, seeds, spices and wax.
- 6 Section 2 defines a 'management plan' as a systematic programme showing all activities to be undertaken in a forest or part thereof during a period of at least five years, and includes conservation, utilization silvicultural operations and infrastructural development.
- 7 Council Directive 96/61/EC concerning integrated pollution prevention and control (IPPC).
- 8 Full integration means that only one permit is required for a certain activity, not any other, even not in the form of inclusion in the concentrated permit.
- 9 Section 10(5)(2) BImSchG.
- 10 The PIC of the local community in cases of access to TK would certainly be a binding requirement.
- 11 Note that Article 12(b) of the CBD places an obligation upon contracting parties to '[P]romote and encourage research which contributes to the conservation and sustainable use of biological diversity'.

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