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ACCESS TO GENETICS RESOURCES IN INDONESIA: NEED FURTHER LEGISLATION?

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I. Introduction

The Convention on Biological Diversity (CBD), 1992,² provides that the states have the right to control the access to their genetic resources and thus the power to set conditions relating to research, developments of uses and sharing of benefits. When the convention is implemented in member countries, the key issue for national implementation is achieving a balance between controlling access to genetic resources and facilitating it. If the legislation of

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² UNITED NATIONS ENVIRONMENT PROGRAMME, CONVENTION ON BIOLOGICAL DIVERSITY (1992), *available at* <https://www.cbd.int/doc/legal/cbd-en.pdf> [hereinafter CBD]. The Convention on Biological Diversity (CBD) is the first global agreement on conservation and sustainable use of biological diversity. The Convention recognized –for the first time- that the conservation of biological diversity is a common concern of humankind and is inaugural part of development process. The Convention was negotiated under the auspices of the United Nations Environment Programme (UNEP). It was opened for signature at the June 1992 UN Conference on Environment and Development (UNCED) and entered into force on December 29, 1993, ninety days after the thirtieth ratification.

a provider country is too cumbersome, genetic resources will not be sought and there will be no opportunity to get benefit. Such a situation could also lead to potential conflicts between the objectives of CBD and the protection of intellectual property rights. This article discusses issues arising from protection of genetic resources while facilitating access to it by examining Indonesia's National System of Research, Development and Application of Science and Technology Research. In doing so, this article examines the problems that Indonesia faces with procedures established to enable access and advocates how the situation could be improved without reducing the provider states' control of access.

II. Access and Benefit Sharing System Under Convention on Biological Diversity

By signing the CBD, the signatories signaled their pursuit of three major objectives, namely, (1) conservation of biological diversity; (2) the sustainable use of its components; and (3) the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to these resources and by appropriate transfer of technologies.³ The third objective of the CBD, being, the access to genetics resources and the fair and equitable sharing of benefits arising out of the utilization of genetic resources, has become a central issue in the implementation of this convention. That is not saying much considering that ever since the CBD came into effect in December 1993, national efforts to develop an access and benefit sharing (hereafter "ABS") system have been rapidly increasing, especially among biodiversity-rich countries, though at a different paces and with different approaches.

Providing access and ensuring equitable sharing of the benefits arising out of the utilization of genetic resources is more than just a general goal. It forms an integral part of the commitments of the CBD Parties. Despite the CBD does not explain the definition of "access" clearly, however, as stated Article 15 paragraph 1, 4, 5 of CBD, the term of "access"

³ *Id.* art.1.

indicates that it is a legal term. It may be understood to refer to all activities involved look for, collection of, exportation, and utilize of genetic resources as regulated by respective states based on sovereign rights.⁴ While benefit sharing is not limited to a sharing of results, products, commercialization and other positive outcomes of the processing and other utilize of genetic resources. Moreover, sharing of benefit included strengthen the national capabilities and capacities to engage in the sustainable use of genetic resources such as participating in scientific research, tranfering of technology and also address a participation in activities, methods and means that are undertaken to achieve the outcomes.⁵ For that purpose, member states undertake to facilitate access to genetic resources for environmentally sounds uses;⁶ take legislative, administrative or policy measures with the expectation that they would benefit from a fair and equitable sharing of the benefits arising from the commercial and other utilization of genetic resources with the Contracting parties providing such resources.⁷

Article 3⁸ of the CBD provides the legal basis of sovereign rights of States over their natural resources, together with Article 15 which specifically recognizes the authority of a State to control access to their genetic resources through national legislation.⁹ Thus, Article 15 of the CBD emphasizes that each country has sovereign rights to regulate the use and access of the genetic resources. In so stating, the CBD essentially acknowledges the presence

⁴ Peter-Tobias Stoll, *Access to GRs and Benefit Sharing – Underlying Concepts and the Idea of Justice*, in GENETIC RESOURCES, TRADITIONAL KNOWLEDGE & THE LAW 5 (Evanson C. Kamau & Gerd Winter eds., 2009)

⁵ *Id.* at 10.

⁶ CBD, *supra* note 2, art. 15.2.

⁷ *Id.* art. 15(7). Other ABS requirements are found in Articles 16, 17, 19, and 20 of CBD.

⁸ *Id.* This Article incorporates Principle 21 of the 1972 United Nations Conference on the Human Environment held in Stockholm. This Principle was as follows: “States have in accordance with the Charter of the United Nations and the Principles of International law, the sovereign right to exploit their own resources pursuant to their own environmental policies and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states or areas beyond the limits of national jurisdiction.” G.A. Res. 2996 (XXVII), Dec. 15, 1972, 27 UN GAOR (Supp. No. 30) 42.

⁹ CBD, *supra* note 2, art. 15.1.

of tangible or intangible commodities that can be owned, transferred, restricted or granted, and which can be legally tied to other responsibilities, including benefit sharing.¹⁰ In all, access to genetic resources requires the “prior informed consent”¹¹ of the provider country¹² and where granted, that access will be on “mutually agreed terms”.¹³ Thus, under the CBD, States may condition access to their genetic resources on informed consent and other terms, which provides the potential for capturing most aspects of bio-prospecting within enforceable and bilateral agreements.¹⁴

Access and benefit sharing marks the creation of a new world regime in the matter of the utilization of genetic resources. For several thousand years, humankind freely used and exchanged biological and genetic resources around the world.¹⁵ This situation has now

¹⁰ MORTEN WALLØE TVEDT & TOMME YOUNG, WORLD CONSERVATION UNION, BEYOND ACCESS: EXPLORING IMPLEMENTATION OF THE FAIR AND EQUITABLE SHARING COMMITMENT IN THE CBD at 6-7 (ABS Series No. 2, IUNC Environmental Policy Law Paper No. 67/2, 2007), available at http://www.fni.no/doc&pdf/beyond_access.pdf.

¹¹ CBD, *supra* note 2, art. 15.5.

¹² The provider country in this case refers to Art 1 of the CBD which state that the country supplying genetic resources collected from in-situ sources, including populations of both wild and domesticated species, or taken from ex-situ sources, which may or may not have originated in that country.

¹³ CBD, *supra* note 2, art. 15.4.

¹⁴ Michael A. Gollin & Sarah A. Laird, *Global Policies, Local Actions: The Role of National Legislation in Sustainable Biodiversity Prospecting*, 2 B.U. J. SCI. & TECH. L. 16 (1996).

¹⁵ During the period from the seventeenth century to the late twentieth century, there were several approaches developed to allocate natural resources based on international law. First, the physical space and the resources located therein were allocated to the spheres of national jurisdiction coinciding with the territory, while space and resources beyond national jurisdiction were subject to the regime of freedom. Second, the principle of permanent sovereignty over natural resources was implemented in 1962 by General Assembly Resolution 1803 (XVII) on Permanent Sovereignty over Natural Resources. Third, the principle of freedom of natural resources emerged and under went profound transformation as a consequence of the emergence of the new customary rules allowing states to establish an exclusive economic zone and the continental shelf. Fourth, the principle of the common heritage of mankind has made the international community the title holder of the resources of the deep sea bed. Fifth, an approach combining freedom of access to the continent with the preservation of certain claims sovereignty and a system of international inspection, monitoring and strict environmental protection enacted and implemented a by a parliament-like institution, which is applied to the Antarctic Treaty System. Sixth, in the last decade, a new concept of “common concern of humankind” has emerged as a legal tool designed to

changed due to the emergence of issues like bio-prospecting,¹⁶ bio-piracy,¹⁷ and the privatization of resources and knowledge¹⁸ through components like intellectual property rights, particularly patents.¹⁹ CBD recognizes the sovereign right of States over their natural resources and the authority of national governments to determine access to genetic resources through the framework of national legislation.²⁰ The phrase ‘determining access to genetic resources’ is not limited to providing a means of ensuring administrative oversight regarding access, but rather constitutes a part of the sovereign rights of States. Genetic resources are thus clearly identified as the property of the State in which these resources are found. This implies that the State has the right to (1) reserve the utilization of genetic resource for itself;

safeguard the general interest of the international community in the preservation of certain components of the global ecosystem, such as biodiversity and climate. For more information, see FRANCESCO FRANCONI, INTERNATIONAL LAW FOR BIOTECHNOLOGY: BASIC PRINCIPLE, IN BIOTECHNOLOGY AND INTERNATIONAL LAW 7-8 (Francesco Francioni & Tullio Scovazzi eds., 2006).

¹⁶ Bio-prospecting involves exploring biodiversity for potentially valuable genetic and biochemical resources. See Walter Reid, *A New Lease on Life*, in BIODIVERSITY PROSPECTING: USING GENETIC RESOURCES FOR SUSTAINABLE DEVELOPMENT 1 (Walt Reid ed., 1993).

¹⁷ The term bio-piracy has been used to describe the unauthorized, uncompensated removal of genetic resources from a source country. Bio-piracy can also involve the exploitation of indigenous knowledge for a commercially valuable purpose where inappropriate or no compensation is provided. See Christopher J. Hunter, *Sustainable Bioprospecting: Using Private Contracts and International Legal Principles and Policies to Conserve Raw Medicinal Materials*, 25 B.C. ENVTL. AFF. L. REV. 129 (1997), available at <http://lawdigitalcommons.bc.edu/ealr/vol25/iss1/4>; Michael I. Jeffery, *Bioprospecting: Access to Genetic Resources and Benefit-Sharing Under the Convention on Biodiversity and the Bonn Guidelines*, 6 SING. J. OF INT’L & COM. L. 747, 757 (2002), available at <https://www.cbd.int/doc/articles/2002-/A-00476.pdf>.

¹⁸ The access regime seems to have made a substantial shift as States shift their focus from conservationism to mainly a benefit-sharing objective. This shift was probably grounded in over-expectation on the capacity to extract value from domestic genetic resources, especially from bio-prospecting for new industrial products, such as pharmaceuticals. For further information, see Carlos M. Correa, *Do National Access Regimes Promote the Use of Genetic Resources and Benefit Sharing?*, 4 INT’L J. ENV’T & SUSTAINABLE DEV. 444, 458 (2005).

¹⁹ In the context of CBD, the crucial problem in patents related to biodiversity prospecting arises when a sample is obtained from a provider country and then extracted and studied elsewhere, leading to the discovery of a new useful compound. Derivative products, analogs, and synthetics may be obtained, or new agricultural crops produced, and patents sought by the recipient of the material to protect them. See Gollin & Laird, *supra* note 14, at 22-23.

²⁰ CBD, *supra* note 2, art.15.1.

(2) exclude others from utilization; and (3) make utilization dependent on conditions (or require the signing of a contract) obliging users to report about research and development (R&D) steps, and, (4) to share material and immaterial benefits drawn from the genetic resources or derivatives.²¹

Hitherto, a total of 57 countries have developed ABS systems, including the Philippines, Brazil, Peru, India, Ethiopia, Costa Rica, Kenya, Argentina, Australia, and more.²² At the regional level, seven regions have enacted ABS regulations, *inter alia* Decision 391 of the Andean Pact Common Regime on Access to Genetic Resources which governs the obtaining and use of genetic resources conserved in situ and ex situ of their by-products and, where applicable, of their intangible components, for purposes of research, biological prospecting, conservation, industrial application and commercial use, in the Andean region.²³ Next, the African Model Legislation for the Protection of the Rights of Local Communities Farmers, and Breeders, and for the Regulation of Access to Biological Resources deals with the acquisition of biological resources, their derivative, community knowledge, innovations, technologies or practices as authorized by the National Competent Authority in Africa²⁴. Similarly, the Association of South East Asian Nations (ASEAN) has also completed the

²¹ Gerd Winter, *Towards Regional Common Pools of GRs-Improving the Effectiveness and Justice of ABS*, in GENETIC RESOURCES, TRADITIONAL KNOWLEDGE & THE LAW, *supra* note 4, at 20.

²² See *Database on ABS Measures*, CONVENTION ON BIOLOGICAL DIVERSITY, <http://www.cbd.int/abs/measures/> (last visited Apr. 14, 2013).

²³ Decision 391 of the Andean Pact Common Regime on Access to Genetic Resources, the first sub regional agreement implementing ABS, became legally binding in Bolivia, Colombia, Ecuador, Peru and Venezuela on February 7, 1996. See Details of Measure: Andean Pact, CONVENTION ON BIOLOGICAL DIVERSITY, <http://www.cbd.int/abs/measures/measure.shtml?id=6110> (last visited Apr. 14, 2013).

²⁴ This model law was adopted by the African Union (AU) (then the Organization of African Union) in 2000. It is intended to be used as a guide for African countries developing national laws on local community rights, plant breeders' rights and regulation of access to biological resources.

Draft ASEAN Framework Agreement on Access to Biological and Genetic Resources,²⁵ which aims at providing minimum standards for ASEAN member countries in regulating access, benefit-sharing, and the utilization of genetic resources. Already, five states have signed this draft agreement: Singapore, the Philippines, Laos, Cambodia and Brunei.²⁶

III. Legislation on Access in Indonesia

Indonesia, one of the mega-biodiversity countries, ratified the CBD on August 1, 1994 by enacting Law Number 5 of 1994 on Ratification of the United Nations Convention on Biological Diversity.²⁷ Similarly, it ratified the Nagoya Protocol by enacting Law Number 11 of 2013 on the Ratification of the Nagoya Protocol on Access to Genetic Resources and

²⁵ This Draft includes in ASEAN Socio-Cultural Community (ASCC) Plan of Action, in the section of Enhancing Environmental Sustainability. The aim of this Convention is to ensure the conservation of ASEAN's rich biological diversity through the implementation of the ASEAN Framework Agreement on Access to, and Equitable Sharing of Genetic and Biological Resources; *See Appendix A for ASEAN Socio-Cultural Community (ASCC) Plan of Action*, ASS'N OF SOUTHEAST ASIAN NATIONS, <http://www.asean.org/news/item/appendix-a-for-asean-socio-cultural-community-ascc-plan-of-action> (last visited Apr. 14, 2013).

²⁶ The countries in ASEAN region have implemented ABS-related legislation and policies in varying degrees. For instances, the Philippines and Malaysia have legislation, policies and institutions focused on ABS as well Indonesia. ASEAN Member States have diverse cultures and indigenous communities, governed by their own set of rules, such as community protocols. This may consist of rituals, customs, practices and customary laws that relate to the rights of communities over resources and intellectual creations. Community protocols are recognized in Sabah, Malaysia and in Bukidnon, Southern Philippines. The Sabah Biodiversity Center, in particular, is implementing the Kinabalu Bio Cultural Law Project, which aims to support ABS awareness raising and build capacity among the Dusun communities living around Mountain Kinabalu, customary sustainable uses of biodiversity, and the protection of traditional knowledge. In efforts to promote the draft ASEAN Framework, the ASEAN Center for Biodiversity, an intergovernmental organization that facilitates cooperation on biodiversity conservation and sustainable management among ASEAN Member State, is implementing a regional ABS project funded by the United Nations environment Programme-Global Environment Facility. The project aims to strengthen the capacity of ASEAN Member States to participate in international negotiations on ABS, enable participating countries to understand the Nagoya Protocol through regional workshops, and provide venues for them to exchange experiences in ABS policy implementation. The project is also assisting participating countris in the formulation of a roadmap towards developing national ABS legal frameworks. *See ASEAN CENTRE FOR BIODIVERSITY, AN URGENT NEED: INSTITUTIONALIZING ACCESS TO GENETIC RESOURCES AND BENEFIT SHARING IN SOUTHEAST ASIA 1-2 (Policy Brief Series, ABS Issue 1, June 2013).*

²⁷ Considering the importance of the Convention on Biological Diversity for Indonesia, once this convention entered into force, Indonesia quickly ratified it.

the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity (hereinafter, Nagoya Protocol).²⁸ The ratification imposes on Indonesia the burden of implementing the provisions in the CBD and the Nagoya Protocol.²⁹ Indonesia, as a developing country, has a particularly strong interest in participating in technologies and technological progress that result from the utilization of genetic resources. Basically, Indonesia wants to ensure that its own economic interests are protected and that the country can also profit from the potential value of technological advances ensuing from bio-prospecting. For this reason, provider countries such as Indonesia seek to place conditions on access to their resources, including making access dependent on compliance with certain terms. The aims of such conditions include giving the provider countries a share in the benefits resulting from the use of these resources and ensuring that such benefit-sharing takes place on mutually agreed terms that are subject to prior informed consent. Such prior informed consent is sought to ensure that clear information is obtained in advance about the intended purposes of resource utilization. Indonesia in particular has a major interest in ensuring that national sovereignty over their genetic/biological resources, now enshrined in international law under the CBD, is properly reflected in the framing of terms of access and that these resources are no longer freely available to anyone without any obligations to provide compensation.

²⁸ The content of this law is not different from the Nagoya Protocol as Indonesia has fully adopted the Nagoya Protocol. It became effective on May 8, 2013. *See* Convention on Biological Diversity, Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization (Oct. 29, 2010).

²⁹ In order to follow ratification of CBD and Nagoya Protocol, beside preparing the draft Law concerning the Management and Protection of Genetic Resources, Indonesian Government is also preparing procedures of access to genetic resources and the ABS Model in accordance with the principle embraced by Indonesian community. Relating to the institution, the Indonesian Government also established the National Commission on Genetic Resources, by Decree of the Minister of Agriculture No. 734 of 2006, which serves as a coordinating body in formulating policies related to genetic resources in Indonesia. *See* KNSDG: KOMISI NASIONAL SUMBER DAYA GENETIK, <http://indoplasma.or.id/index.php> (last visited June 4, 2015)

A. Prior Informed Consent (PIC)

In Indonesia, the procedure to access genetic resources begins with research authorization. Research permits are granted by statutory authority depending on where the genetic resources are located. Specifically, the access to genetic resources is subject to Law Number 18 of 2002 concerning a National System of Research, Development and Application of Science and Technology (Research Act 18/2002)³⁰ and Government Regulation Number 41 of 2006 on Permit for Research and Development Activities for Foreign Higher Education, Foreign Research and Development Institution, Foreign Corporation and Foreigner (Government Regulation 41/2006).³¹ Before an application can be accepted by the appropriate authority, it should include other authorizations, as well as PIC of the holders of the genetic resource. Article 17(4) of Research Act 18/2002 requires PIC before an application for a research permit can be approved.³²

The access procedure begins when a research authorization is sought from the Team Coordinating Foreign Research Permits (hereafter the “Coordination Team”), which is headed by the Minister of Research and Technology. The procedure to complete the authorization process takes approximately 90 days from the receipt of the permit.³³

B. Procedure for Obtaining a Research Permit (PIC) in Indonesia

Generally, the procedure for obtaining a research permit in Indonesia is divided into two stages: pre-arrival and post-arrival.

³⁰ Law Number 18 of 2002 concerning a National System of Research, Development and Application of Science and Technology [hereinafter Research Act 18/2002].

³¹ Government Regulation Number 41 of 2006 on Permit for Research and Development Activities for Foreign Higher Education, Foreign Research and Development Institution, Foreign Corporation and Foreigner [hereinafter Government Regulation 41/2006].

³² Research Act 18/2002, *supra* note 30, art. 17(4). The article states that "foreign higher education, foreign research and development institutes, foreign corporations and foreigners who are not domiciled in Indonesia, which would conduct research and development activities in Indonesia, must possess written access permission from the competent authorities." *Id.*

³³ Government Regulation 41/2006, *supra* note 31, art. 8.

1. Pre-arrival Stage Procedure

The pre-arrival stage procedure is conducted by the foreign researcher before he/she arrives in Indonesia. This process begins when all necessary documents³⁴ are duly submitted.

At the pre-arrival stage, every foreigner who plans to conduct research in Indonesia should apply for a research permit to the State Minister of Research and Technology through the Coordination Team.³⁵ The Coordination Team is responsible for providing recommendations to the State Minister of Research and Technology to give approval, or alternately, reject the applications for research.³⁶ It is composed of representatives from government institutions.³⁷

Ultimately, the concerned Minister approves the application based on the recommendation of the Coordination Team.³⁸ If the research application is approved, the applicant can then apply to the Directorate General of Immigration for a limited stay visa

³⁴ These documents include: (a) a letter of application research; (b) research proposal; (c) research summary; (d) curriculum vitae; (e) a letter of recommendation; (f) a letter of counterpart; (g) a letter of financial guarantee; (h) a letter of health; (i) copy of passport; (j) a photograph; (k) a letter of recommendation from representative of Indonesia; (l) a list of research equipment.

³⁵ Government Regulation 41/2006, *supra* note 31, art. 2(2).

³⁶ Article 5 Regulation of the State Minister of Research and Technology Number 09/M/PER/XII/2007 on Team Coordination, Monitoring and Sanctions of Implementation of Research and Development Activities By Foreign Higher Education, Foreign Research and Development Institute, Foreign Corporation and Foreigner.

³⁷ Decree of the Minister of State for Research and Technology Number 8/M/KP/I/2013 on Establishment of Team Coordination of Research and Development Permit Implementation for Foreign Higher Education, Foreign Research and Development Institute, Foreign Corporation and Foreigner (amendment on Decree of the State Minister of Research and Technology 87/M/KP/III/2012). Under the Decree, the Coordination Team consists of the State Ministry of Research and Technology, The Agency for the Assessment and Application of Technology, Indonesian Institute of Science, National Aeronautics and Space Agency, Geospatial Information Agency, the Strategic Intelligence Agency Indonesian National Army, Ministry of Defense, State Secretariat, National Police, Ministry of Home Affairs, Ministry of Energy and Mineral Resources, Ministry of Foreign Affairs, the Ministry of Education and Culture, the Ministry of Maritime Affairs and Fisheries, Ministry of Forestry, Ministry of Agriculture, Ministry of Environment, Ministry of Justice Directorate General of Immigration and Human Rights, the Ministry of Health, and the Eijkman Institute for Molecular Biology.

³⁸ Government Regulation 41/2006, *supra* note 31, art. 9-10.

through the embassy of the Republic of Indonesia, where the application will be considered in accordance with the request of the concerned foreign researchers.³⁹ If the application is conditionally approved, the researchers or the foreign partners are required to meet the requisite conditions in accordance with the recommendation of the Team. Visa authorization will be processed after all the conditions are met by the foreign researchers. If the research application is rejected, the reasons for rejection will be sent to the applicant researcher.⁴⁰ At this point, the Government Regulation does not explain why the reason for rejection is sent to the applicant and whether there is an appeal process or not.

Generally, the Minister takes into account two criteria before granting written permission: (1) an assessment of objective, and (2) an assessment of any potential loss from the research and development activities.⁴¹ Regarding the first criterion, this Regulation does not clearly define what is meant by assessment of objective. This provision uses the expression “assessment of permissions,” which presumably considers several aspects including: the benefit to science and technology; foreign relations; environmental sustainability; politics; defense and safety; social culture; religion; and economics.⁴² As for the second criterion, an assessment of the harm that may be caused by the intended research and development activities will be conducted to avoid bio-piracy on biological and non-biological resources, destruction of the environment, and social disruption resulting from research and development activities that may be conducted in an irresponsible manner by the foreign researchers.⁴³

³⁹ *Id.* art. 10.

⁴⁰ *Id.* art. 9.

⁴¹ *Id.* art. 4(1).

⁴² *Id.* art. 4(2).

⁴³ Government Regulation 41/2006, *supra* note 31 (explanation).

2. Post Arrival Stage Procedure

The post-arrival stage begins when the application for research permit is approved by the Minister of Research and Technology, and the foreign researcher has been granted a visa. Once the researcher is in Indonesia, the researcher is required to report to the Coordination Team in order to get a Research Permit. At this stage, a foreign researcher has an obligation to contact each one of the following institutions:

- a. Indonesian National Police, to obtain a Travelling Permit;
- b. Directorate General for National Unity and Politic, Ministry of Home Affair, to obtain a Notification Letter of Research;
- c. Indonesian Counterpart Research, to get a Letter of Self-Report;
- d. The Immigration office that the jurisdiction covers the research location, , to get a Limited Stay Permit Card and Letter of Recommendation, to add a time report, and to change the reporting specifically for foreign researchers who request additional time to report and change the reporting area;
- e. District Police , to obtain a Letter of Self-Report (a document issued by district policy stating that the foreign researcher is welcome to conduct research);
- f. Secretary of the Directorate General of Forest Protection and Nature Conservation, Ministry of Forestry, to get entry permit to the conservation area.

Foreign researchers can begin research in Indonesia after they meet all the requirements outlined above and receive documents from each of the above institutions. The research permit is valid for a period of 12 months.⁴⁴ Research proposals that require permission for multiple years should be mentioned in the initial proposal. Research permits are usually granted for one person or for a team (in the case of team research) for specific

⁴⁴ *Id.* art. 11.

research to be conducted within a specified period of time in accordance with the decision of the Coordination Team.

Every foreign researcher who has obtained a research permit from the Ministry of Research and Technology Research may apply for an extension of the research permit. Applications for the extension of research permits must be submitted to the Minister of Research and Technology through the Team Coordinator at least 30 days before expiration⁴⁵ along with: (1) an application letter for extension of the research accompanied by an explanation for requesting an extension; (2) a recommendation letter from the supervisor of the foreign research counterpart supporting and justifying the need for the extension; (3) a final report of research; and (4) a letter detailing the importance of such research for Indonesia. The Minister is entitled to approve or reject such applications.⁴⁶

Applications for the extension of research permits may be granted successively for a maximum of two times, extending the permit up to a maximum of 12 months each.⁴⁷ This procedure also applies to changes/additions to sites of research and/or changes/additions to the members of the research team. The addition of a trainee during the research period is prohibited unless it has been stated in the initial proposal.

The administrative fee for the new research permit per person per application and the fee for the extension of a research permit per person per application is subject to Government Regulation Number 47/2009 concerning Types and Tariffs of Non-tax Revenues at the Ministry of Research and Technology and reproduced following:

⁴⁵ *Id.* art. 12(4).

⁴⁶ *Id.* art. 12(5).

⁴⁷ *Id.* art. 12(1).

Table -- Administrative Fee for Foreign Researcher (in US \$)

	New application (less than 6 months)	New application (6-12 months)	Extension application (less than 6 months)	Extension application (6-12 months)	New follower	Extension follower
University	250	500	125	250	100	50
Research and Development institute	250	500	125	250	100	50
Corporation	500	1000	250	500	100	50
Individual	130	150	65	75	100	50

Source: Government Regulation Number 47/2009

Referring to Table above, the fees are classified on the basis of: (1) positions held, (whether a scientist, if so whether in a University, Research and Development Institute, Corporation, or individual); (2) type of application (new or extension), and (3) research duration (<6 months or 6-12 months). There is an additional charge for an accompanying family member for a new or renewal application. Rates are expressed in US dollars, and are payable in US dollars or Indonesian Rupiah, according to the exchange rate prevailing at the time of payment.

IV. The Problems of Access to Genetic Resources in Indonesia

From these access procedures outlined above, it could be safely concluded that the procedure to get a research permit (PIC) in Indonesia is cumbersome. A foreign researcher must apply to several institutions before he can get a research permit. This means that the different administrative institutions that are responsible for providing a permit are required to coordinate their procedures and conditions for granting the permit. This leads to consecutive decision-making, time-consuming process and a practice where every single institution can

assume that the permit of another agency must first be obtained before it deals with the matter. The foreign researcher must be, entitled to file all applications within a short period of time, making the process tedious. The objective should be to enable the various institutions addressed to coordinate in a manner that they are able to handle the application simultaneously. Further, the institutions must coordinate their decisions and the conditions they attach to the permit. In this way, contradictions and overlapping requests for data can be avoided and criterion for each agency can be aligned with the overall objectives. For instance, under the current system, the institution providing a research permit may wish to reject the application or impose very strict conditions, while the institution in charge of access to genetic resources may follow a more generous line. Instead, if they coordinate, it can lead to a more harmonized decision.

Indeed, such coordination between the various agencies that handles the application can perhaps be organized in a manner that increases the efficiency of the system. The most appropriate way to do this is to designate a single institution and provide it with the authority to coordinate and even combine the publication of the application, the receipt of comments, the holding of hearings, and the drafting of decisions. This single institution should be vested with the power to be a coordinator body of the various requirements from several institutions (e.g. Travelling Permit from Indonesian National Police, Notification Letter of Research from Ministry of Home Affairs, etc). The comments of other institutions could either be framed as recommendations or even as consent requirements. This institution should have the exclusive authority to make the final decision. In addition, procedural integration is needed in applying an ABS system. This means that the various permits should be merged into one. Only one permit should be required for research, and this permit should request the information that is currently sought in all other permits. The applicant will then submit one application but that

would include all of the data relevant currently for the different permits. It is imperative for this system to be instituted carefully to oversee the work of the foreign researcher.

In this regard, the Bonn Guidelines⁴⁸ formulate a set of useful references upon which parties may rely on to achieve better management of a PIC system, which include: (1) the law should be certain and clear; (2) access to genetic resources should be facilitated at minimum cost; (3) restrictions on access to genetic resources should be transparent, based on legal grounds, and not run counter to the objectives of the Convention; and (4) consent of the statutory national authority(ies).⁴⁹ The consent of relevant stakeholders, such as indigenous and local communities, as appropriate to the circumstances and subject to domestic law, should also be obtained.⁵⁰ These principles are intended to ensure that the system adopted to facilitate access would be in conformity with the objectives of the CBD and would encourage bio-prospecting and benefit sharing in a fair and equitable manner.⁵¹ However, Indonesia does not yet regulate the PIC from local communities. In the future, the Indonesian government should grant research permits based on the consent of local communities. In turn, a representative body of local communities should be established to determine approval of utilization of the genetic resources at their disposal.

In this regard, Paragraph 27 of the Bonn Guidelines provides elements that may be considered to institute a PIC system that competent authority(ies) may establish to ensure proper grant of consent such as requiring the specification of use, instituting detailed procedures and mechanisms for consultation of relevant stakeholders.. In this regard,

⁴⁸ Conference of the Parties to the Convention on Biological Diversity (CBD), Apr. 7–19, 2002, Decisions Adopted by the Conference of the Parties to the Convention on Biological Diversity at Its Sixth Meeting, Decision VI/24(A) (Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising Out of Their Utilization), U.N. Doc. UNEP/CBD/COP/6/20, Annex, at 262, *available at* <http://www.cbd.int/doc/decisions/COP-06-dec-en.pdf>.

⁴⁹ *Id.* at 269 (paragraph 26).

⁵⁰ *Id.*

⁵¹ Jeffery, *supra* note 17, at 797.

establishment of a Competent (statutory) National Authority (CNA) is a critical element for running a PIC system. Despite the possible difficulty of establishing such an authority, a well-functioning authority responsible for obtaining PIC may reduce transaction costs for the private sector.⁵² The establishment of a well-functioning authority can avoid the overlapping jurisdiction of numerous institutions. More importantly, the establishment of a CNA would potentially curtail notorious bio-piracy activities.⁵³

The requirement of obtaining PIC has become an essential principle in international law. Indeed, the presence of PIC showcases the sovereignty of States over their natural resources and the interest of the state in getting appropriate permission from its citizens. Hence, obtaining access within the PIC system presumes that there is a reduction in the effects of bio-piracy as well as instances of unchecked bio-prospecting that generally disrespects the free will of the provider country.⁵⁴ The PIC mechanism is meant to ensure fair access to genetic resources.⁵⁵ Most national legislations use PIC as a core element and condition the approval of applications for access to genetic resources.⁵⁶ That is, provider countries are entitled to choose whether to consent to applications to access local biological resources.⁵⁷ Given this, countries should use PIC as a tool to prevent misappropriation of utilization of genetic resources. Misappropriation of genetic resources is rampant. The revocation of a patent held by the European Patent Office for a fungicidal product derived from seeds of the neem, a tree indigenous to the Indian subcontinent, is one example of

⁵² *Id.* at 799.

⁵³ Kuei-Jung Ni, *Legal Aspects of PIC on Access to Genetic Resources: An Analysis of Global Lawmaking and Local Implementation Toward an Optimal Normative Construction*, 42 VAND. J. TRANSNAT'L L. 239 (2009).

⁵⁴ *Id.* at 227, 232.

⁵⁵ *Id.*

⁵⁶ *Id.*

⁵⁷ *Id.* at 236.

misappropriation of use of genetic resources.⁵⁸ Where access to genetic resources is concerned, PIC does not focus on preventing the adverse impacts of the movement of materials into a country, such as hazardous wastes or genetically engineered organisms. Rather, the emphasis is on preventing the exploitation and movement of potentially beneficial materials out of a country, as well as ensuring that the benefits derived from the use of these materials accrue to the providers of these materials.

Ultimately, Indonesia, as one of the Parties of CBD, has the obligation to implement all of the provision in this Convention. Hence, Indonesia must establish a comprehensive legislation to provide access to genetic resources while mandating the sharing the benefits arising from the utilization in a fair and equitable ways.

V. Conclusion

Indonesia has abundant genetic resources. For instance, Indonesia houses the third largest tropical forest in the world, the largest archipelago, with more than 17,480 islands, and the largest area of coral reefs in the world. This wealth should be used as a capital for development. Of the approximately 5,131,100 species in the world, as much as 15.3% of them are found in Indonesia. Similarly, out of a documented 40,000 species of medicinal plants in the world, 30,000 are found in Indonesia, only 300 species are currently used by the industry. The Indonesian State Ministry for the Environment estimates the value of medicinal plants in Indonesia at \$14.6 billion. If this potential wealth is not provided appropriate legal protections, there is a danger that it will become susceptible to misappropriation. Indonesia needs to recognize the importance of access and benefit sharing rules for ensuring proper protection of its biological and genetic resources. Otherwise, Indonesia, as the provider

⁵⁸ Srividhya Ragavan, *Protection of Traditional Knowledge*, 2 MINN. INTELL. PROP. REV. 1, 11-12 (2001).

country, could be harmed by user states, and will not have sufficient bargaining power in the fight for national interests.

As a mega-biodiversity country that has ratified the Convention on Biological Diversity and signed the Nagoya Protocol, Indonesia has yet to fully implement these two conventions at the national level. The important problems related to access and benefit-sharing in regards to the utilization of genetic resources can be summarized broadly as (1) institutional issues relating to local community (2) access permission mechanisms, and (3) benefit sharing mechanisms. Indonesia should resolve these three issues through policy and legislation in order to gain bargaining power on an international level. Finally, by instituting simple access procedures, Indonesia can play a role in achieving the goal of CBD which is to promote sustainable use of biological diversity.