

## Mapping the Patterns of Underestimated Researcher-Indigenous Collaboration

### *Towards Independent Implementation of ABS Principles*

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#### Abstract

This chapter focuses on the role and the contributions of Indigenous peoples and researchers towards the implementation of access and benefit-sharing (ABS). While States are often defined as the most competent authorities for the adoption of ABS implementation measures, the role and responsibilities of providers and users are often underestimated. As this chapter will show, the expectations imposed on states are exaggerated. They are not consistent with many sources, including relevant international instruments, research ethics, and the claims, experiences and practices of Indigenous and local communities themselves. Researchers and Indigenous peoples share common objectives when they are jointly and directly involved in research projects on genetic resources and traditional knowledge. They are interested and involved in regulating the circulation of genetic resources and traditional knowledge. As this chapter will illustrate, in countries like Canada researchers and Indigenous people have seized the opportunity to improve their relationships and work together. In fact, they have developed and mobilized several types of tools such as code of ethics and contracts to try to move towards more respectful and equitable relationships, including ABS.

*As social researchers affiliated with mainstream institutions – and irrespective of our personal commitments and intentions – we are located at a nexus of power in the dominant society. Thus, our methodological approach should not expand the power and knowledge of the dominant society at the expense of the colonized and the excluded. This is especially important in research involving First Nations.*

(Menzies, 2001: 22)

*How can researchers become allies with Aboriginal Peoples who are advancing their interests? Certainly, they have a responsibility as researchers to challenge their own racism, biases and assumptions. They also must respect a communities' right to determine for itself how or if it is going to use TEK, Indigenous Knowledge and western science.*

(Leanne Simpson, 1999: 95)

## INTRODUCTION

In the 2000s, researchers from the French National Research Institute for Sustainable Development (IRD)<sup>1</sup> started a research project on the traditional remedies used by Indigenous and local communities in French Guyana to treat malaria (Bourdy and Deharo, 2008: 38). Inspired by other research projects that led to ‘improved traditional remedies’<sup>2</sup> (Ibid., 38–9), the researchers from the IRD undertook research in French Guyana hoping to develop a new malaria treatment for which they could obtain a patent (Ibid.).

One hundred and seventeen people from the Indigenous and local communities of French Guyana (Members of the Kali’na and Palikur Indigenous communities, but also Creole people, one Hmong, Brazilians and European people) were interviewed to gather information about traditional recipes (Bertani et al., 2006: 155–7). Amongst the information collected were vernacular names of plants, the parts of the plant used, recipes and methods of preparation and administration, dosage, and contraindications (Vigneron, 2003).

Traditional remedies led to the identification of 27 different plant species used in 45 healing recipes (Vigneron, 2003). Among the plants identified, the most widely used is *Quassia Amara* (Vigneron et al., 2005). The researchers decided to analyze this plant more thoroughly by reproducing the traditional recipes in a laboratory setting (Bertani et al., 2005; 2006).

The laboratory study of *Quassia Amara* led to the identification and the extraction of an active molecule that combats malaria; Simalikalactone E (Cachet et al., 2009). In 2010, the IRD filed an application for a patent on Simalikalactone E as a malaria treatment. In 2015, the patent was granted by the European Patent Office (EPO).

This could have been the story of a very successful collaboration between researchers and Indigenous and local communities, and an example of a fruitful encounter between scientific and traditional knowledge. In fact, some of the researchers involved in the project went on to win the ‘Innovation-Sud’ award from the IRD in 2013 (Institut de Recherche pour le Développement (IRD), 2013).

However, opposition has been filed with the EPO against the patent (France Libertés, Burelli, Costes, 2015). This opposition is based on concerns regarding biopiracy and the failure for the IRD to meet the patentability criteria of novelty and inventiveness.

According to Vandana Shiva, biopiracy can be defined as:

the use of intellectual property systems to legitimize the exclusive ownership and control over biological resources and biological products and processes that have been used over centuries in non-industrialized cultures. Patent claims over biodiversity and indigenous knowledge that are based on innovation, creativity and genius of the people of the Third World are acts of 'biopiracy.' Since a 'patent' is given for innovation, a biopiracy patent denies the innovation embodied in indigenous knowledge.

(Shiva, 2001: 49)

In this case, when the researchers from the IRD collected the traditional recipes and the plant samples from Indigenous and local communities in French Guyana, they did not obtain the free, prior, and informed consent of the participants themselves, or from the authorities in French Guyana. Nor did they negotiate mutually agreed terms for the use of the plants and associated traditional knowledge, including equitable sharing of any benefits resulting from subsequent commercialization (Chantal Berthelot et Antoine Karam, 2016; Organisation des Nations Autochtones de Guyane, 2016; Rodolphe Alexandre, 2016).

By failing to do any of these things, the researchers and the IRD neglected international law, especially the access and benefit-sharing (ABS) principles defined in the Convention on Biological Diversity, the Nagoya Protocol and in the United Nations Declaration on the Rights of Indigenous peoples (UNDRIP). They also failed to uphold core ethical principles undergirding research involving Indigenous people(s), as will be discussed later in this chapter.

There was a large media campaign in response to the situation pursuant to which an Indigenous association, the local authorities of French Guyana, the deputy and the senator from French Guyana gave their support to the patent opposition (Chantal Berthelot et Antoine Karam, 2016; Organisation des Nations Autochtones de Guyane, 2016; Rodolphe Alexandre, 2016). As a result, the IRD's CEO admitted some 'blunders' and 'errors' (Institut de Recherche pour le Développement (IRD) 2016c). He also announced the adoption of a benefit-sharing agreement with the authorities of French Guyana (Institut de Recherche pour le Développement (IRD), 2016a, 2016b and 2016c). However, the CEO failed to comment on the adoption of an ABS agreement with the Indigenous and local populations themselves.

At the same time, IRD replied to the opposition filed against the patent. First, the IRD acknowledged the importance of prior informed consent: 'failure [to respect the prior informed consent of the population] is not consistent with good research practices with local populations' (Institut de Recherche pour le Développement (IRD), 2016d: 2–3). However, according to the IRD, respect of prior informed consent is conditional: 'consequently, the absence of PIC *when this is required* [by State law] will have to be considered contrary to public order or morality . . . On the other

hand ... the patent owner maintains that there was no legal requirement for its researchers to undertake the PIC' protocol. (Ibid., 3).

Regarding the fair and equitable sharing of benefits, the IRD affirmed that 'the incentives about benefit-sharing in international law are addressed to States. States' nationals, and particularly their researchers, are only able to apply these recommendations to the extent that national legislation recognize them' (Ibid., 5).

In other words, IRD claimed that researchers only have to obtain prior informed consent when state law requires them to do so; without a state-sanctioned legal requirement, the IRD was under no obligation to ensure PIC was obtained. Considering the practices described in the *Quassia Amara* case, this position implies that researchers would have to wait for national legislation to implement ABS principles – that it would actually be *dangerous* or *hazardous* for researchers and their institutions to try to implement and to respect the ABS principles of their own accord.

The position adopted by the IRD raises several questions that we would like to explore in this chapter:

1. Are researchers (among other actors from civil society) right to believe that they have no role to play in the implementation of ABS principles? Is that approach consistent with international law?
2. Is it dangerous, risky and difficult for researchers (among other actors from civil society) to take actions to implement ABS principles in the course of their projects?
  - a. Is the approach adopted by the IRD widely shared among the scientific research community?
  - b. Are there examples of differing approaches which can be observed from elsewhere?

The *Quassia Amara* case provides us the opportunity to draw more attention to emerging contributions from Indigenous people(s) and researchers to regulate the circulation of traditional knowledge and genetic resources.

#### WHO IS RESPONSIBLE FOR THE IMPLEMENTATION OF ABS PRINCIPLES?

In this section, I will analyse the role and responsibilities of States, providers and users of genetic resources and traditional knowledge for the implementation of the ABS principles. While States are often seen as the most competent (if not the only) authorities to act, the role and responsibilities of community providers and users are often underestimated. As we will see, this interpretation of states as the appropriate authorities is exaggerated and is not consistent with many approaches such as issuing from international texts, research ethics and the claims formulated by Indigenous and local communities.

*The Role and Responsibilities of States*

The CBD and the Nagoya Protocol are international texts that bind the signatory States rather than the users and providers of genetic resources and traditional knowledge. But what precisely are the obligations of States under the CBD and the Nagoya Protocol? Both the CBD and the Nagoya protocol can be described as ‘framework-conventions,’ ‘[w]ithout any enforceable legal obligation, the CBD requires additional implementation measures to have a specific and mandatory content’ (Hermitte, 2006: 351; Burelli, 2012: 58).

According to the CBD, the Parties are not required to adopt and to manage a comprehensive ABS regime. For example, Article 15 (5) of the CBD states: ‘[a]ccess to genetic resources shall be subject to prior informed consent of the Contracting Party providing such resources, unless otherwise determined by that Party.’

A similar approach is adopted with regard to the issue of fair and equitable benefit-sharing in Article 15 (7): ‘[e]ach Contracting Party shall take legislative, administrative or policy measures, as appropriate, (...) 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 genetic resources with the Contracting Party providing such resources.’

With regard to traditional knowledge, ‘[e]ach Contracting Party shall, as far as possible and as appropriate, subject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices.’

As these articles show, States are bound by objectives rather than by the implementation of specific measures. The adoption and the management of an ABS regime by a State is only one option among others. While this option may appear to some governments to be necessary or even impossible to circumvent, it could seem disproportionate, inappropriate and costly for others.

The strategy adopted by the Nagoya Protocol is to let each State to decide what are ‘the necessary legislative, administrative or policy measures’ to ensure the implementation of ABS principles. The Nagoya protocol is very clear on States’ obligations, for instance Article 5(2) states:

[e]ach Party shall take legislative, administrative or policy measures, as appropriate, with the aim of ensuring that benefits arising from the utilization of genetic resources that are held by indigenous and local communities, in accordance with domestic legislation regarding the established rights of these indigenous and local communities over these genetic resources, are shared in a fair and equitable way with the communities concerned, based on mutually agreed terms.

A similar wording is employed in Articles 5 (5) and 7 of the Nagoya Protocol.

Therefore, the obligations of State parties are primarily to ensure compliance with the principles set out in the CBD and further developed in the Nagoya Protocol. States can decide to simply adopt control mechanisms. For instance, it could be an obligation for users to prove that they implemented and respected ABS principles. This is the choice made by the European Union, which has focused so far only on the control of users (Burelli, 2015c). In fact, to date, very few States in the world have decided to adopt specific legislation on ABS.

In this context, does the absence of a national ABS legislation mean that users are not required to obtain prior and informed consent of genetic resources and traditional knowledge providers, or that they should not take any action to respect it? Does that mean that users are not required to share equitably the benefits resulting from the projects?

#### THE UNDERESTIMATED ROLE AND RESPONSIBILITIES OF PROVIDERS AND USERS

In my opinion, the role and the responsibility of users (including academic researchers) and providers (especially Indigenous peoples and local communities) of genetic resources and traditional knowledge are largely underestimated. A widespread interpretation is that users and providers only have to comply with national legislation and are therefore not obliged to respect ABS principles if there is no specific regime implemented by a State. It is also not uncommon to hear various actors (government officials, environmental managers, researchers, representatives or members of Indigenous communities, etc.) defending the idea that users and providers do not have the power or are incapable of implementing effective ABS measures independently. In my view, this interpretation is erroneous, counterproductive and dangerous, particularly for users.

For instance, while the Nagoya Protocol only binds Parties that have signed and ratified it, the text explicitly suggests the role that users and providers can play in the implementation of ABS.

Article 12.3 of the Protocol requires Parties to endeavour to support the development by Indigenous and local communities of community protocols on ABS (Article 12.3 (a)), minimum requirements for mutually agreed terms (Article 12.3 (b)), and model contractual clauses for benefit-sharing arising from the utilization of traditional knowledge associated with genetic resources (Article 12.3 (c)).

More generally, Article 20 of the Nagoya Protocol provides that '[e]ach Party shall encourage, as appropriate, the development, update and use of voluntary codes of conduct, guidelines and best practices and/or standards in relation to access and benefit-sharing.' Thus, the role and responsibility of users and providers are explained and encouraged in the Nagoya Protocol.

In addition to international conventions, non-binding tools have been adopted in order to guide ABS stakeholders, such as (1) the Bonn Guidelines on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Use (Secretariat of the Convention on Biological Diversity, 2002), (2) the Tkarihwaïéri Code of Ethical Conduct to ensure respect for the cultural and intellectual heritage of Indigenous peoples relevant to the conservation and sustainable use of biological diversity (Secretariat of the Convention on Biological Diversity, 2012) or more recently (3) the Mo'otz Kuxtal voluntary guidelines (Décision XIII/18). These three instruments stress the importance of the role of both users and providers in the proper implementation of ABS principles.

Adopted in 2002, the Bonn Guidelines 'are expected to assist Parties, Governments and other stakeholders in developing overall access and benefit-sharing strategies, and in identifying the steps involved in the process of obtaining access to genetic resources and benefit-sharing' (Secretariat of the Convention on Biological Diversity, 2002: IV).

According to the Tkarihwaïéri Code of Ethical Conduct: '[t]hose working with indigenous and local communities and in particular researchers are invited to take the Code into consideration in their daily work.' (Secretariat of the Convention on Biological Diversity, 2012: 4).

As explained by the CBD Secretariat, the Mo'otz Kuxtal voluntary guidelines are:

intended to provide guidance for the development of mechanisms, legislation, administrative and policy measures or other appropriate initiatives to ensure that potential users of knowledge, innovations and practices that are held by indigenous peoples and local communities, embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity (hereinafter 'traditional knowledge'), obtain the 'prior and informed consent', 'free, prior and informed consent' or 'approval and involvement', depending on national circumstances, where appropriate, of these indigenous peoples and local communities, in accordance with national legislation, and that these indigenous peoples and local communities obtain a fair and equitable share of benefits arising from the use and application of such traditional knowledge and for reporting and preventing unlawful appropriation of traditional knowledge relevant for the conservation and sustainable use of biological diversity.

(Secretariat of the Convention on Biological Diversity, 2016: 3)

Indigenous communities have also made claims regarding their relationships with researchers. As reported by Graham Dutfield in 2002, many declarations and statements have been published before and after 1992 (Dutfield, 2002). Many more have been adopted since that time. In these public documents, Indigenous communities expressed their needs and claims on several topics such as: ownership and rights over traditional knowledge and resources, prior informed consent, participation, a right to veto over research, the disclosure of research results, benefit-sharing, and restitution (*ibid.*). In some statements and declarations, Indigenous people(s) call for a

moratorium on bioprospecting until the adoption of effective regimes to protect their rights (*ibid.*). In other words, Indigenous communities are not accepting of a business-as-usual solution. In the absence of a framework to protect their rights, they would rather not collaborate with bioprospecting projects. For example, in Canada, the James Bay Cree Nation experience resulted in an imposition of a moratorium on research by outsiders (Oguamanam & Koziol, Chapter 7; Vodden & Bannister, 2008).

These sources reflect a shift in what is acceptable in research projects involving Indigenous people(s) and their heritage, particularly their traditional knowledge associated with biodiversity. This evolution is becoming more and more difficult to ignore today considering the efforts made to publicize and to explain ABS principles and protocols on conducting research involving Indigenous people(s) (Burelli, 2016).

As a result, it seems impossible or at least very risky for a user not to respect ABS principles by reason of lack of appropriate legislation in the country of collection. Indeed, the issue of biopiracy, defined as an unauthorized access and use of genetic resources and associated traditional knowledge, is now widely known and unanimously condemned (Shiva, 2001). It is no longer morally and ethically acceptable to ignore ABS principles (Bannister and Barrett, 2001; Hardison and Bannister, 2011).

That is why, in my opinion, researchers and Indigenous people(s) do not have to wait for a national framework to change their terms of collaboration. There is no longer an excuse for ignoring ABS principles, especially for researchers who have the power to take advantage of an absence of implementation. More importantly, researchers have a responsibility for implementing ABS principles based on international law, ethics, morality and calls from Indigenous people(s). As explained by Menzies: '[t]o deny the colonial legacy by not adapting our research projects to accommodate Aboriginal concerns is to participate in the colonial project itself' (Menzies, 2001: 22).

Collaboration in research projects between academic researchers and Indigenous communities has not stopped since 1992. However, some researchers have been unwilling to implement ABS principles and this practice has led to accusations of biopiracy (Burelli, 2013; France Libertés, Burelli, Costes, 2015; Burelli, 2015a). In other cases over the last 20 years, researchers and Indigenous communities have attempted to transform their relationships (Burelli, 2015b). This is particularly true in Canada where one may identify two types of documentary contributions: general frameworks such as ethical codes, and several forms of contractual practices. In my research, I identified more than 100 of these approaches from 1995 to 2014. The frameworks are very scattered and sometimes little is known about them. It is important to analyze their characteristics to identify the best practices for respecting ABS principles.

#### DIVERSITY OF INSTRUMENTS DEVELOPED LOCALLY IN CANADA

Researchers and Indigenous people(s) share common objectives when jointly and directly involved in research projects on genetic resources and traditional



knowledge. Ostensibly, they are interested and involved in regulating the circulation of genetic resources and traditional knowledge. As we will see, in some countries such as Canada, researchers and Indigenous people(s) have seized the opportunity to improve their relationships.

### *Crucial Contributions from Primary Actors*

ABS issues involve a wide range of actors. States can be providers and/or users of genetic resources, but this claim may not be entirely accurate with regard to traditional knowledge. Several categories of users of genetic resources and traditional knowledge include private companies from the biotechnology sector, academic researchers in relation with the public and private sectors, etc. Providers of genetic resources and traditional knowledge include Indigenous individuals, Indigenous and local communities, and gene banks. Laird et al (2002: 78) note the disagreements which may occur due to the complex and multiple interests involved in ABS issues:

[b]ecause different stakeholders, communities, ethnic groups or nation states have different and even conflicting needs and proprietary claims over genetic resources and associated knowledge, and because many of these stakeholder groups do not necessarily recognize the rights of other stakeholders to represent them of their interests, it is unlikely that there will be much consensus as to what constitutes legitimate or illegitimate appropriation.

According to Santos (2002: 478), ABS can be described as a contact zone 'in which rival normative ideas, knowledges, power forms, symbolic universes and agencies meet in unequal conditions and resist, reject, assimilate, imitate, subvert each other, giving rise to hybrid legal and political constellations in which the inequality of exchanges are traceable.' Santos (Ibid.) continued, '[t]he contact zone between traditional herbal knowledge and modern scientific knowledge of biodiversity is a social field of fierce political and legal disputes.' More specifically, he describes this contact zone as 'the time-space where alternative and rival knowledges meet: on one side, the Western-based modern science and technology; on the other side, the local, community-based, indigenous, peasant knowledges that have been the guardians of biodiversity' (Ibid., 477).

In this contact zone, academic researchers and Indigenous people(s) share a very specific position as far as they are directly involved in research projects on genetic resources and traditional knowledge. They participate in the designing of projects and in setting project parameters. Therefore, they are the very first to be involved in regulating the circulation of genetic resources and traditional knowledge. By pursuing research projects on genetic resources and traditional knowledge, researchers and Indigenous people(s) are contributing to ABS implementation. This does not imply that they are following the requirements of international law or that their

contributions are necessarily congruent with it. However, especially in the absence of national legislation, the study of researchers' and Indigenous people's contributions are of the utmost importance.

Because researchers and Indigenous people(s) are directly involved in the design and implementation of research projects, we can expect to observe an emergence of innovative principles, tools and mechanisms when these actors take into account ABS principles. We can expect them to translate relevant international principles into practices adapted to their realities. Of course, these contributions can and do still reveal power imbalances between the actors. However, we need first to identify and analyze these contributions before rejecting them. In addition, even if these contributions are not perfect, and even if they would not be turnkey solutions, some of their elements could be useful for other actors on the field.

However, despite their potential, very few people are focusing on these contributions. Some researchers and institutions have drawn attention to the instruments developed by Indigenous communities in Canada (Bannister, 2009; Bell & Paterson, 2009). Recently, the First Nations of Québec and Labrador Health and Social Services Commission has published the *Toolbox of Principles for Research in Indigenous Contexts* which gathers several instruments (First Nations of Québec and Labrador Health and Social Services Commission, 2014). Beyond the identification of these experiences, a critical assessment of them, is needed to determine emerging best practices between researchers and Indigenous people(s) and to understand how these models can advance inclusive national ABS implementation.

It is not as if these variegated approaches and partnerships between researcher and Indigenous peoples are unknown to Canada or internationally. However, there is very little information about the operative instruments developed and their potential. Canada has stressed the importance of raising awareness about these contributions and the need to ensure that the rights of Indigenous peoples, particularly the right 'to grant permission to access genetic resources on Aboriginal land and to establish mutually agreed terms' are respected (Environment Canada, 2015: 8). For the further development of a federal ABS policy the federal government would '[s]eek to raise the awareness of Aboriginal communities with respect to their ability to control access to and benefit from the use of the traditional knowledge associated with genetic resources held by these communities' (ibid.).

Environment Canada is working to gather more information about the contributions developed in Canada and has referred to the possibility of sharing them with users and providers. It has directly stated a commitment to '[p]rovide examples of systems that have been applied by Indigenous communities in Canada and elsewhere to control access to and to share in the benefits from the use of traditional knowledge associated with genetic resources and, where appropriate, explore options to develop related capacity' (ibid., 8).

The instruments developed by Indigenous communities and researchers in Canada are scattered throughout the country. This chapter shares my work in

gathering and mapping a number of these instruments. The primary goal of this research is to determine the partnerships' actors and the reach or limitations of their experiences as evident from the instruments' text.

### *Types of Instruments Developed in Canada*

I started with identifying instruments developed since 1992, the year of adoption of the Convention on the Biological Diversity. In this Convention, the ABS principles are recognized, arguably, most prominently, at the international level. Parties to the Convention are asked to take action to ensure that these principles are respected. This does not mean that before 1992 researchers did not have to respect the prior informed consent of the providers of genetic resources and traditional knowledge, or that no benefit-sharing was required (Burelli and Lafargue, 2017). However, after 1992, the expectation is that we could identify more instruments, given that ABS became more widely discussed.

Through my research, I identified more than 120 instruments<sup>3</sup> developed in Canada, related to the use of traditional knowledge in general or traditional medicinal knowledge specifically. Within that context, I identified two main types of instruments: first, general frameworks developed by Indigenous people and their institutions and by actors from the academic community; second, contractual practices, models or signed contracts. For the purposes of this chapter, I will employ a few examples from the larger dataset to illustrate the main principles identified in the instruments. The instruments are anonymized in order to protect the participants who shared confidential information and also because the final list of instruments has not yet been released.<sup>4</sup>

### *General Framework Instruments*

General frameworks are instruments designed to frame multiple research projects and to give guidance to collaborative agreements. These general frameworks are applicable to a specific territory, a specific people, and/or to specific projects. I further divide general frameworks into (a) those written by universities and (b) those written by Indigenous institutions. General framework instruments include policy frameworks, research protocols, code of ethics or statements. Guidance documents take the form of guides/guidelines, research principles, or tool kits. One example of a guidance document tool kit is the Toolbox of Principles for Research in Indigenous Contexts published by First Nations of Québec and Labrador Health and Social Services Commission (First Nations of Québec and Labrador Health and Social Services Commission, 2014).

A majority (49/61) of the general frameworks adopted throughout Canada since 1992 (earliest 1996 and most recent, 2016) were adopted by Indigenous actors, while the rest (12/61) were developed by academic researchers. Indigenous actors which

have adopted general frameworks include representative political organizations, representative sectorial organizations, tribal councils, and First Nations. The wide scope of Indigenous actors which have adopted general frameworks demonstrates the importance of framing the relationships with researchers at every level of Indigenous governance throughout Canada. General frameworks have addressed several topics such as: ownership and rights over traditional knowledge and resources, prior informed consent, participation, a right to veto over research, the disclosure of research results, benefit-sharing, and restitution.

Although it is surprising that only 12 general frameworks have been adopted by the more than 200 colleges and universities throughout Canada, some of the general frameworks adopted by academic researchers have a very large scope. Indeed, since 1998, the Three Research Councils of Canada (the major federal funding agencies) have developed several ethical frameworks with wide scope of application. Specific principles for research involving Indigenous peoples have been gradually defined in these frameworks (1998, 2007 and 2010) (Oguamanam, Chapter 11; Bannister, Chapter 12). Some universities have also adopted their own ethical framework, which would apply to any research projects associated with the university.

### *Contractual Practices*

Contractual practices adopted throughout Canada since 1992 can be further divided into (a) consent forms to be signed between researchers and participants and (b) research agreements. I identified 15 consent forms and 6 research agreements based, at least partially, on the use of traditional medicinal knowledge. It is interesting to note that Indigenous actors are more likely than other actors to make such contractual practices public. While many research agreements and consent forms are publicly shared by Indigenous actors, very few examples are publicly shared by academic institutions.

#### THE INNOVATIVE PRINCIPLES AND MECHANISMS INCLUDED IN THE INSTRUMENTS

The remainder of this chapter will focus on four priorities for ABS, extracted from my analysis of the four types of instruments outlined above. The four priorities are:

1. Free, Prior and Informed Consent
  - a. Ongoing Consent
  - b. Right to Withdraw Consent
2. Indigenous Participation in Research Projects
3. Rules of Use on Material and Associated TK
4. Benefit-Sharing

Examples of principles or mechanisms extracted from each type of instruments have been included for each of the four topics that I am discussing. These examples do not capture the diversity of principles and mechanisms which can be observed in each of the categories of instruments. However, they give us an idea of their potential for implementing ABS principles.

### *Free, Prior and Informed Consent*

The free, prior and informed consent principle (FPIC) stems from the notion that researchers and Indigenous participants should be partners in conducting research, so they must share power equally. For Leanne Simpson, this is a simple pre-requisite for balanced and fair relationships: ‘including Indigenous peoples (and therefore Indigenous world views, values, morals, ethics and TEK) in a fair and equitable manner means sharing power equally’ (Leanne Simpson, *ibid.*; Bannister, Chapter 12). FPIC is essential for Indigenous communities to be able to determine for themselves how they will use and allow access to TK (Simpson, 1999: 94). Therefore, consent is often defined in the Canadian documents as an ongoing process that animates the entire research project and that may be withdrawn if the research is not conducted in a manner consistent with the equality principle.

### *Examples of FPIC Provisions*

Indigenous general framework	‘Researchers should “[s]hare with the communities, information about the purpose of their research, its methods, and findings throughout the life of the project”.’
Academic general framework	‘A community or an individual has the right to withdraw from the research at any point.’
Consent form	‘I will be consulted from time to time during the course of the research to make sure that I still wish to continue my participation.’
Research agreement	‘The right to withdraw without repercussions will be made clear to participants.’

### *Rules on Use of Research Material*

Conditions of use of research material were included in many of the analyzed instruments. This issue is not well-developed in the CBD and Nagoya Protocol regimes. In fact, the tools developed by Indigenous actors and academic researchers often go beyond the principles recognised at the international level.

Most instruments I analysed required full transparency about the uses of research material. In some, there were procedures in place for handing of research material

back to the supplier if a participant decided to withdraw consent. In some cases, it is recognised that the data should be returned or destroyed.

In some instruments, secondary uses (other than those initially agreed upon) are not authorized without the consent of communities and their members. For example, if a community authorized the use of plants and traditional knowledge for the treatment of malaria, the researchers would not be allowed to use the material to conduct research on cancer treatment without getting renewed consent from the participating community.

Some instruments also addressed the issue of transfer of material to third parties. This refers to situations in which an initial user wishes to share the collected material to a third party not mentioned in the initial contract, for a similar use or for a different one. While some instruments require that every user be known, others explicitly forbid such transfers.

#### *Examples of Provision on Rules for Use of Research Material*

Indigenous general frameworks	<p>‘An individual participant has the right to withdraw from the research process at any point. If this occurs, all information already collected on the individual should be destroyed or returned to the individual.’</p> <p>‘No research data is to be sold, transferred or reused without the prior approval of the [competent authority].’</p>
Academic general frameworks	‘Transfer of data and biological samples from one of the original parties to a research agreement, to a third party, requires consent of the other original party(ies).’
Consent forms	‘I agree that any material recorded to date will be returned to me in full if I decide to withdraw from the interview.’
Research agreements	<p>‘The Academic Institutions shall use any Confidential Information and the Plants and extracts solely as described in the Research Protocol.’</p> <p>‘The [name of university] will not, without the prior informed consent of the [name of the indigenous community]: use or permit the Traditional Knowledge to be used by any other person or body other than for the purposes of or incidental to the Traditional Knowledge Project.’</p>

#### *Right to Review and Access Data*

One of the most interesting and innovative principles which can be found in instruments throughout Canada is the rights of the participants regarding use of collected data before its publication. Many instruments require that the raw data and/or the results of the projects must be submitted to the participants before any publication. Participants then usually have a right to review the data, to comment on

it and to ask for some elements to be excluded from publication. This is a way to avoid confidential and sacred elements from being improperly disclosed or published without situating the data in its proper cultural context. This practice reflects the principle of ‘data sovereignty’ which Oguamanam explored in greater depth in Chapter 11.

It is recognized in most of the instruments that the data and results should be shared with the participants and their community in plain language and, where possible, in the language of their choice.

#### *Examples of Provisions on Right to Review and Access Data*

Indigenous general frameworks	<p>‘Researchers have an obligation to provide the [name of the people and the institutions of the community to be consulted] with an opportunity to review the research results and provide comments before the final product is completed.’</p> <p>‘That once the research is complete, the data will be disseminated to individual participants and participating communities in such a manner that is comprehensible and useful to those individuals.’</p>
Academic general frameworks	<p>‘Researchers should afford community representatives engaged in collaborative research an opportunity to participate in the interpretation of the data and the review of research findings before the completion of the final report, and before finalizing all relevant publications resulting from the research.’</p>
Consent forms	<p>‘Each elder will be given the opportunity, within a two-month period, of providing corrections, revisions, deletions, or additions, which will be incorporated into the field notes.’</p> <p>‘We will provide the [name of the indigenous community] with one copy of the original draft and final draft of the information documented. This include original and typed field notes, audiotapes, videotapes, photographs, Ph. D. dissertations, and journal articles.’</p>
Research agreements	<p>‘The research partners must first approve any communication of results, including written or oral presentations.’</p>

#### *Benefit-Sharing*

One of the non-monetary benefits prescribed in some Canadian instruments is publication acknowledgement. The contributions of participants may be recognised in the publication where their consent is given and with due respect to confidentiality requirements. In some cases, the participants may be recognised as co-authors.

Other benefit-sharing arrangements prescribed by instruments addressed intellectual rights developed as a result of a project. In most of the instruments dealing with

this topic, it is stated that intellectual property rights should be negotiated and shared with the communities and their members. Some instruments go as far as to assign co-ownership to any future inventions which may result from the research project.

Alternatively, some Indigenous actors reject the notion that intellectual property rights may be asserted over natural elements and so the instrument explicitly forbids assertion of intellectual property rights over the research material.

#### *Examples of Benefit-Sharing Provisions*

Indigenous general frameworks	<p>‘From time out of mind, [name of the First Nation] have gone into the forest to gather plants, soils and creatures for food, for healing and for spiritual purposes. As a result of this inherent relationship we have a proprietary interest and right to all species on our traditional territory, and to our cumulative knowledge of their preparation and use, as part of our property and cultural heritage. We will take steps to prevent any assertion of intellectual property rights to the genetic integrity or genetic potential of biotic systems in our ancestral territories.’</p> <p>‘Any publication using TK must acknowledge TK holders and their contribution and include TK holders as joint authors where appropriate.’</p>
Academic general frameworks	<p>‘Researchers will not exploit informants, or the information gathered from the research, for personal gain or aggrandisement. Where possible and appropriate, fair return should be given for participants’ help and services, which should be acknowledged in the final output.’</p>
Consent forms	<p>‘Some of the research associated with this project may lead to a commercial product or service. If, and only if, your information may be used to support this component of the larger research project you will be asked to sign a separate consent form.’</p>
Research agreements	<p>‘Any Joint Intellectual Property is deemed to be created, discovered or developed by using (...) Traditional Knowledge. Therefore, the Participating [First Nation] (...) for the benefit of the [First Nation Peoples] of their respective communities shall be undivided co-owners of the concerned Joint Intellectual Property, together with the [academic institutions] whose Researchers contributed as inventors to the creation, discovery or development of the concerned Joint Intellectual Property.’</p>

#### CONCLUSION

As we have seen, the impression that researchers and Indigenous peoples are oblivious of ABS implementation is not accurate. However, some researchers, as we have seen with the French Guyana case, tend to exploit the lacuna in the law.



Where there is no clear ABS law at state or domestic level, they insist that they have no obligation to observe ABS principles in their conduct. By ignoring ABS principles, they can access genetic resources and traditional knowledge and can potentially use them without limitations, willingly excluding Indigenous communities from the benefit-sharing process. This approach from researchers is inappropriate as it reflects an abuse of their position of power.

Researchers have a responsibility to take into consideration the ABS principles and to participate in their implementation, regardless of the actions or inactions of States (Menzies, 2001: 22). By refusing to incorporate ABS principles, methods and approaches, or by ignoring the importance of doing so, researchers participate in biopiracy (Shiva, 2001; Robinson, 2011) and perpetuate colonial practices (Menzies, 2011: 22).

On the other hand, this chapter has shown that some actors from the scientific community and Indigenous people(s) are developing and mobilizing their own tools such as codes of ethics and contracts to try to move toward more respectful and equitable relationships. Canada is a very rich case study to observe these contributions, which are often underestimated and under-valued. Therefore, some of these studies help debunk the questionable impression in many quarters that ABS is very complicated process to implement in the Canadian context (Hodges and Langford, Chapter 2). There is evident capacity of researchers and Indigenous people(s) to actively contribute to the transformation and improvement of their relationships. In fact, many examples of ethical frameworks and contractual practices are already available and could inspire people and institutions. We are convinced that while waiting for hypothetical national legal frameworks, these contributions can be very useful and can at least inspire all stakeholders at the ABS table (Phillips, Chapter 9).

Some of these contributions from Canada were used in 2014 in French Polynesia to develop the first French code of Ethics to deal specifically with research projects involving Indigenous people and their cultural heritage. This code has been adopted in 2015 by the Creole-CNRS centre and it has been included in the annexes of the centre's regulations.

The instruments I have identified constitute a rich source of information on the relationships that researchers and Indigenous people(s) wish to develop (in the general framework) but also on the relationships they have established for more than twenty years now. These instruments should not be neglected or underestimated as they constitute critical stepping stones or building blocks for the eventual implementation of national ABS principles in the Canadian and other contexts. This is not to suggest that these instruments could not be subjected into more rigorous scrutiny on an individual and contextual basis. They do, however, constitute useful stop-gap measures and ought to be acknowledged as representing pragmatic steps and evidence of current practices that can shape future progress on an Indigenous-sensitive ABS policy in Canada.

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## NOTES

- 1 Institut de Recherche pour le développement in French. Online: [www.ird.fr/](http://www.ird.fr/).
- 2 'Ce travail partait du postulat que les populations vivant en zone d'endémie palustre utilisent des plantes médicinales pour se soigner, et ainsi qu'il a été démontré précédemment, certaines de ces plantes ont des activités antiparasitaires réelles, pouvant être mises à profit dans l'élaboration de remèdes traditionnels améliorés'. (Bourdy and al., 2008: 38–9). While studies showed that indigenous and local populations were using traditional remedies, and while researchers recognize that the plants used by the indigenous and local populations have a 'real antiparasitic activities' (which is not very surprising considering that these populations are using these plants as treatments for years...), researchers are arguing that improved traditional remedies could be (should be?) developed, of course with the help of western science, its logic and its methods. In this case, as we will see, the definition of 'improved

*traditional remedies*' would mean the isolation of a molecule and the application for a patent (solely controlled by the research institute and its researchers).

- 3 To identify and gain access to these instruments, I contacted universities and colleges in Canada in addition to researchers who work on medicinal traditional knowledge and Indigenous organizations. The documents identified and reviewed as part of my thesis research only constitute a portion of the instruments developed since 1992. Some are confidential, while those that are not confidential might be associated with other research-related limitations. For instance, while I identified more than 800 potential Indigenous actors, I only had contact information for 500 of them. Of that 500, only a portion responded to a request for information on tools to regulate research on genetic resources and traditional knowledge. In some cases, I found reference to a tool but could not find copies of the document itself. The contractual practices, especially signed ones, are the most difficult types of instruments to gain access to because they are not always made available to the public, even when they are not considered confidential.
- 4 The complete list will be released as part of my PhD thesis.