

Ethics, Justice and the Convention on Biological Diversity

Doris Schroeder and Balakrishna Pisupati



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This report was written by Doris Schroeder and Balakrishna Pisupati

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Prof. Doris Schroeder, whose background is in philosophy, politics and economics, is Director of the Centre for Professional Ethics at the University of Central Lancashire, UK; Professorial Fellow at the Centre for Applied Philosophy and Public Ethics, University of Melbourne, Australia, and Adjunct Professor of Philosophy at the University of Oslo, Norway.

Dr. Balakrishna Pisupati is Chief of the Biodiversity, Land, Law and Governance Unit, Division for Environmental Law and Conventions, United Nations Environment Programme (UNEP), Nairobi, Kenya.

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The authors have sought to include the most accurate and up-to-date information available. Any errors – factual or presentational – remain those of the authors. All diagrams: Doris Schroeder.

“If you do not change direction, you may end up where you are heading.”

Lao-tzu, Chinese philosopher (604 – 531 B.C.)

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Executive Summary



“Faced with what is right, to leave it undone shows a lack of courage.”

Confucius, Chinese thinker and philosopher (551 – 479 B.C.)

Today, the Convention on Biological Diversity (CBD) has 193 parties. This "Grand Bargain" is usually interpreted as an instrument of national or regional self-interest. Industrialised nations focused on maintaining the level of biodiversity to protect ecological functions and to secure future use. Developing countries were concerned that a rigid conservation agenda would undermine local solutions to development. The compromise or bargain achieved in Rio de Janeiro lodged sovereignty over genetic resources with national governments, and required users to share benefits with providers. Agreed mechanisms included the obtaining of prior informed consent and the negotiation of mutually agreed terms.

Yet, there is another reading of the CBD. This report takes a philosophical look at the convention. It explains how the concept of justice is omnipresent throughout. On this reading, the CBD is an instrument of collaboration between nations to achieve justice between generations as well as justice between the providers and the users of biological resources. In fact, it is a breakthrough in international politics, which puts common concerns of humankind and their ethical resolution at the forefront of international negotiations.

- *Intergenerational distributive justice* requires that biodiversity is conserved for future generations.

- *International justice in exchange* requires that benefits from the use of genetic resources are shared fairly and equitably.

- *Procedural justice* requires that access to traditional knowledge and genetic resources is subject to formal prior informed consent.

Ethics, as the study of good and evil, goes back thousands of years. Throughout the ages, philosophers have asked what makes a good life for an individual. In all known cultures and in all ethical theories, justice plays an important role. Readers of the full report will be given a crash course in philosophical ethics ranging from an overview of the main ethical theories to the question of whether morality is relative, to subtle distinctions of the concept of justice.

Diagrams and CBD-relevant examples are used throughout. A particular light will be shone on the main challenges, ethically speaking, of realising the spirit of the CBD, namely establishing how best to achieve prior informed consent, agreeing the international regime and achieving compliance.

There is a lot at stake with CBD negotiations. Hopefully, the CBD will deserve its place in history as the main global instrument that prioritises a concern for international justice over national self-interest.

Readers of the full report will be given a crash course in philosophical ethics...



I. Introduction

A photograph of a forest path covered in bluebells and daisies. The path is a narrow dirt trail winding through a lush green forest. The ground is densely packed with small, vibrant blue flowers (bluebells) and white flowers (daisies) growing among tall green grasses. Several tree trunks are visible in the background, and the sunlight filters through the leaves, creating a dappled light effect on the forest floor.

***“I do not believe in a fate that falls on men however they act;
but I do believe in a fate that falls on them unless they act.”***

Buddha, Spiritual teacher from Ancient India (563 – 483 B.C.)



Ethics is one of the buzzwords of the 21st century, and ethical issues have been given more prominence than ever before. Governments around the world are appointing national ethics commissions to advise them on policy matters.¹ Spearheaded by the BBC and its ethics homepage², many established news providers offer dedicated ethics sections and online services³. Ethics prizes are given to business professionals to reward integrity⁴, to government officials to reward a commitment to public service⁵, and to journalists to reward ethical conduct⁶.

Yet nowhere can ethics be more powerful than at the global level, providing the foundation for forward-looking, widely supported, international legal frameworks aimed at improving human lives and contributing to sustainable development. The Convention on Biodiversity (CBD) is the main global instrument to date that prioritises a concern for international justice⁷, through its Article on access to genetic resources and benefit sharing (Access and Benefit Sharing (ABS) – Article 15). To date, there are 193 parties to the CBD and with such broad support, the convention represents a breakthrough in international politics, which puts common concerns of humanity and their ethical resolution at the forefront of international negotiations. But what are the ethical foundations of the CBD exactly and how strong are they? These are the main questions of this report.

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The CBD

During the 1970s and 1980s the awareness of biodiversity loss rose dramatically amongst policy-makers and the public,⁸ initiated by the 1972 Stockholm Conference on the Environment. More than 300 environmental agreements were signed at the international level between 1972 and 1992⁹, some of which were landmark achievements such as the 1973 CITES Convention governing the trade in endangered species. However, biodiversity loss continued unabated. As a result, the International Union for Conservation of Nature (IUCN) suggested a new, broader and much more ambitious convention to strengthen measures at the international level. This was

taken up by the United Nations Environment Programme (UNEP). A series of working group meetings was convened culminating in the Earth Summit in Rio de Janeiro in 1992, where the Convention on Biological Diversity was adopted. It came into force in December 1993.

Looking back, national or regional self-interest rather than ethical concerns appeared to dominate negotiations. Protecting biodiversity is important – amongst other things – to secure sustainable food supplies and sources of medicines and energy, as well as to maintain ecological balance. Biodiversity forms the very basis of human survival globally – in both industrialised and developing countries. Industrialised nations wanted to maintain the level of biodiversity in order to protect ecological functions and ecosystems and sustain their access to its use in the future. However, this approach was rejected by developing countries as a Northern agenda, which might stop local solutions to development. "At the end of a long debate, developing countries used the fact that they are the repositories of the biological resources about which so much concern was being expressed as a lever to obtain various concessions from the developed world."¹⁰ These concessions included:

- sovereignty over genetic resources to be lodged with national governments and no longer considered the common heritage of humankind;
- a legal framework for dealing with biotechnology, in particular those aspects that pose a threat to safety (leading to the Cartagena Protocol on Biosafety in 2000);
- recognition of indigenous communities as the guardians of biodiversity and related traditional knowledge and
- the requirement to share benefits with the providers of genetic resources, with their prior informed consent (PIC) and on mutually agreed terms (MATs).

As a result of these early negotiations, the CBD adopted three major objectives:

1. the conservation of biological diversity;
2. the sustainable use of its components and
3. the fair and equitable sharing of benefits from the use of genetic resources.

The first objective relates to the initial stimulus, namely to deal with the serious loss of biodiversity and its potential implications for humankind. The second objective relates to the demand by users to ensure long term availability of resources, for instance, in scientific or commercial endeavours as well as to support livelihoods. The third objective essentially summarises the demands made by developing countries.

An additional demand from indigenous peoples was taken on board with Article 8 (j) of the CBD. Supplementing the three objectives, this article called for the recognition of traditional knowledge, respect for its holders and appropriate actions by the Parties to deal with such knowledge.

One reading of the CBD is as an instrument of national or regional self-interest. Negotiators prioritised their own demands and made compromises to satisfy those of others. This reading is widely referred to as the "Grand Bargain"¹¹ of the CBD. However, there is another reading, which shall be presented in this report. The first CBD objective, the conservation of biodiversity, is an urgent act of attaining intergenerational justice; an act that requires sustained, engaged international collaboration. To deplete the planet of essential resources and leave to future generations a world which severely limits their options, is unjust. The second objective, sustainable use, is integrally linked to conservation and some argue that conservation must include sustainable use.¹² The third CBD objective, the equitable sharing of the benefits derived from biological resources, aligns with well established principles of justice in exchange, and distributive justice, as will be explained below.

The report is structured as follows: in part two (after this introduction), a number of essential philosophical terms such as ethics and justice will be explained. Part three will begin by establishing whether, and if so how, the CBD defines justice. We then apply our philosophical understanding of the term to the Convention. One of the main difficulties in defining justice and what it means in real-life situations is the challenge of what philosophers call moral relativism, ie the claim that there can never be agreement on what is just across cultural barriers. We shall address this challenge in part four. In part five we bring together what we have established so far by asking where the main difficulties lie when realising the justice principles of the CBD, before concluding the report.

...the conservation of biodiversity is an urgent act of attaining intergenerational justice; an act that requires sustained, engaged international collaboration.

II. Ethics and Justice

"All virtue is summed up in dealing justly."

Aristotle, Philosopher from Ancient Greece (384 – 322 B.C.)

Today, the term "ethics" is used very broadly to cover almost anything that benefits others or the common good. On this view, foregoing a long-distance holiday to reduce carbon emissions would fall under ethics; as would minding the children of an ill neighbour, buying fair trade products or volunteering for a charitable organisation. By contrast, the more technical term "ethics" is used to describe a branch of philosophy, which studies systems of moral norms or principles as well as the theories developed by this branch.

Moral norms are directed at promoting good and avoiding evil, at encouraging virtue and discouraging vice, at avoiding harm to others and promoting their wellbeing or welfare. In general, moral norms are concerned with the interest of others or the common interest rather than just with the individual's self-interest.¹³

Moral norms to promote the well-being of others or the common good can be adhered to at the individual level, the group level (e.g. local communities, corporations) or at the level of states. Traditionally, ethicists have mostly dealt with the obligations of individuals as well as theories of just war. In this regard, a philosophical look at the Convention on Biological Diversity brings us onto new terrain.

Throughout the ages, the main questions asked by ethicists have been: "What is a good life for an individual?" or "How do I, as an individual, distinguish morally good behaviour from morally bad behaviour?" Many societies adhere to religiously derived answers to these questions. Most world religions, such as Hinduism, Judaism, Islam, Christianity, and Buddhism give relevant answers. These answers are considered to be the word/will of God (or other holy powers) and are followed due to a belief in sacred authority. By contrast, most ethicists have tried to answer these questions with reference to human rationality, trying to create a system of answers that is internally coherent and relates to human action directly. Others such as Thomas Aquinas (1225 – 1274) believed that the demands of rationality and the demands of God fall together, because the universe is ruled by divine providence, which aligns with the dictates of practical reason. And as rational creatures, human beings "partake ... of a share of providence" through "an imprint on us of the Divine light."¹⁴

The three best known ethical frameworks based on human rationality are¹⁵:

Rules-based

The more technical term for rules-based ethics is deontological ethics (from *deon*, Greek, obligation). The focus in this type of ethics is whether the person musters the will to adhere to certain rules (e.g. do not lie, do not kill). Traditionally, this approach concentrated on obligations, hence the term. Nowadays, it has been developed more into a focus on rights. The Human Rights Framework would be considered to be rules-based or deontological ethics as well as part of natural law theory, which will be introduced later.

Virtue ethics

Virtue ethics focuses on the character of the moral person, which has to be built through education and lifelong self-discipline in order to produce virtues such as courage, justice, temperance, and wisdom. Those who succeed in developing the above cardinal virtues will flourish and lead a good life, according to Ancient Greek thought.

Consequentialist ethics

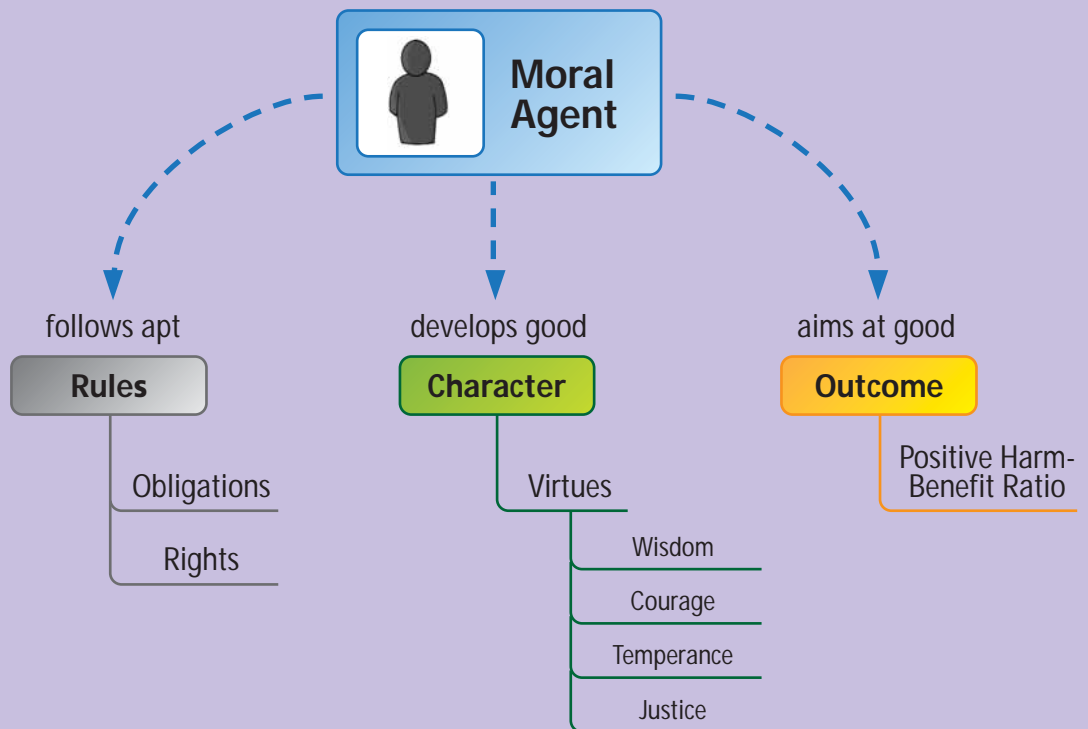
As the term suggests, consequentialist ethics focuses on the intended consequences of one's actions. The most common type is called utilitarianism, which tries to achieve the greatest happiness for the greatest number by focusing on good outcomes. For a consequentialist it does not matter much why one does a good deed, as long as the benefit is not an unintended consequence. For instance, under this understanding, one could donate to charity purely to impress somebody, and this would still be an ethical act.

Ethicists have been debating for centuries which, if any, theory is superior to the others. At the same time, contemporary ethicists have pointed out certain biases in the above theories, for instance gender biases¹⁶.

However, in everyday life, it seems perfectly plausible to follow certain rules (e.g. "do not kill"), at the same time as trying to improve one's sense of justice (nurturing virtues) whilst avoiding harm to others through a focus on probable outcomes.

...a philosophical look at the Convention on Biological Diversity brings us onto new terrain.

Diagram 1: Three Ethical Frameworks - Rules, Character, Outcome



Examples of mid-level principles are concepts such as justice, respect, dignity, equality, freedom and the principle not to do harm.

One way to overcome the deadlock at the theoretical level is to focus not on high-level theories, but on what are called mid-level principles (this solution is mostly used in medical ethics). Whilst the theories try to resolve all possible ethical questions within one framework (e.g. human rights), mid-level principles are less ambitious and can be used across the various ethical frameworks. The

principles are still abstract enough to be applicable to a large variety of moral dilemmas, ranging from how to treat others¹⁷ to what is owed to them¹⁸. Yet, they are not restricted by an overarching concern to maintain consistency with the main focus of a theory (e.g. rules). Examples of mid-level principles are concepts such as justice, respect, dignity, equality, freedom and the principle not to do harm.

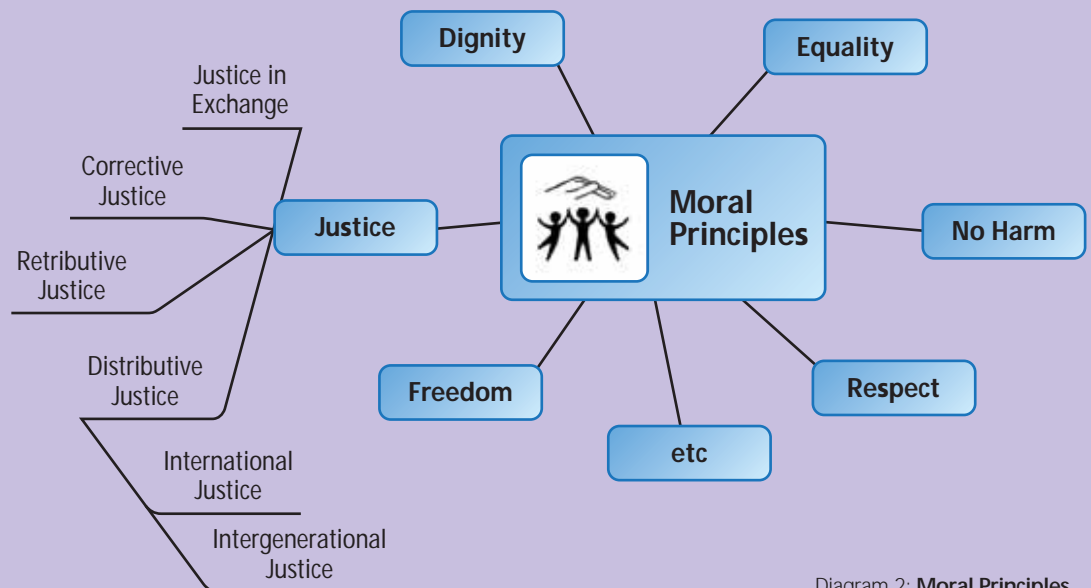


Diagram 2: Moral Principles

Justice

This report focuses on theories of justice, sometimes also referred to as fairness or equity. Justice, fairness and equity all refer to a principle that demands fair treatment or due reward. The principle itself comes in a variety of types. Traditional philosophers usually distinguish the following¹⁹:

Justice in exchange establishes the fairness or equity of transactions.

Distributive justice deals with the division of existing, scarce resources amongst qualifying recipients.

Corrective justice rights a wrong that one has brought upon another, usually through a court declaring a remedy to correct the given injustice.

Retributive justice establishes which punishment is appropriate for any given crime.

For the purpose of this report, justice in exchange and distributive justice are directly relevant whilst corrective justice and its means are relevant to issues of compliance. We shall concentrate on the former.

Justice in Exchange

Justice in exchange establishes the fairness or equity of transactions. It regulates the justice of giving one thing and receiving what is due in return. An interaction is considered just if all parties in the exchange receive an appropriate return for their contribution. A hidden, implicit element of justice in exchange is that the parties must agree voluntarily to the exchange. If something is taken from one party against their wishes, it does not make the transaction ethical simply to compensate them appropriately. Hence, what is termed prior informed consent in the context of the CBD is part of a just approach. It is an essential first step, a process requirement to achieve a just outcome.

For the ancient Greek philosopher Aristotle (384-322 BC), the fairness of a transaction could be judged by an outsider. The intrinsic worth of something, say a pair of shoes, a supply of antibiotics or traditional knowledge, had to be matched by a return, either in kind or in pecuniary terms. Certain prices would have been deemed disproportionate by Aristotle, whether they were paid voluntarily or not. Hence, the fairness of a transaction relied on a judgement that the items exchanged were what Aristotle referred to as proportionate requitals.²⁰

Today, an understanding of justice in exchange based on Roman Law is more common. This only requires that two competent adults (or parties) have agreed on the transaction. If somebody is willing to pay a thousand dollars for a pair of shoes, so be it. The interaction would be considered just if the seller and the buyer had agreed on it without coercion or deceit (this is the basis of the provision regarding mutually agreed terms within the Access and Benefit Sharing (ABS) discussions).

Neither interpretation of justice in exchange is without its problems. How does one establish whether two entities are exchanged as proportionate requitals as Aristotle describes it? Indeed, one of the ongoing discussions within the context of the CBD is what return can reasonably be expected for providing access to biodiversity. In other words, what is the economic value of biodiversity?²¹ For instance, how does a pharmaceutical company establish a just return for accessing traditional knowledge in any individual case?

Famously, the San peoples received about US\$95,000 in milestone payments for the use of their traditional knowledge of the appetite suppressant properties of the Hoodia succulent. Unilever alone - as one of the licensees of the relevant patent - invested over 20 million Euro in product research before abandoning the project.²² Can one speak of justice in exchange here? And if so, on which basis has one established that the two entities (traditional knowledge versus monetary payments) are proportionate requitals?

One can say two things confidently with regard to justice in exchange here. First, the failure of the South African Council for Scientific and Industrial Research (CSIR) to obtain prior informed consent from the San before using their traditional knowledge, and filing for a

Justice, fairness and equity all refer to a principle that demands fair treatment or due reward.

An interaction is considered just if all parties in the exchange receive an appropriate return for their contribution.

...can an impoverished, indigenous grouping competently negotiate a benefit sharing agreement with the legal team of a commercial company?

patent, is a failure of justice.²³ On both the Aristotelian and the Roman Law understanding of justice in exchange, the voluntary nature of the exchange is essential. Second, the unjustified "winners" of the Hoodia benefit sharing agreement were those companies who free-rode on the knowledge and produced dubious²⁴ commercial products for the obesity market whilst licence holders were undertaking serious safety and efficacy research. One study screened 13 commercially available Hoodia products and found that only two showed any presence of Hoodia²⁵.

One could reasonably maintain that such companies benefitted unfairly in three ways. First, from claiming efficacy in relation to Hoodia for a product, which does not contain it. Second, from failing to share benefits with traditional knowledge holders as required by the CBD. Third, and perhaps more controversially, from failing to respect international patent law. Hence, there was injustice in exchange with consumers (who paid for a product on the assumption it contained active ingredients of Hoodia, which it did not). There was injustice in exchange with the San peoples (whose benefit sharing agreement was circumvented and thereby just reward denied), and there was injustice in exchange with regard to the CSIR and its partner (whose patent was ignored)²⁶. On both the Aristotelian and the Roman Law understanding of justice this situation is unacceptable, which leads to urgent questions of compliance and consent.

If one follows Roman Law rather than Aristotle's understanding of justice in exchange, there is still the difficulty of establishing when an agreement has been achieved by two *competent* parties without any coercion or deceit. One might reasonably ask in the context of the CBD: can an impoverished, indigenous grouping competently negotiate a benefit sharing agreement with the legal team of a commercial company? By definition, benefit sharing contracts for access to and use of traditional knowledge require negotiations between at least two parties, for instance traditional knowledge holders on the one hand and bioprospecting research institutes, often represented through local mediators, on the other. The negotiation competencies and level of knowledge of these two parties usually vary significantly.

In the San Hoodia case, the lack of adequate financial resources to fund meetings, obtain additional advice and hone negotiating skills, all

vital constituents for effective negotiation, were considerable. According to the Roman Law understanding of justice in exchange (agreement achieved between two *competent* parties without coercion or deceit) this significantly reduced the chances of achieving the most equitable result. One could ask where the responsibility lies for securing these components. In the San case²⁷, the CSIR invested in facilitating San representation and decision-making capability after the initial mistake of not obtaining consent. This was necessary for the San to reach the negotiation table in the first place and hopefully achieve an agreement, which was essential for the CSIR. On the other hand, to invest considerable time and money in sustained capacity-building in order to enable indigenous representatives to become equal partners in negotiations cannot always be expected on a voluntary basis from a commercial company or the commercial arm of a government sponsored institute, as in this case. By investing more and taking more time, the CSIR could have potentially jeopardized their relationship with Pfizer, a very attractive licensee. And in addition, they might well have asked whether capacity-building and education around the provisions of the CBD is not the responsibility of national governments which are parties to it. A part-solution has since been found in South Africa. The Biodiversity Act (10 of 2004)²⁸, now locates support for consultations firmly with the South African government, in order to ensure benefit sharing agreements are negotiated on an equal footing. Assuming this support is adequate, the discrepancy between the negotiation competencies of traditional knowledge holders and bioprospecting partners could be narrowed in the future. In this regard, the chances for achieving justice in exchange following the Roman Law understanding would be higher than before (even though access to technology would still be distributed very unevenly).

To summarise: the two main contemporary understandings of justice in exchange go back to ancient Greek philosophy and Roman Law. In the former, it is assumed that one can objectively judge the value of a certain commodity and therefore determine the justice of an exchange by establishing whether the user has given the provider a sufficiently high reward or not. Due to inherent difficulties with this approach (e.g. who is in a position to make such objective decisions and how?), the Roman Law understanding is more common today. It only requires that two competent parties voluntarily agree on the exchange without

coercion or deceit. Here, the main question, which arises is how voluntariness can be established.

Distributive Justice

The theory of distributive justice deals with access to limited or scarce resources – from the division of an apple pie amongst friends to the structure of an economic order that regulates access to raw materials and the distribution of the jointly created social product. The further one moves away from individual actions (e.g. sharing an apple pie) towards actions impacting on large groups (e.g. all those requiring access to genetic resources), the more complex are the social rules that come into play.



Dwarf Gourami, Gary Scott

Distributive justice also covers the justification for and governance of property rights, since agreements about scarce resources necessarily include decisions about property. As the assignment of property rights is important within the context of the CBD, it is essential to clarify this aspect of the principle. This part of distributive justice can best be explained with reference to a Medieval European scholar, Thomas Aquinas (1225 – 1274).

Aquinas was a renowned proponent of what philosophers call natural law theory. He believed in God-given laws which human beings can access not just through the scriptures, but also through rational thought. For him and his followers, natural law is "our intelligent participation in God's eternal law".²⁹ This belief explains why human beings can know or recognise what is required of them by the natural law. Given that they participate in eternal law as rational beings, they are able to identify ethical demands on themselves whether they believe in the God Aquinas believed in or not. According to Aquinas, natural law and the derived natural rights are universal (a claim that has subsequently been

disputed by moral relativists - see below).

The main ethical demand on human beings, according to Aquinas, is that "good is to be done and pursued, and evil is to be avoided." In the pursuit of the good, the most important element is the preservation of human life, or as Aquinas puts it:

inasmuch as every substance seeks the preservation of its own being, according to its nature: and by reason of this inclination, whatever is a means of preserving human life, and of warding off its obstacles, belongs to the natural law.³⁰

The protection of human life is paramount for Aquinas, and the right to life is part of natural law. Another part of natural law is private property. According to Aquinas, "it is lawful for man to possess property" for two main reasons. First, because humans are more careful with entities that do not belong to the Common and more likely to work for their preservation. Second, because it is easier if everybody looks after a part of the whole, instead of charging all to take care of the whole.³¹

What is of interest here is what happens when the right to life collides with the right to property, e.g. if some have more than they need while others are starving. According to Aquinas, the right to life takes precedence over the right to property. For him,

whatever certain people have in superabundance is due, by natural law, to the purpose of succoring the poor.... Since, however, there are many who are in need, while it is impossible for all to be succored by means of the same thing, each one is entrusted with the stewardship of his own things, so that out of them he may come to the aid of those who are in need. Nevertheless, if the need be so manifest and urgent, that it is evident that the present need must be remedied by whatever means be at hand (for instance when a person is in some imminent danger, and there is no other possible remedy), then it is lawful for a man to succor his own need by means of another's property, by taking it either openly or secretly: nor is this properly speaking theft or robbery.³²

In the natural law tradition, of which Aquinas is the most prominent proponent³³, the right to property is therefore only valid as long as it does not interfere significantly with the right to life.

...good is to be done and pursued, and evil is to be avoided.

...nobody has the right to exploit natural resources to such an extent that it will endanger the life and well-being of others.

...distributive
justice demands
a universal,
cosmopolitan
response.

Whilst Aquinas promotes the concept of property and hopes that the benevolence of the affluent will help the poor, he supports the acquisition of another's property without their consent in situations of imminent danger to life.

This principle has been upheld by John Locke (1632-1704), one of the most eminent Western theorists on property rights. According to Locke "charity gives every man a title to so much out of another's plenty, as will keep him from extreme want, where he has no means to subsist otherwise".³⁴ At the same time, Locke famously used the above to place a restriction on over-accumulating property from the wild, namely that one must leave "enough and as good" for others (the sufficiency restriction). Essentially, this means that nobody has the right to exploit natural resources to such an extent that it will endanger the life and well-being of others, who also depend on these resources.

This historic excursion explains the basis of modern day theories of distributive justice. First, private property is understood to be ethically defensible for the reasons given by Aquinas. Second, provisos are imposed on property rules, if they interfere with, for example, the subsistence rights of the poor. The right to life trumps the right to property, and one must not accumulate property in a way that takes away life's essentials from others. What follows from Locke's sufficiency restriction is a duty to preserve the resources of this planet for the next generation. Intergenerational distributive justice requires at least that we do not spoil the planet for future use (see also the box on environmental justice for information on the intrinsic value of biodiversity).

Built on these foundations, distributive justice theorists try to answer one essential question, namely "who deserves what from whom?" In the mid 20th century, it looked as though an answer had been found to this question, at least in Northern countries, and particularly in Europe. Simplified, those who live legitimately within a state (*who*), qualify for the receipt of income support at subsistence level plus other services to cover their basic needs (*what*) from the state (*from whom*).³⁵ One could call this position Welfarism and it assumes that people's private incomes are taxed in order to benefit the poor. However, later in the 20th century, the proviso that the distributive justice realm aligns with national borders was questioned and it is now increasingly argued that distributive justice demands a universal, cosmopolitan response.³⁶

This understanding, which is standardly called

Cosmopolitanism, also aligns with the spirit of the *Universal Declaration of Human Rights*, as for instance exemplified through Article 25 (1):

Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.³⁷

According to the Declaration it is a human right to have one's basic needs satisfied, not just the right of those who happen to live in an affluent state. One might argue that there is no disagreement between the Welfarist and the Cosmopolitan human rights answer to the distributive justice question, "who deserves what from whom?" In response to the 'who' question, the Cosmopolitan says that everyone has entitlements within the realm of distributive justice, whilst the Welfarist says that everyone who lives within a state has such entitlements. In the 21st century, the two realms align: everybody is born into a state. Hence, the answer to the 'who' question is identical for all practical purposes. At the same time, both the Welfarist and the Cosmopolitan answer the 'what' question with reference to basic needs fulfilment, one of the most prominent distributive justice positions. This position argues that no human being should starve, freeze to death due to lack of shelter, die prematurely from easily curable diseases or suffer violent aggression because they lack support (e.g. shelter, police).³⁸

But the divergence between the Welfarist and Cosmopolitan view becomes apparent when one looks at the last element of the question, '*from whom*'. Welfarists answer that the state is responsible for the satisfaction of the basic needs of only its own citizens, whilst Cosmopolitans typically argue that national borders make no difference to questions of distributive justice which imposes duties on all states and their citizens to provide for those in need. This latter position on distributive justice has been affirmed by a variety of international legal instruments in the field of human rights, most prominently the legally binding International Covenant on Economic, Social and Cultural Rights (1966). The Covenant commits State Parties:

(i) to take steps, individually and through *international assistance* and co-operation,

especially economic and technical, to the maximum of its available resources, with a view to achieving progressively the full realization of the rights recognized in the present Covenant.³⁹

Subsequently the UN Committee on Economic, Social and Cultural Rights E/C.12/2000/4, General Comment No.14; the Declaration of Alma Ata; the Convention on the Rights of the Child, Art.24(4), and the Millennium Development Goals have all made reference to the ethical obligation for international assistance. This obligation redistributes funds and resources across national borders rather than domestically, giving credence to the philosophical claim of Cosmopolitans that national borders are irrelevant when it comes to questions of fulfilling basic human needs.

One could therefore say that a tentative consensus has been expressed through the *Universal Declaration of Human Rights* and commitments such as the Millennium Goals, that every human being ('who') deserves to have their basic needs satisfied ('what') through their state and/or international assistance, if necessary ('from whom'). This claim would fall into the area of international distributive justice. An example from the context of the CBD would be capacity-building in the area of access and

benefit sharing. For instance, in January 2010 a substantial training course was held in South Africa for delegates from across Africa. It was funded by the *ABS Capacity Development Initiative for Africa*⁴⁰ (international assistance by the German and Dutch government) and run by the Environmental Evaluation Unit the University of Cape Town (knowledge transfer, including across borders). The broader aim of the event was to show how the CBD can be used in poverty alleviation (basic need satisfaction) as well as in nature conservation. The immediate benefits to delegates were training in communication and negotiation skills to be used in the implementation of access and benefit sharing frameworks at the national and regional levels.

To summarise: distributive justice regulates the division of existing, scarce resources amongst qualifying recipients. It therefore asks who qualifies for which share of existing resources. Whilst the question was until recently limited to decisions within nation states, it has now been expanded to the global level, as the obligation of international assistance to fulfil basic human needs has become increasingly accepted. Intergenerational distributive justice demands that we leave enough for the needs of future generations.

...distributive
justice regulates
the division of
existing, scarce
resources
amongst
qualifying
recipients.



III. Justice and the CBD

*“One of the first conditions of
happiness is that the link between
Man and Nature shall not be broken.”*

Leo Tolstoy, Russian Writer (1828 – 1910)

Before we apply our basic philosophical concepts to the CBD, it will be interesting to see whether the CBD has established its own definitions of justice. Here it needs to be reiterated that CBD Parties usually talk about fairness and equity, whilst philosophers prefer the term justice. However, the three terms can be used interchangeably for the purposes of this report.

Does the CBD Define Justice?

Although fair and equitable benefit sharing is one of the three objectives of the CBD, the Convention does not provide any definition of benefit sharing, let alone what fairness or equity require in this context. The Panel of Experts on ABS and the Ad Hoc Open-Ended Working Group on ABS (in its *Bonn Guidelines on Access and Benefit Sharing*) provide lists of possible monetary and non-monetary benefits. The Panel of Experts report (UNEP/CBD/COP/5/8) furthermore lists indicators for the fairness and equity of benefit sharing arrangements, including both process and content indicators. The *Bonn Guidelines*⁴¹ point out that benefits will "vary depending on what is regarded as fair and equitable in light of the circumstances" (paragraph 45), thus explicitly avoiding a fixed notion of fairness and equity. Nonetheless, the *Bonn Guidelines* also state that "benefits should be shared fairly and equitably with all those who have been identified as having contributed", that they should be "directed in such a way as to promote conservation and sustainable use of biological diversity" (paragraph 48) and that they "should include full cooperation in scientific research and technology development" (paragraph 50).

COP decision IX/12 by COP9⁴² (2008), includes a draft for the main components of the international regime for ABS. While there are references to monetary and non-monetary benefits (point III A 1.3), participation and equality in negotiations (points III A 1.6, 1.7 and 1.9), the aims of conservation and sustainable use as well as the Millennium Development Goals (MDGs) (point III A 1.10), no explicit statement about the notion of fairness and equity is made.

Outside the official CBD fora, the *International Treaty on Plant Genetic Resources for Food and Agriculture*⁴³ (ITPGR, the result of a revision of



Forest strawberry, Germany, Doris Schroeder

the 1983 *International Undertaking on Plant Genetic Resources* to harmonise it with the CBD) is the only other international treaty providing ABS arrangements for genetic resources. Recognising the special nature of agricultural biodiversity as essential for food security and of a highly interdependent nature across nations, the ITPGR sets up a multilateral system of ABS for 35 species of food crops. The system guarantees free access to those species, while at the same time obliging anyone who obtains benefits from commercialisation based on these resources to pay a predetermined share to a multilateral fund aimed at the conservation of agricultural biodiversity. While there is no explicit statement about the notion of fairness and equity in the ITPGR, it is obvious that in its understanding, fair and equitable benefit sharing is not related to the contribution of individuals or groups. Rather, the aim is to guarantee free access to certain parts of agricultural biodiversity for the benefit of all, while directing a share of private benefits of commercialisation to its conservation.

Several guidelines and codes of conduct on ABS, developed inter alia by botanic gardens, research institutions, and the private sector, offer helpful guidance on how to come to ABS arrangements, and various regional and national regulations on ABS are also in place. But although a review identifies an emerging consensus that any ABS regulation "will need to include a mix of both equitable outcomes (what might be called policies/principles and performance requirements) and fair processes (process requirements)"⁴⁴, there are no explicit definitions of fairness and equity here either.

Since the CBD does not define the meaning of equity and fairness, let us see how the previously introduced philosophical distinctions might help.

...CBD Parties usually talk about fairness and equity, whilst philosophers prefer the term justice.

...the CBD does not define the meaning of equity and fairness.

It can be difficult to achieve a good balance between equitable outcomes and fair processes.

Box 1: Equitable Outcomes and Fair Processes

CBD negotiators and related stakeholders are not the only ones interested in the distinction between equitable outcomes and fair processes. Let us give a simple example from ethics, focusing on pecuniary benefits. Many may wonder whether certain professions, such as footballers, should be financially rewarded so much more than, say a physician responsible for 50,000 people in Malawi⁴⁵. A moral intuition might say that the doctor deserves a higher reward than the footballer for their work. Taking into account factors such as the short work-span of a footballer etc. one might come to the conclusion that they should earn the same. By making this judgement, one has taken a time-slice view to justice;⁴⁶ looking at two people at a particular point in time, and claiming that an adjustment is required to make an outcome more equitable. But what adjustment? It is here that one needs to move towards historical or procedural considerations.

Let's assume that the footballer had signed a contract with his team⁴⁷ that allowed him to keep 1% of ticket sales to himself. Since fans were particularly keen to see him, they came in their thousands and soon the footballer had a salary unsurpassed even by

the manager. Should the fans, who came to see him, have been stopped from coming? Should such contracts be forbidden? Should his bank manager have removed funds for charitable purposes? The above are usually regarded as unacceptable interferences in people's lives. However, procedural considerations and processes are not restricted to liberty infringements and Robin Hood-style redistribution. The Welfarist would argue that the footballer should pay taxes that enable the state and the international community to lift others out of severe poverty and this would require more funding for doctors in Malawi. It is here that fair process comes into play. Such decisions cannot be taken ad-hoc and administered through the equivalent of Robin Hood.

The rules by which we live, be they ABS rules or taxation rules, should be open to participatory input and meaningful exchange. And in the 21st century, participatory input has to come from the global level, as Cosmopolitans have been arguing for years. It can be difficult to achieve a good balance between equitable outcomes and fair processes, as the former often requires significant liberty infringements, which the latter forbids. However, it is worth striving for within the context of ABS.



A Philosophical Assessment of Justice and the CBD

How would philosophers see the understanding of justice as enshrined in the CBD? There are three clear links between justice and the CBD (to objectives one/two, to objective three and to the CBD's history of capacity building).



Near Gaborone, Botswana, Doris Schroeder

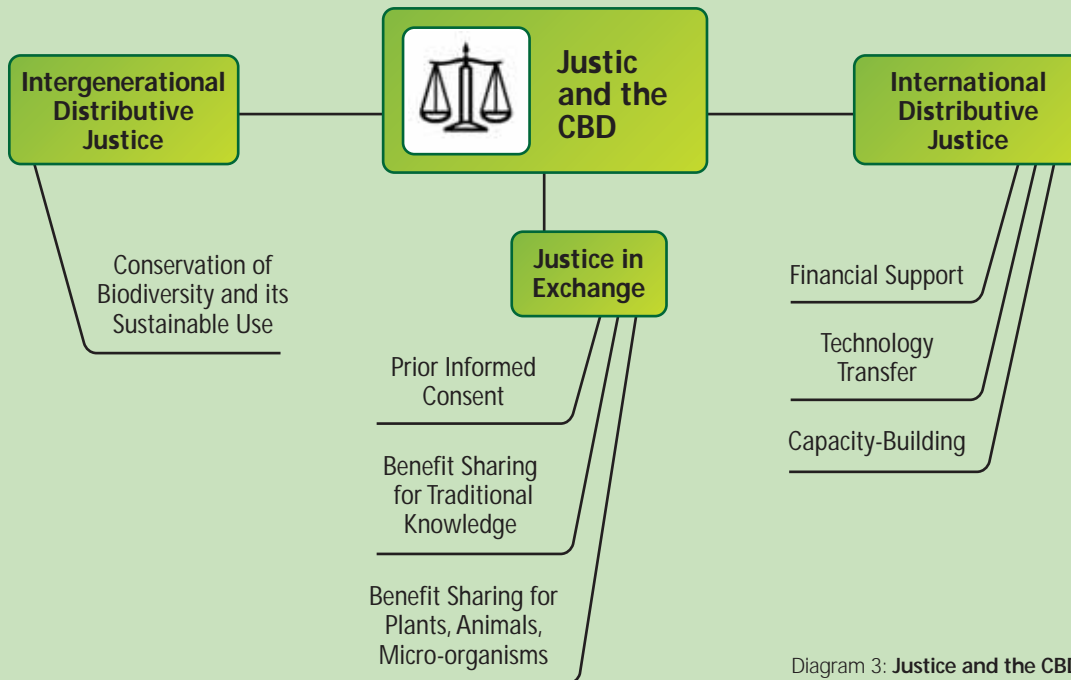


Diagram 3: Justice and the CBD

The Convention's first two objectives (the conservation of biological diversity and its sustainable use) aim to achieve, amongst other things, intergenerational distributive justice. To be just, today's generation has to leave enough resources for the next to guarantee its well-being. The third objective (the fair and equitable sharing of benefits from the use of genetic resources) aims to achieve justice in exchange between the providers and the users of biological resources. Those who use resources have to give due reward to their guardians or providers. Decision V/16 in 2000 (that traditional knowledge is subject to formal prior informed consent requirements) satisfies a procedural justice in exchange requirement according to both Ancient Greek philosophy and Roman Law. A further link is evident. Throughout its almost two decade history, member states to the CBD have provided financial support and capacity building to developing nations, thereby contributing to international distributive justice.

Whilst these three links look straightforward on a philosophical account, the subtleties of justice issues within the CBD become clearer only when somebody questions why sovereignty over genetic resources should be lodged with nation states, or any other grouping for that matter. Bioprospectors and others might argue that open access to genetic resources from the wild is more ethical than imposing bureaucratic hurdles to scientific progress. The reason being that these resources will benefit the common good when used in commercial products conducive to human welfare.

For millennia, products of human ingenuity based on resources found in the natural world were not governed by norms and regulations such as the CBD. Like game, seeds and forest produce in hunting and gathering times, biological resources from the wild were available to all. Sometimes this has been referred to as the common heritage of humankind principle.

Throughout its almost two decade history, member states to the CBD have provided financial support and capacity building to developing nations.

...resources were not used for the benefit of humankind, but for the benefits of an affluent subset.

The idea of the common heritage of humankind was first made explicit in the second half of the 20th century by two UN-brokered international treaties: the *Agreement Governing the Activities of States on the Moon and Other Celestial Bodies* (1979)⁴⁸ and the *Convention on the Law of the Sea* (1982).⁴⁹ These treaties declared that the surface and the subsurface of the moon as well as the seabed, the ocean floor, and the subsoil thereof shall not become the property of any state, organisation, or individual. Instead, the exploitation of their possible resources must be carried out so as to benefit humankind as a whole.⁵⁰

In practice however, the common heritage of humankind principle, which on paper seems highly desirable, was more of a first come, first-served principle, which gave access to the richest, fastest or most powerful. Prior to the adoption of the CBD, serious concerns were raised about the unilateral and uncompensated appropriation by rich and powerful foreign agents of biological resources from poor areas of the globe.⁵¹ In practice the common heritage of humankind principle, when applied to biological resources, was generally not respected, as resources were not used for the benefit of humankind, but for the benefits of an affluent subset. The CBD was signed to avoid the ongoing flow of resources from developing countries into rich ones without appropriate benefit sharing, using the first come, first-served principle, clad in the more agreeable mantle of the common heritage of humankind principle. If one adds the exploitation that occurred during colonial times to the picture, it becomes clear that any further uncompensated use of Southern resources for Northern purposes was not ethically acceptable, in particular given the increasing "privatization and commodification of the genetic commons"⁵² through the intellectual property rights system.

Within this context, it is important to remember the discussion on "patents on life" and its historical starting point. Patents on life were originally regarded as incompatible with US patent law in 1971, when the first case was considered. The now legendary Chakrabarty application (Ananda Chakrabarty had produced a genetically engineered bacteria that could clean oil spills) was first rejected by the US Patent and Trademark Office. On appeal, the patent was granted by the Court of Customs and Patent Appeals by a three over two majority. On a second appeal by the US Patent and Trademark Office to the US Supreme Court, the patent was finally granted with a five to four

majority. It is clear that opinions were split on this issue even in the US, whilst patents on life are still prohibited in other legal domains, for instance Canada.⁵³

It is here that it becomes most relevant that the biodiversity-rich countries of the global South are generally much poorer than those of the North. And they often have large populations that suffer from various deprivations. Whilst it would be simplistic to argue that severe poverty in the South is a sole and direct function of first come, first-served resource exploitation, it would also be simplistic to maintain that the actions of the North have no impact on poverty in the South at all.⁵⁴ According to official statistics, one billion people live on less than one US dollar a day, whilst 2.7 billion live on less than two US dollars a day.⁵⁵ The richest 20% of the world population account for 75% of world income.⁵⁶ Approximately 10 million children die every year before they turn five mostly due to preventable causes.⁵⁷

Country ⁵⁸	% of population < 2\$/day
Madagascar	89.6
Congo (DRC)	79.5
India	75.6
Papua New Guinea	57.4
Indonesia	46.0
Philippines	45.0
South Africa	42.9
China	36.3
Colombia	27.9
Peru	18.5
Ecuador	12.8
Brazil	12.7
Venezuela	10.2
Malaysia	7.8
Mexico	4.8
Australia	..
United States	..

Table 1: Poverty and Mega-Diversity

In July 2000, the World Conservation Monitoring Centre named 17 countries as mega-diverse countries: Australia, Brazil, China, Colombia, Democratic Republic of the Congo, Ecuador, India, Indonesia, Madagascar,

Malaysia, Mexico, Papua New Guinea, Peru, the Philippines, South Africa, the United States of America and Venezuela. Between them these 17 countries host more than 70% of the earth's species.⁵⁹

As can be seen from the table mapping those 17 countries onto the US\$2 a day poverty line, it is clear that the burden of serious poverty and the availability of mega diversity align in most cases, with only a few exceptions.

The real justice issues at stake here can only be understood when justice in exchange and international distributive justice are seen together. A bioprospector might say, what does it matter if I take a few small plants from the wild or some samples with micro-organisms from a lake? The sample is nothing until I do something with it. This attitude is exactly what Vandana Shiva criticised just prior to the signing of the CBD.

[T]he North has always used Third World germplasm as a freely available resource and treated it as valueless. The advanced capitalist nations wish to retain free access to the developing world's storehouse of genetic diversity, while the South would like to have the proprietary varieties of the North's industry declared a similarly 'public' good.⁶⁰

In an ideal world, unimpeded access to biological resources could be equitable. Citizens around the world would be able to access the fruits of innovation, perhaps through the market, much as affluent populations are doing right now. It might not matter much whether a Brazilian, a Norwegian, or a Nepalese micro-organism provided the lead for research, resulting in a new product, if all citizens around the world had equitable access to it. Free access to resources could be beneficial to all, leading to faster developments of, for instance, pharmaceutical products to treat as yet incurable diseases.

Open access to biological diversity cannot be justified, however, in a context of extreme economic inequality where appropriation by some (on a first come, first-served basis) leads to profits and innovations unavailable to the poor in the very countries that have contributed those resources. Neither is it acceptable when such appropriation is accompanied by taking out patents that further restrict the access of the poor. It is here that demands for justice in exchange become apparent. Open access is not an ethical option if a rich, powerful group,

which historically stood in an exploitative relationship with a poor group (colonialism) takes yet another resource from the poor, a resource the poor may have helped to preserve. Those who have provided access to a resource and thereby contributed to scientific developments are owed a share of the benefits. This is a justice in exchange issue. Whilst it can be contentious which return is appropriate and equitable, it is uncontroversial within justice debates that those who use something of value from another have to give something back⁶¹.



Kirstenbosch, South Africa, Doris Schroeder

In recognition of the above, an ethical reading of the CBD would note that the CBD has strengthened requirements of justice in exchange. If a group accesses traditional knowledge or genetic resources, they need to give something back; they need to share the benefits. This emphasis in the CBD on the value of an entity that had previously belonged to the Commons was undertaken in full recognition of the background conditions of economic inequality and human suffering from extreme poverty. Justice in exchange and international distributive justice go hand in hand in this particular instance as the continued flow of resources from the South to the North was not met with benefit sharing as envisaged by the common heritage of humankind principle. Hence, this benefit sharing requirement was achieved in a less voluntary manner, regulated through an international legal framework, which sets conditions on access, supported by binding national law. It may be a cumbersome solution but it is preferable to ignoring justice requirements. Nevertheless, it has been noted by some observers that this approach appears to have inadvertently encouraged a self-interested attitude amongst industrialised and developing countries alike – with little recall of the Convention's overarching objectives and a preoccupation with monetary returns.⁶²

In an ideal world, unimpeded access to biological resources could be equitable.

...the CBD has strengthened requirements of justice in exchange.

IV. Is Justice Not Relative?

“You are not Atlas carrying the world on your shoulder. It is good to remember that the planet is carrying you.”

Vandana Shiva, Philosopher and Environmental Activist (1952)

The above ethical reading of the CBD was based on some fundamental premises:

Natural Law Theory

- One must leave "enough and as good" for others - the sufficiency restriction, applied to current and future generations
- Life and therefore basic need fulfilment has priority over the enjoyment of private property rights Cosmopolitanism

Cosmopolitanism

- For distributive justice, borders are not relevant and therefore the international community owes assistance to the poorest

Roman Law

- An exchange is just if two competent parties agreed on it without coercion or deceit

Throughout the centuries, ethicists have struggled with two difficulties. First, who is right and how do we know? And second, is anybody right? The first difficulty is expressed in disagreements on ethical statements, both at the theoretical and at the practical level. For instance, somebody could venture that the cosmopolitan demand that the rich must help the poorest even across borders is wrong. Or somebody could ask why exactly are we not allowed, ethically, to use up all resources and never look back? People might try to preserve biodiversity for future generations out of self-interested reasons (as avid gardeners), but there is no ethical requirement to do so. Or somebody could say that the right to private property weighs stronger than the right to life.

This report cannot resolve questions that have been contested amongst philosophers for centuries. Interestingly however, the CBD, negotiated primarily on a basis of national or regional self-interest, has delivered its own answers to substantial ethical questions. By signing the Convention, Parties endorsed the view that biodiversity must be conserved for future generations; in other words that intergenerational distributive justice must be observed. For the above mentioned ethical theory of consequentialism, it does not matter whether this endorsement is based on an ethical commitment towards humanity, protective instincts for one's own children or to assure access to genetic resources to industry. A commitment has been made, which aims to secure a beneficial outcome, and measures are taken to realise these aims. This is essentially all that is needed to show consequentialist ethical

commitment, assuming the measures are well conceived and superior to available alternatives.

One could make the same argument for benefit sharing. It doesn't matter to the consequentialist whether Parties agreed the benefit sharing objective in order to appease provider countries, or to achieve justice in exchange or as a measure towards biodiversity conservation. As we saw earlier, benefit sharing in the context of the CBD clearly focuses on justice in exchange. Hence, whichever of the above reasonings support benefit sharing is immaterial to the consequentialist, who focuses on the beneficial outcome. What is important then, is that the two aims (conservation and benefit sharing) are achieved.

The second difficulty is more problematic, as questioning whether anybody is right assumes that there are no ethical norms which could work at the global level. Morality is seen as a local human construct, a matter of time and context, which can make no reference to globally shared values such as justice. As this is a serious and common criticism, the next section will discuss it in more detail.

Moral Relativism

Moral relativists contend that humanity shares no standards which would make it possible to understand each other and agree on moral goals and procedures. What is deeply moral in one society could be immoral in another. What is prudence for some is greed for others. On this understanding we are never in a position to criticise immoral behaviour from another context, as we cannot step out of our own realm to a vantage point from which we can judge others. On this understanding, if somebody uses wild plant resources or traditional knowledge from another country in commercial product development and local people object on grounds of injustice or exploitation, there is no common language of morality the two groups could use. The former might adhere to a value system that emphasises invention, scientific advance, individual entrepreneurship and 'get-up-and-go', whilst the other may live in a culture that promotes sharing and mutual assistance. Moral relativists would show equal benevolence to both systems, as they cannot declare that one is wrong and the other right.

However, this categorical scepticism can be seen in two ways. First, that there is no true morality

Throughout the centuries, ethicists have struggled with two difficulties.

...who is right and how do we know?

...is anybody right?

...there are diverse ways of securing human well-being.

or set of rules that would be the most just or the most conducive to the common good. In fact, any attempt to impose one ethical system as superior to all would be yet another form of imperialism. Or, less radically, that there are diverse ways of securing human well-being and the common good, and human beings have to strive very hard to realise justice without obvious universal certainties, but are still able to aspire to a more ethical world.

Moral norms are part of a large web of rules, not all of which can be called moral. Human beings follow many rules that have little or nothing to do with morality. There are rules of etiquette covering for instance, table manners, how one greets another or which rules of hospitality reign. There are rules enshrined in legal instruments such as a prohibition against theft and murder, but also traffic rules and other minor provisions within the law. And there are religious rules, for instance about conduct at sacred sites or dress codes.

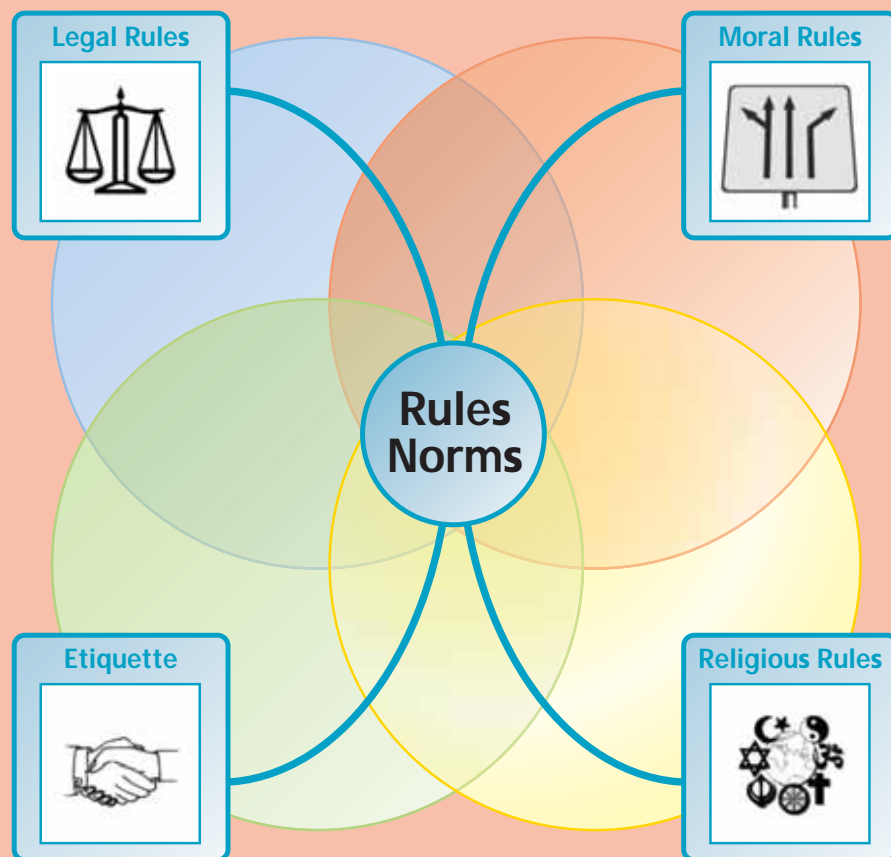
...and human beings have to strive very hard to realise justice.

Of course, these rules overlap. For instance, the legal prohibition against murder is mirrored in its moral equivalent and prescribed by most religions. But most of the difficulties arise not at the level of abstract principles, but at the level of practical rules.

Most ... societies have rules governing the fair, or just, distribution of benefits and burdens and the avoidance of harms. But of course, once one descends from this height of abstraction... the greatest diversity appears at the level of the content of specific rules – concerning, for instance, when killing is justified, when sexual relations are permissible, and what counts as 'fairness', 'benefits and burdens', and 'harms', and also concerning the scope of the norms' application.⁶³

The CBD and its moral goals of preserving biodiversity for future generations and achieving equity for resource providers already have the agreement of 193 parties. Even moral relativists would agree that a legal instrument built on ethical principles has to be taken seriously as a contractual agreement. To conserve biodiversity for future generations and to act justly towards the providers of resources are clearly ethical goals, given additional legitimacy through the contractual agreement of country negotiators. What remains to be seen is whether 193 Parties can agree on how these ethical goals are best achieved in practice, leading us back to the first difficulty in ethics, namely how to achieve agreement between different interpretations of what ethics itself requires. This difficulty aligns with the main challenges the CBD faces for the realisation of its ethical goals.

What remains to be seen is whether 193 Parties can agree on how these ethical goals are best achieved in practice





V. Main Challenges to Realising the CBD's Ethical Goals

"It is possible to have new thoughts and new common values for humans and all other forms of life."

Wangari Maathai, Kenyan environmentalist (1940)



We have identified three clear ethical aspects of the CBD:

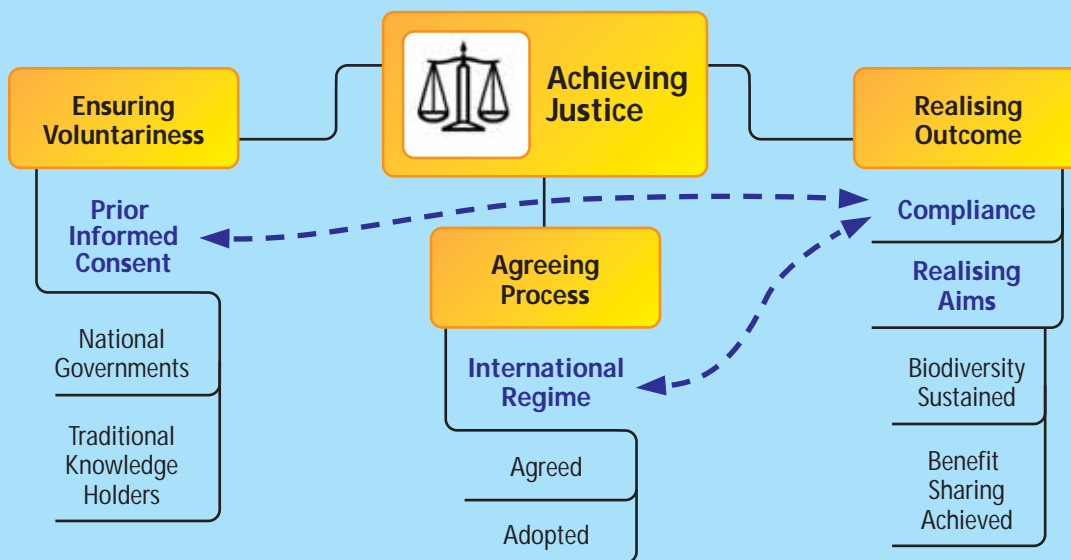
- the conservation of biodiversity for future generations (intergenerational distributive justice),
- the fair and equitable sharing of benefits from the use of genetic resources (international justice in exchange) and
- the requirement that traditional knowledge (and genetic resources) is subject to formal prior informed consent (a procedural demand to achieve justice in exchange).

To realise these three aspirations, biodiversity

depletion must be reversed, adequate benefit sharing achieved and prior informed consent procedures operationalised. All three goals depend on procedural agreements and their enforcement. Justice does not realise itself⁶⁴. What US Judge Sturgess ironically noted in 1928, namely that "justice is open to everyone in the same way as the Ritz Hotel" must not hinder the realisation of the spirit of the CBD. CBD justice must be open to all, independent of the ability to fund major litigation. In this regard, compliance is a major issue. We shall therefore concentrate on the three topics that are most closely related to the ethical goals: (a) prior informed consent, (b) agreeing on the process to achieve objectives one/two and three of the CBD and (c) compliance.

CBD justice must be open to all, independent of the ability to fund major litigation.

Diagram 5: CBD: Achieving Justice



Prior Informed Consent

One can look at justice in exchange in terms of outcomes and processes. The former is related to the Aristotelian approach (is the value of exchanged entities equivalent, e.g. are the benefits provided for a particular resource adequate?), the latter to the Roman Law approach (have two parties found a voluntary agreement?). As previously quoted, ABS regulation "will need to include a mix of both equitable outcomes ... and fair processes". The process is particularly important when it comes to agreeing access. Justice in exchange can only be achieved when both parties are willing to enter an exchange and

subsequently approve mutually agreed terms. Although not without its challenges amongst other users and providers of genetic resources, the main challenge when seeking consent relates to negotiations with indigenous communities. The CBD Parties called for prior informed consent requirements through Decision V/16⁶⁵:

Access to the traditional knowledge, innovations and practices of indigenous and local communities should be subject to prior informed consent or prior informed approval from the holders of such knowledge, innovations and practices.

Justice in exchange can only be achieved when both parties are willing to enter an exchange and subsequently approve mutually agreed terms.

The concept of informed consent was primarily developed in the medical field...

The concept of informed consent was primarily developed in the medical field, where it has been used since the 1950s to regulate the relationship between doctors and patients. Today, most patients and medical research subjects are actively involved in medical decision-making and are no longer expected to defer responsibility to paternalistic, benevolent doctors. Outside the medical field the concept gained significance in the late 1980s through the 1989 *Basel Convention* and the 1998 *Rotterdam Convention*, which control the movement of hazardous materials across borders. Since then, it is no longer permissible to ship hazardous chemicals or waste from one country to another without the consent of the receiving country. And, of course, more recently the CBD's *Cartagena Protocol on Biosafety* achieves the same for genetically modified organisms.

Since the early 1990s, the concept of informed consent has been employed more systematically in connection with indigenous peoples' rights of self-determination, in particular in the context of logging, mining, dam-building, resettlement and access to genetic resources and traditional knowledge.⁶⁶

1989

Convention 169 on Indigenous and Tribal Peoples (International Labour Organization), www.ilo.org/ilolex/cgi-lex/convde.pl?C169

1992

Convention on Biological Diversity (CBD), www.cbd.int/doc/legal/cbd-un-en.pdf

2002

Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization (Bonn Guidelines, non-binding), www.cbd.int/doc/publications/cbd-bonn-gdls-en.pdf

2007

United Nations Declaration on the Rights of Indigenous People, www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf

Table 2: Main international guidelines on prior informed consent and indigenous communities

Achieving the procedural aspect of justice in exchange through obtaining appropriate prior informed consent from indigenous communities is an enormous challenge. Knowledge has been traded for millennia and

much traditional knowledge has been recorded in books and other media. Since 1992 access to this knowledge has been put under legal restrictions. Why this was necessary to satisfy justice criteria was explained above. But agreeing to the objective of obtaining timely informed consent, and actually obtaining it successfully in practice are two very different things. As Graham Dutfield has rightly noted:

applying prior informed consent requirements in very diverse and extremely different cultural settings, and in very tense political contexts, can be immensely challenging. Even with the best intentions and the most carefully drawn up plans, things go wrong. [Besides,...] the concept may in many cases be inapplicable because a great deal of knowledge and resources is already in free circulation and can no longer be attributed to a single originator community or country. This should not, however, lead us to conclude that there can be no moral obligations...⁶⁷

One case in which obtaining prior informed consent went sensationally wrong was the Maya International Cooperative Biodiversity Group (Maya ICBG) Project undertaken in Chiapas, Mexico from 1998 to 2001. The project was led by an experienced, US-based professor of anthropology who had been conducting research amongst the Maya for 40 years. The local partner was the Mexican research and graduate teaching centre, *El Colegio de la Frontera Sur* (ECOSUR). The commercial arm of the project was a small natural products discovery company called MolecularNature Limited (MNL), based in the UK. Benefit sharing revenue was meant to flow through a fourth organisation called PROMAYA (Promotion of Intellectual Property Rights of the Highland Maya of Chiapas, Mexico), "an innovative non-profit organization that will hold in trust and administer the indigenous community's portion of any financial returns resulting from the activities of the Maya ICBG"⁶⁸. The project had the "bold purpose of excelling as a model of transparent, legal and ethical plant bioprospecting in an indigenous territory in a very difficult and contentious legal, social and political climate".⁶⁹

Modelled on the process of obtaining consent in the medical field, the procedure normally requires

- finding a relevant body that has the legitimacy to consent to or reject a proposal,

...agreeing to the objective of obtaining timely informed consent, and actually obtaining it successfully in practice are two very different things.

- the disclosure of all relevant information,
- ensuring that the information has been understood by the relevant party and
- obtaining their voluntary agreement to follow a certain path of action.⁷⁰

It was on the first two points that the Maya ICBG eventually faltered. Researchers on the project wanted to provide the information to local communities as clearly as possible. They also acknowledged that iterative, ongoing consent would be most appropriate for a long-term project. Consent procedures included an initial 8-hour site visit for community members who were shown a play in native languages summarising the objectives of the project and its potential benefits. Later, visitors were shown the herbarium, the library and laboratory facilities. Documents were provided in several languages.

After this initial stage, researchers visited villages in those communities that had expressed an interest. There the play was performed again and communities were later asked to sign an agreement that would allow researchers to collect plants and fungi under certain conditions, which included benefit sharing.

The project followed individual community norms and practices. In most instances, elected community representatives signed. In some communities, individuals who were not elected leaders, but who wished their names to be recorded, also signed. In one community, the heads of households of each family signed. Other communities developed their own statements of agreement. During a three-month period, 46 out of 47 hamlets decided to sign up.⁷¹

Despite these efforts, the research project ended prematurely after considerable national and international protests.⁷² Doubts were raised about the validity of individual community agreements without an overarching agreement from representative bodies, and indeed these agreements were eventually pronounced to be invalid. Second, it was questioned whether the information provided included enough on patents or other bioprospecting risks, which potential participants needed to be aware of.⁷³

It is indeed an enormously challenging task to obtain prior informed consent from indigenous communities. As Graham Dutfield, following Scottish poet Robert Burns put it when

commenting on the difficulties: "[t]he best laid schemes o' Mice an' Men/Gang aft agley", the best-laid schemes of mice and men often go awry.⁷⁴

Some progress could be made in developing and improving prior informed consent procedures through learning from the medical context. For instance, the practice of involving an intermediary between researcher and research participant ensures that information is conveyed in a relatively neutral manner. Likewise, whilst an overarching international framework provides general principles about consent (Declaration of Helsinki⁷⁵), national guidelines are used to provide additional detail (e.g. the South African Medical Research Council's Ethics Guidelines⁷⁶). But the analogies between obtaining consent for a medical procedure and obtaining prior informed consent to access traditional knowledge associated with genetic resources fail in other respects. In particular, the identification of who can legitimately give consent – hardly ever an issue in the medical context – can seem an insurmountable obstacle in the context of the CBD, as the Maya ICBG case has also shown.

According to Wynberg and Laird:

many companies have adopted a "hands off" approach to the use of traditional knowledge, whilst others have little awareness of the need to enter into access and benefit sharing arrangements when using traditional knowledge.⁷⁷

But, within the context of justice, the principle of prior informed consent is not negotiable, even though significant flexibility is required in its attainment, recognising that circumstances vary from case to case and community to community. All parties need to approach the complex and challenging consent process with a willingness to adapt to circumstances and focus on building relationships over time. Obtaining consent is not a quick, one-off process as it can be for simple procedures in the medical context, but rather an iterative, progressive process, which benefits significantly from collaboration with local intermediaries and support organizations.⁷⁸

As Australian Aboriginal Jack Beeton has pointed out, sustained efforts need to be made by those desiring access to traditional knowledge to build long-term relationships that minimize the potential for exclusion and misunderstandings.⁷⁹ And these relationships

Some progress could be made in developing and improving prior informed consent procedures through learning from the medical context.

...the principle of prior informed consent is not negotiable.

start with timely, considerate and appropriate informed consent procedures. According to Beetson:

[s]haring is hard wired into Aboriginal culture. It's the basis of human survival, to share one's knowledge and resources with others.... The problem we have today is that this is not just about sharing things that are useful and helpful with people who need those things. It's about sharing things to which capitalism assigns a monetary value. The more we give away, the more we build the power of non-Indigenous people and corporations who, in too many cases, go on to use that power to deny us our rights.... So, the question becomes, how do we create a system of exchange which reduces, rather than increases, this inequality? How can we use the exchange to redress the wrongs of the past and restore some balance in the system? ... There are ethical guidelines which require informed consent. This needs to be emphasised. Consent does not mean coercion. And consent has to be informed, which is not just a few words on a consent form, it is a serious process of making sure communities really have the whole story of what this particular research means and what may result from it. Resources have to go into this process. If they don't, the consent will not have been freely given by informed people, and this will one day come back to haunt the people who pushed it through.⁸⁰

Obtaining prior informed consent appropriately is the first step towards achieving justice in exchange. To facilitate the possibility that one party may decline to share knowledge and resources means treating the other party justly. Only non-coerced, mutually agreed terms are acceptable in the realm of justice.

Agreeing the Process to Achieve the Objectives

How much has the CBD achieved in terms of reversing biodiversity depletion and sharing benefits equitably with provider countries as envisaged by its three objectives?

The 20th and 21st century witnessed the disappearance of species at 50 -100 times the natural rate. The figure has risen to 100 – 1,000 times the natural rate today⁸¹ and may accelerate to 1,000 or 10,000 times by 2020.⁸² Essentially, since 1992, little has been achieved



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with regard to slowing down the rate of extinction. The Millennium Ecosystem Assessment, commissioned by Kofi Annan in 2000 and completed in 2005, found that the "degradation of ecosystem services could grow significantly worse during the first half of this century", and that human changes to ecosystems has already "resulted in a substantial and largely irreversible loss in the diversity of life on Earth".⁸³

In April 2002, the Conference of the Parties to the CBD adopted a Strategic Plan to halt biodiversity loss, requiring the Parties to "achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level". The target was endorsed by the Hague Ministerial Declaration and the World Summit on Sustainable Development in Johannesburg of the same year.⁸⁴

The 2010 Global Biodiversity Challenge was not achieved. Commenting on the situation in Europe, the Executive Director of the European Environmental Agency (EEA), Jacqueline McGlade, noted that "some progress has been made towards halting the loss of biodiversity, but overall the status and trends are not yet favourable. Genetic diversity loss in livestock remains a concern and wildlife species extinction in Europe has further increased."⁸⁵ In a communication from the European Commission in 2009, it was indicated that biodiversity priorities will have to be addressed beyond 2010 as the EU will not achieve its 2010 target.⁸⁶ As early as 2008, a report from the World Wildlife Fund noted "that the world will fail to meet the target of reducing the rate of biodiversity loss".⁸⁷ On 10 May 2010, the final news became public with the Global Biodiversity Outlook 3:

The target agreed by the world's Governments in 2002, "to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty

...the world will fail to meet the target of reducing the rate of biodiversity loss.

alleviation and to the benefit of all life on Earth", has not been met.⁸⁸

Despite sustained efforts, CBD Parties have not yet delivered as promised in line with objective one (conserving biodiversity). Is the situation more positive with regard to the third objective, which was included in the CBD after strong lobbying from developing countries⁸⁹ so that providers of genetic resources would share in the benefits of their commercial use? What is relatively easy to assess are financial, monetary benefits. And here the track record of the CBD is not encouraging at all. To date not even Costa Rica, "the first country to ask for a concrete share of benefits of genes found in its forests and other ecosystems, has ... succeeded to really earn money on this basis".⁹⁰ And almost two decades after 1992, no lucrative benefit sharing deal has materialised for indigenous communities, if one focuses on pecuniary income alone rather than capacity building.⁹¹

However, the policy approach that has emerged from the CBD, based on the principle of justice, is also emerging to reinforce experiences of community-based natural resource management, gleaned over the past three decades. For example, a recent study by UNEP and UNU-IAS⁹² indicates that communities have begun to implement ABS provisions based on the principle of justice locally. A selection of fourteen case studies indicates that communities around the world are already working on access and benefit sharing, irrespective of whether the ABS provisions of the CBD are being implemented at the national and local levels, and in terms that are not typical of current international discussions on ABS. The examples in the study show how some communities have used principles of governance, ethics, equity and resource sharing as key bases for securing livelihoods at the local and household levels. Community activities revolve around the development and use of biological resources for generating profits and mechanisms for sharing those profits. Furthermore, the results showed that community well-being improved in terms of various indicators such as basic needs (i.e., food security, shelter and health), safety needs (i.e., security from natural and economic risks), belonging needs (i.e., equity in governance, access to resources and benefit) and self-esteem (i.e., of degree of autonomy to determine use of resources, economic activities, education, etc.).

What seems to be missing to link the local with the global level is an understanding on the part

What seems to be missing is an understanding on the part of national and international negotiators of local community practices, knowledge and preferences.

of national and international negotiators of local community practices, knowledge and preferences. In the absence of a proper understanding of the relationship between community practices and the international regime on ABS, countries will run the risk of designing an international regime that neither fulfils the justice in exchange (benefit sharing) obligations of countries (Parties) nor provides the basis for sharing conservation efforts equitably. It seems paradoxical that the principle of justice is increasingly visible in community efforts at the local level and has been enshrined in an international legal framework at the global level, yet few ABS success stories are available. Let us then turn to a discussion of enforcement and compliance issues.

Compliance

The CBD has no effective enforcement mechanism outside domestic law (although Article 27 of the Convention and Annex II outline procedures for setting disputes). As genetic resources do not respect national borders, this can lead to serious challenges, endangering the envisaged outcomes of sustained biodiversity and equitable sharing of benefits.

In COP 9 (Bonn, 2008) decision IX/12, the Conference of the Parties decided: "to establish three distinct groups of technical and legal experts on: (i) compliance; (ii) concepts, terms, working definitions and sectoral approaches;



and (iii) traditional knowledge associated with genetic resources."⁹³ Group (i), compliance, was given the task "to further examine the issue of compliance in order to assist the Working Group on Access and Benefit sharing."⁹⁴ The expert group was meant to provide legal and technical advice as well as implementing options and/or scenarios."⁹⁵ The emphasis of the advice sought showed that the difficulty of achieving justice across national borders was seen as considerable. Items for consideration included:

- Access to courts by foreign plaintiffs
- Enforcement of judgements across jurisdictions
- Voluntary measures to enhance compliance of users
- The potential use of internationally agreed definitions of misappropriation to support compliance measures.

In addition, the compatibility of envisaged measures with the customary laws of indigenous peoples was stressed, including in the area of obtaining prior informed consent.

The group of technical and legal experts on compliance met for four days in Tokyo, Japan in January 2009. They issued a range of recommendations for the negotiators of the International Regime on Access and Benefit Sharing. The broadest, most general recommendations focused on additional awareness-raising, given that non-compliance might result from ignorance rather than criminal intent; and on considerations of cost-effectiveness, in particular the need to avoid expensive and time-consuming judicial processes wherever possible. To achieve the latter it was suggested by the working group that a minimum set of requirements for benefit sharing could be included in the international regime.⁹⁶

More specific measures to increase compliance with the CBD were discussed and, amongst others, the following were suggested for incorporation into the international regime:

- Capacity-building and financial support: (a) to assist countries in their development of access and benefit sharing legislation, (b) to provide legal assistance in litigation to those who do not otherwise have access to the courts and (c) to facilitate the successful participation of indigenous and local

communities in negotiations involving prior informed consent and benefit sharing.

- Internationally recognised certificates of compliance in a standard format to make sure that a user complies with national law in the provider country. This certificate could include minimum information on indigenous and local communities and thereby facilitate respect for customary law.
- A clearing-house mechanism similar to the one established for the Cartagena Protocol to facilitate information exchange.
- A public body to investigate instances of non-compliance.
- Disclosure obligations within the patent system, although this was seen as a controversial point.
- The setting up of digital libraries and databases for traditional knowledge, although this again was seen as controversial as it might not only provide proof in litigation or the challenging of patents, as well as be helpful to patent officers, but might also facilitate biopiracy.
- Model clauses to be included in individually negotiated benefit sharing contracts between providers and users.
- Professional Codes of Conduct and Guidelines for industry and in general, for users of resources.

This list of possible means to ensure compliance is long. As noted earlier, justice does not normally realise itself. To promote the spirit of the CBD, it is essential to promote reliable compliance mechanisms. It is also important to note that while far from resolved, compliance as it relates to both benefit sharing and access, is now widely recognised as being at the core of the emerging international ABS protocol.

VI. Conclusion



***“Injustice anywhere is a threat
to justice everywhere.”***

Martin Luther King, U.S. civil rights leader and
winner of the Nobel Peace Prize (1929 – 1968)

Philosophers have been searching for the holy grail of ethics for millennia, the basic moral consensus that could unite humankind in an effort for the common human good. Aristotelian virtues, Confucian dignity and integrity, or Kantian human rights - none of these have achieved universal appeal and support across borders. Ironically, the breakthrough on a basic moral consensus might have come quietly at the end of the 20th century.

Prior to globalisation, it was not essential to align moral principles. Whilst morality is always concerned with promoting good and avoiding evil, it did not matter much whether, say the Persians and the Japanese, found a common understanding. Their distance made it impossible for them to harm each other seriously unless large groups moved (as in the cases of colonialism or slavery). However, the 20th century saw a dramatic change. Even without any contact at all and across vast distances some can harm others significantly. This harm can be imposed not just through the threat of nuclear weapons, but it is actually being imposed through climate change (hence, the emerging area of "climate justice"), environmental pollution and biodiversity depletion. For the first time in the history of humankind, human action and non-action have the potential to deprive distant others (e.g Pacific Islanders), as well as the next generation, of their means for living well. To leave "enough and as good" for others - one of the basic tenets of property right theory - is being violated on a massive scale. And it is here that a basic moral consensus emerged, which human beings can embrace across borders and across time, namely the concern for the next generation.

It is almost commonplace to say that the CBD is an important landmark in integrating the principle of justice in international relations. To stem the increasingly rapid decline of biodiversity, it was necessary to take action, and quickly, without waiting for the scientific community to gather further knowledge. First and foremost, the CBD was an acknowledgment of this urgent need; the need to protect our resources for the generation of today's children and their children. If one sees the CBD through this perspective, its spirit has never been one of self-interested nationalism. Instead, the CBD is an instrument of collaboration between nations to achieve justice between generations and justice between the providers and the users of biological resources.



Near Alice Springs, Australia, Doris Schroeder

And astonishingly, it thereby achieved a goal that philosophers have been aiming for through millennia; a consensus amongst the peoples in the world to strive towards justice.

It is essential that the momentum is not lost and that the objectives of the CBD are realised as speedily as possible. Countries need to consider how to promote CBD goals fast and effectively through national implementation plans on ABS.

At the same time, the international regime must facilitate the realisation of CBD goals by providing sufficient flexibilities for implementation at the national and sub-national levels while also offering legal certainty, embracing a globally coherent approach and building confidence in the global system through meaningful cross-border compliance mechanisms. This is a tall order indeed as ABS negotiators must overcome such vexing and complex issues as access to and benefit sharing for traditional knowledge, the treatment of publicly funded research, the scope of the emerging protocol and the question of derivatives.

But in 2010 a new spirit of co-operation and mutual respect has arisen in the negotiations, and as Tim Hodges, the Co-Chair of the ABS regime negotiations remarked, "no one in the CBD family could possibly oppose a fair and equitable deal in which all parties benefit and biodiversity is conserved".⁹⁷ Perhaps, at last, there is confirmation that there is too much at stake to let narrow, national self-interest guide ABS negotiations. Now is the time for negotiators to return to the CBD's touchstone principles and confirm through their actions that the spirit of the CBD is one of justice: intergenerational justice and international justice.

...the CBD is an important landmark in integrating the principle of justice in international relations.

...there is too much at stake to let narrow, national self-interest guide ABS negotiations.

Environmental Justice



*"If you are neutral in situations of injustice,
you have chosen the side of the oppressor."*

Archbishop Desmond Tutu, South African activist (1931)

What does "environmental justice" mean and how does it relate to the CBD? Readers who are familiar with the CBD but not with philosophical theory, may wonder how the concepts of justice used in this report relate to those used in political discourse, such as "environmental justice". To answer this question, one first has to establish what singles out environmental ethics from other fields in applied ethics.

In all areas of applied ethics, it is possible to distinguish between questions that face an individual and questions that face society or even the world as a whole. For instance, whether lying to terminally ill patients and their families about their medical condition is ethical or unethical is a question for doctors. The question of how scarce health care resources should be distributed is a question for nation states or beyond. Of all the fields in applied ethics, environmental ethics has the most global focus. What is our place in nature? How would a world in which human beings can flourish alongside non-human beings look? Which responsibilities do we have towards future generations? These questions do not just demand action from one individual, as in the case of many inquiries in professional ethics. They demand action on a global level to deal with issues of global concern, such as climate change, loss of biodiversity, overpopulation or loss of wilderness areas. As awareness of

these issues only surfaced in the 1960s⁹⁸, environmental ethics is a young field of philosophical inquiry, usually dated to the 1970s. The following diagram shows the various approaches to the environment as described by environmental ethicists.⁹⁹



Fly agaric, Australia, Doris Schroeder

...environmental ethics is a young field of philosophical inquiry, usually dated to the 1970s.

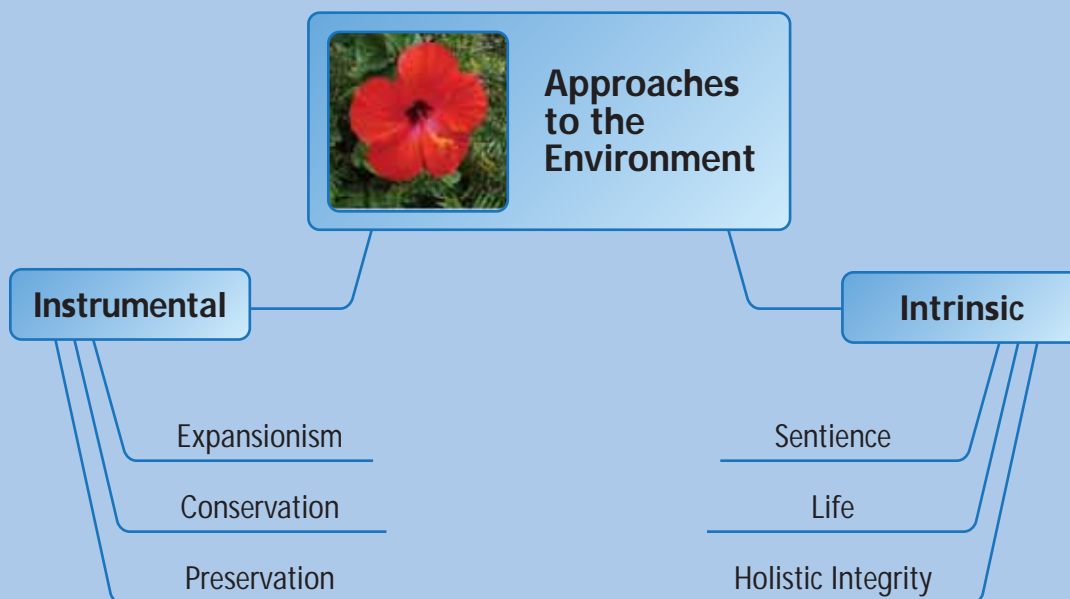


Diagram 6: Approaches to Environmental Ethics

Instrumental approaches to the environment are human-centred or anthropocentric. They assume that moral obligations towards the environment only exist in so far as the environment is useful for or appreciated by humans. In this regard, the concern for the environment is only indirect, mediated through the direct moral concern for other people. By contrast, intrinsic value approaches to the environment accept that, independent of humans, the environment has a value in its own right. Hence, the concern for the environment is direct in nature.



Melbourne Zoo, Australia, Doris Schroeder

Instrumental Approaches to the Environment

Expansionism	The environment is valued instrumentally for its contribution to economic growth and there are no limits to such growth.
Conservation	The environment is valued instrumentally for resources required in farming, mining, logging etc., and it needs to be conserved for future use.
Preservation	The environment is valued instrumentally for contributions to human well-being (e.g. it is good for physical recreation, a potential source of new medicines) and ought to be preserved, including for future generations. By contrast to conservation, which focuses on use value, preservation focuses on keeping from harm, including keeping from unrestrained economic exploitation.

Intrinsic Value Approaches to the Environment

Sentience	Entities are intrinsically valuable if they are sentient. This approach is also called the animal liberation approach and its most famous proponents are Jeremy Bentham ¹⁰⁰ and Peter Singer. ¹⁰¹
Life	Entities are intrinsically valuable if they exhibit a biologically based "interest" in maintaining their own integrity, put simply, if they strive to maintain their own existence (e.g. a plant will expand its roots until it can reach water).
Holistic Integrity	Entities are intrinsically valuable if they have self-renewing properties as a whole, i.e. if they are autopoietic systems such as ecosystems. The most famous proponent of this approach is Aldo Leopold. ¹⁰²

...the realm of moral concern has steadily been broadened.

As one can see from the above, the realm of moral concern has steadily been broadened. Initially moral obligations were confined to actions that had an impact on human beings alone. The animal liberation movement then expanded our moral concerns to include sentient beings, whilst further developments included all living organisms and later even whole ecosystems in the moral domain.

How does the CBD fit into environmental ethics? And what does environmental justice mean in this context? Objective two of the CBD links the convention clearly into the instrumental approaches to the environment. Biological diversity is being conserved in order to enable sustainable use. Environmental justice, within the context of the CBD, is then to conserve and preserve biodiversity for future generations, what we have termed "intergenerational distributive justice" in this report.



Near Alice Springs, Australia, Armin Schmidt

Endnotes and References

A scenic view of a coastline with mountains and a bay at sunset. The sky is filled with soft, orange and pink hues, transitioning into a darker blue as it meets the horizon. The mountains are silhouetted against the light, and the water in the bay is calm with some white foam from waves breaking in the distance.

“Justice cannot be for one side alone, but must be for both.”

Eleanor Roosevelt, U.S. author and activist (1884 – 1962)

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Balakrishna Pisupati (second from left) and Doris Schroeder (second from right) at COP9 in Bonn, 2009 (photo: iisd).



"The report will make an excellent contribution towards enhancing our understanding of justice and the CBD. This issue is coming up repeatedly in discussions and it will be great to have a resource one can use for guidance. This report really does the job well!"

Dr. Rachel Wynberg, Deputy Director and Senior Researcher,
Environmental Evaluation Unit, University of Cape Town, South Africa

"A total delight to read! Tracking the ethical origins of the international debates, with the accompanying analysis and discussions, provided a breath of fresh air on this important but relatively well trodden ground. I nodded my head throughout the read and simply enjoyed the fresh angle and engaging use of examples to illustrate the many useful and quite subtle principles that were conveyed and easily digested."

Roger Chennells, Main attorney and founding Trustee
of the South African San Institute

"This is a new perspective for many CBD hands and I can't wait to hear their reactions. An excellent piece! I hope all those who read the report will react and hopefully think further."

Tim Hodges, Co-Chair, UN CBD Working Group on Access and Benefit Sharing



United Nations Environment Programme
P O Box 30552
Nairobi, Kenya

Tel +254 20 762 1234
Fax + 254 20 762 3927
Email delc@unep.org
URL <http://www.unep.org>

University of Central Lancashire
Centre for Professional Ethics
School of Nursing
Brook 317
Preston PR1 2HE
United Kingdom

Tel +44 1772 892549
Fax +44 1772 892998
Email dschroeder@uclan.ac.uk
URL <http://www.uclan.ac.uk/cpe>