

Since the international discourse began, which culminated in the CBD, a particular value of genetic resources for humankind has been in the spotlight: the use of plants and other organisms, their extracts and derivatives in the development of medicines. Biological diversity as a source for medicine has been used by humans since time immemorial. In the industrialised world, biological diversity continues to play an important role. Pharmaceutical companies produce modern drugs using active ingredients derived from plants, microbes, and other organisms. They also produce phyto-pharmaceuticals based on traditional knowledge.

One of the driving forces for the creation of the CBD was the potential that biodiversity serves as raw material for the development of drugs and other useful products. Consequently, there was a need to balance the inequity of the means to exploit biodiversity for industrial purposes and economic gain. Industrialised countries demanded that developing countries should better protect their ecosystems and biodiversity. Developing countries on the other hand, were reluctant to trust advice emanating from countries which had destroyed their natural ecosystems through agricultural development and industrialisation. If developing countries were to protect ecosystems, they wanted to be compensated for these efforts. Furthermore, developing countries were no longer willing to provide their genetic resources to for free. A historical compromise was reached in Rio when the CBD was adopted: access to genetic resources will be regulated and facilitated by the country of origin, the user has to share the benefits in monetary terms or for example through technology transfer, and providing country respects the intellectual property rights associated with these technologies. This compromise is in the process of being specified in the course of international negotiations for an access and benefit sharing regime.

The point of departure for politicians, scientists, and others engaged in the CBD debate, is that any ABS system has to reward the use of biological diversity in medicine, cosmetics, food supplements, industrial processes, breeding, crop protection, and horticulture.

Two groups of industries use different components of genetic resources. While medicine, cosmetics and food supplements use biochemical compounds of the genetic resource, many industrial processes and the breeding sector use the genes of the genetic resource.

Bearing this in mind, in order for providing countries to profit from an ABS regime, a future ABS regime must cover the use of all components of genetic resources. If an ABS regime only covers the use of the genes and leaves out the use of the biochemical components, such a regime will exclude the majority of industrialisation applications in the world. The overwhelming number of bioprospecting cases that have emerged during the history of the CBD have been based on the use of biochemical components of genetic resources and only very few on the use of genes from genetic resources covered by CBD.

The following citations show that prominent actors in the field have always understood an ABS-regime to include both the use of genes and biochemical compounds of genetic resources. Therefore, this understanding has to be kept in mind during the course of the negotiations, particularly when dealing with the definition of "utilization of genetic resources" and "derivatives". A narrow definition of the terms and hence of the ABS-System will be a major departure from the wording, spirit and intent of the CBD and its ABS provisions.

What do the case studies no. 1, 3, 5, 6, and 7 of the INF/6-paper for ABSWG-6 have in common?
They all would fall out of the scope of an international ABS-regime if that regime would follow a narrow interpretation of the CBD based solely on the use of genes as advocated by some experts and Governments.

Novo Nordisk uses a broad variety of natural resources in its research and development programmes for new pharmaceuticals and industrial enzymes. [...] No microbial strain or natural material obtained without proper prior informed consent from the country of origin will be included in screening; All materials screened should be covered by contracts and/or material transfer agreements; [...]

Novo Nordisk: Environment & Bioethics Report, 1998

Many believe the potential of bio-resources has barely been tapped, and that traditional knowledge about the medicinal properties of plants, for instance, still has valuable secrets to offer. Apart from drugs from plants known locally through traditional knowledge, disease-resistant or hardy crops are examples of the kind of resources that might become available through biotech inventions. The biodiversity of the rainforest is a resource as real as any precious metal.

EU Trade Commissioner Pascal Lamy: As precious as gold, 6 Feb 2002

Mr Toepfer said the wealth of animal and plant life nurtured by indigenous, tribal and local peoples "for generations, for ages" amounted to a treasure trove of potentially promising new drugs, crops and industrial products for the 21st century.

UNEP Executive Director Klaus Töpfer: Big development projects need cultural impact assessments, 18 Nov 2002

Genetic resources are materials of plant, animal or microbial origin. [...] They are of fundamental importance to many areas of scientific research, like plant breeding for agriculture and horticulture, and for a wide range of industrial sectors, including biotechnology, pharmaceuticals, medicine, and cosmetics. For example, various plants have cosmetic applications: cinnamon has essential oils with antiseptic properties, green tea has a free radical scavenging property and horse chestnut is an astringent.

European Commission: Commission encourages international solidarity when utilizing exotic plants, 7 Jan 2004, Press Release IP/04/21

Biodiversity, the result of over three billion years of evolution, is a natural heritage and a vital resource for mankind. We draw from it directly our food, shelter, medicine, raw materials, recreation and culture.

CBD Executive Secretary Ahmed Djoghlaif: Winning the battle for life on earth: Fulfilling the 2010 biodiversity promise of the Heads of State, 2006, Gincana Magazine

Many top selling drugs, such as penicillin, cyclosporine and the anticancer drug Taxol, have been derived from nature; and traditional medical knowledge can point the way to new drug development. Future drugs, industrial products and genes for improved crops are being sought from plants and animals, particularly in the genetically rich developing world. [...] Establishing effective and fair rules, in which companies and local communities share in these profits and other non-monetary benefits that arise from the use of the biological resources, will not only help fight poverty in developing countries but will also create sustainable development on a broader base. It should also generate incentives for local people to conserve their biodiversity and reduce the threat of overexploitation.

UNEP: Study takes critical look at benefit sharing of genetic resources and traditional knowledge, 10 Feb 2004

Forests play a vital role in fighting poverty and in promoting medicine and food security UN Secretary-General Kofi Annan told Central African leaders this week. [...] Their capacity to retain water offers safeguards against flooding and erosion, and the genetic resources found in them are the basis for many advances in medicine and food security, he added.

UN Secretary General Kofi Annan: Annan calls for cooperation to save Central Africa's forests, 11 Feb 2005

Biodiversity is a prerequisite for the traditional medicine that much of the world relies on as well as many pharmaceutical products. Natural resources represent an important source of potential new drugs for patients, hence the preservation of biodiversity is essential in our efforts to cure diseases and save lives. Bioprospecting, or tapping into the vast molecular diversity occurring in nature to help create innovative new medicines, provides a complementary alternative to synthetic approaches to new drug development.

NOVARTIS: Position Paper Biodiversity/Bioprospecting, Nov 2005

As the CBD definition also includes the potential value of such resources, almost all genetic material falls under the provisions of the ABS system. Furthermore, the valuable information need not be exclusively genetic, for example, it may also be associated, with the biochemical information contained in the material.

Swiss Academy of Sciences: ABS - Good practice for academic research, 2006