privatization

Colombian cotton farmers.

issue 107

nature for sale

the new markets 2: selling our genes and knowledge

Friends of the Earth International

Global Forest Coalition
www.wrm.org.uy/gfc

1 [england] bioprospecting

English Nature, the UK government agency responsible for wildlife conservation, is reported to be negotiating with research institutions to assess biodiversity in English Sites of Special Scientific Interest (SSSIs) for their commercial potential. The suggestion has raised some concerns in the UK, especially since the government has no official position on the issue of biopiracy, nor any legal framework to deal with it.

The now widespread phenomenon of biopiracy, is causing considerable concern, especially in the biodiversity-rich countries of the tropics. Typically, agreements made between communities with traditional knowledge of biodiversity and the multi-national corporations who have exploited such knowledge via patents and other intellectual property regimes, have proved grossly inequitable. There are many ethical concerns relating to patents on life forms, while it is clear that the benefits for conservation arising from the commercial exploitation of genetic material have been grossly overstated. With these and other issues in mind, clarification is needed of the legal and ethical framework that will be used to conduct the proposed screening of English biodiversity and the subsequent use of the information produced.

Many other countries have either established, or are establishing, legal frameworks at the national level to govern access and benefit sharing in relation to the commercial exploitation of biodiversity. Such a framework must be agreed on before any officially-sanctioned process of bioprospecting can commence. While the UK has no clear approach, it is noteworthy that many poorer countries are already taking steps to ensure a legal framework is in place.

Friends of the Earth believe that the process of bioprospecting raises many controversial matters of principle, as well as practical legal questions. The official position on these questions of principle and law should be made very clear through a democratic process before any steps are made toward the commercial exploitation of the country's natural biodiversity. A national debate is needed, followed by the establishment of an adequate ethical and legal framework for bioprospecting in England.

more information:
Friends of the Earth England, Wales and Northern Ireland: ***www.foe.org.uk***

2 the group of mega-diverse countries

In 2001 the Group of Mega-diverse countries was created, and is composed of Bolivia, Brazil, China, Colombia, Costa Rica, Ecuador, Philippines, India, Indonesia, Kenya, Malaysia, Mexico, Peru, South Africa and Venezuela. They claim to represent 75% of the biological diversity and 45% of the cultural diversity in the world and act as an advisory and consultative body to promote the common interests linked to the conservation and sustainable use of biodiversity at the United Nations and other forums.

In practice, this means developing common activities to achieve better results in negotiations related to biodiversity such as at the CBD. This group of countries accepts the patenting of their biodiversity in exchange for the disclosure and recognition of the origin of the resources and if they are paid a certain percentage of the royalties claimed from the industrial applications of the patented materials.

introduction

The World Bank and other promoters of the Washington Consensus were the major force behind the promotion of mercantilism in multilateral environmental agreements (MEAs) like the Biodiversity Convention and the Framework Convention on Climate Change. During the negotiations of the Biodiversity Convention in 1991 - 1992, this mercantilism was already codified by the inclusion of what seems a relatively idealistic third objective of the Convention to ensure " fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding".

However, the main motivation to include this objective and the relevant access and benefit sharing provisions in the Convention was the suggestion that the only way to save biodiversity was to claim back the millions of dollars that commercial plant breeders and biotechnology companies in the North had earned on the basis of seeds and other genetic information collected in developing countries. It was thought that fair benefit sharing by the then rapidly growing biotechnology sector would lead to an impressive financial flow for biodiversity conservation.

Yet, the presumption that one of the most scrupulous industrial sectors, the biotechnology sector, would turn into a driving force behind biodiversity conservation has turned out to be rather naive. During the negotiations themselves the industry ensured that the great majority of genetic information, which was already safely stored in Northern gene banks, was exempted from the benefit sharing provisions. Twelve years later, there are still no legally binding provisions to ensure the benefits are equitably shared with the countries where the genetic information comes from. But even if such provisions were agreed upon, what would be the result? Who would get the money? Most biodiversity is under the de facto management of local communities: only if their practices are sustainable will biodiversity be protected. Thus, comforting fairy tales are told about local communities getting a reward out of the profits of biotech companies. But in reality the great majority of genetic information is simply taken without any permission. Only in exceptional cases have communities received some sort of reward, and those cases were only concretized due to government interference and/or clever green marketing strategies by the companies involved. When subjected to "real" market forces, most genetic information turns out to be literally in the wild. It can be found in many places, so even when they decide to pay for it, the buyers are able to go to the cheapest seller. With many sellers being remote communities like Indigenous villages, any price goes.

3 the new columbus: craig venter conquers latin american genes

On July 9th 2004, the government of Bermuda publicly expressed its concern that their genetic resources would be commercially exploited through two bioprospection projects headed by Diversa and by Dr. Craig Venter. While Diversa were collecting a protein from a coral that is traded as a biotechnological tool, Venter was focusing on finding organisms in the Sargasso Sea, which could turn carbon dioxide into a clean source of energy. His project has received 9 million dollars from the US Energy Department and has collected and de-codified more than 1800 new spices.

Operating from Venter's 90-ft. yacht, the Sorcerer II, researchers have collected samples in the territorial waters of Mexico, Costa Rica, Panama, Ecuador (Galapagos Islands), Chile and French Polynesia, and in the case of Ecuador and Costa Rica, without any authorization from the national authorities.

Craig Venter is known for his role in mapping human genes as part of the Human Genome project, where he controversially filed for US patents on thousands of gene sequences from the human brain. The US Patent office ultimately denied the patent.

4 some current patents

Examples of patented plants, which are important in everyday life for numerous communities and Indigenous Peoples in their diets, spiritual and health care practices.

- *Ayahuasca:* A sacred plant used by indigenous peoples in Amazonia for medicinal and spiritual rites, patented by Loren Miller.
- *Maca:* A plant used for the diet and for pharmacology in Peru, patented by Pure World Botanicals Inc and Biotics Research Corp.
- *Quinoa*: A grain eaten in Latin America with high nutritional value, patented by two researchers at the University of Colorado.
- *Tepezcohuite:* Used by the Maya people against burns because of its anti-inflammatory properties, patented by Dr. Leon Roque.
- *Rupununine:* Used in traditional medicine for heart and neurological diseases and for the control of tumours and fertility, patented by Gorinsky.
- *Basmati rice* India's most well known rice bred and nurtured for thousands of years by local communities, patented by a US Company, Rice Tec.
- *Nap HalWheat* A variety of wheat used to make Chapati bread, a staple of Northern India, patented by Monsanto.
- *Atta* Whole-grain wheat flour used in India patented by Conagra.

And then there are the moral aspects. Much of the information is sacred, as some of the most interesting genetic information consists of traditional medicines that are closely related to religious rituals. And how cynical is it when the Sen in South Africa, an Indigenous People living in the harsh Kalahari Desert facing regular periods of malnutrition and hunger, are helping biotech companies to develop products like an anti-obesity drug.

The privatization and commodification of elements of biodiversity threatens to destroy the livelihoods and culture of local communities, especially farmers, indigenous peoples and women. The earth's gene pool, in all of its biological forms and manifestations should not be commercialized. It should not be claimed as negotiable genetic information or intellectual properties by governments, commercial enterprises, other institutions or individuals.

privatizing life

Patent-holders are permitted to restrict the use of new inventions for decades, to allow them to promote their inventions without competition and thereby reap the rewards of their initial investment. However, the patenting of life - a relatively new phenomenon - now permits the ownership and subsequent commercialization of 'discovered' knowledge about biodiversity. It conveniently ignores the facts that such knowledge may rightfully belong to Indigenous Peoples and local communities - and that no invention may have been involved. Indeed, this type of patenting is commonly referred to as biopiracy.

The WTO's TRIPS agreement (on 'trade-related aspects of intellectual property') came into being in 1995. As a result, it is now mandatory for all member governments – even those that had previously prohibited the patenting of biological resources – to allow the patenting of micro-organisms and micro-biological processes and to amend their national laws if necessary. They are also required to introduce intellectual property protection for plant varieties.

There are now many patents on life, covering both genetically modified and naturally occurring organisms and including plant, animal and human genes. By November 2000, for example, patents had already been granted or were pending on more than half a million genes and partial gene sequences in living organisms. Nevertheless, the patenting of life remains hugely controversial, both because of its implications for living beings and because of its impact on communities in impoverished countries.

Companies or institutions appropriating local communities' knowledge of biodiversity and its uses (with or without their permission) are effectively creating private, profit-generating monopoly rights. This frequently gives rise to an ironic situation of 'reverse transfer of technology' in which the poorest transfer their knowledge to the rich developed world, often for little or no reward.

There are multiple benefits for intellectual property owners, the most obvious being the profits generated following the successful

5 UPOV – plant breeders' rights

Appropriation of biodiversity is also facilitated through so called plant breeders rights established in the UPOV 91 convention. It denies the rights of farmers to save their own seeds while neglecting to recognize their inherent rights acquired through their special relationship with biodiversity. Among other negative impacts, it allows companies to take over the national institutional framework for plant breeding. UPOV and its soft patents represent a mechanism that provides private monopoly rights over life forms, and as such, allows the privatization of our genetic richness, which is a public good.

6 [canada] court case rules in favour of patents on life

In 1997, Canadian farmer Percy Schmeiser was accused of stealing Monsanto's genetically modified canola seed and in 1998 the case made its way to court. It took on international importance because it was potentially the first challenge, at this level, on the ownership of genes. Unfortunately, the case itself was fought on basic issues regarding whether Schmeiser had used the seeds illegally, not on whether the company had the right to patent and own the building blocks of life. Schmeiser's defence to Monsanto's allegation that he was using their seed in contravention of their patent was that he didn't want their seed and had never planted their seed; it had literally been blown off the back of a lorry which was passing Schmeiser's land on the way to neighbouring farms. Schmeiser lost the case by a narrow margin (6-5). The court stated that larger questions such as who owns seeds were political and best left to parliament. Overall, the decision was a disappointment, but it showed there was a strong dissenting opinion from within the court. Local organizations are continuing to press the issue with the country's politicians.

more information:
Council of Canadians: ***www.canadians.org***


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commercialization of their patented products. Less obvious, perhaps, is the fact that a select number of global corporations are steadily increasing their control over the world's staple food crops including maize, potato, soybeans and wheat. Indeed, techniques to decode and identify the best plant genes are accelerating and the biotechnology industry is racing to map the genomes of the world's staple food crops with a view to patenting the results.

In complete contrast, the impacts on those relinquishing their intellectual property rights are almost wholly negative. Traditional knowledge may have been painstakingly developed by many generations over the centuries, but people and communities can - at the stroke of a pen - find themselves unable to use that knowledge either for their own benefit or as a means of generating income. They may even find themselves obliged to buy the knowledge back, at hugely inflated monopoly prices. Farmers for example, may have to buy seeds from large agricultural corporations rather than saving and exchanging seeds amongst themselves. In short, traditional knowledge about the conservation and sustainable use of biodiversity is being eroded.

Friends of the Earth believes that the TRIPs Agreement must not restrict the right of governments and peoples to promote and protect essential public interests in relation to health, the environment and development. The patenting of life and the theft of traditional knowledge must be prohibited.

biopiracy and its impacts on biological and cultural diversity

It is the collective right of local communities and Indigenous Peoples to have control over their natural resources. It is also an important element of sustainability. However, the act of biopiracy is taking this right away by facilitating the privatization of biodiversity through patents.

Indigenous Peoples' and local communities' traditional knowledge is deeply entrenched in the nature surrounding them. For millennia they have utilized and bred plants for various purposes. The patenting of these plants has undermined their rights to their own knowledge and the benefits that they may derive from it.

7 [costa rica] biopiracy and the case of INBio

In October 1989, The National Institute for Biodiversity (INBio) was created as a private, non-profit association working in the public interest. Its goal was to make an inventory of national biodiversity within one single entity and to put this information to the service of the country.

In 1991, as part of a one million dollar deal, INBio began selling biological samples to the pharmaceutical giant Merck. The terms of the contract were kept secret despite the fact that INBio was negotiating public goods. Moreover, the contract didn't mention important issues for the country, such as the number of contracted samples, percentage of eventual royalties, ownership of the patents, impacts of patenting on local communities and possible erosion of sovereignty.

The relationship between INBio and the corporate sector continued in a contract with Diversa Corporation in 1995, which was renewed in 1998. Highlighted in a CBD press release as an example of access and benefit sharing of genetic resources, the two partners collected samples of microorganisms from mangrove swamps, coral reefs, forest soils and other locations. Diversa was looking for enzymes and structural proteins that could be used for biotechnology, crop protection and pharmaceuticals. Under the terms of the agreements, all DNA sequences that INBio isolated for Diversa became Diversa's property. In return Diversa paid the salary of at least one member of INBio staff and allowed it to use its proprietary technology to collect samples. Furthermore, INBio would receive royalties in the event that Diversa licensed a product to a client company, based on samples obtained from INBio.

It must be questioned if this was a fair deal. The CBD said nothing regarding whether there would be any control mechanisms to determine the existence or not of products that are derived from the appropriated biodiversity samples. Nor did it question what the privatization of biodiversity might mean for poor countries in terms of their culture, their vision of the world, or at least in terms of their research capacity.

Since 1999, INBio has received financial support from the Inter American Development Bank to initiate training courses for companies to research and sell pharmaceuticals made out of herbs, tree bark and other natural plant material. The end result has been the development of companies that sell capsules for the domestic market to treat benign conditions such as stomach pain and acne. The capsules basically contain what traditional healers have offered their patients for thousands of years. With funds from an international financial institution, INBio uses native plants and traditional knowledge to promote their appropriation in the hands of a variety of companies.

These successful examples of biopiracy are full of unfulfilled promises and promote a development model that is very detached from social needs and the protection of the environment. INBio is a private institution that facilitates the privatization of Costa Rican biodiversity, and is publicized as a successful business model in the field of contracting the sale of biodiversity to corporations at a national and international level. It has portrayed its own profits as a benefit to the country, even though the monetary contribution has not been as lucrative as expected according to what was established when they signed the agreement with Merck. In short, they sold priceless Costa Rican biodiversity on the cheap.

bioprospecting & biopiracy

Bioprospecting initially aims to bring together the commercialization and conservation of biodiversity. Genetically rich countries with limited capacity for scientific research take samples and make biological inventories of their resources. In contrast, countries with a strong scientific research and development capacity, usually the industrialized nations, are in charge of the identification of the properties of the sampled beings, thanks to their superior technology. The properties of the sampled beings, in general, are patented, or claimed as intellectual property under various regimes. As a consequence, genetic resources are privatized to the benefit of countries with strong scientific research capacity. This activity is called biopiracy, given that it facilitates and promotes an illegitimate though still legal appropriation of biodiversity.

The pharmaceutical and agricultural industries have taken ownership of the genetic resources of biodiversity and associated traditional knowledge through the use of patents to develop an important proportion of their products. Between 1950 and 1980, 25% of the medicines in the US were based on products coming from plants, and currently 48% of the medicines undergoing clinical tests are derived from plants. The economic importance of these resources has led to intergovernmental negotiations in every possible international forum to establish national and international legal frameworks to facilitate access to these resources, and therefore legalize biopiracy.

biopiracy legalized

The commercial use of genetic resources, and inadvertently biopiracy, is being promoted within United Nations forums, including the Convention on Biological Diversity (CBD), and the United Nations Environment Program (UNEP). Moreover, the World Trade Organisation (WTO) and the World Intellectual Property Organization (WIPO) actively develop and enforce legislation and policy on patents.

With the alleged goal of fighting biopiracy, the CBD has promoted negotiations on Access and Benefit Sharing (ABS) since 1999. These negotiations were based on the CBD objective to ensure a "fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources".

Events have shown that while those countries that are theoretically sovereign over their resources have broadly facilitated access, the fair and equitable sharing is nothing but an attractive concept, a sort of mirage or trick, which has not been met with either the political will for implementation or the political decision to demand it. Benefit sharing has been scarce or null throughout the whole world, while biopiracy has increased.

8 developing countries defending their genetic resources

The Philippines is one country that has long been active in this area. In 1995 they introduced legislation on access to genetic resources, which prescribes, among other things, that the prior informed consent of local communities is required before biodiversity in their territories can be collected. Andean countries have established legal frameworks that provide local communities with a right of prior informed consent before their traditional knowledge of local biodiversity can be exploited. African countries have developed an African Model Law for the Protection of the Rights of Local Communities, Farmers and Breeders and for the Regulation of Access to Biological Resources. They have collectively agreed that no patents should be granted on genetic resources found in their countries, including living processes based upon those genetic resources and related traditional knowledge.

more information:
Legal Rights and Natural Resources Center:
www.lrcksk.org


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trade negotiations

Discussions on biopiracy also take place at the WTO specifically in relation to the Trade Related Aspects of Intellectual Property Rights agreement (TRIPS). Similarly, the discussion is present in the debate on the services negotiations within the General Agreement on Trade and Services (GATS), given that biopiracy is considered as a service. As such it must be granted the necessary conditions for unhindered development, even if this happens in violation of the rights of Indigenous Peoples or local communities, or if it facilitates the privatization of biodiversity and encompasses in this way privileges that are beyond the sovereign decisions of nation states.

Additionally, the USA has been negotiating diverse bilateral trade and investment treaties, given that the multilateral forums have not fully satisfied their commercial goals. For example in a treaty with Chile, they have pushed for what is known as TRIPS-plus clauses related to intellectual property. The proposals go beyond what is currently allowed through TRIPS and furthermore entrench corporate proprietary rights, for example by allowing the patenting of plants and animals - transforming what are exceptions in TRIPS into rules.

conclusion

Biopiracy results from a vision of the world that believes that we can only conserve what we own. It is the rationale behind the million-dollar industry that has profited from the natural resources and traditional knowledge of Indigenous Peoples and local communities. They, in contrast, have permitted the conservation, use and improvement of biological diversity on the basis of collective practices that need to be shared in order to survive.

The forums that emerged as a space for the protection of biodiversity are currently not very different from those that promote the imposition of a market-based commercial model. On the contrary, biopiracy is on the increase, while the sustainable practices developed by Indigenous Peoples and local communities are weakened, as are their customary rights.

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Modern day bioprospecting contracts have many qualifications, but "fair" and "equitable" are certainly not among them.

Miguel Lovera, coordinator, Global Forest Coalition, Forest Cover 11, February 2004

the full text of the Nature for Sale report is available in English, Spanish and French on
http://www.foei.org/publications/pdfs/privatization.pdf,
http://www.foei.org/esp/publications/index.html and http://www.foei.org/fr/publications/index.html.
for copies of "The New Merchants, Life as Commodity" published by the Global Forest Coalition and CENSAT Agua Viva, please check:
http://www.censat.org/Documentos/Ambientalismo/LosNuevosMercaderesIngles.pdf

Friends of the Earth International


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global forest coalition The Global Forest Coalition is an informal and inclusive coalition of Non-Governmental Organizations (NGOs) and Indigenous Peoples' Organizations (IPOs) engaged in the global policy debate related to forests. The coalition, which was established at the last session of the Intergovernmental Forum on Forests in February 2000, aims to facilitate the informed participation of a broad group of NGOs and IPOs in the global policy debate relating to forests, and to promote and monitor the implementation of the commitments made during this debate.

Published January, 2006.

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with thanks to Alexandra Wandel, Alipio Valdez, Andrei Laletin, Anil Naidoo, Anthony Amis, Cam Walker, Damien Ase, Debra Broughton, Duncan McLaren, Elias Díaz Peña, Farah Sofa, Godwin Uyi Ojo, Irene Vélez, Isaac Rojas, Jamal Juma, Janneke Bruil, Javier Baltodano, Jean Marie M Ferraris, Jose Rodriguez, Karin Nansen, Larry Lohmann, Longgena Ginting, Meenakshi Raman, Mensah Todzro, Miguel Lovera, Niki Johnson, Noble Wadzah, Ricardo Carrere, Ricardo Navarro, Roman Havlicek, Roque Pedace, Stephen Williamson, Tatiana Roa, Thuli Brilliance Makama, Toni Vidan, Tony Juniper, Julian Manduca, Ojars Balcers, Rusudan Simonidze.

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Published January 2006.

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