

NATIONAL AFFAIRS

Brazil

The Story of *O ECO*

by Marcos Sa Corrêa *

Global concern about the disappearance of forests and forest ecosystems of South America is relatively young. By contrast, human incursion into these regions commenced some 13,000 years ago. The introduction of agriculture by some of the first immigrants to the region transformed the relationship between man and the forest. In Brazil, Portuguese mariners and colonists landing in 1500, carried on their activities based on the belief that Brazil's immense size sheltered its natural resources from over-exploitation. Today, whilst the rainforests of Brazil diminish at a frightening pace, many people still believe that the country's raw material and land are virtually unending. In the face of these concerns, the *O Eco* Press Service in partnership with the Avina Foundation has embarked on a mission to provide free press coverage on the environment and sustainable development. The following story is a personal account by Marcos Sa Corrêa, the founder of *O Eco* about the past, present and future of environmental journalism in Brazil. (WEB/ATL)

A mute sardonic smile lights up every face in the *O Eco* newsroom whenever a telephone rings and it turns out to be a high-ranking official, calling long-distance to discuss a story that *O Eco* has just put on the wire. This has been happening a lot since August 2004, when the website www.oeco.org.br was first launched in Rio de Janeiro from the foot of Rocinha, one of the biggest *favelas* (shanty towns) in the area.

With a budget never exceeding 15,000 dollars per month, a handful of journalists using four second-hand computers and a pocket-size digital Canon from the 2.1 mega pixel generation (which miraculously keeps on filming) left behind years ago by an editor, produce *O Eco* with a strong focus on environmental news. The staff in Rio is young and generally fresh out of college. In all honesty, the site was not expected to attract any attention from the environmental authorities in Brasilia, 1,200 km away from its modest headquarters. Nevertheless, after three and a half years together, everyone on the staff knows exactly what the team mates mean with those smiles as they think to themselves "If they could only guess how little *O Eco* really is, they would probably never bother to call us".

But *O Eco* deserves the attention. You don't need a lot of insti-

tutional muscle to cast a long shadow on the internet when covering a vital issue that is traditionally neglected by the mainstream media. In Brazil, this issue is undoubtedly the natural resources that have been chopped down, burned and wasted for centuries; for the sake of keeping alive – through its unrelenting prodigality – the belief of Paradise on Earth. It is the founding myth that since colonial times has depicted the country as a land of endless forests, inexhaustible resources, water to throw away and evergreen savannahs. If "God is Brazilian", as a popular motto guarantees, why care about conservation?

Reporting on a subject that the vast majority of Brazilian readers would rather avoid isn't a sure formula for quick success, at least by the standards of many sites that hit instant jackpots on the internet. However, this is exactly what *O Eco* chose to do from the very start. "The idea sounded crazy", says Manoel Francisco Brito, one of its founders. When he was invited to think about it for the first time, environmental information in the Brazilian newspapers was limited to catastrophic events such as oil spills in Guanabara – the bay upon which Rio de Janeiro sits – and Eco-92 – the international conference that Brazil hosted more than 15 years ago.

"Eventually, a very large tract of forest burning would get a minute or two on TV, in the evening news", Brito



Amazonia

Courtesy: *O ECO*

* Marcos Corrêa is the founder of *O ECO*.

recalls. So would a sudden flood or an exceptionally severe drought. But there was hardly any consistent coverage of conservation policies or even scientific expeditions mapping the last remains of the true Brazilian wilderness. “In short, nobody seemed to be interested”, he says.

Brito ended up working at *O Eco* “both by design and by accident”. Forty years ago, he was born into the family that owned *Jornal do Brasil*, the most influential Brazilian newspaper at the time. He was trained to be a journalist and a publisher, but *Jornal do Brasil* was suffocated economically by the military regime. Stalled by a long



Cricket (*Pycnosarcus atavus*)

Courtesy: *O ECO*

financial crisis, the paper changed hands in the 1990s. As a brilliant reporter with great international experience as a correspondent based in Washington, Brito seemed ready for a new journalistic challenge when he received a call from a friend four years ago.

That friend happened to be me. In my case, becoming a journalist was an accidental deflection from a career aimed at nature photography. Having graduated with a history degree and then taking photographs for newspapers and magazines, I was attracted to political reporting by the simple fact that in the late 60s, with the politicians being prosecuted by the military rulers, approaching them seemed an easy way of resisting the regime. And so I did this for about 30 years before becoming aware that after the return of democracy, all that was left to cover on the

political front were corruption scandals combined with a decade-long administrative lull. I must admit that I was getting a little bored. Then a book written by Warren Dean, an American specialist on the history of Brazil, came to my rescue, giving me a new point of view of internal affairs and over time, a cause worth pursuing.

In *With Broadaxe and Firebrand: The Destruction of the Brazilian Atlantic Forest*, Dean retraces almost five centuries of wasteful occupation of a once continuous wall of rainforest, lining the coastline from Northern to Southern Brazil. Less than 7% of this Atlantic Forest exists today, scattered through a coastal mountain chain where the slopes are too steep to grow crops or to be exploited by loggers. The rest was left as ashes from the fires that cleared the ground for agriculture and were rapidly washed away by the tropical rains. Reading this book gave me a sense of loss that haunted me wherever I went, including family trips to so-called natural havens. It wasn't long before my wife complained: “You keep writing about one subject and speaking about another. Why don't you try to combine your personal interests with your professional life?”

And so I did. By the dawn of the 1990s, I began writing predominantly on what was happening before our eyes to Brazil's prodigious natural legacy. The change placed an extra burden on my bank account, but gave many rewards in the form of a renewed journalistic vigour. That can be contagious, as Brito puts it, “By early 2004, I was once again having second thoughts about journalism, wondering whether I still wanted to cover the same things I had been covering for almost 30 years, but not knowing exactly what else I wanted to do. This was when I received a phone call from Marcos Sá Corrêa who had received some cash from the Avina Foundation. He was asking for my help to start a news agency and thus fill the gap on environmental coverage”.

Brito didn't think twice about saying yes. Some weeks later, another friend jumped on board. This time it was Sergio Abranches, a well known political scientist and risk consultant. Abranches was also tired of producing new ideas about a situation that seemed content to repeat itself forever. Established for more than 20 years as a political analyst, he started writing for *O Eco* about public policies for conservation, energy and climate change. He now remarks that, “Out of every five invitations to give lectures that I receive, four are to speak about sustainability or global warming”. He credits the change to *O Eco*, although it came with a sudden drop in his earnings. “Political lectures are usually well paid, but to address environmental audiences, everybody expects you to speak *pro bono*”.

With Avina's funding being rather modest and wishing to make the most out of the little money we had, Brito, Abranches and I resolved that not a cent of those resources would end up in our pockets. So, *O Eco* was created as a non-profit organisation. Its basic conception was based on the idea that Brazil is well-connected, but poorly covered by its media. Via its 3,747 retransmission stations, television reception reaches at least 86.2% of all Brazilian households, encompassing almost every region and social class. Though a late comer to the computer world, more than 22 million homes around the country now have

some kind of access to the internet. This number far exceeds the 7.5 million newspaper copies printed daily, and doubles every two years.

Despite Brazil's size, television networks follow the pattern of news magazines and newspapers. They all concentrate their journalistic coverage on a small fraction of the country – basically Brasília, the federal capital, along with São Paulo and Rio de Janeiro, its two biggest cities – ignoring peripheral affairs until they become noticeable enough to arouse national curiosity. Every year during the drought season, it is possible to watch how this narrow focus plays out. As the skies are concealed behind a thick haze and the country is literally on fire, thousands of wildfires help Brazil to set new world records of CO₂ emissions. Rooted in the old tradition of slash-and-burn agriculture – boosted in recent years by the rapid devastation of the Amazon forest – the fire season can be easily predicted. Even so, it is seldom reported on. Thus, in the past 30 years, an extent of Amazon forest larger than France has vanished. Without media coverage, the time has come and gone for any effective conservation measures.

O Eco reporters rush like mad to arrive on time to get their stories. To save money for these efforts, *O Eco*'s founders work as volunteers. That means no wages except for the reporters, contributors and hired staff. Among its columnists, the site boasts ecologists, biologists, oceanographers and other first-rate specialists. But no contributor is paid more than 130 dollars per article. There is a simple conviction behind these decisions: *O Eco* exists to fit the news coming from 8.5 million km² of Brazil's territory into a room measuring less than 24m². The only way to be everywhere is to travel cheaply, sometimes by canoe, eventually sleeping in canvas tents and trekking distant trails. We admit we are lousy fundraisers and bad managers, but we do know how to be thrifty! Basically, the site wasn't conceived to hit the jackpot in the internet's new economy, but to fill the journalistic void left by the mainstream media. At *O Eco*, success above all means looking bigger than we really are. We realise that reporting on all the issues is impossible, but just trying can be a lot of fun!

"For a reporter, it is really a dream", says Brito. "On *O Eco*'s assignments, I've been to some of the most beautiful places in Brazil. Such as Campo dos Padres, a still untouched area of canyons in the highlands of Santa Catarina. I have also visited horrific places like Sinop, a city founded in the 1980s in what was, at the time, dense forest in the Southwest Amazon, and is now just a big shanty town. I have met smart people that have never encountered a journalist willing to hear the many stories they had to tell. *O Eco* put me back in touch with something that was constantly present in my life up until I was drafted into the army: nature. And it has been unforgettable every single time. You are there not only learning a lot of things and seeing unbelievable landscapes, but living an adventure following researchers after animals, officers arresting loggers in Amazonia and discovering farms set up on public land. What else could I have asked for, as a journalist?"

Those field memories can go a long way. One such assignment offered Brito the opportunity to meet Peter Crawshaw, a leading Brazilian jaguar researcher. A seasoned reporter, he traveled by boat to Corumbá on the banks of the Paraguay river and into the Pantanal, a national park in the wetlands of Mato Grosso do Sul near the border of Bolívia. "A stunning area", says Brito. "It was supposed to take six hours. The first five hours were picture-perfect with thousands of birds, alligators and capybaras along the river. By the seventh hour, upon reaching Serra do Amolar, we were still two hours from the park's main base when the sunny weather turned foul. Then the rain began to come down as thick as honey. The temperature dropped almost immediately from 30° degrees Celsius to 12°. The Paraguay River, which normally runs smoothly, quickly became dangerous for our small boat. We headed for a bank where we sat on tree branches, ate soaked sandwiches wearing completely wet clothes surrounded by millions of mosquitoes and waited. In this short time, *O Eco* had helped me to regain a certain dimension of adventure in journalism."

His ordeal in Pantanal lasted for 12 drenched hours. Throughout the subsequent 12 days, Brito learned an unforgettable lesson about nature's ability to recover from human aggressions. More than 33 years ago, a flood covered what is now the national park and is still slowly receding today. The ranchers and their cattle went away, pretty much leaving the environment to itself. The original vegetation rebounded and is now exactly as it was 200 years ago before the first settlers arrived. Moreover, the jaguar population is growing to the point of assuring tourists that they will have plenty to see when staying in a hotel nearby. The Pantanal itself has invented a new economic use for the land it reclaimed.

This is the breed of story that *O Eco* prefers to publish. We do cover a lot of environmental disasters, but we are basically looking for good news without being Panglossian. This precedent attracts lots of reporters that leave jobs in bigger media organisations to get a taste of the site. People like Gustavo Faleiros, now in charge of the newsroom and living and working in Brasilia. He is surprised by "the considerable number of young journalists that write from different parts of Brazil to propose local stories on the environment". On average, he receives five new proposals each week and of course, he adds, "not all can be accepted, but having people from small villages in the Amazon all the way up to big cities in the South interested in writing for a website allows *O Eco* to have a broad selection of subjects and a wide view of the country rarely seen in the Brazilian media".

Faleiros finds a special pleasure in these contacts, "Besides the extra information you get from them, there is a feeling of giving young reporters a chance to be heard beyond their local public. The best thing about the internet freedom is that these new journalists are pushed to not follow the usual newspaper patterns. They are allowed to experiment with broadcasting, photography and writing skills. The result is better and more profound stories". It seems that the original idea behind *O Eco* wasn't that crazy after all.



Norway

The Disclosure Obligation Fair and Equitable Benefit Sharing?

by Morten Walløe Tvedt*

In recent years, considerable international attention has focused on whether patent law be supplemented by a disclosure requirement relating to genetic resources. Specifically, it is suggested that the patent applicant should be required to disclose either the country of origin or legal provenance of those resources or its receipt of prior informed consent from that country when genetic resources have been used in the invention. Patent law already includes a general requirement that the invention be described in a sufficiently comprehensive manner so other persons "skilled in the art" can repeat it without undue difficulties.¹ This would be a new criterion, as current patent practice does not require that information be supplied concerning the origin or legal provenance of the genetic resources used in the invention, as part of the general disclosure criterion.

Significance of the Issue

Although very technical, this proposal has become a controversial political issue and is currently being debated in the TRIPS Council of the World Trade Organization (WTO),² in the Intergovernmental Committee on Genetic Resources, Traditional Knowledge and Folklore (IGC) in the World Intellectual Property Organization (WIPO),³ in connection with the Patent Cooperation Treaty (PCT) in the WIPO,⁴ and in the Convention on Biological Diversity (CBD).⁵

For developing countries, the main rationale for the inclusion of a disclosure requirement is to make operational the CBD obligation and main objective of fair and equitable sharing of the benefits arising from the utilisation of genetic resources, *inter alia* according to Article 15, paragraph 7 and Article 1.⁶ To date, the objective of fair and equitable benefit sharing has not been successfully implemented in the sense that user countries have established legal mechanisms to promote the equitable sharing of benefits arising from the utilisation of genetic resources (Tvedt and Young 2007). Disclosure of origin is generally assumed to promote benefit sharing.

Some developed countries have indicated support for the introduction of a disclosure requirement that does not affect the validity of the patent. These countries have maintained that such a voluntary disclosure requirement

would increase transparency, assist developing countries in monitoring the use of genetic resources from their territory, and would provide incentives for businesses to enter into voluntary access agreements. Obviously, requiring that information be provided has the general potential to increase transparency and oversight in a particular field. This article will therefore not analyse such indirect effects, but target the main objective of developing countries – namely, to receive a fair and equitable share of benefits arising from the utilisation of genetic resources.⁷

Several analyses have explained the options for such a requirement and its implementation.⁸ However, two crucial questions remain unanswered: (1) To what extent are the proposed solutions likely to bring any benefits to the developing countries? (2) What other legal tools would need to be implemented along with a disclosure requirement, in order to achieve benefit sharing in practice?

This article analyses the disclosure requirement as implemented in the Norwegian Patent Act, in order to see whether it is likely to bring any benefits to developing countries, and which supplementary legal tools might be needed for such benefit sharing to become closer to reality. This implementation is thereafter contrasted with the draft Nature Diversity Act which goes further in its wording regarding the disclosure requirement.

Why Look at Norway?

Norway is one of few countries which have included a disclosure requirement in its patent act (Hoare and Tarasofsky 2007) in connection with its implementation of the EU Directive on Legal Protection of Biotechnological Inventions (EC/98/44, in force on 30 July 1998, for implementation by 30 July 2000).⁹ There was heated debate with much scepticism regarding whether the Directive should become a part of the European Economic Agreement (EEA), which must be implemented in Norway. Within the Christian-Conservative coalition government then in power, there was considerable internal disagreement on whether to implement the Directive. The final vote resulted in nine in favour and eight opposed to preparing an act for implementation of the Directive before the *Storting* (the Norwegian Parliament). An important part of this debate centred on the legal conditions for achieving the benefit-sharing objective of the CBD. It has been claimed that implementing the Directive would establish a situation less conducive for developing countries to receive benefits from the use of genetic resources. This argument was prominent in the Norwegian debate, and it was assumed in the preparatory works that implementing the Directive could challenge the traditional role of Norway

* Morten Walløe Tvedt is a Senior Research Fellow at the Fridtjof Nansen Institute, Oslo, Norway; and *Cand. Jur.*, University of Oslo. The author notes with gratitude the comments provided by Senior Research Fellow Kristin Rosendal of the Fridtjof Nansen Institute and Dr juris Inge Lorange Backer, Head of the Legal Department in the Norwegian Ministry of Legal Affairs. The views presented in this article do not reflect those of the persons who have commented on the manuscript.

as a bridge-builder between the interests of the developing and developed countries, also in the CBD.

The EU Patent Directive mentions disclosure requirements in the preamble:

(27) Whereas if an invention is based on biological material of plant or animal origin or if it uses such material, the patent application should, where appropriate, include information on the geographical origin of such material, if known; whereas this is without prejudice to the processing of patent applications or the validity of rights arising from granted patents.

This opens for including information about the geographical origin of biological material, but the Directive emphasises that the lack of such information is not to have any effect on the validity of the patent.

Against this background, in 2004 Norway implemented some sort of a disclosure requirement in relation to patent applications. In ratifying the CBD (1993), the Norwegian government had deemed its domestic legislation to be compliant with the obligations and considered it unnecessary to undertake any amendments to meet the benefit-sharing obligations in the CBD at the time (St. prp. nr. 56 (1992–93)). Thus, no particular legal steps were taken in the early phase of CBD implementation. By the implementation of the EU Directive, the government recognised that the objectives and obligations in the CBD regarding benefit sharing could be obstructed. The preparatory works (St. prp. nr. 43 2002–2003) make reference to the debate and the

scribed to the argument that implementation of the EU Directive could have negative effects on, *inter alia*, implementation of the CBD.

The remaining question is the critical one: Can the disclosure requirement as implemented in Norwegian law result as a practical matter in any benefit sharing within developing countries?

Norway's Disclosure Requirement

According to the EU Patent Directive, countries cannot reject a patent application on the basis of the absence of information about the geographical origin of biological material. This does not, however, exclude countries from using other legal mechanisms to require such information, provided that the consequences of not meeting the requirement are kept outside the patent system. Norway made use of this possibility in becoming the second country to implement a disclosure requirement in its patent legislation.¹⁰

§8b. If an invention concerns or uses biological material, the patent application shall include information regarding the country from where the inventor received or collected the material (the providing country). If the national legislation of the providing country requires prior informed consent for use of such material, the application shall include information regarding whether such prior informed consent is received.

In cases where the providing country is another than the country of origin of the biological material, information about the country of origin shall also be included. Country of origin shall in this context be understood as the country where the material was taken from its natural environment, under in situ conditions. If the national legislation of the country of origin requires prior informed consent for use of biological material, the application shall include information regarding whether such prior informed consent has been given. If information described in this section is not known, the applicant shall include a statement to this effect in the application.

These obligations to disclose information according to the first and second paragraph apply also when the inventor has altered the structure of the received material. The obligation does not apply to human biological material.

Non-compliance with (or violation of) the disclosure requirement is regarded as a public offence under Penal Code §166. Non-compliance with the disclosure obligation has no effect for the proceedings of the patent application or the validity of a granted patent.¹¹

This article will look into four questions of particular interest for better understanding this requirement in the Norwegian Patent Act:

- What kind of information is required?
- What triggers the obligation to provide such information? ➔



Lion sculpture outside Stortinget, the Norwegian parliament

Courtesy: Wikipedia

views that both the sovereign right over genetic resources and the benefit-sharing objective could be negatively affected (*ibid.* chapter 12, in particular 12.4 and 12.5). This document does not take a clear stand as to whether these effects are considered likely. However, in the preparatory works the disclosure requirement is presented as a measure to counterbalance the “negative effects” of expanding the scope of patent law as prescribed by the EU Directive. The choice of the term *avbøtende tiltak*, or “measures to prevent negative effects”, strongly indicates that the government in office when the Patent Act was proposed sub-

- What are the consequences of non-compliance or violation of the obligation?
- What are the limitations to the obligation?

Taken together, the answers to these four questions will help to elucidate the overarching question: To what extent will this legal measure taken by Norway increase the chances that benefits arising from the utilisation of genetic resources will be shared between the patent holder and developing countries?

The Information Required

The Norwegian Patent Act requires several different and complementary types of information:

- The providing countries from which the inventor received or collected the material;
- If prior informed consent (PIC) is required in the providing country, information about the existence of such consent should be included;
- The country of origin, if different from the providing country;
- If prior informed consent (PIC) is required in the country of origin, information about the existence of such consent should be included;
- In all four cases, if the required information is not known, the applicant shall include a statement about the lack of information in the application.

Providing Country and Its Prior Informed Consent

The content of this obligation is that the patent applicant must include information regarding the country from where the inventor received or collected the material (the providing country); and, if PIC is required, information on whether such PIC has been obtained.

This requirement refers to the country from which the patent applicant received the relevant biological material. Interestingly, the focus of the obligation is the *biological* material – not the *genetic resources*, as in CBD article 15, paragraph 7. Thus, the Norwegian obligation has a wider scope than the benefit-sharing obligation set out in CBD Article 15, paragraph 7, but does not incorporate the concept of “country of origin of genetic resources” under which a country can only be considered a provider of genetic resources if it has “acquired the *genetic resources* in accordance with this Convention.”¹²

The obligation is a broad one, and targets information about countries rather than about the actual provider (*e.g.*, another company or an academic institution). Patent applicants are expected to give information about the *final* step or transaction: they are not required to keep track of each step or transfer of the said resource or its legal provenance. This implies that a reference to another user country that provided the biological material, possibly acting only as a transit location, would be sufficient to meet this part of the obligation. If the patent applicant has received the biological material from another person or entity within Norway, then Norway would be the providing country for the purpose of this law. If the law were to require the applicant to provide more detail regarding the name of the (private or public) entities that actually provided the biological material, – the material – this could enable identifica-

tion of the actual country entitled to benefit sharing. In most cases, only patent applicants (and the entities providing them with material) will know from where or from whom they obtained the material used in their research and development work.

If the national legislation of the providing country requires PIC for use of such material, the application must state whether such consent has been granted. This does not include any obligation to disclose the conditions in the PIC or even to attach a copy of the PIC. In terms of transparency, surely it would be more effective to include an obligation to attach the PIC, so that information about the content of the consent would be publicly available. This would make it easier for providing countries to see whether users of biological material for genetic resources purposes comply with the obligations. For the patent applicant, it would not be very difficult to include a copy of the PIC in the patent application, thereby promoting transparency. Thus, this element of the Norwegian requirement is a fairly soft obligation on the patent applicant.

There is a practical and important exemption from these two obligations: if such information is not known to the patent applicant, the applicant shall include a statement to this effect in the application. This implies on the one hand that simply informing of the lack of information will fulfil the requirement. On the other hand, the obligation to state the lack of information is important, given the consequences of non-compliance with the obligation (as is clear from the choice of article §166 in the Norwegian Penal Code).

Country of Origin and Its Prior Informed Consent

The second requirement is to provide information about the *country of origin* of the biological material. This obligation is triggered if the providing country is not the same as the country of origin. In the CBD, “country of origin” is to be understood as the country where the genetic resource was taken from its natural environment, under *in situ* conditions (CBD Art. 15.3). In the case of transit countries and if the resource was obtained from the home country of the patent applicant, the latter is also required to provide information about the country of origin. This expands the obligation explained above.

This obligation is also suspended if the patent applicant does not know the country of origin. This exception is a practical one, as biological material will often have multiple countries of origin. Such lack of information would also trigger a requirement to state that the information is not known to the patent applicant. The reason for requiring such a statement of lack of information must be understood in light of the paragraph in the Penal Code (see below).

If the national legislation of the country of origin – if known – requires prior informed consent for use of biological material, the application must include information regarding whether such prior informed consent has been given. This obligation also extends only to providing information stating whether PIC has been granted – it is not necessary to include the terms of the PIC or a copy of it.

One general observation in relation to all these four alternatives is that even if the scope of information re-

quired seems comprehensive, it does not oblige the patent applicant to present documentation of the legal provenance or any documentation of the benefit-sharing arrangements that follow from utilisation of the material. The focus is merely on information on where the biological material was obtained or originated. The Norwegian obligations do not require any documentation of the benefit-sharing arrangements that have been provided by the patent applicant. Thus, there is a discrepancy between the objective in the CBD of fair and equitable benefit sharing and the type of information required. From both the perspectives of creating transparency and providing the actual benefit sharing, to require information about the actual benefit sharing that the patent applicant has done or is obliged to do (according to an access contract) would be more likely to meet the overall objective and obligation of CBD Article 15, paragraph 7. Industry has claimed that it would not be feasible to provide such information. Why this would not be feasible is, however, not easy to understand: all private companies are, for example, obliged to provide detailed information about their financial and accountancy results to the government; it is not intuitively evident what would be difficult about requiring them to give information about the expenses they have had and will have concerning benefit sharing in relation to each patented invention. According to the requirements of the Norwegian Patent Act, only information about countries of origin or providing countries and whether there exists a PIC will be generated. It will be a difficult challenge for all developing countries to maintain an overview of patent applications in Norway just to be informed whether a patent applicant has named a developing country as either the source or providing country. This will certainly provide information, but to what extent this information will be useful for developing countries is more dubious.

Triggers of the Obligation to Provide Such Information

The main trigger for this obligation is “if an invention concerns or uses biological material”. This implies a broad obligation, as there need only be some degree of relationship between the material received and the invention. According to the wording, the invention must *concern* or *use* the biological material. Clearly, this will cover patents that are based on naturally occurring biological material or elements thereof. The obligation extends, also according to the wording, to inventions that are based on material that has been processed or altered biologically compared to the original received material. However, it is not required that the patent claims cover the identical biological material, nor does the patent need to be a patent on naturally occurring biological material in order for the obligation to provide information to be triggered. The obligation applies also when the invention *uses* biological material.

The term “when an invention concerns or uses” biological material is open to interpretation, and has not yet been tested before a court. It targets the biological material that has been used as a basis for the invention. The degree of dependency or similarity between the biologi-

cal material and the invention seems quite low, to judge from the wording. One question certain to arise is whether the obligation is triggered by the development of a product utilising biological material, but where the product (patent product) itself is non-biological. The Norwegian Patent Act goes on to specify: “these obligations [...] apply also when the inventor has altered (or changed) the structure of the received material”. This specification underscores the attempt to give broad scope to the rule, by including genetic modification. Also if nanotechnological inventions use biological material, those inventions could be covered by the scope of the disclosure requirement. From the general observation about the triggering point for the obligation, it would seem that the obligation is easily triggered.

To prove that an invention “concerns or uses” biological material is, however, not always easy. This in turn implies a challenge when it comes to applying and enforcing this obligation upon private parties. The difficulties involved in proving the use of biological material as a basis for an invention might become problematic for the effectiveness of the obligation. This is particularly so since the consequences of not meeting the obligation are to be dealt with within the framework of the Penal Code, which operates with stricter standards for evidence than private law in general. The difficulties of proving these dependencies between biological material and the patented invention could render the disclosure requirement less effective in contributing to benefit sharing, even though the wording may indicate a strict obligation.

Consequences of Non-Compliance

The consequence of not meeting the obligation according to Norwegian legislation is as follows: “*Non-compliance with the disclosure obligation has no effect for the proceeding of the patent application or the validity of a granted patent*”. (Patent Act §8b). The reason for this formulation is to make the disclosure requirement compliant with the EU Patent Directive which prohibits rejection of a patent application as a consequence of not complying with the obligation. The consequences are specified by two elements: (1) non-compliance “has no effect for the proceeding of the patent application”, thus work with the patent application shall proceed as normal, without waiting for such information to be provided; a patent will be granted if the general patent criteria are met; and (2) lack of information shall not have any effect on the validity of a patent after it has been granted. Therefore, the validity of a patent cannot be challenged on the grounds that the disclosure requirement has not been met.

Non-compliance is to be dealt with outside the patent system, being “regarded as a public offence as far as it is covered by §166 of the Penal Code”. The essence is that *incorrect* information could be regarded as a public offence when the lack of information would be in violation of §166. Thus, the lack of information according to the Patent Act §8b is not sufficient evidence of guilt: the criteria in the Penal Code §166 must also be met. According to the wording of §166, incorrect information is to be regarded a public offence only “as far as it is covered by”

this particular paragraph in the Penal Code; this means that whether the lack of information will be deemed a public offence in Norway depends on whether this falls under the scope of §166 of the Penal Code:

... anyone who, orally or in writing, delivers a false statement to a public authority, before which he has a duty to appear, can be punished with fines or imprisonment for no more than two years ... (unofficial translation)

This paragraph only covers false statements. Lack of information as such is not an offence. Lack of information is only a crime in the cases where the person has stated that the given information is correct and complete. This article in Norway's Penal Code has a narrower application than the impression given by paragraph 8b of the Patent Act (quoted and discussed above). Also §166 of the Penal Code must be interpreted in the context of general Norwegian criminal law: The false statement must be given *deliberately*; this is the regular requirement for such an act to be deemed illegal, according to §40 of the Penal Code. *Deliberately* is a very precise criterion and is interpreted strictly by the courts.

Applying the general Penal Code for this purpose involves several challenges. First, this paragraph in the Code is a general one, and its wording is not particularly well suited to the case of providing wrongful information to the Patent Office. This might not be a significant obstacle to using this legal means. Secondly, certain challenges arise in connection with applying the Penal Code: (1) The lack of information (or the false statement) must come to the attention of the investigating authorities, and the police will have to allocate resources to this type of investigation. It seems realistic to assume that the resource situation in the police will probably mean that priority is given to investigations in areas other than lack of information in patent applications. (2) The prosecutor must investigate whether the information is wrongful, and must provide sufficient evidence of a criminal act. This investigation process is a difficult one; and it will require resources. In turn this means it will compete with resources spent on investigating other crimes in Norway. It does not seem unlikely that the police will consider other types of crimes more important and consequently not focus on such investigations. (3) The burden of proof lies with the public prosecutor. The patent applicant possesses all the relevant information, whereas the public prosecutor has very limited access to the same information. It is exceedingly difficult to prove, before a court, that a false statement has been given, also because the source of the biological material is difficult to prove. The standard for the burden of proof under the Penal Code is that the court must find it proven *beyond any reasonable doubt* that (1) the information was a false statement, and (2) that the information was *deliberately* given incorrectly or wrongfully. Neither of these points is easily proven. Against this background, we may conclude that there exist several crucial obstacles in connection with using the Penal Code and the regular police authority to promote benefit sharing under the CBD.

Patent applicants found guilty of false statement(s) about the origin or the provider or regarding the lack of

prior informed consent of the material face imprisonment for a maximum of *two years* or *fines*. This in turn leads to an interesting question from the benefit-sharing perspective: To what extent will convicting a patent applicant or patentee of a crime serve to promote benefit sharing? The legal consequence of a penalty verdict is that a fine must be paid to the Norwegian government – not that any benefits must be shared with the provider or the country of origin. There is no direct relationship between requiring a patent applicant to pay a fine and meeting the objective of the CBD. A court decision that finds a patent applicant or patentee guilty will not as such lead to any benefit sharing. Thus, even if Norway's Patent Act is, in an international context, regarded as a strict type of disclosure requirement (Hoare and Tarasofsky 2007), the lack of linkage to the objective of the CBD and other details in the regulation such as the burden of proof prevent it from fulfilling the benefit-sharing commitment in the CBD.

Norwegian Patent Application: Limiting the Scope of the Obligation

A further limiting factor is the fact that the obligation applies only to patent applications addressed directly to the Norwegian Patent Office. There are practical exemptions to this: The first situation where this requirement does not apply is when the application for a patent in Norway was sent via the system under the Patent Cooperation Treaty (PCT), WIPO. In such cases, PCT Article 27 prevents countries from imposing different or additional requirements to the content of a patent than those listed in that treaty.¹³

Second, in June 2007 Norway decided to join the European Patent Organisation (EPO). In EPO there is no similar requirement as to disclosing information. A *European patent application* will follow the requirements of the EPO and not the country-specific requirements according to the Norwegian Patent Act. Thus, the disclosure requirement in the Norwegian Act could be avoided by applying for a European patent rather than going through the Norwegian Patent Office. The opportunity for a patent applicant to file through the EPO rather than having to follow the stricter regulations involve in filing the patent directly in Norway might lead patent applicants to choose the EPO rather than a national application. It is too early to say much about the effects from this, but these two approaches to circumventing the disclosure obligation will probably also serve to limit the effect of the information requirement.

Is the Disclosure Requirement Likely to Promote Benefit Sharing?

This leads us to the main question in focus here: Is it likely that this legal measure taken by Norway will promote sharing of the benefits that ensue from the utilisation of genetic resources? It could be argued that the general effect of penalty law is to motivate citizens to comply with what is required of them. If the use of the Penal Code has this effect, it might lead to an increase in the information made available about the origins and providers of genetic resources and prior informed consent. That in turn

would lead to greater transparency and might motivate patent applicants to comply with CBD regulations in developing countries. However, these effects are very indirect and therefore also somewhat uncertain.

We have noted the discrepancy between the objective and obligation according to Article 15, paragraph 7 of the CBD and the scope of the obligation according to the Norwegian Act. Even if patent applicants do provide complete information about the origin and provider of the genetic resources, or prior informed consent of their use,



Typical Western Norwegian landscape with village (Geiranger)
Courtesy: Wikipedia

there is in this no causal link to the promotion of benefit sharing. Thus we can note a discrepancy between the information required, and the objectives and obligations of the CBD. The preparatory works of this amendment in the Patent Act were not very clear in identifying expectations concerning the extent to which it was intended to fulfil the obligation according to CBD Article 15, paragraph 7. If the intention of the Norwegian government had been to encourage *benefit sharing* (and not merely ensure that information is provided about origin, provider and consent), then documentation of the actual sharing or contractual obligation to share benefits should be required as information attached to the patent application. Although presumably well-meant, the existing obligation seems unlikely to have any effect in terms of actual benefit sharing.

Disclosure Requirements in the Draft Nature Diversity Act

The proposed draft of the Nature Diversity Act of Norway is comprehensive in scope, covering topics that range from genetic resources to rules for compensation for national parks established on private land. It addresses the matter of benefit sharing thus:

To impose an obligation to give information about the providing country and country of origin will contribute to openness and control involving the use of genetic material from other countries. These measures do not solve the challenges related to fair and equitable benefit sharing.¹⁴

A first observation is that the drafting committee emphasises “openness” about information rather than focusing

on contributing to benefit sharing. Moreover, the committee openly admits that a disclosure requirement is not sufficient to achieve benefit sharing, and goes on to say that the question of benefit sharing cannot be solved by Norwegian legislation alone. It refers the issue of benefit sharing to the international level, and adds that it is the providing country that should impose conditions for the exchange and later use of genetic material. In the Draft Act there are no proposals concerning legislative, administrative or policy measures to ensure compliance with the obligation of benefit sharing as required in CBD Article 15.7 (see Tvedt and Young 2007). Thus, there is no clear user-country perspective on genetic resources and benefit sharing. On the other hand, this Draft Act proposes a new §60, general in scope, on providing information regarding “genetic material from other countries”:

Import for the purpose of utilising genetic material from a country which requires prior informed consent for either utilisation or for export may take place only in compliance with such prior informed consent. The entity with the genetic material in hand is bound by the conditions imposed on the use of the material. The Norwegian government can, by court case, enforce the said conditions.

When genetic material from another country is utilised in Norway for academic research or economic purposes, the material is to be accompanied by information about the providing country. If the providing country requires prior informed consent, information regarding whether there has been such prior informed consent shall accompany the material.

If the providing country is another than the country of origin, information about the country of origin shall also be given. Country of origin means where the material was found in natural conditions (in situ). If the country of origin requires prior informed consent, information on whether such prior informed consent has been given shall be supplied. If such information is not known, the user shall state the fact of this lack of information.¹⁵

The type of information suggested here is similar to that already required in the Patent Act, but goes somewhat further. This rule will be general in scope and not be linked to *patenting* of biological material. The triggering point for the obligation on provision of information is the *import* of the material to Norway. Also, the obligation to provide such information does not end once the material is within the borders of Norway, as the one entity *possessing* genetic material is obliged to have the same information. This means a broader obligation on the users of biological material in Norway. There is, however, no reference to the Penal Code, so failure to have or provide this information is not a public offence. This implies that this proposal is less enforceable than the disclosure requirement in the Patent Act. There exists no similar time-point for control of whether the information exists or not. Also such information is not made publicly available, as is the case with patent law, since there are no public records of the users of biological or genetic material in Norway. This suggested general obligation might to some extent raise

awareness about access legislation in other countries. It will have a very limited effect as regards transparency, since the information is not to be published or made available – merely to be held by the individual user. From a benefit-sharing perspective, this obligation might encourage users of genetic resources to seek PIC from the providing country or the country of origin. The position taken by the drafting committee also emphasises that disclosure requirements cannot solve the benefit-sharing issue without being part of more comprehensive user-country legislation.¹⁶

The Draft states: “*The entity with the genetic material in hand is bound by the conditions imposed on the use of the material*”. This is an attempt to make the terms and conditions in the prior informed consent given to the use of the genetic material binding for all new users of the same genetic material. This is an interesting obligation, as the intention is to oblige all users of genetic material to abide by the conditions once set in a prior informed consent. However, enforcing this obligation would seem to involve considerable obstacles. One means of enforcement is that “*The Norwegian government can, by court case, enforce the said conditions*”. However, the proposal does not specify how this should be done or which specific ministry or division of the Norwegian government should have responsibility for bringing such cases to court. In fact, the proposal fails to answer several complex questions, and has not yet been presented by the government to the Norwegian Parliament.

The principle of requiring all later users to meet the original obligation and the establishment of a governmental responsibility to enforce the obligation are interesting ideas worth exploring further, at the national level and in the Ad Hoc Working Group on ABS under the CBD. To meet the benefit-sharing obligation in the CBD this should probably be coupled with a clearer and more specific benefit-sharing obligation upon private parties. It remains to be seen whether this proposal will form part of the final draft to be presented to the Norwegian Parliament, the Storting.

Conclusion

In the Norwegian context it might seem that implementation of the disclosure requirement was more of a political move by the Christian-Conservative government then in office to make implementation of the EU Directive less politically problematic for the minority members of the coalition, than a realistic move towards fair and equitable benefit sharing with the provider or country of origin of genetic resources. The discrepancy between the information required and the objective and obligations in the CBD needs to be carefully considered in assessing the potential effect of the obligation. Even if the Norwegian Patent Act goes further in requiring disclosure of information than what is up for negotiation in the WTO and WIPO, there remains a substantial gap between this and ensuring that benefits will in fact be shared in a fair and equitable manner.

Third World expectations that disclosure requirements as such in patent applications will bring benefits from the utilisation of genetic resources should be very low – if

the disclosure requirement is supposed to operate alone without a broader set of user-country measures and obligations.¹⁷ Observing the very high stakes and emphasis that the developing countries place on reaching consensus on imposing such a requirement in patent law in the WIPO and in the WTO, expectations as to what this will bring in terms of benefit sharing would seem unrealistically high. To be sure, disclosure of information could be a useful tool – but, judging from these observations on the Norwegian Act, disclosure should be understood as only one measure to enforce obligations upon users of genetic resources, rather than a final goal in itself. The WIPO/WTO negotiations where the developing countries aim at getting disclosure requirements imposed might prove a Pyrrhic victory. The developing countries might win the battle of imposing such a requirement upon patent applicants, but unfortunately there is no guarantee that the provision of such information will lead to any benefit sharing. If too much emphasis is given to getting the disclosure requirement accepted, and the developing countries give concessions to the industrialised countries in other areas of negotiations, the high expectations of benefit sharing will probably not be met. These observations drawn from the Norwegian Act should warn the developing countries: disclosure requirements in patent acts are not sufficient *per se* to guarantee fair and equitable benefit sharing.

References

- Biswajit, D. and Anuradha, R.V. (2004) “Access, benefit-sharing and intellectual property rights”, *Journal of World Intellectual Property* 7(5): 597–640.
- Bostyn, S.J.R. (2002) “A European perspective on the ideal scope of protection and the disclosure requirement for biotechnological inventions in a harmonised patent system: the quest for the Holy Grail?” *Journal of World Intellectual Property* 5(6): 1013–46.
- de Carvalho, N.P. (2005) *The TRIPS Regime of Patent Rights*. 2nd edition. The Hague: Kluwer Law International.
- Dross, M. and Wolff, F. (2005) *New Elements of the International Regime on Access and Benefit-Sharing of Genetic Resources: the Role of Certificates of Origin*. Germany: Federal Agency for Nature Conservation.
- Dutfield, G. (2002) “Sharing the benefits of biodiversity: is there a role for the patent system?” *Journal of World Intellectual Property* 5(6): 899–932.
- Finston, S.K. (2005) “The relevance of genetic resources to the pharmaceutical industry – the industry perspective”, *Journal of World Intellectual Property* 8(2): 141–56.
- Girsberger, M.A. (2004) “Transparency measures under patent law regarding genetic resources and traditional knowledge – disclosure of source and evidence of prior informed consent and benefit-sharing”, *Journal of World Intellectual Property* 7(4): 451–90.
- Hoare, A.L. and Tarasofsky R.G. (2007) “Asking and telling: can ‘disclosure of origin’ requirements in patent applications make a difference?” *Journal of World Intellectual Property* 10(2): 149–69.
- Nuffield Council on Bioethics (2001) *The Ethics of Patenting DNA*. London: Nuffield Foundation.
- Safrin, S. (1998) “Hyperownership in a time of biotechnological promise: The international conflict to control the building blocks of life”, *American Journal of International Law* 98: 641.
- Tvedt, M.W. (2006) “Elements for user country legislation to meet the fair and equitable Commitment”, *Journal of World Intellectual Property* 9(2): 189–212.
- Tvedt, M.W. and Young T. (2007) *Beyond Access – Exploring Implementation of the Fair and Equitable Sharing Commitment in the CBD*. Bonn and Cambridge: IUCN.
- Westerlund, Li (2001) *Biotech Patents – Equivalency and Exclusions under European and U.S. Patent Law*. Sweden: Faculty of Law, University of Stockholm.
- WIPO Study No. 3. *WIPO Technical Study on Patent Disclosure Requirements Related to Genetic Resources and Traditional Knowledge*. WIPO Publication No. 786(E).

Notes

- 1 For a comprehensive look at this disclosure requirement in patent law for biotechnology, see Bostyn 2002; Westerlund 2001: 77–182.
- 2 For further reading about work in the TRIPS Council of the WTO, see http://www.wto.org/english/tratop_e/trips_e/intel6_e.htm (search for disclosure or for document IP/C/M/52).
- 3 For further reading about work in the IGC-WIPO, see http://www.wipo.int/meetings/en/details.jsp?meeting_id=12522.
- 4 For further reading about work in the PCT-WIPO, see http://www.wipo.int/meetings/en/doc_details.jsp?doc_id=75116.
- 5 For further reading about work in the CBD, see <http://www.biodiv.org/decisions/default.aspx?m=COP-08&id=11016&lg=0> and <http://www.wipo.int/tk/en/genetic/proposals/index.html> (all sites accessed 16 April 2007).
- 6 For a more comprehensive discussion of the benefit-sharing obligations according to the CBD, see Tvedt and Young 2007.
- 7 This is the benefit-sharing requirement according to CBD Article 15, paragraph 7.
- 8 Biswajit and Anuradha 2004, Dross and Wolff 2005, Dutfield 2002, Girsberger 2004, Hoare and Tarasofsky 2007, Tvedt 2006, WIPO Study No. 3.
- 9 Although not a full EU member, Norway is linked to the European Union (EU) by various agreements. According to the main accord, the European Economic Agreement (EEA), Norway is obliged to implement new EU Directives if

they are accepted as legally binding by the member countries of EFTA, the European Free Trade Agreement (currently Iceland, Liechtenstein and Norway).

10 Denmark has implemented a similar requirement in the patent-related legislation: "If an invention concerns or makes use of biological material of vegetable or animal origin the patent application shall include information on the geographical origin of the material, if known. If the applicant does not know the geographical origin of the material, this shall be indicated in the application. Lack of information on the geographical origin of the material or on the ignorance hereon does not affect the assessment of the patent application or the validity of the rights resulting from the granted patent." *Bekendtgørelse om ændring af bekendtgørelse om patenter og supplerende beskyttelsescertificater number 1086 af 11/12/2000*.

11 Unofficial translation for the purpose of this article.

12 CBD Article 15.3, emphasis added.

13 "National Requirements: (1) No national law shall require compliance with requirements relating to the form or contents of the international application different from or additional to those which are provided for in this Treaty and the Regulations".

14 *Naturmangfoldloven*, Nature Diversity Act 2004: 28, p. 532 unofficial translation for this purpose.

15 *Naturmangfoldloven* 2004: 28, draft §60, pp. 636–637 unofficial translation for this purpose.

16 For a thorough analysis of user-country legislation, see Tvedt and Young 2007.

17 For further reading, see Tvedt 2006; Tvedt and Young 2007.



Germany

German Environment Prize 2007

Beate Weber, former Mayor of Heidelberg, was one of the 2007 laureates of the German Environment Prize (the most prestigious award of its kind in the country).

Before becoming Mayor, she was Chairman of the Environment Commission of the European Parliament from 1984–1989. Since her retirement, she has been the Deputy Chairwoman of the World Future Council.

Recognition of Beate Weber is not only important for the City of Heidelberg, but for all those working in communities towards implementing Agenda 21.

