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## Interests and policies of the state of Sarawak, Malaysia regarding intellectual property rights for plant derived drugs

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### Abstract

Sarawak, on the island of Borneo, is known internationally for its rich rain forests, flora and fauna. Its rain forests, occupying two-thirds of its geographical area shelters 2500 tree species, 5500 flowering plants and over 20 000 different kinds of animals and insects. Such abundance of plants, and in particular, in the variety thereof, have attracted the attention of scientists involved in the field of research into their potential medicinal value. Recent discovery that two species of *Calophyllum* tree in the rain forests of Sarawak produce active anti-HIV agents, has, no doubt, intensified interest in the State's plant resources for scientific research.

**Keywords:** Rain forest; *Calophyllum*; Medicinal plant research; Sarawak

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### 1. Introduction

We in Sarawak have noted that currently a great deal of effort is focused on the discovery of new drugs and pharmaceutical products from biological resources indigenous to third world countries, such as Malaysia and, in particular, Sarawak. The rapidly expanding biotechnology industry, especially in developing countries, has also generated intense commercial interest in the collection of biological material. While the world's pharmaceutical market had an estimated value of approximately US\$150 billion in the late 1980s, revenues from biotechnology-derived products in the USA alone (where the

majority of American biotechnology companies have a strong focus on human health care products) were estimated at US\$2 billion in 1990 (Sassons, 1983).

The State Government welcomes research or studies into the potential of its plant resources for medicinal or pharmaceutical usage. As a State within a Federation that has signed the Convention on Biological Diversity, Sarawak wants to see that the primary objectives of this Convention (Appendix I) are achieved, namely, the conservation of biological diversity, the recognition of her sovereign ownership over such resources, the sustainable use of its components and the fair and equitable sharing of

benefits arising out of the utilization of these resources.

## **2. Problem on the sharing of benefits from drug discovery and development**

While the biological resources belong to the State of Sarawak, the study and research into the use of such resources for the development of pharmaceutical products are primarily carried out by scientists from the developed countries and in laboratories outside Malaysia. Such a situation brings about two inherent problems. First, the difficulty in sustaining Sarawak's claim for any intellectual property or patent rights to the 'invention' derived from the State's plant or marine resources because, legally, whether a product was originally derived from plant or marine life is not a pertinent consideration in regard to the grant of a patent. Second, the difficulty in securing for Sarawak, any benefit, if at all, both monetary and technological, from the development of any pharmaceutical products based upon resources indigenous to the State of Sarawak.

Further, the Convention on Biodiversity recognizes the traditional dependence of many indigenous communities, embodying traditional lifestyles, on biological resources, and the desirability of sharing equitable benefits arising from the use of traditional knowledge, innovations and practices relevant to the conservation of biological diversity and the sustainable use of its components. The knowledge of the indigenous people of Sarawak on the medicinal properties of the plants or their components and on their traditional practices are invaluable to those who undertake scientific research into our indigenous plants. In such a case, the Sarawak Government will have to insure that the contribution of our indigenous people towards the utilization of our biological resources for medicinal purposes are acknowledged and adequately rewarded.

## **3. Concerns**

Thus, Sarawak is rightly concerned about the need to protect its indigenous biological resources and the exercise of its sovereign rights over such resources, in order to secure for itself and its peoples any benefits derived from the exploitation of its plant and marine resources. Such concern is indeed shared by many of the developing countries where most of the world's biological diversity is found. The Manila Declaration (Appendix IV), issued at the Seventh Asian Symposium on Medicinal Plants in 1992, demonstrated the feelings of scientists in Asia that, to date, the rather extensive use of biological resources, especially plants with known medicinal properties, has not brought any direct benefits to either the scientists in Asia or contributed towards the economic development of the Asian countries. The Declaration itself recommended that Governments in the Asian region provide for adequate legislation to exercise control over the collection, export or research on biological resources.

## **4. Regulatory guidelines**

In line with the principles embodied in the Convention on Biodiversity and the recommendations of the Manila Convention, the State Government of Sarawak feels that it is necessary to create certain mechanisms to regulate the collection of plant materials and to protect intellectual property rights associated with the biological resources of Sarawak, as well as to insure that these resources are properly conserved and not exploited in a manner that would ultimately be injurious to the country, its environment and, perhaps, the human community as a whole.

Therefore, Sarawak has introduced guidelines and regulations on the use of biological and genetic resources of the State for scientific and pharmaceutical research. These guidelines cover

the access by both foreign and Malaysian nationals to plant materials found in the forests on State's land, both communal and protected forests, for scientific research. A permit system will be introduced, so that no one can undertake collection of plant materials for scientific research without a permit issued by the government. A permit will only be issued after the applicant has entered into an Agreement with the State as regards the following:

- (a) use of the plant materials;
- (b) supply of information and data on materials taken;
- (c) results of research undertaken;
- (d) right of the State to patents or intellectual property; and
- (e) royalties and compensation in the event that the research results in the discovery and development of any drug or pharmaceutical products.

The new rules will impose a strict requirement for the participation of local scientists in the collection and research processes, in order to insure the transfer to the State, of technology and knowledge derived from studies undertaken on Sarawak's resources. Arrangements will have to be made by the permit holder to carry out as much of the research as feasibly possible within Malaysia.

All these measures are necessary to ensure that Sarawak, in particular, and Malaysia, in general, benefit from the process of scientific research which utilizes the State's plant resources. Also, with the transfer of knowledge and technology resulting therefrom, the State and its scientists should be able to legitimately acquire or claim entitlement to patents and intellectual property rights over plant-derived drugs and will benefit from their active participation in such research.

## 5. Discussion

The position which has been undertaken by

Sarawak is not intended to deny access to its plant genetic resources. It is a valid and justifiable stance, because the State wants to see that the exploitation of its plant resources for scientific research, including pharmaceutical development, brings tangible benefits to Malaysia. It is not the intention of the State to create a hindrance in the way of research by foreign institutions or corporations into its rich biodiversity or to deprive mankind of the benefit of the biological resources of the State.

We in Sarawak also realize that the problems of conservation of plant genetic resources have already become a geopolitical issue, the resolution of which, in the opinion of this author, calls for the formulation of some standard or uniform form of agreement between the developed countries, the party desiring to use the resources, and those which have sovereign rights over the resources as recognized by Resolution 1803 of the United Nations General Assembly. Such an agreement, which should be legally enforceable under International Law, must recognize the rights of States to formulate regulations to control the export of these genetic resources, to be compensated for their use and ownership of patents and intellectual property rights over the plant materials, as well as the substances derived from them. The agreement should also acknowledge the contribution by and rewards for the indigenous people who possess special knowledge of the medicinal value of certain plant materials in their country, while, at the same time, guaranteeing access to plant genetic resources of the States through an internationally coordinated network for their collection and propagation. This form of agreement is essential, in view of the fact that the disparity of monetary and technological resources between the developed (who want to use the resources) and the developing countries (who own the resources) is such that fair and equitable arrangements, which confer reciprocal benefits, are often difficult to achieve.

## 6. Conclusion

This paper serves to express the views held by the State Government of Sarawak on the collection of and research into its vast and rich biological resources for medicinal or pharmaceutical purposes. It reiterates the genuine concerns of a developing State, that, unless proper

control is instituted to regulate the collection and use of its biological resources, the State may get none of the benefits derived from its rich biodiversity.

## References

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