SINGAPORE

REPORT Q 159

in the name of the Singapore Group
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THE NEED AND POSSIBLE MEANS OF IMPLEMENTING THE CONVENTION ON BIODIVERSITY INTO PATENT LAWS.

The following comments are made in response to the specific questions set out in the Working Guidelines for Question Q159 to be considered by groups.

A) The national situation.

1. Singapore is a signatory to the Rio Convention on Biological Diversity, having signed on 10 March 1993. The Convention was ratified by Singapore on 21 December 1995.

2. Many aspects of the Rio Convention are not yet applicable in Singapore, particularly aspects relating to access to and commercial utilisation of genetic resources.

3. Notwithstanding the answer to Question 2. above, the Singapore government has formerly recognised that biological diversity is a major and valuable component of the environment and should be protected. Accordingly, committees and task forces established by the Singapore government since 1997 have investigated and reported on the need to enhance knowledge and understanding of biological diversity and access to Singapore's biological resources, including administrative, legal and action programmes.

   The laws of Singapore that have implications on nature conservation are:

   The National Parks Act 1996
   The Parks and Trees Act 1996
   The Wild Animals and Birds Act 1985
   The Endangered Species (Import and Export) (Amendment) act 1992
   The Public Utilities Act 1996
   The Jurong Town Corporation Act 1985
   The Fisheries Act 1985

   ("Singapore's First National Report under the Convention on Biological Diversity" The National Parks Board and the Report Drafting Committee, Singapore December 1997.)

4. At present Singapore has no specific national legislation regulating the access to or export of natural genetic resources, the sharing of the results of their use or the transfer of technologies using them. As mentioned above under paragraph 3, these matters have been the subject of a recent inquiry by the *The National Parks Board and the Report Drafting Committee*.

5. In general, patent and other intellectual property practitioners in Singapore are not fully aware of the potential impact on patent law of the Rio Convention, mainly because there are no specific provisions in the Singapore *Patents Act 1994* which relate to access to or use of genetic resources of Singapore or any other country.

6. Singapore is a member of the World Trade Organisation (WTO) and party to the TRIPS Agreement.

7. The TRIPS Agreement is already applicable in Singapore, as the Singapore *Patents Act 1994* was drafted to bring it into conformity with the TRIPS Agreement.

8. Decisions of the Intellectual Property Office of Singapore (the Singapore Patent Registry) in relation to the grant of biotechnology-related patents are based on standard patent law principles set down in the Singapore *Patents Act 1994* and developed by Singapore courts. To date, there have been no amendments to the Singapore *Patents Act 1994*, or decisions of Singapore courts which introduce consideration of aspects of the Rio Convention, particularly access to and commercial utilisation of genetic resources.

B) Possible means of implementing the Rio Convention into patent laws.

9. Singapore is a party to both the Rio Convention and the TRIPS Agreement, however the provisions of these are not rigid and at this stage it is not considered there are any contradictions between the Convention and the Agreement.

10. It is considered that AIPPI should confirm the resolutions adopted in Montreal in 1995 under Questions Q114 and Q128. Insofar as legal protection of biotechnology inventions is concerned, Singapore has no exclusion in the Singapore *Patents Act 1994* in relation to biotechnological and related inventions, other than a provision in Section 16(2) that "An invention of a method of treatment of the human or animal body by surgery or therapy or of diagnosis practised on the human or animal body shall not be taken to be capable of industrial application". Section 13(3) of the Singapore *Patents Act 1994* also states that " an invention the publication or exploitation of which would be generally expected to encourage offensive, immoral or anti-social behaviour is not a patentable invention." Hence, the Registrar may refuse to accept a patent application, or to grant a patent, for an invention the use of which would be contrary to public morality.

11. As indicated above, apart from Section 16(2) of the Singapore *Patents Act 1994*, there is no restriction in Singapore on the patentability of biological materials such as DNA, living tissues, etc., and the practice of the Singapore Patent Office is that patent protection can be obtained for inventions involving genotypically or phenotypically modified living organisms such as genetically modified bacteria, plants and non-human organisms. Even though such inventions are not excluded from patentability in Singapore, it is considered that exclusion from patentability of such inventions would have no influence on implementation of the provisions of the Rio Convention relating to access and use of genetic resources.

12. The position of Singapore in relation to the reservations of Article 27(3) of the TRIPS Agreement is that it considers that these reservations should not be available and that the optional exclusion of plants and animals from patentability under Article 27(3) should be removed. Once again, it is considered that the exclusion of plants and animals from patentability by national legislation would have no influence on implementation of the provisions of the Rio Convention on the access and use of genetic resources.

13. The Singapore *Patents Act 1994* contains no provisions for allocation of ownership of patent rights where the inventions rely on access to genetic resources themselves or on traditional knowledge for information concerning genetic resources. In the interim, although there are no legislative requirements setting out the conditions of access to a technology making use of genetic resources, there are examples of agreements being reached by commercial parties in relation to access to genetic resources in Singapore.

14. It is not considered that statutory provisions requiring the grant of a compulsory licence or allowing working of a patented invention without the owner's consent are appropriate measures for implementing the provisions of the Rio Convention on the access to and use of genetic resources. On the other hand, where an application for patent protection is made in respect of an invention which utilises genetic resources, it may be appropriate for the patent legislation to require that the applicant or owner of the invention has obtained access to and use of the genetic resources with the appropriate consent, (which may also involve entering into research and/or development agreements with the owners of the genetic resources and/or holders of traditional knowledge in relation to those genetic resources, including provision for fair and equitable sharing of the benefits arising from the access and use of those genetic resources).

15. No difficulty is seen to arise from the distinction in the Rio Convention between the resources which have been acquired prior to its entry into force (where the Convention does not apply to the working of such resources) and the resources acquired later. As noted above, Singapore experience regarding access to and use of genetic resources in the past has been varied, ranging from no consideration being given in relation to these issues or to situations where research and/or developments have been entered into in relation to access to and use of those resources.

16. As a general rule, it is considered that the most appropriate course would be that the negotiations between a party providing genetic resources and an entity desiring access to and use of those genetic resources should be free and without any statutory or similar constraint so that proper consideration could be given to the nature of the genetic resources and any traditional knowledge in relation thereto, as well as to the extent to which that access or knowledge is a factor in arriving at the benefits arising out of the utilisation of the genetic resource.

Summary

Singapore is a country having limited biological diversity due to its small size and history of urbanization, and issues of access to and use of its genetic resources and/or traditional knowledge relating to those genetic resources have received little attention in

recent years, although in view of the Rio Convention on Biological Diversity the Singapore government has proposed some action. At present, Singapore's intellectual property laws contain no significant restriction as to patentability of biotechnological and related inventions, nor are there any provisions in these laws which relate to matters of access to and use of genetic resources and/or traditional knowledge. In view of the current consideration being given to these matters, it does not seem likely that a scheme will be introduced for control of access to Singapore's genetic resources, however it cannot yet be predicted what, if any, impact such a scheme will have on Singapore's intellectual property laws.

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