

Editorial

Genetic Resources and Traditional Knowledge of Traditional Medicine

Most traditional medicines make frequent use of drugs made from plants, animals and minerals that exist in the natural world. In most cases, the majority of these ingredients are dependent on each country's specific genetic resources that are a product of Earth's biodiversity. Genetic resources that are relevant to traditional medicine have the potential to bring about a profit as intellectual properties, and are thus posing an international issue regarding ownership today.

For example, India and its neighboring countries are attempting to formulate basic rules on access rights and profits gained from genetic resources that are used in traditional medicine in their countries. From an industrial aspect, China is working on the International Organization for Standardization (ISO) to promote the international standardization of Chinese medicine. Additionally, in South Korea, *Dongui Bogam*, a traditional book on traditional medicine in South Korea, has been inscribed on UNESCO's Memory of the World Register in 2009, and in China, Chinese acupuncture and moxibustion has been inscribed as an Intangible Cultural Heritage in November 2010, following the country's declaration of intent in September 2010. These movements are part of the countries' important cultural strategy to preserve and disseminate their national culture to the world. At the same time, they are movements that regard traditional medicine not only as a medical resource but also a cultural resource. As such, they aim to protect traditional medicine as an industrial resource based on a national strategy concerning intellectual properties, and to precedently secure national ownership of traditional medicine at the same time. Not only traditional medicine, but modern Western medicine also faces the same issue. According to a certain survey, more than half (52%) of all new chemical entities (NCE) contained in the 1,031 Western pharmaceuticals that were approved between 1981 and 2002 were derived from a natural product. In other words, in modern Western medicine, as in traditional medicine, genetic resources and traditional knowledge are indispensable for the development of new drugs.

However, issues in genetic resources and traditional knowledge surrounding traditional medicine and modern Western medicine are discussed today from a vertical "silo approach" by institutions and conventions related to the environment, culture, agriculture, industry, trade, intellectual property, and medicine. These include the United Nations Environment Programme (UNEP), the Convention on Biological Diversity (CBD), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the Food and Agriculture Organization of the United Nations (FAO), International Organization for Standardization (ISO), World Trade Organization (WTO), the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs), the World Intellectual Property Organization (WIPO), and the World Health Organization (WHO). Yet, matters that pertain to a wide range of fields are intricately intertwined, such that they are no longer matters that could possibly be solved by any single institution alone. Moreover, with the constant bargaining and fighting between resource-rich countries (mainly developing countries) and resource-using countries (mainly industrialized countries), the issue is taking on the aspects of a North-South issue.

It is time we address the diverse issues in traditional medicine in each country from the comprehensive and organic perspective of genetic resources and traditional knowledge. From the standpoint of each country's national interests, issues revolving around the genetic resources and traditional knowledge of traditional medicine pose an unavoidable economic dispute among countries in the international community. However, in the interests of humanity beyond all national interests, traditional medicine in all its forms must not harbor any possibility of being threatened from existence and disappearing. This is because the disappearance of traditional medicine means the disappearance of a wisdom of humanity, which would limit humanity's diverse choices and possibilities for surviving an uncharted future and would also go against human interests. There will come a time when we have no choice but to explore, examine and realize "sustainable medicine for society" not at the national level, but on a global scale. When that time comes, the guarantee and safeguarding of the diversity of traditional medicine will play a part in expanding humanity's future choices and possibilities for surviving an uncharted future. It is essential that each country address the issues of genetic resources and traditional knowledge of traditional medicine in the light of national interests as based on the interests of humanity.

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