Chapter 4. A Healthy Look at the Nagoya Protocol—Implications for Global Health Governance

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Though a multilateral environmental agreement by nature, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilisation (Nagoya Protocol) may have critical implications for global health. By regulating access to genetic resources and the related benefit-sharing (ABS), the agreement is set to impact all those industries that are dependent on or make use of research and development on genetic resources.¹ This includes the pharmaceutical and health sectors. First, genetic resources are often utilised to develop new drugs. This can include, but is not limited to, the screening of compounds for biological activity, analysis of chemical structures and reactions, analysis of genetic sequences and the recombination of genetic materials.² Moreover, the use of genetic resources and associated traditional knowledge in the health sector has increased with the greater popularity of traditional medicine and nature-based cosmetic or food supplement products with therapeutic effect.³ Finally, access to genetic resources is of great importance for the development of vaccines as these are based upon the original pathogenic material. The process of vaccine development depends upon isolating or creating antigens that initiate effective immune response.⁴

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¹ See contribution by Oliva to this volume (Chapter 12).
⁴ WHO Department of Immunisation, Vaccines and Biologicals and Department of Epidemic and Pandemic Alert and Response, “Global pandemic influenza action plan to increase
and related benefit-sharing for the development of vaccines became apparent during the H5N1, or avian flu crisis that began in 2006. Indonesia, the country that reported the first human infections with this particular virus strain, had shared relevant virus samples with the World Health Organisation (WHO) for surveillance and research purposes. However, after learning about an Australian company applying for a vaccine patent developed on the basis of its sample, Indonesia refused to submit further samples to the WHO. Indonesia argued that it had never consented to the sharing of samples with private companies or to the commercial application of the samples or the derivatives and that the process, now limiting Indonesia’s access to said vaccines, was in violation of the principle of sovereignty over genetic resources as enshrined in the Convention on Biological Diversity (CBD) as well as internal WHO procedures. Indonesia was particularly concerned as it could not access the vaccines on the global market due to insufficient global production capacities and advance purchase agreements placed by developed countries.

In 2005, global production capacities for influenza vaccines were estimated to be 350 million doses which stood in stark contrast to the approximately 13.4 billion doses needed in times of pandemic to immunise the entire world population. This case exemplifies developing countries’ dilemma in relation to genetic resource-based medication. As their research and development capacities remain limited, most utilisation of genetic resources in the health sector takes place in developed countries. At the same time it is developing countries that are most dependent on new medication and access to vaccines, since pathogens often emerge within their jurisdiction and their poor populations are among the most vulnerable.


5 In the following, H5N1 is used to refer to the Asian lineage subclade 2 of the highly pathogenic avian influenza (HPAI) strain H5N1 that was first discovered among Indonesian poultry in 2003; see World Health Organisation, “Avian influenza,” accessed 10 February 2012, http://www.who.int/mediacentre/factsheets/avian_influenza/en/.


8 Sedyaningsih, “Towards Mutual Trust.”

9 Martin Friede et al., “WHO initiative to increase global and equitable access to influenza vaccine in the event of a pandemic: Supporting developing country production capacity through technology transfer”, Vaccine 29S (2011): A2–A7.