

NAGOYA PROTOCOL FOR THE CONSERVATION OF BIOLOGICAL DIVERSITY

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Abstract. The Nagoya Protocol is an international mechanism that ensures the realization of sovereign rights of country Parties to the Protocol over their genetic resources and associated traditional knowledge and the achievement of the 3rd objective of the Convention on Biological Diversity.

Key words: the Nagoya Protocol, genetic resources, traditional knowledge associated with genetic resources



Species diversity loss is the most acute ecological problem of a global scale and to address it, in 1992, the Convention on Biological Diversity was signed in Rio de Janeiro. The Republic of Belarus ratified it in 1993, and since then it has been consistently pursuing a policy of conserving the diversity of biological natural resources.

A system of specially protected natural areas has been established in the Republic of Belarus for the *in situ* conservation. Activities are held to restore the populations of rare and endangered animal species. For example, the total number of individuals in free-living populations of the European bison constitutes 1886 units.

Special emphasis is laid on the *ex situ* conservation of biodiversity. In total, there are 10 genetic banks recognized by the government as the national heritage of the Republic of Belarus. The biggest ones are as follows: the National Bank of Plant Genetic Resources of the Republic of Belarus (more than 76.5 thousand collection samples of 1680 cultivated plant species and their wild relatives) and the Republican DNA Bank of a Human, Animals, Plants and Microorganisms (more than 13 thousand samples). The Scientific and Practical Centre for Arable Farming, NAS of Belarus, has developed jointly with the Food and Agriculture Organization (FAO) the draft 2020-2035 National Strategy for the Conservation and Sustainable Use of Plant Genetic Resources for Food and Agriculture.

Our State is an active member of the International Gene Pool and Related Information Exchange Networking (more than 120 contacts) and the European Cooperative Programme for Plant Genetic Resources (ECPGR), in the framework of which the European Catalogue (EURISCO) and the European Genebank Integrated System (AEGIS) are maintained.

Databases on biological diversity (www.biodiv.by) and on botanical collections, including data on agricultural crops (<http://hbc.bas-net.by>) and on biosafety (<http://biosafety.by>), are in the public domain.

The Nagoya Protocol, which entered into force in 2014, aims to promote the 3rd objective of the Convention on Biological Diversity – the fair and equitable sharing of the benefits arising out of the utilization of genetic resources and traditional knowledge over which each country Party to the Protocol has its own sovereign rights, including through providing legal access to them and deriving the fair and equitable benefits arising from their utilization.

The Protocol shall apply to the natural fauna and flora, the collections of entire organisms, tissues, cells and DNAs (DNA Banks); valuable living organisms used in the production, as well as genetic resources used for food and agriculture. The main objective of the document is to provide international assistance in the development of national legislation on the protection of rights of the providers of genetic resources and traditional knowledge associated with them to the benefits (both kind and in-kind), which users derive as a result of their utilization.

A comparative analysis of the legislation of the Republic of Belarus and of other countries in force, as well as practices they apply to integrate a mechanism for access to genetic resources and benefit-sharing (ABS), allows making the conclusions as follows:

- *An issue related to the implementation of ABS provisions shall be considered as an acute one for all country Parties to the Convention on Biological Diversity;*
- *There is no universal mechanism to implement the Protocol's provisions (the pace and scope of normative material, types of genetic resources' use and etc. are different), which is determined by the flexibility of Article 6 of the Nagoya Protocol "Access to Genetic Resources".*

With that in mind, Belarus should choose an individual implementation strategy, taking into account its own priorities.

An analytical review of the national legislation for its compliance with the Nagoya Protocol has showed as follows:

- *Legislative acts, which regulate handling of plant and animal world objects, do not include the Nagoya Protocol-related issues;*
- *The national legislation, regulating the conservation of genetic resources including those that are used in agriculture as well as microorganisms, gives no consideration to the fact that the Nagoya Protocol has been accessed to and no related frameworks have been developed yet;*
- *Belarus has not conducted targeted research on traditional knowledge associated with genetic resources and no legislative regulation in this area has been developed, especially with regard to the intellectual property rights of traditional knowledge holders*
- *No liability measures for legal persons and individuals for the cases of incompliance with the Protocol have been established.*

The Nagoya Protocol is closely intertwined not only with the Convention on Biological Diversity, but also with other International Treaties related to the biological diversity, e.g. the Convention on the International Trade in Endangered Species of Wild Fauna and Flora (CITES). An absolute wildlife value relates to the environmental, genetic, social, economic, scientific, educational, cultural, recreational and aesthetic aspects of sustainable development and human well-being. Biodiversity loss, as well as poaching and

illegal trade in animals and plants, remain a major concern. According to foreign researchers, such illegal trade covers the markets of about 120 countries with the amount of about 7 thousand species.

The Nagoya Protocol's targets also resonate with Sustainable Development Goals (SDGs), especially with the Sustainable Development Goal 15 "Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss", since on a global scale almost half of the world's population is directly dependent on natural reserves that provide it with livelihoods.

Over the past 2 years, many country Parties to the Nagoya Protocol have been actively studying the criteria and parameters that will help assess the cost of genetic resources in economically significant values. At the present stage, the agreements between providers and users indicate only the transferred organism and the terms of its utilization. At the same time, about 27.1 thousand species of living organisms living in the wild have been registered in Belarus. However, the potential list may include more than 42 thousand species, taking into account research perspectives. More than 100 thousand genetically valuable plant and animal species are stored in the country's genetic banks and collections.

The Protocol obliges countries to designate Checkpoints to monitor the utilization of genetic resources (Article 17). It is also recommended that kind benefits derived by the provider country from the user country as a result of product commercialization should be directed to the conservation of biological diversity and genetically and economically valuable resources.

The Institute of Genetics and Cytology, NAS of Belarus, pursuant to the Resolution of the Council of Ministers "On the Establishment of the National Coordination Centre on Access to Genetic Resources and Benefit-sharing" has been vested with the functions both of the Coordination Centre and the Checkpoint. In order to implement its Article 17, a database is being developed to monitor the utilization of plant genetic resources under the "GENOFOND" programme, as well as a full database version that will allow monitoring the utilization of all types of genetic resources and traditional knowledge associated with them when being provided to foreign partners, and thereby ensuring the legality and transparency of exercised transfers, and in the near future, this will allow for the economic valuation of benefits deriving by both countries and their contribution to the conservation of biological diversity of each country.

Since 2017, Belarus has realized 7 transfers of genetic resources complying with Nagoya Protocol's provisions and issuance of Internationally Recognized Certificates of Compliance with its requirements for non-commercial use (scientific research): K.A. Timiryazev Institute of Plant Physiology of the Russian Academy of Sciences and the US Potato GenBank (potato); 2 transfers (100 birdlings) of the globally threatened species (the aquatic warbler, *Acrocephalus paludicola*) to the Baltic Environmental Forum (Lithuania) to create a new population in the Žuvintas Biosphere Reserve under the International Technical Assistance Project LIFE Magni Ducatus Acrola, LIFE15NAT/LT/001024 "Stepping Stones towards Ensuring Long-Term Favourable Conservation Status of Aquatic Warbler in Lithuania"; 103 filters with riverine invertebrates and fish DNA fixed by buffer to the University of Otago, New Zealand, to implement the joint Project "Using Aquatic Environmental DNA (eDNA) and Metabarcoding Surveys to Catalogue the Riverine Biodiversity of Belarus"; 40 fixed root samples of *Orchidaceae* to study the species

composition of fungi symbionts in *Orchidaceae* common for the flora of Belarus and Minnesota; Antarctic organism samples (fragments of tissues, bodies or thalli) to the Centre for Biodiversity Genomics, Canada, for scientific research. The transfer of genetic resources without applying to the National Coordination Centre on Access to Genetic Resources and Benefit-sharing, as well as obtaining of prior informed consent and concluding of mutually agreed terms, constitutes non-compliance with the Nagoya Protocol requirements, which is inadmissible for Belarus as a Party to the Protocol.

Proposals prepared by experts in law, ethnography and folkloristics in the framework of the International Technical Assistance UNDP-GEF Project “Strengthening of human resources, legal frameworks and institutional capacities to implement the Nagoya Protocol in the Republic of Belarus” have been directed to the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus responsible for the Nagoya Protocol implementation in the country. In particular, the national legislation is recommended to be brought into line with the provisions of this treaty and the liability measures both for the subjects preserving genetic resources and developing genetically and economically valuable organisms as a result of scientific and production activities to be specified for the cases of incompliance with the Nagoya Protocol. Realization of the submitted proposals will allow to ensure the legal transfer of genetic resources and traditional knowledge associated with them to foreign stakeholders and comply with the scientific and economic interests of our country.

Information related to the legal regulation of access to the genetic resources of our country is available at: <http://abs.igc.by>.

****Non-binding translation***