PARLIAMENTARY ASSEMBLY OF TURKIC STATES

COMMISSION ON ENVIRONMENT, NATURAL RESOURCES AND HEALTH PROTECTION

EIGHTH MEETING

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REPORT

PROTECTION OF BIODIVERSITY IN TURKPA MEMBER STATES

I. INTRODUCTION

1. In accordance with the Plan of Activities for 2023 of the Secretariat adopted during the 11th TURKPA Plenary Session held in Cholpon-Ata, the Kyrgyz Republic, it was decided to take up subject "Protection of biodiversity in TURKPA member states" for the eighth meeting as a main item of agenda.
2. The term biodiversity (from “biological diversity”) refers to the variety of life on Earth at all its levels, from genes to ecosystems, and can encompass the evolutionary, ecological, and cultural processes that sustain life. Biodiversity includes not only species we consider rare, threatened, or endangered but also every living thing - from humans to organisms we know little about, such as microbes, fungi and invertebrates.
3. Over the last century, the rapid development of anthropogenic activities on the planet has led to rapid ecosystem change and massive loss of biodiversity throughout the planet. Major direct threats to biodiversity include habitat loss and fragmentation, unsustainable resource use, invasive species, pollution and global climate change.

4. Opened for signature at the Earth Summit in Rio de Janeiro in 1992, the Convention on Biological Diversity (CBD) is the international framework for the conservation and sustainable use of biodiversity and the equitable sharing of its benefits.
5. “Life on land” which is the 15th Goal of the Sustainable Development Agenda 2030, with its specific goals and targets for protecting and promoting sustainable use of terrestrial ecosystems, sustainable management forests, combating desertification, and halting and reversing land degradation and halting biodiversity loss, is serving as a global compass for cooperation among states.
6. As the decision-makers of policies, governmental plans and budgets, the parliamentarians are the main players in deciding on legislation deriving from decisions from the Conference of the Parties to the Convention (COP). By creating, amending and ratifying laws, they can therefore translate the consensus reached internationally under the Convention on Biological Diversity (CBD) into tangible actions at the national and local levels. Parliamentarians can also strengthen the mandate of CBD National Focal Points, in their efforts to promote the implementation of the COP decisions and activities.
7. TURKPA member states address these issues at regional and international levels by taking concerted actions in the context of the Sustainable Development Goals (SDG) that serve as umbrella tasks for all the countries.
8. On its behalf, since establishment TURKPA Commission on Environment, Natural Resources and Health Protection held 7 Commission meetings and 6 workshops regarding the protection and preservation of the biodiversity in member states.
9. As can be seen from adopted documents, member states are very interested in addressing issues and finding solutions to the problems regarding biodiversity, also intend to develop and strengthen cooperation based on the principle of equality and reciprocity, on the basis of mutual benefit and in accordance with the legislation of their countries.
10. The purpose of this report is to work out priorities of regional cooperation on the issue. Report is based on the contributions received from the relevant ministries of Azerbaijan, Kazakhstan, Kyrgyzstan and Türkiye, as well as data of relevant international institutions.

II. BIODIVERSITY IN MEMBER COUNTRIES

AZERBAIJAN

11. Situated at the juncture of several bio-geographical areas, the country contains species of European, Central Asian and Mediterranean origin and forms an integral part of the Caucasus Ecoregion Azerbaijan also shares the Caspian Sea with four other countries (Russia, Iran, Turkmenistan and Kazakhstan).

12. There are up to 90 species of fish in the Azerbaijani sector of the Caspian Sea, of which 40 species and subspecies are of national importance. The only endemic mammal species living in the Caspian Sea is the Caspian seal.

13. More than 4,500 species of higher plants have been registered in the country, of which 240 are considered endemic species. Agricultural development is of significant importance for economic development. The country is also considered to be a center of origin for a number of globally important food crops.

14. About 25,000 species of invertebrates have been recorded in the country, 90% of which belong to the Arthropod type. Azerbaijan also hosts 698 species of vertebrates: fish (104), amphibians (11), reptiles (63), birds (405), mammals (115).

15. The following are the main influences affecting the biodiversity of Azerbaijan: (i) land degradation (extensive salinization, widespread soil erosion, weak regulation of building and construction activities, and pervasive use of fertilizers, pesticides, and herbicides); (ii) habitat fragmentation damming of rivers, expanding the network of irrigation channels in steppe ecosystems, outbreak of wildfires); (iii) unsustainable levels of natural resource use (overgrazing in grasslands and semi-arid areas, hunting of wild birds and game species, fishing, and poorly maintained water distribution systems); (iv) pollution (limited infrastructure and capacity for effective waste management, weak storage capacity for hazardous wastes, residual oil pollution, incoming municipal, industrial and agricultural wastes from trans-boundary rivers); (v) invasive species (marine and terrestrial spread); and (vi) climate change (weak adaptation and mitigation capacities).

16. Key biodiversity mainstreaming activities undertaken for each of the key production sectors in Azerbaijan are described below:

Energy sector: wind farm in the Gobustan rayon; hybrid solar-wind farm projects in Gobustan and Absheron; Yashma wind park project; Sumgait Power Station project; optimization of AzDRES; biogas installations in 5 upland villages; Balakhani Landfill projects; ISO 14001-compliant EMS developed for BP; and SOCAR 'zero-waste' strategy.
Agricultural sector: introducing state subsidies for cultivation costs associated with biofuels; developing large-scale cattle husbandry complexes for more intensive development of livestock; exempting approved agricultural producers from tax
Forestry sector: expanding the national forest coverage; greening urban areas; and rehabilitating the ecological functioning of degraded forests.

Water sector: construction/expansion of water-sewage treatment plants in regions; and installation of module type water treatment facilities in villages.
Fishing and aquaculture sector: new draft version of the 'Law on Fishing'; 12 fish breeding enterprises (sturgeon, carp and salmon); enforcement of fishing quotas and restrictions, notably sturgeon.
Impact management: draft law on 'Assessment of Environmental Impact'.

KAZAKHSTAN

17. With a vast territory almost the size of Western Europe, Kazakhstan is endowed with an enormous diversity of mountain ecological systems due to high altitude zones. It has a great diversity of natural conditions, ecosystems and species.
18. Four major ecological systems can be defined: forest (2% of the country), steppe (28%), desert (32%), and mountain (7%). The rest comprises pastures (8%), fallow lands (4%), and agricultural land.
19. Over 6,000 species of higher vascular plants, 5,000 species of mushrooms, 485 species of lichens, 2,000 species of sea weeds, 178 mammal species, 489 bird species, 12 amphibian species, and 104 fish species can be found in Kazakhstan.
20. The main pressures on biodiversity in Kazakhstan are linked to oil and gas extraction; coal extraction; extraction of uranium and other minerals; rock and slag run-off; atmospheric pollution; draining; waste storage; road construction; electric power transmission lines; oil and gas pipelines; channels and water reservoirs; and irrigation. All of these activities contribute to biodiversity loss in a number of different ways, among which are the contamination of water cavities, soils, subsoil

water and atmosphere; change in habitat conditions; accumulation of radio nuclides in the biota; contamination of the environment, change of conditions for soils and subsoils; increased habitat toxicity; water contamination; settlement and spreading of invasive species; and accumulation of heavy metals, pesticides, herbicides and defoliants.

21. In terms of protected areas, over 14.8 million ha (5.44%) of the country's land surface is under protection, comprised of 9 natural reserves, 4 national parks, 60 reserve plots, 24 nature memorials under republican jurisdiction, 3 zoological parks, 5 botanical gardens, several dendrological parks, 3 water lands recognized to be of international importance by the Ramsar Convention, and 150 water cavities that have state significance. The best represented ecosystems are the mountains (Aksu-Dzhabagly and Alamatinsky reserves). The steppe lakes ecosystems are less well represented (Kurgaldzhinski and Nurzumskyi), however the worst represented ecosystems are the desert and semi-desert ecosystems, which cover more than half of the territory of Kazakhstan. Only a small part of the diversity of the desert ecological system is represented in the Ustyurtskyi and Barsakelmeskyi reserves.

22. The Environmental Code of Kazakhstan, adopted on 9 January 2007, introduced significant changes to the environment protection system in the country. Between 2006 and 2008, Kazakhstan adopted a number of Government documents aimed at, for example, ensuring the environmental sustainability of the national economy, developing new environmentally-balanced policy at the Government, business and NGO levels, enhancing cross-sectoral partnerships, promoting the concept of transition to the sustainable development of Kazakhstan up to 2024.

23. Pieces of legislation supporting the aims of the CBD include: Forestry Code of the Republic of Kazakhstan (23 January 1993); Water Economy Code of the Republic of Kazakhstan (31 March 1993); Law of the Republic of Kazakhstan on Conservation, Reproduction and Utilization of the Animal (21 October 1993); Decree of the Republic of Kazakhstan, enforced by Law, on Oil (28 June 1995); Decree of the President of the Republic of Kazakhstan, enforced by Law, on Land (22 December 1995); Decree of the President of the Republic of Kazakhstan, enforced by Law, on Mineral Wealth and Mineral Wealth Utilization (27 January 1996); Law of the Republic of Kazakhstan on Ecological Expertise (18 March 1997); Law of the Republic of Kazakhstan on the Protection of the Environment (15 July 1997); Law of

the Republic of Kazakhstan on Specially Protected Natural Territories (15 July 1997).

KYRGYZ REPUBLIC

24. In general, the loss of biodiversity in Kyrgyzstan is occurring at the ecosystem level, with most ecosystems impacted by human activity to a greater or lesser extent. Ecosystems that have undergone extreme changes include: foothill vegetation complexes, such as the piedmont plain steppe; riparian and wetland ecosystems in the Chui Valley; and the sub-plain community in the arid, semi-arid and desert ecosystems of the Fergana Valley foothills.
25. Kyrgyzstan's mountainous terrain accommodates livestock farming which constitutes the country's main agricultural sector. Natural grasslands (pastures and hayfields) provide the main source of feed for livestock, with amounts varying from 60% to 89% of the total feed required depending on the region.
26. Forests cover a relatively small area of the country (5.62%) and comprise juniper, fir, spruce-fir, small-leaved, walnut, maple and low pistachio forests. Among these, walnut and spruce-fir forests are unique and globally important.
27. Foothill and mountain communities are impacted by overgrazing. Moreover, the increase in the number of livestock and the lack of interventions to improve natural grasslands, have over the years created loads on pastures that exceed environmentally sound standards. All types of pastures are under threat at present; this is particularly significant in view of the fact that most of the population depends on livestock farming for their livelihoods. Forest ecosystems are impacted by human activity at a level which is increasing from year to year through expansion of human settlements, illegal cutting of forests for firewood, cattle grazing, among other factors. The country's aquatic ecosystems are affected by pollution and changes in water flows.
28. The number of companies engaged in mining is increasing on a yearly basis and their activities significantly threaten the biodiversity of the country's mountain ecosystems. This relates to opencast (gold) mining which impacts on terrestrial ecosystems; oil production which is a potential hazard as a source of environmental pollution; and uranium tailings (resulting from uranium mining) located in seismic, geodynamic

and active mountain-folded regions of the Tien Shan mountains, directly on water catchment areas and “hanging” over densely populated valleys.

29. Kyrgyzstan’s biodiversity conservation priorities for 2014-2024 have been formulated with the current Strategic Plan for Biodiversity taken into account. These priorities have been translated into four strategic targets focused on: 1) integrating biodiversity conservation issues into the activities of State bodies and public organizations by 2020; 2) reducing the impact on biodiversity and promoting its sustainable use; 3) improving the protection and monitoring of ecosystems and species diversity; and 4) improving the social importance of biodiversity and ecosystem services, increasing the benefits of sustainable ecosystem services and traditional technologies.
30. While there are many conflicting laws and large gaps in legislation related to biodiversity, gradual improvements are occurring. The country is working on the creation of legislation on access to genetic resources. Kyrgyzstan is a Party to the Nagoya Protocol on ABS.
31. Kyrgyzstan is a signatory to the Central Asian Framework Convention on Environmental Protection for Sustainable Development established in 2006. It is also a participant in the Central Asian Countries Initiative for Land Management (CACILM) which aims to combat land degradation and sustainably manage the natural resources of the country, including conserving biodiversity.

TÜRKİYE

32. Türkiye is located on the continents of Asia and Europe, bounded on the north by the Black Sea, on the west by the Aegean Sea, and on the south by the Mediterranean Sea. Türkiye has 33 rivers, 200 natural lakes, 159 dam reservoirs and 750 artificial lakes, which constitute its inland waters.

    Türkiye's location, mountains, and being surrounded by three seas have resulted in high terrestrial, fresh water and marine biodiversity. The topography of Türkiye exhibits significant variety where ecological factors change greatly over very short distance. Türkiye is the only country covered almost entirely by three of the world’s 34 biodiversity hotspots: the Caucasus, Irano-Anatolian, and Mediterranean.

33. This extraordinary ecosystem and habitat diversity have produced considerable species diversity. The fauna biological diversity is quite high in Türkiye compared with the biological diversity of other countries in the temperate zone. While there are 15.535 gymnospermous and angiospermous plant species in the entire continent of Europe, it is known that there are such species close to this number (12.141) in Anatolia alone, with some one third of endemic to Türkiye. Eestern Anatolia and Southern Anatolia among the geographical regions, and the Irano –Turanian and Mediterranean regions among the phytogeographical regions, are rich in endemic plant species. In total, 13.404 taxa were identified. Of these, 12,141 (vasculer plants) are flora taxa and 1,263 fauna (mammals, birds, freshwater fish, reptiles and amfibians) taxa. 428 local endemic taxa and 3.275 endemic taxa were identified from the biodiversity inventory. Türkiye is estimated to host around 80,000 animal species. The total number of vertebrate species identified to date is near to 1,500; over 100 species are endemic, Moreover there are approximately 550 fish species in the seas of our country, and approximately 400 freshwater fish species, more than half of which are endemic, in our inland waters. Flora of Türkiye includes many wild relatives of important domestic species (e.g., wheat, barley, chick pea, lentil, pistachio, etc.),many economically important timber, medicinal, aromatic, industrial and ornamental plants. This rich genetic resorces of land races, crop wild relatives and other wild plant species continue to provide new sources of important traits to improve agricultural production and introduce new sources.

34. Major pressures to Türkiye’s agricultural biodiversity include the unsustainable use of farmlands; inefficient irrigation and farming methods; unconscious use of agricultural inputs; cross-breeding of local races with foreign ones of economic value; deficiencies in land registry and cadastre areas. Threats to the steppe ecosystems consist of the destructive effects of infrastructure and superstructure works; overgathering of plants of economic value; and wrong and unconscious deforestation and overgrazing.

    The most important factor in meeting the basic needs of people, especially food, is the sustainable use of living resources. All agricultural products produced are based on the wild relatives of cultivated plant and animal species. The rapid pollution of the world's

agricultural areas and water resources indicates that people will face a food insecurity in the near future. Nowadays, it is observed that researches on the development of high yield and high quality varieties are increasing in many developed countries. In the light of these developments, the biological diversity of countries is becoming a great power, especially in terms of genetic resources. Because wild living resources are used to develop varieties that are resistant to environmental pressures and have high production potential. Living resources, which are important for food and agriculture and which are gradually decreasing, will be counted among the important natural resources that a country can have today. In this context, a project to determine the relationship between soil and land parameters in order to ensure the sustainability of endemic and non-endemic, endangered species in the flora of Ilgaz Mountain National Park has been terminated by Ministry of Agriculture and Forestry (MAF).

Pressurized irrigation systems are supported by MAF in order to imrove water use efficiency, and in this context R&D studies are being carried out for improvement of irrigation systems.

In addition, SuET – Irrigation Decision Support Software developed by MAF has been put into use for the farmer/enterprise to plan the irrigation program correctly. Herein, MAF continues its work on the establishment of SuTEAM – Irrigation Technologies Research and Development Center, which is an example in few countries in the world, where domestic and national irrigation equipments can be developed and various tests and analyzes can be carried out.

35. Ecosystem-Based Adaptation Strategy to Climate Change for Anatolian Steppe Ecosystems, which does not consume natural resources, contributes to the maintenance of biological diversity and natural ecosystems, is resistant to climate change and aims to create a food system for a strong social future, was entered into force in 2022.

36. The National Biological Diversity Strategy and Action Plan (NBSAP) was prepared in 2001 under the coordinating role of the Former Ministry of Environment, with the intention that it should serve as a guide in implementing the Convention on Biological Diversity, in harmony with other obligations and in solving the problems caused by the loss of

biological diversity. However, changing national and international conditions and trends made it necessary to revise the NBSAP of 2001. Consequently, the NBSAP was updated in 2007 through a participatory approach under the coordinating role of Former Ministry of Environment and Forestry. After the adoption of the 2011-2020 Biodiversity Strategic Plan, new national objectives and actions complementary to the NBSAP and in line with the Aichi Targets (National Biodiversity Action Plan), covering the period of 2018-2028 has been prepared under the coordinating role of The Ministry of Agriculture and Forestry. Within the next 10 years, Türkiye will continue the studies in accordance with the objectives in NBSAP (2007-2017) and NBAP (2018-2028) prepared for the conservation and sustainable use of Türkiye's biological resources, fair and equitable sharing of benefits arising from the utilization of genetic resources.

37. It is the responsibility of MAF and its affiliated organizations to formulate the policies concerning the conservation and sustainable use of the environment and biological diversity, to designate and manage protected areas under various statuses, to develop and implement plans and programs, to carry out activities within this scope and to ensure coordination among different institutions. These duties and responsibilities are performed through the central and provincial units of the Ministry and its affiliated organizations.

    In Türkiye, traditional knowledge associated with genetic resources is collected throughout Türkiye and recorded in the Traditional Knowledge Associated with Biological Diversity Management System. The recorded data will be available to researchers in relevant institutions and organizations to develop products based on biodiversity. Hence, intellectual property rights will be protected and R&D activities for product development based on genetic resources with high added value will be facilitated.

38. "Noah's Ark Biological Diversity Database" were created to inventory and monitor the current state and progress of biological diversity in Türkiye, and to use the data concerning biological diversity more effectively in conservation activities. Biodiversity inventory data from all provinces of Türkiye are entered into the Noah's Ark National Biological Diversity Database and stored. Thus, the biodiversity data of Türkiye can be queried on the basis of tables, graphics and maps through a database, and changes that will occur for the protection and

sustainability of Türkiye's biological diversity are monitored. In this context, gaps analysis work has also been started for the protected areas. The legal and institutional structure required for sustainable nature conservation and resource management has been reviewed and the "Draft Law for Biological Diversity Conservation" which also include regulations regarding access and benefit sharing has been prepared. The Forest Management Regulation has been redrafted to ensure more effective conservation of biological diversity in exploited forests. General Directorate of Agricultural Research and Policies (TAGEM) under the MAF is also responsible for the conservation and sustainable utilization of genetic reources for food and agriculture. Studies on the conservation and sustainable use of aquatic biological diversity are carried out by the General Directorate of Fisheries and Aquaculture of MAF.

39. Türkiye will host the 16th Conference of the Parties (COP 16) of the United Nations Convention on Biological Diversity (UNCBD) in 2024 and assume the Presidency for two years. COP 16 will be an important COP regarding the operationalization of the Post-2020 Global Biodiversity Framework (GBF).
40. National Biological Diversity Coordination Board was established by the Ministry of Agriculture and Forestry in order to follow the developments in the global biodiversity agenda, to implement the provisions of the Convention and to conduct effectively the work under the COP 16 Presidency.

III. COOPERATION OF TURKPA MEMBER STATES AND CONCLUSIONS

41. Biodiversity is one of the most important factors in the quality of life, the basis of the well-being of present and future generations. Therefore, effective management of natural resources, their rational use is the main condition for economic development and environmental conservation.
42. The Convention on Biological Diversity, signed in 1992, represents a dramatic step forward in the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of benefits arising from the use of genetic resources. Furthermore, for the first time the international community has taken a comprehensive rather than a sectoral approach to conservation. The Convention recognizes

that biodiversity and biological resources should be conserved for reasons of ethics, economic benefit and human survival.

43. 15th Conference of the Parties (COP 15) to the UN Convention on Biological Diversity resulted in the adoption of the Post-2020 Global Biodiversity Framework (Kunming-Montreal Global Diversity Framework, GBF) which is a landmark biodiversity agreement with its 23 targets to address biodiversity loss and restore ecosystems.
44. TURKPA member states are party to the Convention on Biological Diversity. Currently, there are 196 parties to the Convention. TURKPA member states are also party to the Cartagena Protocol on Biosafety to the Convention on Biological Diversity. Member countries cooperate on many existing platforms related to biodiversity.

IV CONCLUSIONS

45. As it seen, in support of TURKPA member states' environmental protection goals, a number of important laws, legal documents and state programs, all of which conform to European law requirements, have been developed and approved in order to improve the ecological situation in these countries.
46. It should be noted that the expansion of relations with international organizations and developed countries is one of the main directions of the biodiversity policy of TURKPA member states in order to increase environmental protection.
47. There is a need for increasing public awareness about the protection of biodiversity.
48. TURKPA member states can cooperate in the relevant fields within the framework of international organizations that are members and in the framework of international agreements in which they are partner.
49. On its behalf, since establishment TURKPA Commission on Environment and Natural Resources held 7 Commission meetings and 5 workshops regarding environmental issues which have important linkages with the protection of biodiversity.
50. Recommendations of the aforementioned Commission meetings and workshops stress that TURKPA member countries are very interested in addressing issues and finding solutions to the problems regarding environmental issues and protection of biodiversity.
51. Wide range of opportunities exists for TURKPA member countries to mutually cooperate on this issue. Expansion of their interaction by

holding of joint events and actions such as seminars or conferences, experience exchange programs would strengthen cooperation for the benefit of their people, as well as in the interest of the region.