PARLIAMENTARY ASSEMBLY OF TURKIC STATES

COMMISSION ON LEGAL AFFAIRS AND INTERNATIONAL RELATIONS

ELEVENTH MEETING

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REPORT

"THE ROLE OF PARLIAMENTS AND LEGISLATIVE SUPPORT IN SCIENTIFIC AND TECHNOLOGICAL DEVELOPMENTS IN TURKPA MEMBER STATES"

INTRODUCTION

1. In line with the Secretariat's 2024 Activity Plan adopted at the TURKPA General Assembly Meeting held in the capital city of the Republic of Türkiye, Ankara, the topic of "The Role of Parliaments and Legislative Support in Scientific and Technological Developments in TURKPA Member States" has been designated as the main agenda item for the 11th Committee Meeting of the TURKPA Commission on Legal Affairs and International Relations.
2. Parliaments play an important role in determining plans, goals, objectives and strategies for the scientific and technological development of countries. In this context, parliaments are involved in budget allocation and control, creation of educational infrastructure, promotion of innovation and international cooperation.
3. Scientific and technological developments contribute significantly to the advancement of society. The role of science and technology in the development of countries has been explained through economic growth, mostly through the effect of research and development (R&D) expenditures on GDP. Higher R&D expenditure implies that more R&D activities are performed. Research and development (R&D) activity begins with increasing the body of knowledge, which consists of the knowledge of culture, people and society, and using it to design new processes, systems and applications. Accordingly, R&D refers to creative work carried out on a systematic basis, environmentally compatible product

design or software activities, and activities that provide scientific and technological development in the field, focus on a scientific and technological uncertainty, and whose outputs have original, experimental, scientific and technical content.

4. The United Nations Industrial Development Organization (UNIDO) approaches the issue in terms of Industry 4.0, which is accepted as the Fourth Industrial Revolution in the literature. Although Industry 4.0 has been developed on the basis of the manufacturing industry, it is considered important in terms of Sustainable Development Goals as it includes many other applications such as smart transportation and logistics, smart buildings, energy, smart health and smart cities. With Industry 4.0, the internet has become a tool that enables communication between objects and objects, objects and people, and even services.
5. As a reflection of technological development, electronic parliament (e-Parliament) refers to the use of information and communication technologies (ICT) in parliaments as legislative bodies. Research on e-Parliament in Türkiye (Sobacı, 2012) reported that 57% of the world's parliaments had an official website in 2000 and 97% in 2009. Since 2010, it has become a global service delivery standard for parliaments to provide information and services through an official corporate website. Another noteworthy aspect of global practices is the introduction of e-voting systems in parliamentary elections.
6. The aim of this report is to discuss the role of parliaments in the legislative influence and emerging parameters of development, which form the basis for scientific and technological advances affecting the development of TURKPA member states. Thus, the current situation of the member states will be analyzed and priority focus areas of inter-parliamentary cooperation will be identified.

AZERBAIJAN

7. The Milli Mejlis of the Republic of Azerbaijan adopted the Law "On Science" on June 14, 2016 to support scientific and technological development. This Law establishes the basic principles of state policy in the field of organization, management and development of scientific activities, the objectives, rights and responsibilities of scientific and scientific innovation activities, the means of financing scientific work, administrative and legal basis for the promotion of scientific achievements.
8. There are two important developments that have defined state policy in the Republic of Azerbaijan in this field. These are the document "Azerbaijan 2030: National Priorities for Socio-Economic Development" and the establishment of the Center for Analysis and Coordination of the Fourth Industrial Revolution (C4IR). The document "Azerbaijan 2030: National Priorities for Socio-Economic Development" was approved by the

Presidential Decree on February 2, 2021. Each of the five national goals in this document has scientific and technological capacity.

9. The Center for Analysis and Coordination of the Fourth Industrial Revolution aims to strengthen the position of the Republic of Azerbaijan in Industry 4.0, which changes the rules of competition that determine the trends in the global economy, and to ensure that the country is among the leading countries in this regard. The main task of the Center is to ensure cooperation and coordination between Azerbaijan and international organizations active in the field of Industry 4.0, as well as to carry out analysis of challenges, initiatives, strategies and projects.
10. Space industry and satellites are important indicators of the level of development of countries. On the initiative of the President, the Law "On Space Activities" was adopted by the Parliament in 2023. The Law defines the legal, economic and administrative bases of space activities in the Republic of Azerbaijan, general conditions for commercial activities in the space industry and regulates relations related to national activities in space, including in the Earth orbit, on the Moon and other celestial bodies and their orbits. Investments and public-private partnership in the sphere of space activities and space industry are carried out in accordance with the Laws of the Republic of Azerbaijan "On Investment Activities" and "On Public-Private Partnership", respectively.
11. Adoption of the law "On innovation activity" and the Digital Code, which play an important role in the development of science and technology in the coming period, is on the agenda. With the enactment of both regulations, it is envisaged that technological solutions will have a profound impact on the transformation of public life in the country.
12. In recent years, many electronic information systems have been created in Azerbaijan, and these systems have been integrated by placing them on the portal "e-gov.az". This work is regularly continued and developed. As a result of the necessary amendments made by the Milli Mejlis of Azerbaijan in all relevant laws, the adaptation of citizens to the new system has become easier. Accordingly, when providing state services to citizens, the information and documents of the person are first obtained from the portal "e-gov.az", and in the absence of such information and documents, access is provided with the permission of the relevant public institution. However, if these documents are not available on the "e-gov.az" portal or from the relevant state institution, the citizen will be asked to present this document.
13. As stated in the Law on Science, the development of science and technology is primarily associated with the conditions created for it. In this regard, in recent years, tax and customs policy has paid special attention to the application of import and domestic market benefits to goods that support science and technology, as well as to science-intensive goods. Thus, when a taxpayer transfers up to 10 percent of its profits to scientific work and educational institutions, it is granted income tax exemption.

Machinery and technological equipment imported by industrial and technological parks for the purpose of carrying out scientific-research and experimental-construction works are also exempt from value added tax (VAT). Innovation activities in Azerbaijan are also supported by newly adopted laws. Thus, tax deduction is applied for three years to the income of micro or small enterprises from innovation activities.

14. As of January 1, 2023, a comprehensive package of laws has been implemented in Azerbaijan to promote the Information and Communication Technologies (ICT) sector. The law supports system integration and software development activities of enterprises and individuals; it promotes digital development in the country by providing tax benefits. Thus, it aims to train local ICT experts, recruit foreign experts and support the development of ICT products in the country.

KAZAKHSTAN

15. The Ministry of Digital Development, Innovation and Aerospace Industry of the Republic of Kazakhstan is engaged in the formation and implementation of state policy in the field of digital development of the country, innovation, communications, public services, electronic industry, as well as the development of e-government, coordination of the activities of the "State for Citizens", information security, aerospace industry, geodesy and cartography. By Decree No. 790 of November 29, 2017, in accordance with paragraph 66 of the State Planning System of the Republic of Kazakhstan, the Government approved the "Concept of Digital Transformation, Development of Information and Communication Technologies and Cybersecurity Industry for 2023-2029".

16. According to the "10 Most Innovative Countries" report published by the Global Innovation Index in 2021, Kazakhstan ranks among the top three countries in Central and South Asia. To promote technological advancement, Kazakhstan has implemented a number of reforms to foster a culture of entrepreneurship, attract investment in the technology sector, and lay the groundwork for Kazakhstan to serve as a technology hub in Central Asia. Kazakhstan has made significant progress in the initiative known as "Digital Kazakhstan," which aims to transform the way citizens, businesses, and government agencies interact with each other.

17. Kazakhstan is increasingly focused on promoting innovation as a means of driving economic development and diversification. To this end, efforts are being made to improve certain components of the National Innovation System (NIS), including the establishment of public institutions to support innovation. The 'Law on State Support for Industrial Innovative Activities', which was passed in 2012, lays the groundwork for new policies and addresses the need to stimulate demand for innovation. This law also provides for new coordination mechanisms.

18. The "State Program for Accelerated Industrial Innovative Development" (SPAIID) has established a comprehensive framework for the modernization of the country, including improved innovation performance. Kazakhstan follows a policy of utilizing foreign experience in designing enterprise policies. Existing state support programs include control mechanisms over implementation and evaluation of results.
19. Kazakhstan is working to improve education standards and expand opportunities for studying abroad. Recent policy initiatives, such as offering management courses aligned with the 'Business 2020 Roadmap', have had a positive impact on developing necessary skills. The role of universities and other knowledge-generating institutions in the National Innovation System has been strengthened by increasing their capacity to transform ideas into innovation projects and by strengthening their links with other innovation stakeholders.
20. According to the Statistics on Education, Science and Innovation of the Agency for Strategic Planning and Reform of the Republic of Kazakhstan for 2023, in accordance with the admission quotas, 64.3 thousand people are studying in higher education institutions, of which 23.3 thousand are children from families with four or more young children, 19.3 thousand are rural youth, and 9.8 thousand are children from single-parent families. At the beginning of the 2023-2024 academic year, 37,391 faculty members were employed in higher education institutions, of which 14,982 (40.1%) had master's degrees, 10,504 (28.1%) had doctoral degrees and 4,168 (27.8%) had post-doctoral degrees.
21. The Memorandum of Cooperation signed on April 16, 2015 between the National Agency for Technological Development (NATD) of the Republic of Kazakhstan and the Scientific and Technological Research Council of Türkiye (TÜBİTAK) paved the way for the support of R&D projects to be carried out between the industrial organizations of the two countries. On November 3, 2023, at the Tenth Summit of the Organization of Turkic States held in Astana, a protocol on cooperation in the field of metrology was signed between the relevant institutions of the member states. In the same direction, the concept of "Engineering and Technology Center" aimed at developing a joint action plan was adopted.
22. Since 2011, the Republic of Kazakhstan has adopted 26 new science-related regulations. They include the Law on Commercialization of the Results of Scientific and (or) Scientific and Technical Activities (2015), the Decree on Certain Issues of Organization and Conduct of Scientific Expertise (2021), the Decree on Approval of the Rules for the Organization and Conduct of the State Scientific and Technical Expertise (2011), the Decree on Approval of Basic Norms for Financing Scientific and (or) Scientific and Technical Activities (2011), and the Regulation on Approval of the Rules for the Provision of Public Service Conducting the State Scientific and Technical Expertise (2020).

KYRGYZSTAN

23. The Ministry of Digital Development was created by the President of the Kyrgyz Republic's Decree No. 114, dated May 5, 2021, which merged the State Service for Digital Development under the Government of the Kyrgyz Republic and the State Registration Service under the Ministry of Justice of the Kyrgyz Republic. The merger aimed to combine resources for digital transformation and ensure sustainable development in Kyrgyzstan's digital age. The Ministry of Digital Development is responsible for digitizing state services and expanding online services for the public.
24. The Committee on Social Issues, Education, Science, Culture and Health of the Jogorku Kenesh, the legislative body of the Kyrgyz Republic, reviews all legislative initiatives related to the development of science and innovation in the country. In line with the legislation, there is the Council for Science, Innovation and Technologies, chaired by the prime minister, as an advisory board that prepares recommendations for the cabinet. The main tasks of this council are to prepare recommendations on priority instruments and mechanisms for the development of science in the Kyrgyz Republic, as well as measures for the operation of state policy on science-related issues.
25. Kyrgyzpatent is the authorized state body responsible for implementing policies for the protection of intellectual property and the development of innovation. In order to fulfill its tasks, the Kyrgyzpatent carries out the task of creating technoparks under the guidance of universities, opening Technology and Innovation Support Centers.
26. The Law "On Innovation Activities" was adopted on November 26, 1999; it was later amended on April 1, 2020. This Law determines the objectives and principles of state regulation of innovation activities, the structure and organization of public infrastructure supporting innovation and investment. The Law "On Science and Fundamentals of Public Policy" was adopted on April 15, 1994; amended on June 16, 2017. The purpose of this law is to create the necessary legal, economic and social basic conditions and guarantees for the field of scientific activity in the Kyrgyz Republic.
27. The International Telecommunication Union (ITU) reported that in 2020, Kyrgyzstan's fixed broadband penetration rate was 4.4 percent and mobile broadband penetration rate was 119.3 percent. According to the State Agency for Communications of Kyrgyzstan, the length of fiber optic lines has doubled since 2017. In early 2023, internet penetration in Kyrgyzstan reached 77.9%, with 5.2 million internet users in the country. As of January 2023, 2.75 million people are registered as social media users in Kyrgyzstan, which is 41.1% of the total population.
28. The emerging ICT sector of the Kyrgyz Republic is poised to become an economic driver, offering significant investment and trade opportunities on the "Virtual Silk Road", which is crucial for modernization and

strengthening regional development. The ICT sector is one of the fastest growing sectors in the Kyrgyz Republic. The Kyrgyz Republic rose from 117th place (2013) to 94th place (2021) among 129 countries in the Global Innovation Index ranking.

29. In 2019, the Kyrgyz Government adopted the 'Digital Kyrgyzstan 2019-2023' strategy. The strategy aims to improve digital infrastructure and internet connectivity, promote 'digital literacy' to create local employment opportunities, and provide IT training. Additionally, the strategy aims to support economic growth through the development of e-government services and platforms, as well as the digital transformation of the financial technology and banking sectors.
30. The Resolution of the Cabinet of Ministers of the Kyrgyz Republic No. 16 dated January 14, 2022 adopted the "Regulation on the Innovation Center" under the State Agency for Intellectual Property and Innovation under the Cabinet of Ministers of the Kyrgyz Republic, thereby establishing the legal and administrative structure of the center, which is a public institution. The purpose of the Innovation Center is the development and promotion of innovative infrastructure for the creation of the relevant innovation ecosystem in the Kyrgyz Republic.
31. According to Article 4 of the Law of the Kyrgyz Republic on the High-Tech Park of the Kyrgyz Republic (2011), the High-Tech Park of the Kyrgyz Republic (HTP) is a legal concept of a zone with a special tax regime for legal and natural persons operating in the field of information technologies. This Law establishes the legal basis for state support to the software development industry, as well as determines the functioning of the High-Tech Park, its governing bodies, HTP companies, the principles of taxation of these companies.

TÜRKİYE

32. The Ministry of Industry and Technology of the Republic of Türkiye was designated by “the Presidential Decree No. 1 on the Organization of the Presidency” as the institution responsible for determining science, technology and innovation policies in Türkiye, implementing the determined policies, and supporting research, development and innovative programs and projects for technology. The Ministry also develops policy proposals and formulates strategies for the development of national competencies within the framework of science, technology and innovation policies.
33. The Ministry of Industry and Technology of the Republic of Türkiye and the Digital Transformation Office of the Presidency of the Republic of Türkiye prepared the National Artificial Intelligence Strategy in line with the Eleventh Development Plan and the Annual Programs of the Presidency of the Republic of Türkiye to determine Türkiye's strategic

priorities and objectives in the field of artificial intelligence between 2021 and 2025 and to implement activities in the field of artificial intelligence.

34. In the Republic of Türkiye, Law No. 278 "Law on Certain Regulations Regarding the Scientific and Technological Research Council of Türkiye" was enacted for the first time in 1963. The Scientific and Technological Research Council of Türkiye (TÜBİTAK) was established with administrative and financial autonomy, related to the Ministry of Industry and Technology and with a special budget in order to increase Türkiye's competitiveness and welfare and to lead in the development of science and technology culture. TÜBİTAK is responsible for supporting, coordinating and monitoring research and development activities in scientific and technological fields in Türkiye and developing programs and projects for this purpose. TÜBİTAK collaborates with domestic and foreign research institutions to advance its scientific and becomes a party to international scientific and technical agreements on behalf of Türkiye.
35. In 2008, Law No. 5746, also known as the 'Law on Supporting Research, Development and Design Activities,' was enacted to promote the production of technological knowledge through R&D, commercialize this knowledge, increase foreign direct investment in innovation and design, and support qualified labor employment. The law defines terms such as R&D, innovation, R&D center, R&D project, techno-venture capital, design activity, and design center. This Law includes discounts, exemptions, and incentives that promote scientific and technological development.
36. In Türkiye, R&D targets and policies are set by the High Council for Science and Technology (HCST), which was established in 1983. At its first meeting in 1989, the HCST set two targets: to increase the ratio of R&D expenditures to GNP to 2% in the next 10 years and to increase the number of R&D researchers (30/10,000 people). According to the Research and Development Activities Survey for 2022 conducted by the Turkish Statistical Institute (TurkStat), gross domestic R&D expenditure increased by TL 96 billion 932 million in 2022 compared to the previous year, reaching TL 198 billion 670 million. While the ratio of gross domestic R&D expenditure in GDP was 1.40% in 2021, its ratio in GDP was 1.32% in 2022 with an amount of 15 trillion 11 billion 776 million TL. According to the EU R&D Scoreboard 2023, five Turkish companies are among the top 2,500 companies in the world with the highest R&D expenditures.
37. The Turkish Space Agency (TUA) was established by Presidential Decree with administrative and financial autonomy, related to the Ministry of Industry and Technology and with a special budget, in order to develop Türkiye's space and aerospace industry and to pioneer the development of interest and curiosity in space and aerospace science and technologies throughout the country. TUA is responsible for preparing and implementing the National Space Program in accordance with the policies determined by the President. A Memorandum of Understanding on

Cooperation in the field of space activities was signed between the Turkish Space Agency of the Republic of Türkiye and the National Aerospace Agency of the Ministry of Defense Industry of the Republic of Azerbaijan in 2021.

38. Türkiye's potential to become an R&D center in certain fields in the next 10-15 years is underlined thanks to the projects being carried out, many of which are in the military field (e.g. unmanned aerial vehicles, electric motor technologies, etc.). This potential will be strengthened if the projects currently underway meet international standards and are maintained at an up-to-date and competitive technological level. The target of 3% R&D expenditure/GDP is of great importance in this regard. Projects in the fields of sustainability, development and science, which are among the 16 topics in the Vision Document for the Turkish Century announced by the President of Türkiye, mobilize the country's existing potential.
39. Approximately 92% of households have access to broadband internet. Approximately 61.9% of households access the internet via fixed broadband and 88.5% via mobile broadband. There are 88.5 million mobile subscriptions for broadband use. There are 68.9 million active social media users in Türkiye. This corresponds to 80.8% of the population. On August 6, 2020, the Turkish Grand National Assembly (GNAT) amended the "Law on Regulation of Publications on the Internet and Combating Crimes Committed through These Publications" to significantly restrict access to platforms (those with a daily access of more than one million) that do not comply with official requests to remove content deemed offensive. The law also requires social media companies to have at least one representative in the country.
40. Network security against attacks and viruses, email and web security, cyber governance, identity and certificate governance, mobile security, system security, data and application security are top priorities. The government has increased spending on hardware and software to combat cyber threats. The Information and Communication Technologies Authority (ITA) of Türkiye, the Ministry of Transport and Infrastructure, the Presidential Digital Transformation Office, the Ministries of Justice and Interior, the Turkish National Police and the Turkish Armed Forces are constantly updating their cyber security technologies. The Ministry of Transport and Infrastructure has established Cyber Incident Response Teams (CERTs) tasked with preventing and mitigating cyber-attacks against public institutions and organizations. The Information and Communication Technologies Authority of Türkiye is the authorized and main institution leading 5G efforts in Türkiye.
41. On October 22, 2009, the Government of the Republic of Türkiye and the Government of the Republic of Kazakhstan signed the Agreement on Cooperation in the Field of Science and Technology, to support scientific and technological cooperation activities between the two countries. On November 13, 2013, the Ministry of Industry and Technology of the

Republic of Türkiye and the Ministry of Communications and Information Technologies of the Republic of Azerbaijan signed a Memorandum of Understanding to enhance cooperation in science, technology, industry, and entrepreneurship. Under the Protocol on Cooperation in the Field of Science and Technology signed between TÜBİTAK and the National Academy of Sciences of the Kyrgyz Republic (NAS KR) in 2014, scientists from both countries are encouraged to collaborate on joint R&D projects.

42. The official website of the Grand National Assembly of Türkiye Parliament (GNAT) became operational in 1996 at "http://www.tbmm.gov.tr". Parliament Television (Parliament TV, http://tv.tbmm.gov.tr/) was established in 1994 as a television channel and has since broadcasted its programs on its website. The website provides information and services related to the parliament's main functions of representation, legislation, and oversight/supervision to the public.

CONCLUSION

43. Parliaments have significant role in determining plans, goals, objectives and strategies for the scientific and technological development of countries. The legislative body is the most competent institution in determining and supervising investment areas for national resources. Therefore, the role of parliaments in the development of countries will be strengthened to the extent that they realistically determine the main axis and direction of development.
44. The creation of digital solutions and electronic information systems today plays an important role in ensuring transparency and increasing citizen contentment.
45. The development and widespread use of technology has led to the differentiation of legal relations. However, in the face of technology's continuous renewal and change, the need for a common and up-to-date legislation capable of encompassing all new types of crimes is emerging. It is essential to have a unified and effective approach to combat cybercrimes on a global scale.
46. Considering the global prevalence of the internet, the function of which encompasses the entire world, legislative efforts conducted through cooperation among TÜRKPA member parliaments regarding cybercrimes emerging in criminal law and new types of offenses in the field of law of obligations will enhance the effectiveness of joint efforts.
47. The space industry, space entrepreneurship, space access and exploration are critical areas of investment for scientific and economic development for many countries. In this regard, it is essential to establish the required legal frameworks, carry out legislative work, provide necessary financial assistance and infrastructure, and collaborate with countries that have made progress in this field. For this reason, close

cooperation among TURKPA member countries is of great importance as it will increase the exchange of information and technology.

48. Technological and scientific advances are primarily the result of research and development (R&D) activities. Increasing R&D spending requires more qualified researchers. Human capital and skills can be developed through international cooperation. Cooperation programs with foreign investors can be used to support greater researcher mobility, increase funding incentives for research, encourage scientific research institutions to engage in both local and international projects, utilize qualified foreign labor, and train local staff. Given that researchers cannot be trained in a short period of time, it may be worthwhile to consider implementing practices that facilitate the employment of foreign researchers in the member states.
49. It is important to note that in the Turkic World Vision 2040 document, all eight items under the sub-heading of Information and Communication Technologies in the Economic and Sectoral Cooperation section aim to enhance the scientific and technological development of Turkic states.