НАУЧНЫЙ ЖУРНАЛ
НАУКА И МИРОВОЗЗРЕНИЕ

УДК-372.881

ANALYSIS OF THE TURKMENISTAN DELEGATION'S VISIT TO TOKYO: MEETINGS WITH JAPANESE SCIENTIFIC AND TECHNOLOGICAL ORGANIZATIONS

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Abstract

This analysis details the working visit of a high-level delegation from Turkmenistan, led by the Rector of the Oguz Khan Engineering and Technology University, to Tokyo, Japan, on October 3–4, 2025. The mission was centrally focused on expanding international cooperation in the strategic areas of education, science, and innovative technologies. The report summarizes critical bilateral meetings held with the Japan International Cooperation Agency (JICA), the Kawasaki Institute of Industrial Promotion's Nanomedicine Innovation Center, the Turkmenistan-Japan Scientific and Technical Cooperation Association, and the Tohkemy Corporation. Key outcomes included agreements on academic exchange expansion, joint nanotechnology research, and industrial technology transfer, particularly concerning water purification systems. The engagements are viewed as vital for Turkmenistan's technological modernization and the global professional development of its young specialists.

Keywords: Turkmenistan, Japan, JICA, Nanomedicine, Technology Transfer, Academic Exchange, Water Purification Systems.

I. General Information on the Visit

The official delegation from Turkmenistan, centrally led by the Rector of the Oguz Khan Engineering and Technology University, G. Mezilow, undertook a pivotal, high-stakes working visit to Tokyo, Japan, spanning from October 3 to 4, 2025. The delegation's composition included senior university leadership and key specialists in the fields of science and engineering, directly signifying the high priority Turkmenistan assigns to scientific and educational collaboration with Japan. This visit was a clear and demonstrable expression of Turkmenistan's unwavering commitment to prioritizing global partnerships that are meticulously aimed at accelerating domestic technological advancement and comprehensive human capital development. The very presence of a high-ranking delegation in Tokyo underscores the strategic importance of Japan as a leading global hub for innovation and advanced engineering in Turkmenistan's long-term economic planning.

The primary and overarching objective of this mission was to substantially and meaningfully expand international cooperation across the critical and interconnected fields that define the future of the national economy: education, science, and innovative technologies. This strategic mandate involved two key components. Firstly, it required a comprehensive study of the advanced expertise and best practical methodologies widely prevalent in Japan, which is globally recognized as a leader in innovation and technological breakthroughs in specific areas such as nanotechnologies, water purification, and high-tech machinery. Secondly, the delegation was specifically focused on identifying and establishing new, prospective avenues for bilateral partnership. All these directions must directly align with Turkmenistan's national development strategies as approved by the government, particularly regarding the digitalization of the economy and the adoption of green technologies.

The visit was meticulously designed with the objective of laying a solid and actionable foundation for future joint ventures, cooperative research initiatives, and, most crucially, for the significant and structured transfer of knowledge and technology between the two nations. Special attention was paid to those areas which are critically essential for Turkmenistan's sustainable technological modernization and the effective diversification of its economy, aiming to reduce reliance on traditional sectors while simultaneously increasing competitiveness in global production chains. Thus, the visit represents a strategic investment in the future, focused on long-term scientific and industrial progress, as well as the preparation of a new generation of highly skilled engineers and scientists.

II. Detailed Overview of Meetings (October 3)

The extensive series of meetings held on October 3rd strategically addressed three interconnected domains essential for robust scientific and academic collaboration: academic and technical assistance, cutting-edge scientific research, and industrial technology implementation.

1. Meeting with the Japan International Cooperation Agency (JICA)

The delegation's initial engagement in Tokyo represented a crucial starting point, featuring a highly productive and strategically significant discussion with Mr. D. Ueda, Director of JICA's Higher Education and Social Security Group. The dialogue focused intensely on evaluating the current state and charting the future potential of cooperation across the vital education and science sectors. Both parties acknowledged JICA's long-standing and indispensable role as a key development partner to Turkmenistan, emphasizing the agency's history of effective project implementation and technical assistance in Central Asia. A strong, mutual emphasis was placed on the continuity and enhancement of existing JICA programs, which are fundamentally aimed at building robust institutional capacity within Turkmenistan's academic landscape. The discussion served not merely as a review, but as a commitment to deepening the partnership in a structured and sustainable manner.

Significant consensus was reached on two pivotal and comprehensive areas of future cooperation, underscoring a joint commitment to human resource development:

Continuation and Expansion of Training Programs: It was explicitly agreed to sustain, refine, and further develop the specialized training and professional development programs currently implemented by JICA. These programs are specifically tailored for the professors, teaching staff, and students of Turkmenistan's higher education institutions. This definitive commitment ensures the ongoing, systematic transfer of essential pedagogical and advanced technical skills from Japan to the Turkmen academic community, which directly contributes to bolstering the quality and relevance of education at the university level and aligning it with international best practices. The goal is to create a self-sustaining pool of highly qualified personnel.

Broadening Academic Exchange: Both parties agreed to scale up and broaden the scope of academic exchange programs operating within the existing technical cooperation framework. This planned expansion aims to significantly increase the mobility of both students and faculty members, thereby facilitating deeper cross-cultural scientific collaboration and creating invaluable opportunities for intellectual exchange. This commitment provides crucial exposure to Japanese educational and rigorous research standards, allowing Turkmen academics and students to absorb new methodologies, participate in advanced laboratories, and integrate global perspectives into their respective fields of study. The ultimate objective is to foster a new generation of scientists with an international outlook.

2. Meeting with the Kawasaki Institute of Industrial Promotion

Rector G. Mezilow met with Mr. K. Nagai, Deputy Director of the Nanomedicine Innovation Center (Kawasaki Industrial Promotion Institute). This meeting specifically delved into a detailed exchange of perspectives on the latest results of scientific research in the rapidly advancing field of nanomedicine. The discussion underscored the critical significance of this technology for the future of global healthcare and its broader humanitarian applications in developing novel diagnostic and therapeutic tools.

The Turkmen side explicitly highlighted the great importance that the country places on the integration of nanotechnologies into the national education system and the rigorous training of young scientists in this forward-looking and high-potential field. To actively support this commitment, the delegation proposed concrete steps for direct collaboration:

Establishment of Internship Programs: The creation of practical training programs (stajirofka) specifically designed for students majoring in nanotechnology, providing them with hands-on experience and mentorship opportunities in advanced Japanese research facilities.

Implementation of Joint Research Projects: Initiating and carrying out collaborative scientific projects in nanomedicine, allowing researchers from both countries to pool resources and expertise to mutually address regional and global scientific challenges, thereby enhancing research output.

3. Meeting with the Turkmenistan-Japan Scientific and Technical Cooperation Association

The delegation's schedule included a substantive and detailed discussion with Mr. H. Koinuma, Chairman of the Turkmenistan-Japan Scientific and Technical Cooperation Association, alongside other key representatives of the organization. This meeting went beyond the *scope of purely institutional* talks and focused on *strategic, long-term* bilateral relations. The agenda comprehensively covered the current status, the vast potential opportunities, and the future vectors of cooperation between the two nations. A particular and deliberate focus was placed on expanding ties beyond the purely technical into the vital areas of human resources development and cultural exchange. This recognition highlights a mature understanding that sustained technological partnership must be underpinned by strong interpersonal and cultural bonds.

The parties engaged in an *intensive and mutually beneficial exchange of views* specifically aimed at forging new cooperation opportunities in humanitarian fields. This critical discussion was based on the premise of recognizing that cultural and human capital exchange ultimately strengthens and sustains technical ties, fostering deeper trust and understanding between future leaders and specialists. Consequently, they reached a firm consensus on several high-priority actions required to formalize this broader partnership. These included the urgent need to actively organize joint scientific conferences, which would serve as platforms for sharing advanced research findings. Furthermore, they agreed to conduct shared educational classes or seminars on specialized topics, facilitating direct knowledge transfer. Finally, the consensus involved a commitment to decisively expand academic exchange programs for both faculty members and students. This multifaceted approach promotes a more holistic and culturally rich partnership, moving the focus from mere transactional agreements to fostering profound mutual understanding alongside ensuring technical and scientific proficiency. The goal is to establish a truly integrated academic and cultural dialogue.

4. Meeting with Tohkemy Corporation

The delegation concluded the day's rigorous schedule of high-level engagements by meeting with Mr. M. Yamazumi, Head of a division at Tohkemy Corporation. This corporation is widely recognized as one of Japan's *leading industrial and technological companies*, with a reputation for specializing in the development of sophisticated chemical and environmental solutions. This specific meeting was designed to explore, in detail, the prospects for scientific and technical cooperation within the crucial areas of high technologies and industry, moving the focus from academic theory to practical application of Japanese expertise within Turkmenistan's burgeoning industrial sector.

Key topics addressed included the tangible potential for implementing the corporation's advanced technologies directly within Turkmenistan's industrial landscape. The discussion also covered establishing concrete opportunities for student exchange and practical industry experience, ensuring that Turkmen engineering students gain exposure to cutting-edge corporate practices and methodologies. Furthermore, the parties aimed at formally setting up collaborative research activities related to industrial solutions that address national challenges. *Particular emphasis* was placed on the feasibility and rapid realization of a joint scientific research project initiated under the existing Memorandum of Understanding (MoU) previously signed between the Oguz Khan Engineering and Technology University and the Tohkemy Corporation. This specific collaborative effort is strategically targeting the development and deployment of preventive and highly efficient water purification systems

This pointed focus underscores Turkmenistan's critical strategic interest in environmental and resource management technologies, which are vital for addressing immediate and long-term national infrastructure needs related to water security and public health.

III. Strategic Significance of the Meetings (Conclusion)

The series of substantive and detailed meetings held in Tokyo is expected to provide a powerful impetus for several strategic outcomes critical to Turkmenistan's national development and its integration into the global scientific community. This section summarizes the overarching significance of the agreements reached:

Enhanced International Profile: The academic and industrial engagements will further promote the development of Turkmenistan's education and science sectors on the international stage, raising their visibility, credibility, and attractiveness for future foreign investment and collaboration. Securing partnerships with renowned Japanese entities validates the quality and strategic direction of Turkmen scientific institutions.

Innovation and Technology Transfer: The establishment of agreements with institutions like the Kawasaki Nanomedicine Center and Tohkemy Corporation will directly facilitate the introduction and seamless integration of new, advanced technologies into the country. This is particularly vital for modernizing the critical industrial and medical sectors, ensuring that Turkmenistan can leverage global scientific breakthroughs to improve public health and national infrastructure, specifically in the essential domain of water resource management.

Global Human Resource Development: The expansion of internship and academic exchange programs (stajirofka) ensures that young Turkmen specialists gain world-class experience (dünýä derejesinde tejribe toplamaga). This direct exposure to advanced research methods, cutting-edge technological application, and international academic standards is a key factor in developing a highly competent, skilled, and innovative national workforce, which is fully prepared to meet the sophisticated demands of the global technological landscape and drive sustainable national growth.

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