



Supporting Young Scientists Within The Framework Of The Organization Of Islamic Cooperation: Science Diplomacy And Prospects For Uzbekistan

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ABSTRACT

This article explores the historical development, strategic priorities, and institutional mechanisms of the Organization of Islamic Cooperation (OIC) in supporting young scientists and researchers. Based on the 2017 Astana Summit, the OIC Youth Strategy, COMSTECH initiatives, and SESRIC's 2025 indicators, the study highlights the disparities between increasing access to education and achieving measurable outcomes in scientific research and employment. Furthermore, it outlines a results-based approach for Uzbekistan, emphasizing academic mobility, collaborative research, equal opportunities, and systematic performance assessment.

Keywords: Organization of Islamic Cooperation, young researchers, COMSTECH, scientific diplomacy, academic mobility, Uzbekistan, scientific cooperation, innovation, SESRIC.

INTRODUCTION

Scientific and technological advancement has become an increasingly influential factor in determining economic development, strengthening human capital, ensuring social stability, and expanding international partnerships. In this context, the involvement of younger generations in scientific research has emerged as an important component of the Organization of Islamic Cooperation's (OIC) strategic priorities. Supporting young researchers should consequently be understood not simply as an educational initiative, but as an essential element of broader scientific, social, and economic development policies. Hayitaliev's research concerning the OIC's initiatives in support of young people in science examines the organization's educational and social priorities, with particular attention to Uzbekistan's diplomatic activities during 2016–2017 [1]. Drawing upon these historical findings, the present study investigates the development of scientific cooperation aimed at young researchers within the OIC, focusing on institutional arrangements, policy instruments, and recently published statistical information. The study argues that international academic exchanges and broader educational opportunities can generate sustainable developmental outcomes only when accompanied by adequate research facilities, inclusive participation, effective integration into employment, and transparent evaluation of scientific achievements.

Discussion and Results

The methodological framework of this research combines historical and institutional analysis with comparative examination of official policy documents and descriptive interpretation of statistical indicators. The principal documentary sources comprise the OIC Youth Strategy, the

Astana Declaration adopted in 2017, the Science, Technology and Innovation (STI) Agenda 2026, SESRIC publications addressing youth development and employment in 2025, COMSTech programme materials, and the OIC Secretariat's assessment issued in February 2026 [2–10]. Particular attention is given to distinguishing officially announced policy objectives from practically achieved results. Commitments expressed in institutional documents represent intended directions of development and cannot automatically be regarded as evidence of successful implementation. Likewise, the projected number of fellowship participants does not necessarily correspond to the actual number of researchers who have completed their programmes. Maintaining this analytical distinction makes it possible to evaluate institutional initiatives more accurately and avoid attributing achievements to programmes without sufficient empirical justification.

Over time, educational cooperation among OIC member states has expanded beyond traditional academic assistance to encompass innovation, technological modernization, and the development of scientific expertise. The OIC Youth Strategy identifies improved literacy and higher education participation as important priorities while simultaneously emphasizing equal educational opportunities, modern digital technologies, greater participation of girls, and the acquisition of scientific and technological knowledge [2]. An important principle underlying this approach is the recognition of young people as active contributors to socioeconomic development rather than passive beneficiaries of institutional assistance. Consequently, policies intended to promote scientific participation should address not only access to education but also the capacity of young individuals to participate independently and effectively in research and innovation.

A significant development in this process occurred during the first OIC Summit on Science and Technology, organized in Astana on 10–11 September 2017. The summit marked an important stage in establishing more systematic scientific and technological cooperation among member countries. The STI Agenda 2026 adopted in connection with this initiative emphasized the relationship between scientific awareness among young people, research standards, employment opportunities, digital development, water and food security, and healthcare challenges [3, 10]. Furthermore, the Astana Declaration underscored the importance of investment in scientific development, international exchange of expertise, effective innovation systems, and appropriate intellectual property arrangements [4]. These priorities demonstrate that financial support for education alone cannot guarantee meaningful scientific progress. Sustainable research achievements also depend on access to modern laboratories, qualified academic supervision, consistent funding mechanisms, and opportunities to apply scientific findings in practice.

Recent statistical evidence provides additional insight into the achievements and continuing challenges of youth development across OIC member states. According to SESRIC's State of Youth in the OIC Member States 2025, the literacy rate among young people reached 83.8%, while the number of students enrolled in tertiary education increased from 34.1 million in 2014 to 46.8 million in 2024 [5]. At the same time, the reported youth unemployment rate stood at 10.9% in 2024, whereas 26.3% of young people were classified as not being in employment, education, or training (NEET) [5, 6]. Although these indicators do not directly measure scientific productivity, they reveal important structural difficulties in the transition from education to professional activity. In particular, the expansion of higher education has not



always been matched by corresponding growth in employment opportunities capable of utilizing the qualifications and competencies of graduates.

A number of interconnected factors contribute to these difficulties. Differences in the availability of research laboratories, technological equipment, and dependable digital infrastructure create unequal conditions for conducting scientifically valuable investigations. Insufficient coordination between university educational programmes and the practical requirements of economic sectors may also reduce opportunities for applying acquired knowledge to technological development. Moreover, young women, researchers living in rural communities, and scholars affected by displacement may encounter additional barriers to accessing academic institutions and professional research networks. For these reasons, evaluating the effectiveness of OIC initiatives for young scientists requires a comprehensive approach. Such an assessment should consider educational accessibility, research preparation, career development, and equitable distribution of opportunities rather than focusing exclusively on the overall number of programme participants.

An important institutional instrument for implementing scientific cooperation within the OIC is the Standing Committee on Scientific and Technological Cooperation (COMSTECH). Through its Consortium of Excellence, COMSTECH facilitates cooperation between universities, research centres, and other scientific institutions located in member countries. Its activities are designed to encourage research internships, specialized professional training, institutional collaboration, and the commercialization of technological innovations. According to the programme description, the initiative aims to provide training opportunities for 100 young scientists and engineers each year through research fellowships lasting approximately six to twelve months [7]. However, this figure represents an established programme target and should not be interpreted as independently confirmed evidence of the actual annual number of completed fellowships.

COMSTECH also implements initiatives intended to expand opportunities for young female scientists, promote collaborative research projects, provide specialized training, and support academic development in artificial intelligence and other emerging technological fields [8]. These activities demonstrate the potential importance of scientific diplomacy in establishing sustainable academic relationships between OIC member states. From an analytical perspective, this process may be understood through three interconnected dimensions. International academic mobility facilitates the exchange of scientific knowledge and professional experience. Continued cooperation between participating institutions contributes to the development of research networks. Finally, interaction between academic institutions and enterprises can create favourable conditions for the practical application of scientific discoveries. Nevertheless, this conceptual sequence should not be considered an automatically occurring process. Determining its actual effectiveness requires systematic observation of programme participants, comparable indicators of research achievements, and evidence demonstrating the continuation of institutional cooperation after the completion of individual projects.

Uzbekistan occupies a noteworthy position in the historical development of educational and scientific diplomacy within the OIC. The 43rd Session of the OIC Council of Foreign Ministers, organized in Tashkent on 18–19 October 2016, emphasized the significance of education and enlightenment in promoting international peace, cooperation, and sustainable development.



Subsequently, during the 2017 Astana Summit, Uzbekistan supported initiatives aimed at strengthening scientific and technological interaction among OIC member countries [1, 3]. These diplomatic events constitute important milestones in the development of Uzbekistan's international scientific engagement. Nevertheless, their historical importance should be distinguished from measurable evidence concerning the effectiveness of scientific programmes implemented in subsequent years.

Further development of Uzbekistan's cooperation with OIC institutions could be achieved by establishing stronger connections between diplomatic initiatives and practical academic projects. In particular, higher education institutions could participate in competitive international research programmes, jointly supervised doctoral studies, and exchanges involving research laboratories and scientific specialists. Priority areas for such cooperation may include water resource management, renewable energy, digital technologies, and public health, given their practical importance for socioeconomic development. The selection of participating researchers should follow transparent, merit-based procedures while also considering existing regional and gender inequalities. Furthermore, research initiatives should establish clearly defined expected outcomes before implementation. These may include jointly published academic articles, collaboratively developed datasets, experimental prototypes, or measurable improvements in institutional research capabilities. The proposed measures constitute recommendations formulated within this study and should not be understood as programmes already introduced throughout Uzbekistan.

The OIC Secretariat's review of STI Agenda 2026 in February 2026, together with preliminary discussions concerning a new scientific and technological agenda for 2027–2037, creates favourable conditions for reconsidering approaches to monitoring international scientific cooperation [9]. In this regard, greater emphasis should be placed on evaluating actual programme outcomes rather than merely recording the number of activities conducted. Relevant assessment criteria may include the proportion of researchers successfully completing fellowships, their subsequent employment in scientific institutions, the continuity of international co-authorship, the quality and practical application of research results, participation by women, and the sustainability of partnerships between universities and research organizations. Statistical evaluation should also be supplemented by qualitative research examining differences in the institutional capacities of member states and the professional experiences of researchers at the beginning of their academic careers.

The findings of this study indicate that scientific cooperation within the OIC has gradually evolved from a model primarily emphasizing educational solidarity towards a broader institutional framework incorporating research capacity development, technological innovation, and international scientific collaboration. The increasing number of students participating in tertiary education reflects positive progress in educational accessibility. Nevertheless, the continuing prevalence of young people outside employment, education, and training demonstrates that educational expansion alone is insufficient to establish effective scientific and professional development systems. COMSTECH provides important opportunities for international academic cooperation, research training, and institutional interaction, although its long-term contribution should be determined through independently verifiable achievements rather than announced programme objectives. For Uzbekistan and other OIC member states, sustainable progress in supporting young scientists depends on



combining academic mobility, collaborative research, equitable participation, and transparent evaluation within stable and mutually beneficial institutional partnerships.

Conclusion. The findings of this study demonstrate that the Organization of Islamic Cooperation has progressively strengthened its commitment to supporting young scientists through educational initiatives, scientific diplomacy, and institutional cooperation. The OIC Youth Strategy, STI Agenda 2026, and COMSTECH programmes have established important foundations for promoting academic mobility, scientific innovation, and international research partnerships among member states. Nevertheless, the expansion of educational opportunities has not always resulted in corresponding improvements in research productivity and youth employment.

Uzbekistan's active participation in OIC initiatives provides significant opportunities to strengthen its scientific potential and expand international academic cooperation. In this regard, particular attention should be given to joint research projects, researcher exchange programmes, modern research infrastructure, and inclusive participation of young scholars. Furthermore, transparent monitoring and systematic evaluation of programme outcomes are essential for ensuring the effectiveness of institutional support. Strengthening these mechanisms can contribute to the professional development of young researchers, the advancement of scientific diplomacy, and sustainable scientific and technological cooperation between Uzbekistan and other OIC member states.

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