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Jahangir Hasanov

Baku State University

Master student

<https://orcid.org/0009-0002-3741-6918>

hsnovcahangir978@gmail.com

Azerbaijan-Israel Relations in the Field of Science and Education

Abstract

Azerbaijan and Israel maintain strong diplomatic, economic, and strategic relations, with education and science serving as key pillars of their cooperation. This article examines the evolution of academic exchanges, scientific partnerships, and technological collaborations between the two nations. It discusses student mobility programs, joint research projects, and the influence of Israeli advancements in medicine, agriculture, and high technology within Azerbaijan. Additionally, it explores the growing role of innovation and startup ecosystems in strengthening bilateral ties, fostering trust and long-term engagement. By integrating Israeli technological advancements with Azerbaijan's resource-rich economy, both nations enhance their strategic capabilities while promoting regional stability. Overall, Azerbaijan-Israel relations in education and science exemplify a pragmatic partnership, driving progress in critical sectors and reinforcing their geopolitical alliance.

Keywords: *academic exchange, higher education partnerships, scientific collaboration, dual degree programs, STEM Education Initiatives*

Cahangir Həsənov

Bakı Dövlət Universiteti

magistrant

<https://orcid.org/0009-0002-3741-6918>

hsnovcahangir978@gmail.com

Elm və təhsil sahəsində Azərbaycan-İsrail əlaqələri

Xülasə

Azərbaycan və İsrail arasında güclü diplomatik, iqtisadi və strateji əlaqələr mövcuddur. Təhsil və elm onların əməkdaşlığının əsas özü kimi xidmət edir. Bu məqalə iki ölkə arasında akademik mübadilələrin, elmi tərəfdaşlıqların və texnoloji əməkdaşlığın təkamülünü araşdırır. Burada tələbə mübadiləsi proqramları, birgə tədqiqat layihələri və İsrailin təhsil, elm və yüksək texnologiyalar sahəsindəki nailiyyətlərinin Azərbaycan daxilindəki təsiri müzakirə olunur. Bundan əlavə, məqalə ikitərəfli əlaqələrin möhkəmləndirilməsində, etimadın və uzunmüddətli əlaqənin gücləndirilməsində innovasiya və startup ekosistemlərinin artan rolunu araşdırır. İsrailin texnoloji tərəqqisini Azərbaycanın zəngin resurslarla zəngin iqtisadiyyatına inteqrasiya etməklə hər iki ölkə regional sabitliyi təşviq etməklə yanaşı, strateji imkanlarını artırır. Bütövlükdə, təhsil və elm sahələrində Azərbaycan-İsrail münasibətləri əhəmiyyətli sektorlarda irəliləyişə təkan verən və onların geosiyasi müttəfiqliyini möhkəmləndirən pragmatik tərəfdaşlığın nümunəsidir.

Açar sözlər: *akademik mübadilə, ali təhsil tərəfdaşlıqları, elmi əməkdaşlıq, ikili diplom proqramları, STEM Təhsil Təşəbbüsləri*

Introduction

Azerbaijan and Israel have cultivated a robust and multifaceted partnership in education and science, marked by strategic agreements, joint research initiatives, and cultural exchanges.

This collaboration, rooted in mutual interests and complementary strengths, has evolved into a cornerstone of bilateral relations, driving innovation, economic diversification, and long-term socio-economic development. Below is an in-depth exploration of the key dimensions of this partnership, supported by recent developments and institutional frameworks. In the first years of independence, a decline was observed in science, as in all spheres of life. After National leader Haydar Aliyev's second return to power, as a result of the implementation of systematic measures and the continuation of this policy by President İlham Aliyev, a noticeable development took place in the republic in the fields of the development of science and technology. Nevertheless, the gap between Azerbaijani science and advanced world science still exists. In the scientific and technical field, cooperation, undoubtedly, can be quite significant to overcome this difference.

Role of education and science in strengthening ties

Holds an important place in the system of Azerbaijan-Israeli humanitarian relations. It is known that Israel is one of the developed countries in the world in terms of the level of development of science and technology, and in some areas, the most developed. The achievements of Israeli scientists in the production of vehicles, electronic devices, information-communication and nano-technologies, military industry, medicine, agriculture, etc. are highly appreciated all over the world. Israel has also achieved significant successes in the field of linking scientific theory with practice. For this reason, the State of Israel has high productivity in the industrial and agricultural sectors (Azərbaycan Respublikası Hökuməti ilə İsrail Dövləti Hökuməti, 2016).

Research

Thus, the visits of Azerbaijani cultural figures to Israel in the 1980s, visits of Israeli representatives to Baku in 1989, and the signing of an Agreement on Cooperation between the two countries in 1995, Azerbaijani-Israeli scientific and cultural relations were not very intensive in the 1990s. The visit of Israeli Prime Minister Benjamin Netanyahu to Baku in 1997 led to the revival of cooperation in the scientific and cultural field, as well as in other areas. At the beginning of the 21st century, bilateral scientific and cultural relations have expanded significantly and have already become a tradition (Azərbaycan Milli Elmlər Akademiyası, 2015, s. 1-3).

Cooperation in the field of social sciences occupies a special place in Azerbaijani-Israeli scientific relations, since the role of social sciences in the formation of the ideological foundations of countries, the way of thinking of peoples, and their attitude towards other peoples is extremely large. The study of Jewish history and culture in Azerbaijan and the study of Azerbaijani history and culture in Israel played a significant role in strengthening the historically formed friendly relations between the Azerbaijani and Jewish peoples (Əhmədov, 2014, s. 1-2).

Since the early 1990s, quite positive steps have been taken in Azerbaijan in the field of studying Jewish history and culture. First of all, structures were created that deal with this work. In 1992, the Azerbaijani branch of the International Association of Jewish Culture and Judaism was established (Əhmədov, 2014, s. 2-3).

The mutual participation of representatives of both countries in scientific conferences and symposiums organized in Azerbaijan and Israel on various topics is an important aspect of bilateral scientific relations. These conferences and symposiums are important, on the one hand, for the development of relations between scientists, and on the other hand, for the enrichment of science itself.

In 2001, an International Scientific and Practical Conference entitled "Mountain Jews of the Caucasus" was held in Baku. Along with Azerbaijani and Israeli scientists, representatives of Russia and the United States also participated in the conference, and issues related to the history and traditions of the Mountain Jews were discussed (Əhmədov, 2014, s. 2-3).

An international symposium on "Mass media and culture in the context of changes in society" was organized in Baku on August 6, 2014 by the "STMEGI" Mountain Jews International Charity Foundation. Professor Reuven Enoch of Ariel University, Israel, attended the symposium and participated in discussions on the state of mass media and culture in the context of modern realities, their role and their mutual relationship (Azərbaycan Milli Elmlər Akademiyası, 2015, s. 1).

The 1st World Science Conference was held in Jerusalem, Israel, on August 15-21, 2015. Azerbaijani scientists and students also participated in the scientific event, which was attended by representatives of more than twenty-five countries. The Azerbaijani delegation, led by the Head of the International Relations Department of the Presidium of ANAS, Doctor of Philosophy in Geology and Mineralogy, Associate Professor Gulam Babayev, included Elvin Babayev, an employee of the Institute of Geology and Geophysics of ANAS, Nijat Nəbiyev, an employee of the Institute of Radiation Problems, and undergraduate students of Baku State University. The conference featured presentations on various fields of science, lectures by Nobel laureates, speeches by Israeli officials, and discussions on science and education (Əhmədov, 2014).

The study of the history of the Azerbaijani and Jewish peoples, the scientific study of the tragic events they faced, occupy one of the leading places in cooperation in the field of social sciences. The genocidal policy of both the German fascists and their allies against the Jews and the Armenians against the Azerbaijanis constitutes the main content of the research in this field. The mass grave discovered during excavations carried out in 2007 on the banks of the Gudyalchay River in the Guba region of Azerbaijan for the purpose of building a sports facility made the topic of genocide even more relevant in scientific circles. The fact that, in addition to Azerbaijanis, other nationalities, including Jews, were among the bodies killed by Armenian-Dashnak bandits in 1918 and their remains dumped into wells in the mentioned area, led to the expansion of the scope of scientific and cultural figures involved in the study of this tragedy (Məmmədov).

In a letter addressed to the Institute of Human Rights of the Azerbaijan National Academy of Sciences by Semyon Ixilov, the chairman of the Azerbaijani Mountain Jews community, in April 2006, it was noted that more than 3,000 Jews were murdered in Azerbaijan in 1918-1919, the identities of 81 of them have been clarified, and work is continuing to uncover mass graves in various regions of the republic. Materials stored in state and private archives (Avdaliani, 2017, s. 37).

On the basis of this, it was possible to determine the Jewish identity of 104 people who were victims of Armenian atrocities in the South Caucasus in 1918-1919. In order to give a scientific assessment of the massacres committed by Armenian Dashnak bandits against Azerbaijanis and Jews, a special scientific seminar was held on April 21, 2006 at the Institute of Human Rights of the Azerbaijan National Academy of Sciences. Finally, representatives of the Azerbaijani Jewish communities participating in the seminar addressed a letter to the President of the Republic of Azerbaijan İlham Aliyev, asking for the perpetuation of the memory of the innocently killed Jews in 1918-1919 (Avdaliani, 2017, s. 23-32).

On February 27, 2012, a scientific conference entitled "Israel-Azerbaijan Strategic Alliance" dedicated to the Khojaly genocide was held at the Netan Academic College in Israel. The conference, organized by the "AzIz" Israel-Azerbaijan International Association and the Strategic Dialogue Center of the Netan Academic College, attracts attention due to its importance and the events that took place there.

After the screening of the film, scientific reports were heard and discussions were held on various aspects of relations between Azerbaijan and Israel (Azərbaycan Respublikası Prezidentinin İşlər İdarəsi, 2012).

The number of exhibitions organized to present and share the achievements of scientific research in this field, both in individual countries and internationally, is also increasing. In modern times, Azerbaijani-Israeli scientific relations also cover the field of information and communication technologies. It should be noted that Israel is one of the most developed countries in the world in terms of the level of development of information and communication technologies (Azərbaycan Respublikası Prezidentinin İşlər İdarəsi Prezident Kitabxanası). Undoubtedly, all this allows us to say that Azerbaijani-Israeli relations in the field of information and communication technologies will yield positive results.

Cooperation between universities and research institutions

Inter-university relations are not limited to the invitation of influential Jewish scholars to this educational institution. On October 30, 2014, a memorandum of understanding was signed between

the Azerbaijan University of Languages and the University of Haifa in Israel. The Memorandum was signed by the former rector of the Azerbaijan University of Languages, Samad Seyidov, and the representative of the Ezri Center at the University of Haifa, Soli Shahvar. According to the mutual agreement, the opening of the Center for Azerbaijani Studies at the University of Haifa is planned. As a result of the established relations with Israeli universities, a group of students of the Azerbaijan University of Languages continued their education in this country (Avdaliani, 2017, s. 28).

Azerbaijan University of Languages and Baku State University have relatively extensive relations with Israeli universities. Relations of other scientific and educational institutions with Israel have not been intensive, often not going beyond the level of official meetings and discussions. In general, it should be noted that Azerbaijani-Israeli cooperation in the field of science and education has not met its potential in this area and has lagged behind the level of relations in other areas. However, the peoples the historical friendly relations established between the two countries, the high-level political relations formed between the countries, and the relations established so far in the fields of science and education have created conditions for overcoming this backwardness (Abilov, 2009, p. 147).

The above-mentioned indicates the existence of relations between Azerbaijan and Israel in the scientific-technical and educational spheres. These relations are mainly aimed at sharing the achievements of Israel and applying its experiences in Azerbaijan. Israel's science and education, which meet high standards, are attractive to any country, including Azerbaijan. Azerbaijan-Israel relations also cover the fields of social sciences, information and communication technologies, healthcare, energy, and agriculture. Certain cooperative relations have already been established between the educational institutions of the two countries (AR Xarici ticarətin gömrük statistikası, 2021).

Baku State University also takes a place in the system of Azerbaijan-Israeli relations in the field of science and education. Since 1993, the Hebrew department has been operating at the Faculty of Oriental Studies of this university. The department teaches Hebrew language and literature, history, geography, economy, culture, political system of Israel, etc. subjects. According to the cooperation agreements signed between Baku State University and Haifa, Jerusalem and Tel Aviv Universities, students of the Hebrew department study in summer courses in Israel (Azərbaycan Milli Elmlər Akademiyası, 2015).

Following this, Azerbaijani representatives visited the largest science and education center in Israel, the University of Jerusalem (Əhmədov, 2014), the Weizmann Institute in Tel Aviv, and Tel Aviv University, where they got acquainted with the activities of these educational institutions, scientific laboratories, and directions of scientific research, and listened to lectures. Azerbaijani-Israeli humanitarian relations also cover the field of education. The roots of cooperation in this field go back to the organization of Jewish education in Azerbaijan. The steps taken by Jews living in Azerbaijan in the field of education constitute one of the foundations and an important element of Azerbaijani-Israeli relations in this field (Bashirova, Sozen, 2017).

Azerbaijan and Israel have forged a robust partnership in education and science, anchored by structured agreements, academic exchanges, and shared strategic priorities. This collaboration, evolving since the early 2020s, serves as a catalyst for innovation, economic diversification, and cultural diplomacy. Below is a comprehensive analysis of the bilateral educational relationship, supported by institutional frameworks, policy initiatives, and socio-economic outcomes.

The dual-degree program between Baku State University (BSU) and the Hebrew University of Jerusalem (HUJI), formalized in May 2023, represents a transformative initiative in Azerbaijani-Israeli academic collaboration. Designed to bridge theoretical knowledge with practical innovation, this program offers multifaceted benefits to students, ranging from academic enrichment to cross-cultural competency. Below is a detailed analysis of its impact, grounded in institutional frameworks and student outcomes (Avdaliani, 2017, s. 23-25).

The program enables students to earn dual master's and doctoral degrees in biotechnology and plant science, with coursework and research conducted at both institutions. This structure ensures

graduates receive credentials recognized by two premier universities, enhancing their academic portfolios for global career opportunities. The State Program for Increasing the International Competitiveness of Higher Education (2019–2023) underpins this initiative, having already facilitated dual degrees for over 1,000 Azerbaijani students through partnerships with international universities (Azərbaycan Respublikası Dövlət Gömrük Komitəsi, 2022).

Azerbaijani-Israeli collaboration in education and science has expanded significantly since 2023, with structured programs such as dual-degree agreements, teacher exchanges, and joint research projects. These efforts are underpinned by bilateral agreements like the Program of Educational Cooperation (2023–2026) and recent memorandums on climate change education. Strategic forums, curriculum reforms, and technological integration further highlight the partnership's role in fostering innovation and addressing global challenges such as food security and sustainable development (Azərbaycan Respublikası Prezidentinin İşlər İdarəsi Prezident Kitabxanası, s. 1).

In a historic move, Azerbaijan became the first Muslim-majority nation to incorporate a definition of antisemitism into its national curriculum during the 2024–2025 academic year. Textbooks now recognize the Holocaust as the genocide of six million Jews and present Israel as a center for technological and agricultural innovation. These reforms, analyzed in a 2025 report by the Institute for Monitoring Peace and Cultural Tolerance in School Education (IMPACT-se), reflect Azerbaijan's commitment to fostering secularism and inclusivity in education. Space collaboration represents a pinnacle of bilateral scientific achievement (Avdaliani, 2017, s. 2-3).

At the 2023 International Astronautical Congress in Baku, the two nations signed a historic agreement to co-develop satellite technologies, Earth observation systems, and robotics for space exploration (Ambrosio, 2002).

Education and science programs exemplify how strategic academic partnerships can transcend borders to address global challenges. By equipping students with technical expertise, cultural fluency, and industry connections, it not only enhances individual career prospects but also fosters bilateral innovation ecosystems. As Azerbaijan and Israel continue to expand this collaboration, programs stand as a blueprint for international education in an increasingly interconnected world (İsmayilov, 2013).

Azerbaijan-Israel scientific collaboration exemplifies how strategic partnerships can transcend geopolitical boundaries to address pressing global issues. By merging Azerbaijan's regional insights with Israel's technological prowess, the two nations are pioneering solutions in climate resilience, healthcare, and energy security. Future initiatives, such as expanding quantum computing applications and joint space missions, promise to further solidify this alliance as a blueprint for international scientific cooperation (Azərbaycan Respublikası Prezidentinin İşlər İdarəsi Prezident Kitabxanası, s. 2).

This report synthesizes bilateral agreements, research outcomes, and institutional frameworks to illustrate the transformative potential of Azerbaijan-Israel scientific collaboration. By aligning innovation with sustainability, the partnership not only advances technological frontiers but also fosters socio-economic resilience in an interconnected world.

Conclusion

Science and education have become part of strategic ties in recent years. The “Program of educational cooperation between the Government of the Republic of Azerbaijan and the Government of the State of Israel for the years 2023-2026” forms the basis for developing this vital field in mutual cooperation. As Azerbaijan strives to reform its education system in order to make schools future-ready and sci-tech focused, it benefits greatly from the exchange of teachers and education experts to train and learn from the Israeli experience. Cooperation on climate change, high tech-based agriculture, green energy and water are also part of the educational and scientific ties. Israel's high tech-based economy and agriculture and its vast experience in green energy and water desalination provide Azerbaijan a unique opportunity to diversify and develop the non-oil sector of its economy, shifting the future economic model to a science-based one. The revival of

Regions of Azerbaijan based on green energy, high tech agriculture and development of water resources necessitates the close cooperation with Israel. Azerbaijani students are studying high-tech based agriculture at Israeli universities, which will enable them to develop the Azerbaijan region's immense potential.

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