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Iran's Scientific Diplomacy in the South Caucasus After 1991

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Abstract: Today, scientific diplomacy is a new concept in the field of foreign policy. In other words, a diplomacy is a tool for realizing foreign policy. On this basis, diplomacy meets foreign policy goals by transforming sources of power into real power. Scientific diplomacy affects the political and international relations of countries. History shows evidence and examples that have led to the strengthening of diplomatic relations and cultural and scientific exchanges. Thus, the main theme of scientific diplomacy is the use of the capacities of science and technology to achieve the goals of foreign policy and the interests of countries. It is the use of scientific power to develop and deepen diplomatic relations with other countries. In this regard, due to the cultural commonalities between Iran and the countries of the South Caucasus region, the growth and development of the entire region can be accelerated. Among the goals of Iran's scientific diplomacy in the region are areas such as professors and students exchange, joint research and educational projects, joint distance education courses, joint scientific conferences, and facilitating the participation of professors in each other's scientific conferences. In this research, have tried to provide a comprehensive definition of scientific diplomacy and its important functions and components on a case-by-case basis to study Iran's scientific diplomacy in the South Caucasus region.

Keywords: Scientific and Technological Diplomacy, South Caucasus, Soft Power, National Interests, Islamic Republic of Iran

INTRODUCTION

Diplomacy, as a peaceful, low-cost, and at the same time, the effective method plays an important role in advancing foreign policy and securing the national interests of countries. Along with international changes and developments in the domestic politics of countries, diplomacy has also undergone various changes and developments throughout history and in this way, it has taken various forms according to time and place. In the era of global interdependencies and the shift in power from "hardware power" to "software power", new forms of diplomacy have emerged that use soft power tools instead of relying on hard power tools (Davoodi, 2014). Scientific diplomacy emphasizes the use of scientific cooperation between nations, common issues, and the establishment of constructive international participation. Many experts have offered various definitions of scientific diplomacy. Nevertheless, so-called scientific diplomacy refers to a set of academic or technical exchanges, scientific and research collaborations. Accordingly, scientific diplomacy is one of the tools that has recently been considered by the political elites of different countries. Since Iran has made significant progress in various fields of science in recent years, this field has been provided to pursue its national interests beyond international borders by using its scientific capacities. This is known in the field of international relations as "scientific diplomacy". Given the historical importance of Iran and the countries of the South Caucasus region and their historical, cultural, and civilizational commonalities, recognizing and explaining Iran's scientific diplomacy in advancing the interests and goals of the country's foreign and scientific policy has recently received much attention from political elites and experts in this field. After the collapse of the Soviet Union and the establishment of newly established governments in the South Caucasus, which was the product of profound changes in the political structure of the Eastern superpower, a new chapter in the relations of the Islamic Republic of Iran with the countries of the South Caucasus began. The creation of newly established governments was the result of the establishment of a new order based on new values. Therefore, explaining the tools of Iran's scientific diplomacy in these countries and also examining the role of influential factors governing bilateral scientific relations to make Iran's foreign policy decisions has a special place. Thus, according to Iran's foreign policy, based on the expansion of bilateral relations with its neighbors and also considering the historical and civilizational history of the countries of the South Caucasus region (Azerbaijan, Armenia, and Georgia), the use of science diplomacy in the bilateral relations between Iran and the mentioned countries is of great importance. In this article, the authors seek to answer the question of what tools Iran uses in advancing and achieving the goals of its scientific diplomacy in the countries of the South Caucasus region (Azerbaijan, Armenia, and Georgia). Exchange of professors and students, conducting joint research and educational projects, holding distance learning courses jointly and holding joint scientific conferences, and facilitating the

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participation of professors in each other's scientific conferences and the like, are the tools used to achieve the goals of Iran's scientific diplomacy in the countries of the South Caucasus region.

The Concept of Scientific Diplomacy

Scientific diplomacy is a new concept in international relations. Its main theme is the use of scientific capacities to achieve foreign policy goals. Scientific diplomacy has three dimensions. One of its dimensions is the use of science as a tool to achieve diplomatic purposes. In other words, science will be a tool for the diplomatic system to achieve its foreign policy goals. The other dimension is diplomacy for science and technology, that is, diplomatic capacities are used for the growth and development of science and technology in the countries. This is done by assisting in international cooperation, meeting scientific and technological needs, and providing diplomatic support to international organizations and treaties (such as student-professor exchanges). The third dimension is in the direction of soft power. That is, to use the resources of science and technology to influence and create benefits for the people of other countries. Therefore, science and technology diplomacy is a two-way phenomenon. That is, on the one hand, diplomacy can contribute to scientific and technological progress, and on the other hand, science and technology can be used as the realization of foreign policy goals. Given the importance of research and the explanation of scientific diplomacy as an emerging concept in international relations, in the following, to clarify the nature and concept of scientific diplomacy, definitions of it are provided. Scientific diplomacy is one of the emerging concepts that with the advancement of science and technology in all areas, especially in areas affecting the political relations of governments and the prominent role of science and technology in solving global challenges related to population growth, environment, food, energy, natural resources, and poverty, which is no longer a problem of a single country due to globalization and requires international cooperation, is considered. Scientific diplomacy is a process in which countries show their progress and interests in international scientific fields using scientific methods. Scientific diplomacy, if used to meet global challenges, strengthen international cooperation, and increase the influence and power of one country over another, because it can show a positive image of countries, is an important factor in strengthening a country's soft power (Nye, 2004). Accordingly, scientific diplomacy is a term that encompasses both aspects of the role of science in scientific and international cooperation. That is scientific cooperation to advance foreign policy goals and the use of diplomacy to achieve scientific results. This shows that science diplomacy is a vital component in the field of public diplomacy and is an expression of soft power. In the definition of scientific diplomacy, it should be stated that scientific interactions between a country and other international actors that serve to advance the foreign policy of that country or political relations between a country and other international actors that pave the way for science and technology interactions, diplomacy They say it is scientific (Mirkoushesh, 2014). Accordingly, scientific diplomacy is the use of scientific cooperation between nations and nationalities to solve common problems and establish easy access. Experts have come up with various definitions to describe scientific diplomacy; but the term is very broad and includes all formal and informal interactions of science, research, education, technology, and innovation at the engineering and academic levels (Hormats, 2012). Scientific diplomacy is a concept that received serious attention after World War II. At the time, scientific diplomacy often focused on scientific cooperation between the United States and the Soviet Union that was in various fields such as medicine, nuclear, aerospace industries, and in general scientific and technological fields. Accordingly, another definition of scientific and technological diplomacy can mention the use of science and technology capacities to achieve foreign policy goals, as well as the use of diplomacy capacities to advance science and technology (Zolfagharzadeh & Sanaei, 2013). On the other hand, "Nina Fedorov" defines scientific diplomacy as follows: Scientific diplomacy is the use of scientific cooperation between countries to address the common problems that humanity faces in the 21st century and to build constructive international cooperation (Fedorov, 2009). Thus, the three major indicators that can be presented to define and understand the concept of science diplomacy are as follows (Analytical Report, 2011):

- **Political Goal:** If it pursues science and technology interactions with foreign countries specifically and with political goals, Perhaps the most obvious example in this regard is the scientific and technological sanctions of a country that are carried out with a specific political goal, which is to change the behavior of that country.
- **Political Implications:** If science and technology interactions with foreign countries

have specific political implications and consequences. That is if an international interaction leads to political concessions, it has a direct effect and if it leads to the production of wealth and has an effect after increasing the power of a country, it is an indirect effect.

- **Occur in the Political Context**: One country's interactions with another are due to the political context between the two countries. For example, holding an exhibition of Iranian advanced technologies in Russia is due to the existence of a political context and close political relations between Iran and Russia.

Based on the above topics, macro indicators of scientific diplomacy can be drawn in the following figure:

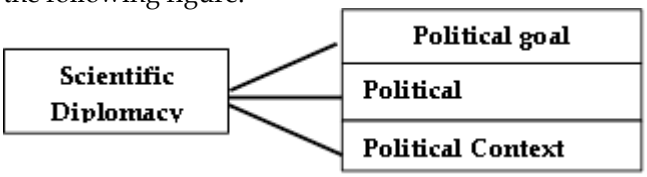

Figure 1: Indices of Scientific and Technological Diplomacy
Resource: Analytical Report, 2011

Finally, in a common definition, scientific diplomacy can be defined as follows: The purpose of science diplomacy is to use science and technology to help build bridges and increase relations between societies, gain prestige and influence the thoughts of nations (Ali Karimi, 2015: 72). Thus, in the next topic, the components and goals of scientific diplomacy will be examined.

Components, Approaches, and Goals of Scientific Diplomacy

Scientific and technological diplomacy has several dimensions and components and in a general category it can be divided into 6 dimensions as follows (Mohseni, 2013):

- **Cultural Dimension:** The most important dimension is scientific diplomacy. The cultural dimension includes 6 components of educational programs and intercultural interactions, sending cultural ambassadors consisting of academics and cultural elites to other universities in the world, sending scientific counselors abroad, communicating with Islamic Studies Chairs, holding Iranian studies chairs, and supporting Persian language chairs abroad and important foreign languages in Iran.
- **Research Dimension:** It is one of the important dimensions in the quantity and quality of scientific diplomacy. Universities use research to bring about change in societies; because the production of knowledge enables new technology and the growth and development of new technologies change the face of societies day by day. International cooperation in the field of research has a long history. The scientific and research activities of scientists and researchers across history have crossed international borders and provided a good platform for strengthening interactions and exchanges between nations, cultures, and civilizations, and ultimately internationalization. Academic research has brought great achievements to human beings in various fields of science, technology, culture, social, political, and economic. These achievements are the result of international research, activities, and efforts and have been achieved with the public participation of different nations of the world with different contributions in different historical periods. Holding conferences, implementing joint research projects, launching international journals and the like are among the most important research activities in the field of international exchanges.
- **Educational Dimension:** In academic activities, refers to the transfer of knowledge produced to the younger generation, to train educated graduates and train specialized human resources for society, which leads to the emergence and formation of new ideas and worldviews and social philosophies and It also becomes a place for thoughts to collide. In the international arena, the educational dimension deals with the basic and important activities of the university, such as joint curricula, joint academic disciplines, joint international exams, and the like.
- **Executive Dimension:** All economic, social, and cultural sectors of society to have access to the latest research findings should establish close relations with universities, and of course, the universities need these interactions to continue their functions. In the field of international scientific cooperation, the executive dimension is active participation in international scientific associations, benefiting from the financial support of international forums, concluding scientific, educational, and technical agreements and memoranda, establishing university branches in other countries, and the like.
- **Personnel Dimension:** It is obvious that the presence of capable personnel in the field of science diplomacy is one of the effective

factors in its promotion. This dimension includes seven components of sending students abroad (scholarships), attracting foreign students, proficiency of professors and students in important foreign languages, attracting foreign faculty members, sending faculty members to teach in foreign universities as guests, giving study opportunities to professors, and students.

- **Welfare Dimension:** Usually forgotten as a dimension, but there is an influence in scientific diplomacy that severely overshadows the results of these activities. Granting student facilities for visas, residency, work permits, etc. by awarding academic prizes can produce significant results in international scientific exchanges.

To better explain science and technology diplomacy, three approaches can be considered. This separation is in the theoretical realm and does not mean separation in reality. In other words, it is possible to take any action in practice but fall into several categories in terms of results. Therefore, in a general view, scientific diplomacy can be extracted in three approaches. Based on this, it can be said that three approaches can be distinguished in scientific diplomacy (Mohsenisehi & Mohsenisehi, 2015):

- **Using Science and Technology as a Tool of Diplomacy:** Science and technology will be at the disposal of the diplomatic apparatus through which to achieve foreign policy goals. This approach can be divided into four categories: use of science and technology as punitive tools (such as sanctions), use as an incentive (US aid for foreign policy alignment), an excuse to improve relations (Obama's efforts at the beginning of his presidency to improve relations with the Islamic world through scientific cooperation) and finally, the creation of dependencies that occur most often in relations with satellite countries.
- **Diplomacy for Science and Technology**: This approach means using diplomatic capacities for the growth and development of science and technology in the country. This approach is also divided into three categories: marketing assistance, meeting scientific and technological requirements, and diplomatic support in international organizations and treaties.
- **Soft Power in Scientific Diplomacy:** In the sense that the resources of science and technology are used to influence and create benefits for the people of other countries.

Based on the topics mentioned above, the following figure shows three approaches to science and technology diplomacy:

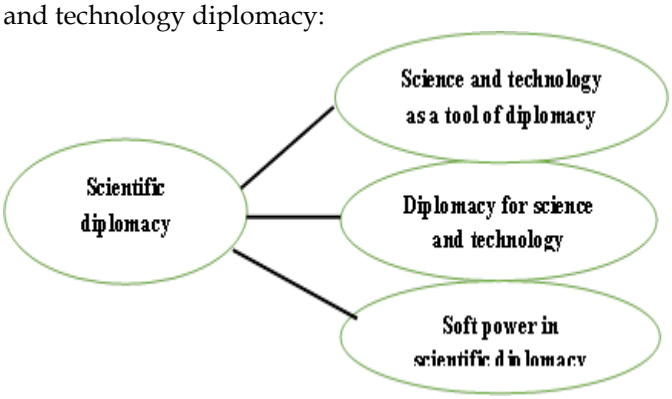

Figure 2: Three approaches to scientific and technological diplomacy
Resource: Analytical Report, 2011

After recognizing the components and functions of scientific diplomacy at the end of this section, we will explain the goals of science diplomacy. In a comprehensive view, the goals of scientific diplomacy are as follows (Davoodi, 1393):

- Creating a suitable environment for the Ministry of Foreign Affairs to play a more effective role in the development of science and technology in the national innovation system
- Use of scientific and technological achievements, especially technical knowledge and knowledge-based products as a tool for the development of diplomacy
- Provide a favorable image of national capabilities and authority and gain international prestige as a country developed to advance the goals of diplomacy
- Being on the path of world technology developments and laying the groundwork for technology transfer with the help of official diplomacy
- Establishing and improving relations with different countries due to the low sensitivity of science and technology in the international arena and its effectiveness throughout the country
- Creating added value and profit through the development of scientific and technological activities as a result of scientific and technological interactions with different countries

Iran's Science and Technology Diplomacy

In terms of the history of scientific (academic) diplomacy, was used for the first time

in the University of Tehran and in the first educational meeting and symposium of the directors of international relations of the universities and research centers of the country by the then President of the University of Tehran in 2007. At that meeting, scientific-academic diplomacy was mentioned as the most transparent, healthy, and humane relations between nations, which should not be confused with political issues; was also acknowledged that to prevent political pressures, the International Union of Universities and all scientists in the world should unite to break down political barriers and establish healthy relations between scientists and academics around the world (Zanjani, 2007). These interactions at the level of scientific institutes and prominent scientists and professors should be expanded in a targeted manner. Is worth mentioning that the phenomenon of scientific diplomacy in Iran is a new phenomenon and based on this, its goals and objectives must be identified. Because Iran in recent years has been significant growth and development in the fields of science, innovation, and technology. Whereas, according to the Vision 1404 document, Iran must become the first in the region in terms of science and technology, paying attention to the soft power dimension and the impact of science and technology diplomacy is very important (Shafaqat *et al.,* 2019). In addition, Iran, due to its location in the central region of Eurasia, has a strategic position. Iran is a regional power in West Asia and an important player in the global economy (despite comprehensive sanctions), Due to having the oil industry, petrochemical, natural gas, and automobile industry has acquired for itself (Ghadimi, 2017). During the four decades since the victory of the Islamic Revolution, especially in recent years, many achievements have been made in this field (science and technology). Including fields such as the technology of making and sending satellites as one of the scientific and technological achievements of this country. In other words, Iran has made significant progress in global science and technology in recent years. Among the achievements that have been able to have an international impact on the world stage and gain prestige for Iran, one can point to Iran's colorful presence in world olympiads, Iran's achievement of launching missiles into space, advances in nanotechnology, advancement in the use of stem cell technology, and finally the acquisition of nuclear energy technology for peaceful uses. Kurdish (Zolfagharzadeh & Hajari, 2017). Thus, according to the above-mentioned issues, the goals of Iran's scientific and technological diplomacy are outlined in the figure below.

Figure 3: Objectives of Iran's Scientific and Technological Diplomacy

It should be noted that every country enters the field of science and technology and sets desirable goals and conditions for itself. This is in evaluating and drawing a favorable outlook in this field, international conditions, gaining a superior political position in the international system, domestic needs, diplomatic power and capacity, as well as macroeconomic, cultural, and security policies, including the indicators affecting the scientific and technological policy-making process of any country, are considered by the political elites, thinkers, and experts of each country. In this regard, the Islamic Republic of Iran is no exception to this rule and according to domestic and international capacities and capabilities and also, the ideals and macro policies of the Islamic Revolution's discourse has considered the following objectives for drawing their scientific and technological diplomacy (Davoodi, 2014):

- Using the capabilities and achievements of domestic and indigenous science and technology as a tool to advance foreign policy goals and objectives
- Using the capacities and capabilities of the diplomatic and foreign policy apparatus to meet the needs of domestic science and technology
- Provide a model of progress in the shadow of independence from the West and the East and inspire the Islamic world and other independent nations

Finally, it must be acknowledged that Iran's scientific diplomacy pursues the goals of its foreign policy in the framework of an interactive

model and the form of international scientific cooperation. Therefore, according to the history of civilization, culture, politics, and religion (Islam) of the countries of the South Caucasus region, we will examine Iran's scientific relations with this region.

IRAN'S SCIENCE AND TECHNOLOGY DIPLOMACY IN THE SOUTH CAUCASUS

The Republic of Azerbaijan

Developments in recent decades in the field of international relations indicate the importance of science and technology in achieving goals and improving relations between governments. Today, the field of international relations is strongly influenced by scientific and technological cooperation. Hence, scientific and technological exchanges and relations have a special place in the level of theoretical discussions and theorizing, as well as in the field of practice, to the extent that scientific and technological diplomacy is on the foreign policy agenda of countries. Accordingly, improving relations with neighbors was on the agenda as one of the important goals of Iran's diplomatic apparatus and as a result, Iran became the focus of attention of various countries, especially neighbors (including countries in the South Caucasus region). The Republic of Azerbaijan is known as an important neighbor with features such as ethnic and cultural homogeneity with northwestern Iran. Having a common religion between Iran and the Republic of Azerbaijan creates a great potential for closer relations between the two countries. In this regard, many historical and cultural commonalities play an important role in Iran's scientific and technological diplomacy. Therefore, first, we will have an overview of the situation of important scientific and research centers of the Republic of Azerbaijan and then we will examine the fields of scientific and technological cooperation between this country and Iran. The Scientific Research Center of the Government of Spain has conducted a study on the situation of universities and higher education centers in the world, and reflection on the results of this study can indicate the extent of modernization and fundamental reforms in the educational system of Azerbaijan. In this evaluation, the level of recognition of these centers in the world, their position in digital and cyberspace, their evaluation by other higher education centers, and their position in publishing books and contemporary scientific articles have been considered (Siyasatrooz, 2011). The following table shows the most important scientific and research centers of the Republic of Azerbaijan:

Table 1: The most important scientific and research centers of the Republic of Azerbaijan

Name of the center	Type of Activity
West University	Mathematics, data processing, economics, management, humanities, law, language and literature, and political science
Caucasus University	Administrative Sciences and Economics, Engineering, International Law and Linguistics
Institute of Organic and Mineral Chemistry (Azerbaijan Faculty of Sciences)	chemistry
Nakhchivan State University	History and linguistics, law, economics, natural sciences, medicine, military technology, physics, mathematics, art, and teacher training
Institute of Geology (Faculty of Sciences of Azerbaijan)	Geology
Institute of Science (Caucasus University)	Computer Engineering, Management and Management Studies
Caspian University	Engineering, Economics, Management, Law, Social Sciences, Medical Sciences, and Humanities

Source: Guide to the Caspian Sea and the countries of Central Asia and South Caucasus region

Considering that scientific cooperation and communication is one of the essential tools for creating more understanding between countries and one of the most important criteria for determining the amount of international scientific cooperation is the number of agreements that are concluded between governments and universities. Therefore, the following table shows the most important areas of cooperation between the Islamic Republic of Iran and the Republic of Azerbaijan.

Table 2: Scientific and research cooperation between the Islamic Republic of Iran and the Republic of Azerbaijan

Scientific and research memoranda	Year	Considerations
Memorandum of Scientific, Educational and Research Cooperation	1992	
Caspian University	1993	Chair of Persian Language and Literature
Agreement on Cultural Cooperation	1993	• Between the Ministry of Culture and Islamic Guidance of Iran and the Republic of Azerbaijan
Culture Agreement between the Ministry of Culture and Islamic Guidance of Iran and the Republic of Azerbaijan	1994	• Efforts to expand cultural relations • Encourage and facilitate joint cultural, scientific, educational, and similar cooperation
Memorandum of Scientific, Educational and Research Cooperation	1998	
Caspian University	2002	Iranian Studies
Memorandum for scientific, educational, research and technology cooperation	2002	
Memorandum on educational cooperation	2005	• Between the Ministry of Education of the two countries
Memorandum for scientific, educational, research and technology cooperation	2014	• Between the Ministry of Education of the Islamic Republic of Iran and the Ministry of Culture and Tourism of the Republic of Azerbaijan
Signing a memorandum of scientific and executive cooperation in the Caspian Sea	2015	• Between the Ports and Maritime Organization and the Geographical Institute of the Republic of Azerbaijan • Areas of further scientific and technical cooperation between the two groups by exchanging information and experiences in the form of courses and workshops, joint scientific research, exchange of extracted data, and other fields related to coastal management and engineering
The signing of a memorandum of scientific and medical cooperation between Iran and the Republic of Azerbaijan	2015	
Scientific and international cooperation of Mohaghegh Ardabili University and universities of the Republic of Azerbaijan	2015	

Finally, we should mention the scientific-academic cooperation between the Autonomous Republic of Nakhchivan and the Islamic Republic of Iran. The most important memorandums of understanding that have been concluded between the scientific centers of the two sides are as follows (Azami *et al.*, 2015):

- Memorandum of Cooperation between Nakhchivan State University and Tehran and Tabriz Universities regarding scientific and cultural exchanges, conducting research and publishing joint articles and joint scientific visits
- Scientific cooperation of Payam Noor University of West Azerbaijan Province with Nakhchivan State University
- Cooperation for the implementation of joint scientific programs between the Nakhchivan Academy of Sciences and the academic centers of the Islamic Republic in the fields of manuscript exchange, astronomy (Maragheh Observatory and Babat Observatory), natural sciences, and biology
- Cooperation in the field of medical professor and student exchange between Nakhjavan and Tabriz University of Medical Sciences and cooperation in the field of publishing

- Teaching Persian language and literature at Nakhchivan State University by Iranian professors, who in this regard for the first time during the relations between Iran and Nakhchivan, Dr. Alireza Mozaffari, Assistant Professor of Urmia University, began teaching Persian language in 2015 at Nakhchivan State University and currently (Until 2015), a total of 28 people are studying Persian language teaching and Persian-Azerbaijani translation at Nakhchivan State University. Iran's ability in the fields of medicine, new and advanced technologies such as nanotechnology and information technology, the existence of 3300 knowledge-based companies as well as 34 science and technology parks in this country, the experiences of Iranian professors and scientists can be widely used in the Republic of Azerbaijan.

In general, the level of relations between Iran and the Republic of Azerbaijan, as required by the common historical, social, cultural, and religious history, has not expanded significantly and after the independence of this republic, except for a short period, has not seen an increase in cooperation. There are several reasons for this, the most important of which are: Intense propaganda based on the idea of Pan-Turkism, which raises the need for the unity of Turkic-speaking people, along with creating an imaginary image of the Islamic Republic, which has trampled on the rights of Turks by preferring the Persians. Therefore, we did not see extensive scientific relations between Iran and the Republic of Azerbaijan, except for short periods.

The Republic of Armenia

Relations between Iran and Armenia during the Russian Empire and then the Soviet Union were very strict through the diplomatic channel and structure and at the level of the central governments of the two sides. The possibility of communication between the nations of both sides was very difficult and sometimes impossible. Due to the lack of a bridge over the Aras River, which formed the natural border between the two sides, there was no direct connection between Iran and Armenia and this connection was possible through the territory of the Soviet Republic of Azerbaijan. The independence of the Republic of Armenia after the collapse of the Soviet Union opened new pages in the new relations between the two nations. Thus, the two countries have established a strong relationship based on common historical and cultural backgrounds. When Iran completed the construction of the Aras River Bridge to connect the two banks of the Aras River, the Armenians named it the "Friendship Bridge". The purpose of building the bridge was to establish comprehensive communication and in the first step to help the neighboring country. It was from this bridge that cultural and scientific relations began (Entekhab, 2016). Cooperation between universities and scientific centers such as colleges and governmental and non-governmental institutions has provided good opportunities for Iran and Armenia. Recently, the Ministers of Education of Iran and Armenia agreed on scientific and technological cooperation. The establishment of branches of universities of both sides in each other countries, establishment of joint universities, cooperation of strategic research centers for cooperation in international environments and regional organizations, and support in the political field can be lead to deepening relations between the two countries. Given the importance of the issue, we will first have a brief look at the situation of important scientific and research centers in Armenia, and then we will examine the fields of scientific and technological cooperation between this country and Iran. The Republic of Armenia is one of the oldest countries with universities and libraries in the Caucasus and has a good position in the field of research and special sciences such as Oriental studies, engineering, architecture, language, and arts such as music in the world. However, the table below shows the most important scientific and research centers of the Republic of Armenia.

Table 3: The Most Important Scientific and Research Centers of Armenia

Name of the center	**Type of Activity**
Yerevan State University	Social sciences, law, oriental studies, and foreign languages
Armenian State University of Engineering	Engineering
American University of Armenia	
Yerevan State Medical University	Medical
Yerevan State Academy of Arts	Arts

Yerevan State Institute of Agriculture and Civil Engineering	Agriculture and Civil Engineering
Yerevan State Institute of Economy	Economy
Yerevan Agriculture Academy	Agriculture
Yerevan State Conservatory	Music
Caucasus Center for Iranian Studies	Iranian Studies
Institute of Archeology and Ethnology	Ethnology, Archeology, and Anthropology
Yerevan Institute of Physics	Physics
Armenian National Academy of Sciences	Physics, mathematics, engineering

Source: Guide to the Caspian and Central Asian and South Caucasus countries

Considering that scientific cooperation and communication is one of the essential tools for creating more understanding between countries and one of the most important criteria for determining the level of international scientific cooperation is the number of agreements concluded between governments and universities; Accordingly, the table below shows the most important areas of cooperation between the Islamic Republic of Iran and the Republic of Armenia.

Table 4: Scientific and research cooperation between Iran and Armenia

Scientific and research memoranda	**Year**	**Considerations**
Political, economic, cultural, and scientific cooperation	1992	
Cultural, scientific and educational cooperation agreement	1994	• Cooperation between universities and scientific, research, and educational institutions • Awarding scholarships, research, and internships
Yerevan State University	1997	• Persian language and literature of pre-and post-Islamic periods
Memorandum of Scientific and Academic Cooperation	2001	• In the field of identification and mutual evaluation of documents of higher education institutions of the two countries
Several documents of cultural, scientific, and educational cooperation	2005	• Memorandum on Educational Cooperation in Yerevan
Memorandum of Scientific and Academic Cooperation	2005	• Cooperation in the field of the heritage of the Research Institute of the Cultural Heritage and Tourism Organization of Iran and the Ministry of Culture and Youth of Armenia
Memorandum between Iran and Armenia on Earth Sciences	2008	• In the fields of geological cooperation, natural hazards, and mineral resource exploration studies
Memorandum of Scientific and Academic Cooperation	2015	• Between the Statistics Center of the Islamic Republic of Iran and the Republic of Armenia
Scientific and technological cooperation	2016	• Cooperation in the field of schools and universities, scientific relations, especially in the field of nanotechnology

Republic of Georgia

After the collapse of the Soviet Union in 1991, The Islamic Republic of Iran was one of the first countries to recognize Georgia's independence and After that, the two countries put on their agenda more regional cooperation and expansion, and deepening of relations between the two countries. In general, the perspective of relations between the two countries is very broad and clear; Because Georgia plays the role of a bridge between East and West and has an important position in the region. Iran and Georgia also sought to increase their cooperation in various economic, political, cultural, and especially

scientific and technological fields. In this regard, the Islamic Republic of Iran and the Republic of Georgia cooperate in the field of exchange of professors and students, as well as scientific and educational cooperation, joint research projects, exchange of books and publications. So in recent years, the exchange of professors and students, scientific and educational cooperation, joint research projects, exchange of books and publications in various fields of education and research, strengthening the position of Persian language in schools and universities of Georgia, and mutual evaluation of degrees; these were issues that were discussed during the bilateral meeting between the Iranian ambassador and the Minister of Education and Science of Georgia (Farzan, 2010). Given the importance of the issue, we will first have an overview of the situation of important scientific and research centers in Georgia, and then we will examine the fields of scientific and technological cooperation between this country and Iran. The table below shows the most important scientific and research centers of the Republic of Georgia.

Table 5: Important scientific and research centers of Georgia

Name of the center	**Type of Activity**
Institute of Nuclear Energy Physics	Nuclear physics and energy
Georgia University of Technology	Engineering
Tbilisi State Medical University	Medical
Technology Information Center	
Tbilisi State University	History, philosophy, basic sciences, economics, management, art, sociology, and medicine
Georgian Academy of Sciences	Mathematics, physics, geology, mechanics, chemistry, biology, social sciences, language, and literature
Caucasus School of Commerce	Economics and Management
Sulkhan Saba Arbeliani State Educational University, Tbilisi	Language and literature, natural sciences, art, basic sciences, educational sciences, and history
Kutaisi State University of Technology	Engineering
Javakhishvili Tbilisi State University	
Sarkar university Volvo Tbilisi	

Source: Guide to the Caspian region and the countries of Central Asia and the South Caucasus

Considering that scientific cooperation and communication is one of the essential tools for creating more understanding between countries and one of the most important criteria for determining the amount of international scientific cooperation is the number of agreements that are concluded between governments and universities. Accordingly, the table below shows the most important areas of cooperation between the Islamic Republic of Iran and the Republic of Georgia.

Table 6: Scientific and research cooperation between Iran and Georgia

Scientific and research memoranda	**Year**	**Considerations**
Cultural, scientific and educational cooperation agreement	1996	• Cooperation between universities, scientific, educational, and research institutes, and cultural and artistic centers in the two countries within the scope of their domestic laws and regulations
Tbilisi State University	2001	• Chair of Persian Language and Literature
Memorandum of Scientific Cooperation	2012	• Caucasus International University and Representation of the Jamea'at al-Mustafa in Georgia
Cultural, scientific and educational cooperation agreement	2013	• Announcement of readiness for launching the field of Iranian studies and approval of the university degree by the Ministry of Science, Research and Technology of the Islamic Republic of Iran
Memorandum between the Research Institute of Iranian	2013	

Wisdom and Philosophy and the Philosophical Association of Georgia		
Memorandum between Payam Noor University and the University of Georgia	2016	

CONCLUSION

Considering the dimensions and components of scientific diplomacy and considering awareness and stability as the main elements of scientific diplomacy, In addition to achieving opportunities for the advancement of science and technology, as well as advancing foreign policy goals and objectives, It should be stated that awareness and knowledge of cultural, social, political fields as an integral part of all scientific, technological, research and higher education activities and considering them in intellectual and cultural independence while scientific activities and decision-making in the context of forms of cooperation and scientific and research activities in the direction of transcendent goals and ideals in this field and at the international level. Thus, after the collapse of the Soviet Union and the establishment of newly established governments in the South Caucasus, which was the product of profound changes in the political structure of the Eastern superpower, a new chapter in the relations of the Islamic Republic of Iran with the countries of the South Caucasus began. Therefore, in this study, we explained the tools of scientific diplomacy of the Islamic Republic of Iran in these countries and also examined the role of influential factors governing scientific relations between Iran and the South Caucasus countries to make foreign policy decisions in Iran. As we have seen in this study, Iran has advantages in using scientific and technological diplomacy in the South Caucasus region that can make the Islamic Republic of Iran ahead of its other competitors. The geopolitical, civilizational, cultural, and economic advantages of the South Caucasus region increase Iran's influence in the countries of the region; therefore, Iran's investment in science and technology, in addition to expanding Iran's influence, will be a kind of contribution to the stability and security of this region; Given the priority of Iran's foreign policy based on looking at its neighbors, the use of science and technology diplomacy in the South Caucasus can help solve many of Iran's political and economic problems and also achieve the goals of Iran's national interests.

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