The Role of International Scientific Relations and Cooperation in Iran’s Scientific Development

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Abstract

In today's modern and changing world, science and technology are greatly developing. Scientific development is a prerequisite for sustainable growth and development. Different countries are trying to expand their interests through the expansion of international scientific communication. Reaching growth and development is not possible without such relations. International scientific relations are important factors for developing international cooperation. All sciences and information can be obtained and used worldwide by such relations. Unfortunately, there is not an acceptable level of international scientific relations and cooperation between Iranian universities and research centers and foreign universities. Not enough investment was made in this regard. Therefore, this article aims to study the importance of international scientific relations and problems in this field. Recommendations are made to expand international scientific communications.

Keywords: Universities, Research Centers, International Scientific Cooperation.

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Introduction
The role of science was evident in the world from the turn of century. Different countries took steps to make the most of it. Science experienced a rising pattern in the 20th century and became a transnational phenomenon. In the rapid changing and varying world of today, science and technology are dramatically developing, expanding, and evolving. They have become important indicators for growth and development. Scientific development has become the prerequisite for sustainable development. Different countries are trying to follow their interests through establishing and expanding international scientific relations and cooperation. Life and development of a society is the activity of all elite to obtain advanced knowledge and technology and have continuous, active, and dynamic communication with academic institutions in different countries, making them successful to meet the needs of their home countries’ growth and development in different fields. Therefore, scientific relations and cooperation are considered scientific policy making, planning, and sharing; promoting innovation and preparing the ground for internationalizing science and technology through the establishment of communication with powerful internal and external scientific institutes and organizations in order to improve life conditions, welfare, and excellence for society and humanity. This article aims to study the importance and necessity of developing scientific relations and cooperation, the relations of Ministry of Science and Technology with international universities and institutes. Finally, recommendations are made.

Problem Statement
Today, the role of higher education had changed in most countries in the world. In addition to training skilled and specialized human resource, it has become the contributing factor to society’s development and transformation as well as expansion of relations among countries. According to this, international governments and organizations take advantage of various methods in different dimensions to assess and evaluate science, technology, and innovation (Norouzi Chakali and Hassan Zadeh, 2010). Scientific development is considered an important factor involved in comprehensive development which plays a key role in economic, political, social, and cultural growth and prosperity of a society. In this regard, Iran is not an exception and requires scientific development for growth (Jan Ali Zadeh, Choub Bastani, and Suleimani Bashli, 2009) because the 21st century belongs to science and technology. New developments in the global economy and the emergence of knowledge-based economy have added the importance of scientific and research centers and the expansion of international relations in developing countries. Scientific cooperation is, in fact, one of the essential solutions for political, economic, cultural, and scientific development. The cooperation and collaboration of scientists and researchers in different countries is considered the most extensive scientific cooperation involved with multiple advantages and benefits for individuals, organizations, and countries. Conducted studies concerning the relationship between the vastness of participation and citations show that participatory articles are cited more than individual ones and they have higher level of quality (Rousseau, 2000). Hence, scientific statesmen and policy makers need to realize the importance of scientific cooperation at international level. They must consider effective polices for growing such cooperation. The results of studies conducted in the field of international cooperation by Iranian researchers indicate slow collaboration with researchers in other countries (Didgah, 2009). For instance, Iranian researchers’ scientific cooperation with members of the Organization of the Islamic Conference began in 1967, resulting in 675 scientific products with Iranian researchers. There various reasons involved in this regard such as insufficient support by government to buy foreign journals and books, the government’s lack of interest on international scientific conferences, lack of support from researchers to participate in international conferences and seminars, and unfamiliarity with researchers in other countries (Didgah, Erfan Manesh, and Partov: 96). The main question outlined here is based on the following issue:
What is the role of scientific relations and cooperation concerning Iran’s scientific development?

**Necessity and Importance**

Today, the role of universities has changed in most countries worldwide. Their scope of objectives is not only limited to train skilled and specialized workforce. Universities and research institutes have the most important and constructive role in society’s development and expansion of relations among countries (Zarghani, Ahmadi, and Arjmandi, 2010: 119). International relations are a set of actions and interactions of government units and NGOs as well as political processes between nations. Such relations are different from international policies because international policies focus on governments' actions, reactions, and responses by others. They generally refer to mutual behaviors and actions between two or more political units (Ghavam, 2007: 13). Basically, communication in educational, cultural, and research centers is performed through bilateral or multilateral relations. Higher level of communication leads to higher level of striving for science for science. The importance of scientific cooperation in promoting multilateralism in political, economic, and cultural fields in recent years has caused international organizations to develop and direct their cooperation in science and technology fields. Activation and establishment of sub-offices with practical functions are some evident examples in some organizations such as Economic Cooperation Organization (ECO), Indian Ocean Rim Association for Regional Cooperation (IOR-ARC), Organization for Islamic Conference (OIC), and even the United Nations (UN) (Office of International and Scientific Cooperation, 2007). Therefore, considering the accelerating pace of innovation and scientific progress in all scientific fields or international bodies and institutes, the necessity to establish active and dynamic scientific communication is felt ever than before. International scientific relations are important because:

1. Rapid changes in the international environment resulting from practical, technical and communication changes and transformations have necessitated the familiarity of authorities, managers, and experts with advances, changes, and approaches in international academic cooperation.
2. The globalization of science and technology eliminates the national, regional, and international borders. Therefore, international environment needs to be considered an "opportunity" (Office of International and Scientific Cooperation, 2007).
3. Requirements and dependencies on science and technology have dramatically increased in developing countries. A new form of information and scientific dependency has formed among nations. Technological, information, and scientific gap has dramatically deepened among northern and southern countries.
4. Better and faster academic communication can lead to world’s updated science and global technological, technical, and scientific sources of information. At the same time, various global facilities can be employed to generate science. The expansion of academic cooperation causes the reduction and elimination of distance between knowledge production and its use.
5. Wide and powerful scientific relations lead to scientific development of countries. Similarly, lack of such relations lead to scientific isolation, weakness, and development.
6. International academic cooperation strengthens educational, research, and cultural exchanges among different countries and cultures. Studying the scientific and cultural status of third-world countries show that countries with dramatic cultural and scientific development have managed to cooperate with developed countries with science and technology (Malek Zadeh, 2001).
7. Scientific creativity and innovation on universities rise through universal participation in educational, research, and service activities. Global accumulation rate of knowledge increased to solve the problems of human life.
8. Assessment and accreditation criteria are coordinated for university education, professional and scientific skills at regional and international levels.
9. International academic cooperation leads to experience and skill exchanges and scientific and technical policy making.
10. The fact that even the most prestigious world universities are not able to achieve an acceptable academic and international position highlights the importance of academic relations and cooperation.

11. Efforts to be among 100 top universities worldwide necessitate the faster and more expansive international relations in order to restore the real position and status of Iran higher education system around the world.

12. Movement and progress in each academic center is possible through academic exchanges and communication among universities and educational centers. Development of international relations is to objectify the different aspects of scientific communication and its impact on the performance of the educational system, learning, and research. Therefore, Iranian universities need to try to promote their academic development and ability, lead society not to consume western science, knowledge, and thoughts, and help Iran to generate science and knowledge which are appropriate for Iran’s needs and knowledge-based society. The main objective of establishing academic communication and cooperation with credible universities and academic bodies are being awareness of the value and important cultures of the world, exchanging faculty members and students as well as mutual visits, implementing joint research and developing them, creating essential facilities to internationalize educational programs in university, signing international agreements and treaties, establishing research and academic relations between universities, exchanging information, skills, and knowledge in different fields, accessing new financial resources and educational/research facilities to support large-scale and advanced research projects, taking advantage of educational scholarships in different levels, entering the international field as an expert, using international educational opportunities, being effective in global method in order to convert into a global actor in knowledge-based economy.

Literature Review

Mahmoudi believes that international community is facing various challenges. Such changes will increase in the future. These challenges include ensuring the free circulation of knowledge, balanced scientific information and access to good practices in all sectors and courses. International communities of which UNESCO is one the most important one is called by governments to appropriately respond such challenges. Therefore, it is essential to try to focus on some issues such as the necessity to establish and strengthen the right to higher education as basic elements, strengthen international academic cooperation, expand the access to information and knowledge in the public framework (Mahmoudi, 2007).

Cloete (1997) believes that the basis to increase the generation of knowledge depends on the knowledge and science used. Rising generation of knowledge and access to the countries generating such knowledge have pushed countries toward knowledge-based communities. In this process of capital accumulation and rotation, higher education plays a key role because the global economy requires skilled human resources with the international transferability of skills and professional competencies (Mcburnie, 2001). Using scientometrics, Osareh and Wilson evaluated the level of academic cooperation between Iranian and foreign researchers in indexed articles in international profile from 1994 to 1995 and compared the results with their previous study which focused on 1985-1994. They concluded that the number of Iranian articles has risen during the last 15 years because of end of war, better economic condition, changes in government’s policy making, national publications, and returning students who have studied abroad. Better access to information and internet database and better facilities for e-communication are two other factors for international cooperation. They emphasized that academic policy making of the Ministry of Science, Research and Technology in 1999 was effective in encouraging researchers to publish articles in credible and prestigious journals (Osareh and Wilson, 2002: 88-89). World Council of Comparative Education Societies aimed at "developing education in order to enhance the level of international understanding and world peace, cultural and practical cooperation among various nations, defend the right to education for all beneficiaries, and improve educational systems worldwide through comparative exhibition of various
educational systems (Aghazadeh, 1994). Some projects such as exchanging faculty members and students, implementing joint projects, joint supervision on M.S. and Ph.D. thesis, joint degrees are some of measures which can help the organic and close link between universities and credible and prestigious academic centers. They can adopt their standards, too (Paya, 2006).

Method

A descriptive-analytical study was performed. It means that the statistical population was selected and analyzed by reviewing job description and performance of international and academic centers in the Ministry of of Science, Research and Technology. Almost 70 offices of academic and international cooperation were analyzed. Books and articles published in this regard were used. Content analysis was employed to review the books and articles.

Findings

1. Levels of International Scientific Communications and Cooperation – By now the international scientific communications and cooperation with the ministries, the organizations and educational as well as international research centers are undertaken at four levels of personal, non-government organizations, national organizations, and educational-research-related centers. Their explanations have been presented in Table 1 and Table 2. Such major activities are conducted by the Department of International Scientific Cooperation of Science, Research and Technology Ministry and the beneficiary organs at the universities and higher educational institutions. The Department of International Scientific Cooperation of Science, Research and Technology Ministry is responsible for granting and supporting the administration and expertise of the universities and the higher educational institutions as well as the international scientific organization for which Iran has been registered.

In addition to these responsibilities, the intended department holds two extra duties:

a) In mutual cooperation, Iran takes the responsibility of common committee with the department of international scientific cooperation.

b) In scientific and technical cooperation at regional and international levels for which the Science, Research and Technology (SRT) Ministry is responsible, the department is to carry out the executive affairs of communication with the organizations.

Moreover, the Science, Research and Technology Ministry timely often signs contracts and agreement notes with some countries.

Table 1 – International Scientific Communications and Cooperation

<table>
<thead>
<tr>
<th>No.</th>
<th>Level</th>
<th>Aims and Responsibilities</th>
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<tbody>
<tr>
<td>1</td>
<td>Personal</td>
<td>1. Using the facilities of information and communication networks</td>
</tr>
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<td></td>
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<td>2. Participating at Conferences, Congresses and Scientific Fairs</td>
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<td>3. Using Educational Opportunities and Scientific Trips</td>
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<td></td>
<td>4. Registering in Global Scientific Associations</td>
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<td>2</td>
<td>Non-government Organizations</td>
<td>1. Executing Educational and Research Plans</td>
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<tr>
<td></td>
<td></td>
<td>2. Holding Conferences, Congresses and Scientific Fairs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Registering in Foreign Scientific Associations</td>
</tr>
<tr>
<td>3</td>
<td>National (Department of International Scientific)</td>
<td>1. Providing necessary facilities for establishing regional and international conferences, congresses and meetings inside the country</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Planning, corresponding and doing affairs related to the</td>
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### Cooperation of SRT Ministry

- Programs of science exchanges between domestic higher education institutions and the foreign institutions.
- Analyzing and assisting in creating the scientific associations and monitoring as well as supporting them; meanwhile providing cooperation fields between the domestic research centers and academies and the foreign scientific centers.
- Accomplishing the affairs related to participation of the representatives of SRT Ministry, universities, higher education and research institutions, or related to other beneficiaries in the common commissions and international scientific meetings.
- Ascertain the necessity for creating the congresses in Persian language and literature in the foreign countries, introducing the teachers to be worked in the registered organizational posts and arranging their dispatch to the foreign countries.
- Analyzing and assisting to establish Iranology Centers in the foreign countries and supporting them.
- Making communication with the cultural centers of Iran in the foreign countries and cooperating with the foreign researchers, professors and students studying in the fields of Persian language and Iranology.
- Providing the requirements to dispatch the faculty staff to the foreign countries in order to use the fellowship opportunities.
- Providing the requirements related to the international relations of the ministry with the foreign countries and international and regional scientific institutions and universities.
- Providing the requirements related to making educational, research and technological contracts and preparing and regulating the visiting program of the ministry's foreign guests who visit Iran under the framework of educational, research and technological cooperation.
- Responding to the issues related to the foreign professors and researchers who work in the educational and research centers.
- Doing the issues related to the registration of ministries, universities and higher education and research institutions in the international scientific circles.
- Doing the issues related to identification of national and foreign experts, needed for the universities and higher education institutions.
- Identifying fields of scientific, educational, research and technological cooperation with the countries and distributing...
information in the fields of international scientific cooperation
15. Doing affairs related to the international scientific communications

Table 2 – International Scientific Communications and Cooperation between Domestic and Foreign Universities and Higher Education Institutions

<table>
<thead>
<tr>
<th>No</th>
<th>Levels</th>
<th>Aims and Responsibilities</th>
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</table>
| 1  | Universities and Higher Education Institutions | 1. Providing necessary facilities for establishing regional and international conferences, congresses and meetings.  
2. Policy-making and taking necessary accounts to develop the international communications of the intended university  
3. Policy-making and taking necessary accounts to establish mutual trainings with the foreign universities.  
4. Policy-making and taking necessary accounts to receive scholarship for Ph.D. students  
5. Policy-making and taking necessary accounts to develop fellowship opportunities for faculty members and Ph.D. students and to encourage them to take part in the international scientific commissions  
6. Making the universities ready for scientific cooperation of well-known foreign professors and Iranian professors residing abroad  
7. Meeting and discussing with the cultural centers of the Islamic Republic of Iran in Iranian embassies abroad  
8. Meeting and discussing with the cultural counselors of foreign embassies in Iran  
9. Communicating and interacting with managers of international scientific cooperative offices at famous foreign universities and active international organizations in Iran  
10. Analyzing scientific and technical memorandum, agreements and contracts signed between the Iranian government and other countries to making the background ready for their implication  
11. Preparing, regulating and signing agreements and cooperation agreements with the foreign scientific universities and institutions  
12. Cooperating in the preparation and regulation of advertising publications and news and information bulletins in foreign languages to introduce the famous international universities  
13. Analyzing the contents of foreign websites and introducing recommendations for updating them.  
14. Studying and assessing the journals sent by the international scientific organizations and investigating the
way of cooperation and usage of their facilities.

15. Preparing and regulating the bylaw and instructions due to the development of international scientific activities

16. Identifying the institutions and famous scientific and R&D centers abroad and communicating and cooperating scientifically with them.

17. Assisting in creating the scientific associations, supervising and supporting them.

18. Informing in the case of training courses, research rewards, scholarships and international conferences to use professors and students.

19. Communicating and interacting with the globally famous professors and figures.

20. Searching books, articles and scientific sources needed to the faculty staff

21. Conducting foreign affairs of the universities.

2. By now, Iran has scientific communications and cooperation with 53 international scientific organizations and 150 countries and universities. The most important of these scientific and cultural organizations of which Iran is a member are mentioned in Table 3.

Table 3. The Most Important International Scientific Organizations and Institutions of which Science, Research and Technology Ministry is a Member.

<table>
<thead>
<tr>
<th>No.</th>
<th>Abbreviation</th>
<th>International Scientific Organizations and Institutions</th>
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<tbody>
<tr>
<td>1</td>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural</td>
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<tr>
<td>2</td>
<td>IAU</td>
<td>International Union of World Universities</td>
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<tr>
<td>3</td>
<td>IAUP</td>
<td>International Union of Heads of Universities in the World</td>
</tr>
<tr>
<td>4</td>
<td>UNDP</td>
<td>United Nations Development Program</td>
</tr>
<tr>
<td>5</td>
<td>TWNSO</td>
<td>The World Network of Scientific Organization</td>
</tr>
<tr>
<td>6</td>
<td>TWAS</td>
<td>Third World Academy of Science</td>
</tr>
<tr>
<td>7</td>
<td>ISESCO</td>
<td>Islamic Education, Scientific and Cultural Organization</td>
</tr>
<tr>
<td>8</td>
<td>FUIW</td>
<td>Federation of the Universities of the Islamic World</td>
</tr>
<tr>
<td>9</td>
<td>COMSTECH</td>
<td>Permanent Committee of Scientific and Technological Cooperation between OIC</td>
</tr>
<tr>
<td>10</td>
<td>COMSATS</td>
<td>Commission on Science and Technology for Sustainable Development of South</td>
</tr>
<tr>
<td>11</td>
<td>ECO</td>
<td>Committee for Scientific Cooperation Culture, Education</td>
</tr>
<tr>
<td>12</td>
<td>WIPO</td>
<td>World Intellectual Property Organization</td>
</tr>
<tr>
<td>13</td>
<td>IDB</td>
<td>Islamic Development Bank</td>
</tr>
<tr>
<td>14</td>
<td>IAS</td>
<td>Islamic Academy of Science</td>
</tr>
<tr>
<td>15</td>
<td>D8</td>
<td>D-8 Group</td>
</tr>
<tr>
<td>16</td>
<td>ICTP</td>
<td>International Center of Theoretical Physics</td>
</tr>
<tr>
<td>17</td>
<td>IFIA</td>
<td>International Federation of Inventors Associations</td>
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</table>
1. By now, 100 agreements and 40 memorandums have been signed between Iran and other countries. Since this statistics represent little growth in this regard, but their accomplishment is very important. This accomplishment has not been fortunately optimum and acceptable.

2. Didghah, Erfanmanesh and Partow have analyzed the rate of cooperation of Iranian with the researchers in other countries at levels of science, arts, humanities and social sciences between 1900 and 2008. They showed that Iranian researchers have had the most value of cooperation with Turkey, Malaysia and Pakistan. Moreover, the scientific cooperation of Iranian researchers with other Islamic countries have been in the fields of agriculture, biology, chemistry and physics. On the other hand, Shiraz University and Tehran University have been the most active scientific-research institutions regarding the scientific cooperation with the mentioned countries. They have concluded that the scientific cooperation with the countries registered in Islamic Conference Organization in 1967 and the fruits of this cooperation have been 675 scientific products for the researchers (Didghah, Erfanmanesh and Partow: 2015).

2. In his master thesis, Velayati has analyzed the scientific cooperation between Iran the neighboring countries. His findings showed that the most extent of Iran’s scientific cooperation with the neighboring countries in compiling articles with Russia, Turkey and Pakistan. In addition, the most amount of cooperation have been in the field of physics, biology and chemistry. The rate of cooperation was ascending. Beheshti University, Sharif Technical University and Tabriz University have had the most rate of cooperation with the neighboring countries. The correlation coefficient was 0.88 % for production of scientific articles and cooperation for the neighboring countries with Iran (Velayati, 2008).

3. Sabouri has analyzed the collaboration of Iranian scholars with those of foreign counties in the case of publishing ISI documents in a part of his research in the title of “Iran’s Science Production in 2008”. The results showed that Iranian countries have had the most amount of cooperation with the scholars in USA, Canada, England, German and Australia (Sabouri, 2008: 21-31).

4. In 2008, Turkey researchers are in the top rate of cooperation among 10 countries with Iranian researchers which represents the increase in the scientific cooperation between the scholars of two countries (Shiri and Fadaee, 2011: 460).

5. Most of the agreements have been signed between the universities and Iranian research institutions and the universities and research centers of neighboring and regional countries.

6. A large deal of cooperation have been in regard to physics, biology and chemistry among Iran, Turkey, Pakistan and Russia. This cooperation develops and ascends during 20 recent years.

7. Beheshti University, Sharif Technical University and Tabriz University have been possessed the major amount of scientific cooperation with the organizations and institutions of neighboring countries.

8. There are three cases of cooperation of Iran universities with the neighboring countries in the case of joint inventions. Two cases related to chemistry with Russian and the other one related to engineering with Turkey.
Discussion and Conclusion
Scientific and research cooperation dates back to 17\textsuperscript{th} century among the scholars of England, France and German. The climax of scientific cooperation can be search after WWII. After WWII and the emergence of cold war era, the countries paid double attention to the science and technology in that the science and technology have taken certain complexities. The research affairs entail large-scale budgets, expert human resources extensively in a variety of majors and complex equipment and instruments in most of which one country may not provide it. This issue caused that the countries cooperate in the fields of science and technology and the regional and international research centers have been established, for instance, Third World Academy of Science or European Nuclear Research Organization (Noruzi and Velayati, 2009: 108).

Nowadays, policy-making for sciences and technology is one of the essential policies of the developing and developed countries. These countries try to increase their share in production of sciences and technologies by means of extending the international political and economic relations (Salehzadeh and Bayat, 2008).

Globalization and development of international cooperation and relations made the scientific communications double because possessing advanced sciences and technologies have been instrumental in developing the international cooperation. In this regard, the universities and higher education institutions play a significant role as the organizations in reducing and bridging the gaps between sciences and technology as well as supporting the scientific interactions and international relations. Unfortunately, the scientific communications and cooperation among universities, research institutions and scientific associations with the foreign universities and research institutions have not been grown and developed with the serious needs of Iran and there is not seen enough investment in this field. These communications and cooperation are very dim and weak: for example, the rate of registration of Iranian scientific associations in the international scientific societies is unfavorable. 41% do not subscribe to any international community. The rate of annual subscription to the international societies is 0.77, i.e. Iranian scientific associations subscribe to less than one international scientific community (Sharepoor and Fazeli, 2007).

In addition, these important affairs have consequences in receiving the books and the journals, inviting the professors and researchers for participating in the international scientific communities. Being distant from the new scientific findings and remaining undeveloped in the case of educational and research activities are two other consequence of uncommunicating with other centers.

Moreover, the obstacles of international scientific communication and cooperation can be mentioned as the disagreement of USA and its allies with Iran’s scientific development, ratification of various conventions against Iran, USA’s attempt to prevent Iran’s students from studying in the majors related to the nuclear sciences, the disagreement of USA and its allies with participating of Iranian scholars in conferences such as France nanotechnology conference.

In relation to the domestic obstacles, by now a number of state and non-state universities because of not-moving-back from the international cooperation, sign contracts and agreements by means of university connections (such as the professors who studied their education at famous universities, are teaching at universities or travelling for an international conferenced or seminar). They may claim the research and scientific cooperation,
professors/student exchange and inter-university research projects at regional and global levels.

Some of the cultural and higher education counselors and high-ranked representatives meet the education, research and cultural representatives of other countries. They both may present their readiness for scientific, education, cultural and research cooperation in the course of scientific, education, cultural development. But, because the executive amenities are not ready or do not exist in Iran, these promises may not be kept. Overall, the mutual relations between Iran and the foreign countries do not have a special executive. This issue may bring about their reluctance to cooperate with the Iran especially the higher education institutions and cultural centers.

These kinds of discussions, agreements and contracts are usually archived without execution of their articles and are in long-term forgotten because of unwanted intentions of managers and related organizations.

Unfortunately, there is not a specific organization or reference for executing, supervising and determining the priorities for the international scientific relations and cooperation. Despite removing some of the legal barriers, this issue caused that many scientific centers in Iran do not subscribe to any international scientific organizations so that the rate of utilization of universities and higher education and research institutions has been limited to some universities or organizations in regard to use of facilities and opportunities in the international organizations such as scholarships, various scientific rewards, financial aids and so forth.

There is not a certain position for the office of international scientific cooperation in the charts and structure of universities and higher education and research institutions, nor does it exist. This issue causes stagnancy in the process of operationalization, in reaching the international scientific activities, in doing the parallel activities and in reducing the speed of special works.

Some deputies directly sign scientific contracts and agreements with overseas scientific centers. Later on, because of their being out of organizational rules, they fail to complete their responsibility and result. The lack of an executive committee for operationalizing the agreements is worth mentioning. The lack of human labor, the lack of facilities appropriate with the objectives, the lack of experts in the field of international relations of universities, the lack of experts for dividing the scientific research programs in Iran and in the foreign and for tracking the specialized issues are the barriers to execute the articles of scientific agreements and memorandums.

Other domestic problems and obstacles for stagnancy of Iran’s scientific cooperation and relations with the foreign countries are as following: inactiveness of international scientific programs and unions; lack of study-related arrangements for international scientific and specialized supports; lack of unity in actions and international scientific cooperation of universities and research-technological institutions; lack of a valid joint of international scientific cooperation with education, research and technological fields; unsystematic international scientific cooperation and as a result lack of harmonizing ability and answering the basic and vital needs of society from universities and higher educations and research institutions; lack of enough speed in establishing and developing Iran’s scientific counseling in the various countries; and their limited activity for the educational issues (Zaker Salehi, 2007).
Recommendations
Having looked generally the status of today world regarding the production of science and information exchange, it is seen that the development and growth of science in all fields are miraculously and explosively moving and the scholars from different countries are immersed in the fear of this increasing and unpredictable growth. Publishing millions of books and articles, designing millions of websites, starting thousands of satellite networks and utilizing the most modern technical and electrical tools are just part of this bulk of information that today supports the growth and development of science. Nowadays, due to the various needs of the target society, the participations have to be more than before in the scientific scenes and the results. As a result, pattern, form, content and principles of the scientific communications and exchanges have to be based on creating the possibility of bilateral, active, collaborative, critical, profitable and full communications (Fazeli, 2007).

In the era of enormous, scientific and technological evolutions, the government and in particular the Science, Research and Technology Ministry should attempt to provide the necessary apparatus in order to reduce the scientific distance, to compensate the scientific lag and to improve the scientific position of Iran at the international level. The government have to try to follow the academic diplomacy as an important achievement and based on this principle that the science belongs to all the world. In order to utilize the scientific and technical developments of the international community regarding to provide the national benefits of movement toward deepening and development of the international scientific cooperation and relations, the active presence in the international organizations and communities and quit from the present condition, updating the information and using the modern technologies, holing the scientific programs in the line of knowledge growth and empowering the faculty staff, employees, students and graduates and transferring the technology due to the needs of society, accomplishing the policies, plans and actions in the fields of various sciences, the following research can be mentioned:

1. Exchange of professor and student, education and research cooperation can be gradually transformed from its subjective form and taken a “collective” form. That is, the cooperation will be collective and at the level of institutions and organizations. The government can help them reach their aims by supporting the universities and scientific centers.
2. Establishing international universities with international professors and students, teaching in the foreign languages, guiding them appropriately to the market and jobs based on the regional and international needs. Big universities can establish the international centers at the free zones such as Kish Island and Gheshm Island.
3. More connection of SRT Ministry with representatives of foreign affairs ministry, embassies, and political; and cultural representatives of Iran in the abroad for developing the relations and bilateral international cooperation.
4. Creating more and close connection of professors and higher education students with the offices of international scientific cooperation of SRT ministry and the universities.
5. Trying to support the regional unions of universities around Caspian Sea Zone, Indian Ocean Rim-Association for Regional Cooperation and so forth.
6. Investing jointly for doing education, research and technological activities and signing scientific and technical agreements with the well-known scientific and specialized centers around the world.
7. Holding conferences, fairs, joint scientific communities, exchanging scientific information, books, magazines and articles and publishing specialized journals with well-known universities and scientific institutions around the world.
8. Counseling and doing applied studies for knowing the fields of education, research, and technology cooperation, and identifying the more active ways of collaboration in the organizations, scientific fairs and international scientific communities in order to be more effective and more familiar with the facilities and scientific, expert, technical, equipped and financial grants.
9. Accurate planning for systematizing the international scientific relations and cooperation among universities and research institutions, and developing them with international and regional scientific organizations such as UNESCO, ISESCO, IEU and Asia-Link Program which is an avant-garde program in Europe Commission and is created with the aim of improving different regions of Europe, of improving the innovation of new members and networking the higher education centers in the European Union zone and Asian countries.
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