EURO-MEDITERRANEAN RESEARCH COOPERATION ON GENDER AND SCIENCE

NATIONAL REPORT: SYRIA

Aleppo University

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INTRODUCTION

It is widely believed that the status of women in any society is the true indicator of this society’s growth and development. The role of women in society, particularly in certain parts of the world, has changed dramatically over the last 50 years. Alongside men, women nowadays make an increasingly important contribution to social, economic and political discourse in many countries around the world. It is also widely believed that education is a key factor to a better life, especially for girls and women, in any society. As well as boosting their own chances of escaping poverty, getting jobs, staying healthy and participating fully in society, educating girls and women has a great impact on the health of their children and accelerates their countries’ transition to stable population growth. Moreover, educating girls and women contributes to broader social, economic, political and development goals such as building foundations for democracy, empowering women to make life choices that improves their welfare and shaping important decisions that will affect the fates of the people and the lives of so many yet to come.

In the Syrian Arab Republic, sincere efforts have been made to empower women and to enhance their role in building the country. The contemporary renaissance of the Syrian woman is largely linked to the various legislations that were issued and implemented. For example, the law of free compulsory education for all and the law against child labour had great benefits for women. Schools were built in every city, town and village in Syria making primary education accessible to everyone. Consequently, the number of boys and girls who attained their primary education and who are equitably equipped with life skills and attitudes to achieve their full potential increased dramatically.

To further uphold the principle of equal opportunities, Syria has introduced free education at all levels, with access to higher education depending on the results obtained in the school-leaving examination. Since 1970, university education expanded tremendously. This expansion was mainly due to the introduction and implementation of what is termed “The University Capacity Policy” which has opened the door to every high school graduate student (male and female) to continue their tertiary education at any Syrian state university or institute. As a result of this policy, the number of tertiary students has increased dramatically. Consequently, new faculties and universities were established to accommodate the increased number of students. This was also followed by an increase in the number of teachers (males and females), classrooms and many other related facilities. There are five public universities (the University of Damascus, the University of Aleppo, the University of Tishreen, the University of Al-Baath and the University of Alfurat), twenty private universities (fourteen of them are running and six are going to launch soon), one virtual university, three higher technical institutes and a few research centres. The Ministry of Higher Education recommends each of the public universities to supply their faculties with the most recent laboratories and scientific equipment. It also emphasizes the need for a regular revision, update and development to their courses, curricula and teaching methods.

The national strategy for women in Syria has several policies, plans and laws to empower women at all levels socially, economically, and politically and to encourage them to be more involved in public life; particularly in politics. In 2006 for example, a woman was appointed Vice-President of Cultural Affairs and in 2008 another woman was appointed the political and media adviser for the Syrian president. In 2011, there were three women ministers (MPs) in the new government. Women made up 15% of ambassadors, 25% of politicians, 15% of lawyers and 16% of judges.

Nonetheless, there is still a noticeable lack of women’s representation in decision-making organizations in Syria. Despite the government efforts, norms and attitudes regarding the roles of women and men in society and the workplace in Syria continue to limit women’s contribution to social progress, economic development, academic attainment and political representation.

The University of Aleppo’s participation in Shemera project in spite of all the difficult circumstances that Syria is going through was very important. It shed light on Syrian women’s status in Syria, collected several important statistics regarding women and compared Syrian women’s status to other women in other Arab countries. Despite the fact that sex disaggregated
data in the labour force and in particular in scientific fields are of great importance, they are inexistent in Syria. The Syrian team of the Shemera project (Hayat Touchan, Amal Kabous, Muzna Ajjan and Najah Tanous) aimed to address this problem by analyzing the gender inequality in science, and developing recommendations for enhancing gender equality in science. Hence, a methodology focusing on statistics on women in all fields of science, gender equality policies in science, and research on gender inequalities in scientific careers was adopted.

1. STATISTICS ON WOMEN IN SCIENCE

Methodological and data issues

The Syrian data collection is relatively complete given that the country participates in an R&D survey that is comparable to R&D surveys carried out in Europe. An official definition of “researchers” exists. Syria also applies the same international classifications for sectors of economic activity (NACE), for occupations (ISCO) and for levels of education (ISCED).

There is no information available on the gender pay gap in science and research.

The Higher Education sector in Syria has been witnessing a constant process of development and comprehensive reforms. This process was reflected by the establishment of many universities (public and private), higher institutes, research centers, and technical institutes with branches for these universities in all Syrian provinces. This expansion was accompanied by a quantum leap in university degrees specializations that meet market demands and development needs, issuing legislations and modernizing the laws governing the higher education sector.

Syria has 23 universities and 81 other higher education institutions spread all over the country. In 2010, in terms of the number of students enrolled, the five biggest universities are:

- University of Damascus
- University of Aleppo
- University of Tishreen
- University of Al-Baath
- University of Alfurate

These five universities represent (90%) of all university students in 2010.

In Syria, in 2010, (2.3%) of women and just (6.7%) of men aged 30 to 34 years of age held a degree of higher education.

The presence of women in science

Women form a minority among people who have successfully completed tertiary education in a Science & Technology (S&T) field of study. These fields are natural sciences, engineering and technology, medical sciences, agricultural sciences, social sciences, humanities, and others. They represent (11%) of this category in 2010. When the scope is limited to people who have successfully completed tertiary education in a Science & Technology (S&T) field of study and who are also occupied in such a field, the share of women increases to (35%) in 2010 (in 2004, it stood at 26%). Their share among employed scientists and engineers stood at (27%) in 2010 (up from 26% in 2004) and is much higher than the share of women in total employment: 10% in 2010 (down from 14% in 2004).

The research population is also male-dominated as it is the case in most Arab countries. In 2010 just (37%) of all researchers were women. The situation was somewhat more equal in the government sector than in higher education as the respective shares of female researchers stood at (31%) and (19%) in 2010. In the business enterprise sector and in the private non-profit sector, research is almost exclusively carried out by men with female shares of researchers at
(8%) and (9%) respectively. However, researchers in both of these sectors represent just (9%) of all Syrian researchers (91% are in higher education or the government sector).

Graph 1 shows that whereas female researchers are younger in the higher education sector than in the government sector, the opposite holds true for male researchers: (68%) of all female researchers in higher education are under 35 years of age compared with (40%) in the government sector. The graph also shows that in higher education female researchers are younger than male researchers whereas in the government sector this pattern is inversed. In higher education, (68%) of female researchers compared with (39%) of male researchers are under 35 years of age. A generation effect appears more clearly in higher education and less clearly in the government sector.

Graph 1: Distribution of researchers in the Higher Education Sector (HES) and the Government sector (GOV) by sex and age groups, 2010

Scientific fields or horizontal segregation

In Syria, (33%) of PhD graduates were women in 2010. These women were distributed across the different fields of science as shown by graph 2. Women form a minority of PhD graduates in all fields of science except for health and welfare (57% of PhD graduates in this field are women) although it should be noted that in this field there were just seven PhD graduates in 2010, four women and three men. Equality is almost reached in agriculture and veterinary (48% of PhD graduates are women in 2010) but here again there were just 25 graduates in 2010. The share of women among PhD graduates is almost identical at 41-43% in science, mathematics and computing and engineering, manufacturing and construction. It varies around 30-33% in education and humanities and arts. Finally, the share of female PhD graduates is lowest at (25%) in the social sciences, business and law.

1 Moreover, data for Aleppo University (one of the five biggest universities in Syria) concerning the student population and its distribution across study fields over the period 2005-2012 show that female students represent just 25% of all students in nursing, 31% in medicine, and 36% in dentistry. Only in pharmacy are women in the majority, representing 65% of all students in this study field (Source: national expert).
2 Again these figures do not correspond to the shares of male and female students in these fields. At Aleppo University, in 2005-2012, only roughly one third of all students in agriculture were women and in veterinary, female students represented just 1% (Source: national expert).
3 Although the student population in science at Aleppo University is rather gender-balanced this cannot be said for computing as female students represented just 39% of all students in this field in 2005-2012 and certainly not for engineering, female students represented just 27% of civil engineering students and 18% of mechanical engineering students (Source: national expert).
4 The respective shares of women amongst students in education and humanities and arts stood at around 60% in 2005-2012 at Aleppo University (source: national expert).
5 The respective shares of female students in economics and law stood at 29% and 26% in 2005-2012 at Aleppo University (source: national expert).
In total, in 2010, women represented (30%) of PhD graduates in natural science and engineering.

Graph 3 presents their more detailed distribution across subfields of natural science and engineering. However, the extremely small sample size forces us to interpret these findings with great caution. The graph shows that within the field of natural science and engineering there is an equal share of female and male PhDs in mathematics and statistics. Women constitute a (46%) of PhD graduates in the subfield of life sciences. All other subfields remain very male-dominated. Women represent one third of all PhD graduates in physical science, (29%) in manufacturing and processing, (25%) in architecture and building, and (23%) in engineering and engineering trades. There was just one male PhD graduate in computing (so that the share of women amounts to 0%) given that this faculty was created only very recently and still needs to build up its academic staff and be accredited by the Ministry for Higher Education to deliver PhD degrees.

When we look at how the population of researchers is distributed across fields of science (graph 4) we see that in the higher education sector (39%) of female researchers and (36%) of male researchers in Syria are in the medical sciences. The second largest field for female researchers is engineering and technology (18% of female researchers are in this field) whereas for male researchers the second largest field is agricultural sciences (one fifth of all male researchers are in this field). In the government sector, the field of engineering and technology hosts (30%) of female and (36%) of male researchers. One fifth of female researchers are in the medical sciences and one fifth in the natural sciences. The second
largest field for male researchers in the government sector is agriculture. In the HES, one quarter of female researchers are in the social sciences, one quarter in agricultural sciences and one quarter in medical sciences. The distribution of male researchers in this sector is somewhat different with (29%) in the humanities, one quarter in agricultural sciences and one quarter in engineering and technology.

**Graph 4: Distribution of researchers in the Higher Education Sector (HES), the Government sector (GOV) and the Business Enterprise sector (BES) across fields of science, 2010**

The compound annual growth rate between 2004 and 2010 of the number of female researchers has been very positive in all scientific fields. In the higher education sector, the number of female researchers has grown at an annual rate of between (6%) in the natural sciences and (52%) in the humanities. In the government sector, the compound annual growth rate of female researchers has varied between (6%) in agriculture and (31%) in the medical sciences.

**Table 1: Compound annual growth rates of female researchers in the Higher Education Sector (HES) by field of science, 2004-2010**

<table>
<thead>
<tr>
<th>Field of Science</th>
<th>HES</th>
<th>GOV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural sciences</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Engineering and technology</td>
<td>23</td>
<td>11</td>
</tr>
<tr>
<td>Medical sciences</td>
<td>44</td>
<td>31</td>
</tr>
<tr>
<td>Agricultural Sciences</td>
<td>22</td>
<td>6</td>
</tr>
<tr>
<td>Social sciences</td>
<td>37</td>
<td>28</td>
</tr>
<tr>
<td>Humanities</td>
<td>52</td>
<td>35</td>
</tr>
</tbody>
</table>

**Seniority or vertical segregation**

The scissors diagram in graph 5 shows that in 2010 (37%) of ISCED 5A students and (35%) of ISCED 5A graduates were women. The share of women at this ISCED 5A level has stabilized or slightly increased between 2004 and 2010. In 2010, 33% of PhD students were female and 31% of PhD graduates were female, a huge move forwards compared with the 15% of PhD students who were female and 11% of PhD graduates who were female in 2004. In Syria, it is at this entrance stage into the academic career that the scissors start to open. At the lowest
academic grades, grades D and C, women's share are just 20% and 26% respectively in 2010 (but their share was much lower at 9% at these levels in 2004). Their share drops further to 16% at grade B and at the highest rank of the academic hierarchy just 8% are women. A comparison between 2004 and 2010 shows that at the highest level there has been a very negative evolution as the share of female grade A academics dropped from 40% in 2004 to 8% in 2010.

That there is a glass ceiling is also illustrated by the glass ceiling index which had a value of 2.3 in 2010, up from 0.3 in 2004. It should be noted that, like in most countries, the share of academics at grade A among all academics is not very high in Syria, (11%) of all female academic staff is at grade A and (29%) of all male academic staff.

Graph 5: Proportions of men and women in a typical academic career, students and academic staff, 2004/2010

The scissors diagram in the specific field of science and engineering as depicted by graph 6 is pretty similar to the general diagram for all scientific fields together (graph 5). The glass ceiling is not so much thicker in science and engineering than in all science fields considered together. Up until the entrance into the academic career the share of women is generally around one third (except for gender parity among ISCED 5A students in science and engineering) but then the scissors open quickly and the share of women falls back to (15%) at grade D, (19%) at grade C, (11%) at grade B and (4%) at grade A. Between 2004 and 2010 the scissors show some variation at the lower levels (Master and PhD students and graduates) but a status quo at the different grades of the academic career.
Female grade A academic staff in Syria are best represented in the social sciences and the humanities where respectively 19% and 17% of all grade A academics are women. These fields are followed by the medical sciences with 9% of female grade A academics. In all other scientific fields there are at most 5% of women among grade A staff.

Compared with male grade A staff, women at this grade are overrepresented in the humanities and the social sciences. Male grade A staff are overrepresented compared with female grade A academics in agricultural sciences, natural sciences and especially in engineering and technology which host 25% of all male grade A academics compared with just 9% of all female grade A academics. Roughly equal shares of female and male grade A academics are active in the medical sciences (24% of female grade A academics and 28% of male grade A academics).
As shown by table 2, there is no evidence for a generational effect. Female grade A academics constitute small minorities in each of the age groups, they are best represented among 45-54 year-olds but still make up just 14% of this group.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;35</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>35-44</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>45-54</td>
<td>14</td>
<td>18</td>
</tr>
<tr>
<td>55+</td>
<td>7</td>
<td>24</td>
</tr>
</tbody>
</table>

The distribution of female and male grade A academics by age group is shown by graph 9. When we look at the distribution of female grade A staff, there is no convincing evidence for a strong generation effect. On the contrary, whereas 80% of women at grade A are above 45 years of age, this share stood at 57% only for men. 21% of female grade A academics are between 35 and 44 years of age but 43% of male grade A academics are of this age. It thus rather seems that men at grade A are younger than women.
Available data for an analysis of the hierarchical position of female scientists in the broad economic sectors refer to the distribution by sex of R&D staff across different occupations (researchers, technicians and others) in the higher education, the government and the business enterprise sector (graph 10) in 2010. According to the Frascati manual, researchers are “professionals engaged in the conception or creation of new knowledge, products, processes, methods and systems and also in the management of the projects concerned”; technicians are “persons whose main tasks require technical knowledge and experience in one or more fields of engineering, physical and life sciences or social sciences and humanities. They participate in R&D by performing scientific and technical tasks involving the application of concepts and operational methods, normally under the supervision of researchers”; and other supporting staff includes “skilled and unskilled craftsmen, secretarial and clerical staff participating in R&D projects or directly associated with such projects”. For the only purpose of describing these indicators, a hierarchy can be defined with researchers placed highest, followed by technicians and other supporting R&D staff. In Syria, there is a deep gender difference in these occupational groups. Regardless the sector, women are more likely to be technicians and less likely to be researchers than men. Only in the government sector are women more likely to be performing research supporting tasks than men. In higher education, there is no gender difference in this occupational group. It is striking to observe the extremely low shares of both male and female researchers in the business enterprise sector.

Access to decision-making in science

Of the 23 universities in Syria, just one has a female head. The five biggest universities (University of Damascus, University of Aleppo, University of Tishreen, University of Al-Baath and University of Alfurate) all have male presidents and vice-presidents. These five universities represent 90% of all university students in 2010.

In 2010, just 10 out of the 158 members of the highest boards of these five universities were women. Women thus represented 6% of these boards’ members.

In 2010, women represented 10% of all applicants for research funding from the five biggest Syrian universities and they were 14% of all beneficiaries of funding. The share of women who successfully obtained research funding for which they applied was nevertheless 7 percentage points higher than the share of male applicants who were successful in actually obtaining the funding they asked for: of all female applicants for research funding 20% successfully obtained the funds they asked for whereas for men this proportion stood at 13% in 2010.
2. GENDER EQUALITY POLICIES

2.1 POLICY CONTEXT

Legislative framework

The Syrian permanent Constitution, adopted in 1973, states the basis of equality for all citizens. Article 25 states that “citizens are equal before the law in their rights and duties, and the government guarantees the principle of equal opportunities among citizens”. Article 45 states that “the State guarantees women all opportunities enabling them to fully and effectively participate in the political, social, cultural and economic life. The state removes the restrictions that prevent women’s development and participation in building the society”.

Emphasis to enhance both women's public and private status in the society has been on the Syrian government's agenda of development priorities since the 1970s and equality of women and men applies in several areas. However, provisions that discriminate against women and girls persist, namely in the Personal Status act and the Penal Code.

Syria acceded to the CEDAW in 2003 with reservations against several articles of the convention, considered to be against Muslim law: 2, policy measures; 9 (2), equality with regard to nationality; 15 (4), freedom of movement and of residence and domicile; 16 1 (c), (d), (f) and (g), equality in marriage and family life; and 16 (2), child marriage; as well as 29 (1), administration of the convention; arbitration in the event of a dispute. It still maintains the reservations made to the CEDAW despite the fact that progress in removing some of them was reported in the initial State party report (2005), including agreements in the People’s Assembly.

The CEDAW Committee\(^6\) has indicated that several of these articles are considered to be at the core of the purpose of the convention. It has expressed its concern that right to equality between women and men and the prohibition of both direct and indirect discrimination against women is not reflected in the Constitution or any other law whilst gender-discriminatory provisions persist in several laws.

Institutions and policies

The Syrian Commission for Family Affairs (SCFA) was established in 2003 and is the government body responsible for promoting and protecting women’s rights.

A national gender coordination committee was established by the SCFA in 2009 on the basis of a concept note developed by the UNFPA (United Nations Population Fund) programme. This can be considered as a breakthrough achievement. The national gender coordination committee was re-launched in 2010 with the renewed commitment of the SCFA and other stakeholders to lead and operationalize the functional responsibilities of the coordination mechanism as follows:

- secure capacity building support to members of the group,
- promote information and knowledge sharing,
- strengthen the gender focal points system within government and non-governmental organizations,
- provide technical support and advice to sectorial ministries in support of gender mainstreaming; and,
- mainstream gender in the national development frameworks.

A national Gender Mainstreaming Manual was developed to guide gender mainstreaming efforts of the gender coordination committee. A Gender Communication Strategy was jointly developed by the SCFA and MOI (Millennium International Organisation) with UNFPA support. Its main aim is to raise gender sensitiveness, namely in the field of gender-based violence.

\(^6\) Committee on the Elimination of Discrimination against Women, Thirty-eighth session, 14 May-1 June 2007 (CEDAW/C/SYR/CO/1)
The Syrian Federation of Women has been trying to suggest establishing a Ministry for Women's Affairs to advance gender issues in the country. However this proposal remains controversial among NGOs and women’s activists.

2.2 GENDER EQUALITY POLICIES IN SCIENCE

Structures for gender equality in science

In Syria there is no gender unit at ministerial level in charge of gender issues in scientific research, nor any similar structure at high-governmental level.

Statistics and indicators

There is no official engagement to publish sex-disaggregated statistics, although the Central Bureau of Statistics (CBS) has been publishing sex-disaggregated statistics since the early 2000s.

The CBS collects a massive amount of information and publishes an annual yearbook (collecting statistical data from different ministries). It also collects data on a five-year regularly organised census, which is also an important source of quantitative information. However, statistics are rather compiled for registration and documentation purposes and they are not usually followed by any analytical work. The State Planning Commission (SPC) is the most important ministerial organisation in charge of the collection of economical forecasts in the broad sense of the word. There is an R&D survey in the country. However, sex-disaggregated statistics in the field of science are very incomplete.

Gender balance measures

The Syrian government has been actively encouraging women’s participation in public life since 1970. Action in this field was strengthened following the Syrian commitment to the international Beijing Platform for Action. In the early 2000s, this issue was for the first time incorporated clearly in the country's Ninth Five Year Plan, by setting specific goals to strengthen the participation of women in economic development and the executive, legislative and judicial branches of government, as well as different decision-making positions in public life. The SCFA developed a strategy for this, with 30% representation set as the target.7

The law on the organization of universities in the Syrian Arab Republic does not specify any gender balance measure in terms of quotas nor targets.

Equality plans and related gender equality measures

There are no gender units in the Ministry of Higher Education for gender equality. Universities and research institutions are not required by the ministry of higher education to set up gender equality plans. There are no strategic plans to conduct research on this issue. It should be noted here that the Higher Commission for Scientific Research is only concerned with applied research and does not conduct research on gender issues.

Mentoring

Mentoring is not an institutionalized practice as regards junior scientists of either sex. There are no specific mentoring programmes for women at the national level.

Funding

Research funding is awarded on the basis of merit, without any gender-related provision to ensure equal access to funding. There are no special funds or prizes for women.

7 Quota project
Work and family balance

Syrian legislation provides full salary maternity leave for 120 days for the first child, 90 days for the second, and 75 for the third. Women are entitled to one-hour nursing period per day until the child reaches the age of one year. The government already provides national childcare for a small fee in schools and workplaces. There is neither paternity leave nor any debate around this due to social norms.

In 2008, gender-discriminatory regulation concerning mobility support to PhD students was removed. The old regulation provided economic support for the family (spouse and children) of male PhD students studying abroad. This regulation was amended in order to give women the same rights as men.

Returnees from career breaks may benefit for financial support provided the career break is limited to 3-4 years. This measure is addressed to anyone working in the government sector. Career breaks may be due to family reasons or other circumstances such as mobility or military service.

Women’s and gender studies

Syrian universities provide some courses concerning gender issues, namely in the field of gender-based violence. The Ministry of Higher Education has established partnership with other relevant stakeholders (SCFA, Ministry of Education, Women General Union, and National Union of Syrian Students) in order to revise the school curricula to raise gender sensitivity and include concepts of gender-based violence.

Networking

Syria has actively participated in the establishment of the Women’s Initiative (woman.astf.net) at the Arab Science and Technology Foundation (ASTF). The idea was proposed by a network of Arab women researchers in 2003 in order to strengthen the role of Arab women in science and technology on regional and international levels. This desire is now reflected in all ASTF’s programs and activities. The ASTF organised the first conference on “Arab Women in Science and Technology: Empowerment for the Development of the Arab World” in 2009, Dubai, UAE. In 2010, Aleppo University signed an agreement with ASTF to organize the second conference on Women in 2012. However, due to the Syrian crisis the conference was held in Sudan instead in May 2014 under the title “The Arabic Woman in Science and Technology: Towards Sustainable Development”.

3. RECOMMENDATIONS

All quantitative indicators show that most of the research in Syria is carried out in 5 universities: the University of Aleppo, the University of Damascus, the University of Tishreen, the University of Al-Baath and the University of Alfurat. Despite the importance of manufacturing companies in Syria, private sector R&D is still very limited. Hopefully, initiatives such as the creation of the General Organization for Textile Industries and other industrial organizations will contribute to fill this gap. The promotion of joint industry-university research projects are still rare for PhD researches and could be increased by the contribution of the private sector.

The situation in Syria shows that in spite of the commitment to gender mainstreaming, to produce reliable gender indicators, or even to collect disaggregated statistics, high levels of gender inequality in science related to pay in the private sector, recruitment, funding, promotions do exist at all levels and in all fields.

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8 Legislative Decree No. 35 of 13 May 2002, which amends Article 54 of the Public Service Law No. 1 of 1985
9 Presidential Decree No. 10 2008
The analysis of gender mainstreaming efforts on the ongoing education reforms highlights some of the key challenges to gender equality in science in Syria:

- The limited financial and human resources that make up the system.
- The limited funding which directly affects the quality of research equipment and research infrastructure which in turn affects the quality of the research produced.
- The limited number of human resources. This leads to inadequate supervision of scientific work.
- The limited number of grants and scholarships. This forces candidates to seek employment in order to subsidize their studies.

Measures to promote gender equality in science could be implemented at the national and international level:

At the national level

a. Enhancing and empowering the networks for women scientists; organization of workshops and scientific events; implementation of competitions and scientific contests (Syria now participates in Olympiads of mathematics, physics, and chemistry).
b. Promotion of women at university and throughout the educational system: examination of pedagogy, orientation in schools, rejection of censorship, stereotypes, unconscious bias, encouragement of firms and industries to empower women scientists following the example of the UNESCO-L’Oréal program, within their corporate social responsibility activities.
c. Raise the number of grants and increase the amount of scholarships so that candidates no longer take up work simply to subsidise their studies and encourage them to devote all their time to research; and increase the number of young women to join scientific specializations via increasing the awareness of the parents in appreciating the importance of women in this field.
d. Launching awareness campaign in order to help the woman hold the position of decision maker.
e. Reach critical mass: in line with the scarce resources available and the nature of scientific work (exchanging and sharing ideas to build new ones), the challenge is to develop scientific policies programmes through gathering existing resources, infrastructures and knowledge from different actors that are not necessarily involved enough in doctoral research.
f. Change structural system by creating a national gender observatory;
g. Persuade the ministry of higher education with the results of the SHEMERA Project and Following-up the results that have been reached through the project.
h. Gender proofing the educational curricula and media programmes from the social heritage that represent woman in a lower rank than man and attribute to her passive and typical roles which do not match her creative abilities.
i. The lack of database which reflects the true development of woman's in various aspects especially in the aspect of education.
j. Bridging the gap between researchers and decision makers.

At the international level

a. Allocating a part of the annual budget of UNESCO, AUF, etc to women scientists.
b. Increasing the number of women scientists receiving honors, in scientific committees, commissions, conferences, and workshops.
c. Increase women’s studies, especially in the Arab world especially after the Arab Spring and establishing centers to take care of women as war victims and spreading the culture of International Humanitarian Law.
d. Increase the number of conferences that address the obstacles and develop solutions necessary to raise the participation of women in all areas of life.
Many of the countries in this study have taken considerable steps to develop quality assurance mechanisms, but still have a long way to go when it comes to implementing them. Additional efforts still need to be made by policy makers involved in the development and enhancement of research and higher education policy.

The Syrian government is keen on empowering women. Therefore, the official public orientations always take into account equality between men and women.

Syria endorsed CEDAW, with reservation, due to certain norms and religious reasons. However, the government is striving to end the reservation, or to modify some of its items. Several non-governmental organizations are urging it to do so. Some influential religious bodies accept these government intentions.

The Syrian Arab Republic works and must continue to work hard on women’s empowerment as this is considered an essential goal for women’s progress and development in all aspects. The aim is to support government actions and apply them to a larger number of women, especially those in poor and rural areas, aided by the Syrian civil organizations and media in order to achieve positive results that would strengthen women’s status and help them avoid inherited and modern problems. Many of the problems facing women are due to the old fashioned inherited beliefs that are still rooted in men and women’s mentalities.

Syrian women are still in need of a lot of scientific and political support. They still lack adequate access to decision-making positions. However, policies and legislations are being made in favour of women in order to empower them and to promote their access to decision-making.

Further research is needed to highlight the advantages of women’s empowerment in scientific careers and leadership positions to steer policy-making regarding gender and science in years to come in the Syrian Arab Republic.

Shemera project has achieved its mission. It has revealed the status of women in higher education in all the participating countries. It has also shed light on the difficulties facing women’s development. All these would contribute to forming and issuing modern scientific policies in line with the important findings we presented. Through this we hope to have achieved the major aims of the project.
This report aims to highlight some of the findings on gender imbalance in scientific careers in academic and non-academic sectors in Syria that have evolved from a joint research project undertaken by Aleppo University in collaboration with other Arab and European institutions within the SHEMERA project. The overall objective of the SHEMERA project is enhancing research cooperation on gender and science between the European Union and the Arab Mediterranean countries: Algeria, Egypt, Jordan, Lebanon, Morocco, Palestine, Syria and Tunisia. Research cooperation is intended to improve the understanding of the roots of gender inequality in science in the area, by taking into account cultural diversities and traditions, and analysing how the Arab Mediterranean countries are addressing this specific issue.

The research project aimed to collect national data in the Arab Mediterranean countries to form the basis for a comparative analysis of the current situation of gender equality in science in order to benchmark future development in this field and guide researchers, policy makers and other strategic players in identifying and addressing the key problem areas.

This report focuses on two key domains to map the situation of women in science in Syria:

- The compilation of sex-disaggregated statistics covering women’s and men’s distribution across scientific fields and careers, their seniority and participation in decision-making in science;
- The description of gender equality policies, legislations, national strategies and positive actions for women including equal opportunities legislation – with a special focus on gender equality policies and initiatives in the field of science.

There is an imbalance in the representation, seniority and participation of women and men in scientific fields and professions worldwide. The roots of this gender imbalance are deeply embedded in each society, profession and institution. Gender imbalance is not a self-correcting phenomenon and only concrete measures targeting specific aspects of its manifestations can lead to significant change in this area. The final section of this report provides a set of national recommendations to strengthen the position of women in science and promote gender equality in this field.