

INTERNATIONAL CENTER FOR BIOSALINE AGRICULTURE

TAMKEEN

Arab Women Scientists in Agriculture: Characteristics, Challenges and Perspectives



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Exploring challenges faced by Arab Women Scientists– as reported directly by them – is a critical step towards establishing an understanding of the overall landscape within which Arab Women Scientists exist. This report reflects the findings from three focus group sessions conducted in Dubai, Amman and Rabat in November 2016 with Arab Women Scientists actively working within the scientific research and development field in agriculture and related disciplines. These findings are further supported by - and reflective of - feedback obtained through conducting one-on-one interviews with a selection of Arab Women Scientists in October and November 2016, across the nine target countries: *UAE and Oman (Gulf); Egypt, Jordan, Lebanon and Palestine (Levant); Algeria, Morocco and Tunisia (North Africa)*. A total of 21 Arab Women Scientists participated in the 3 focus group sessions conducted, and a total of 14 Arab Women Scientists were also interviewed. The focus group sessions and interviews focused on exploring challenges faced by Arab Women Scientists in their respective region, both as researchers in general but more specifically as women researchers and scientists, and their perspectives on the design and structure of an ideal capacity building program that can help them maximize their potential and grow their careers within the scientific research and development field.

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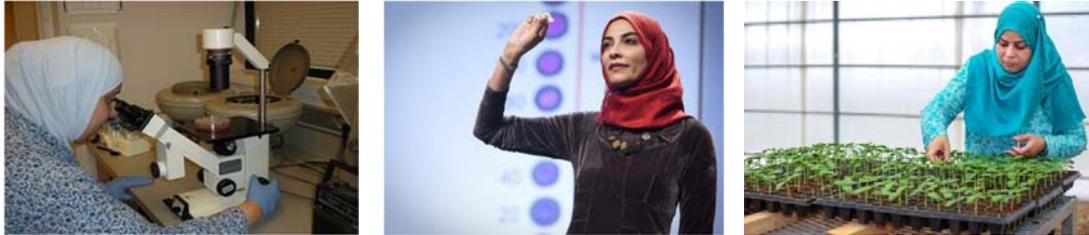
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1. Arab Women Scientists in Agriculture: Characteristics, Challenges and Perspectives



1.1 Unleashing Hidden Value

Scientific research and development is globally recognized as an important factor for economic growth and development. With the global current challenges regarding food and nutrition security, water scarcity and climate change, an increasing focus is being lent to scientific research and development within the agriculture sector specifically, both from the perspectives of human and resources sustainability and the creation of thriving farming communities that can effectively support economic growth. These realizations are emerging rapidly within the Middle East and North Africa (MENA) region – a region for the purpose of this report encompassing Algeria, Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, United Arab Emirates and Yemen - as governments place increased emphasis on scientific research and development as a driver for economic growth, and as the region confronts serious challenges related to food and water security and climate change. Women play a central role in farming activities globally and regionally, historically and in the present day. Despite though the healthy representation of women contributions at the farming level, women participation in scientific research and development in the agriculture field in the MENA region remains low and constitutes a challenge impeding the progress of scientific innovation, economic prosperity and gender responsive enabling frameworks of policy making.

Within this context, there is a marked lack of quantitative information on the number and growth trajectories of Arab women scientists within the agriculture research and development discipline with which to inform policy-making and capacity development initiatives. There is also a marked lack in attitudinal information capturing the self-expressed viewpoints, concerns, challenges and needs of Arab women scientists.

While much can be learned from the key findings shared in this report, we realize that this initial effort at increasing understanding of Arab women scientists is limited by the lack of the ability to compare findings with Arab men scientists and researchers and the absence of a broader population framework for study.

Nevertheless, though, this report provides valuable new insights into the attitudes, needs and challenges of Arab Women Scientists in nine MENA countries: *UAE and Oman (Gulf); Egypt, Jordan, Lebanon and Palestine (Levant); Algeria, Morocco and Tunisia (North Africa)*. Views captured through focus group sessions and one-on-one interviews reflect the feedback of 35 Arab women scientists. On the basis of this feedback, the report identifies:

- *Profiles* of participating women scientists in nine MENA countries
- Perspectives and view of participating women scientists on the *Characteristics, Skills and Values* of women leaders in science

- The *challenges* that Arab women scientists face in both managing and growing their careers and their contributions in the field of scientific research and development
- Perspectives and views of participating women scientists on the *design and structure* of an ideal *women-specific capacity development program*

This report is a first step in redressing the lack of information on challenges facing Arab women scientists, and is the third and final report in a series of three reports aimed at understanding the larger landscape affecting the design and the structure of a women-specific capacity development program for Arab women scientists.

The information in this report reflects the feedback and perspectives of 35 participants, from both one-on-one interviews and focus group sessions, across the nine target countries. The breakdown of participation is as follows: 17 participants in total from the Levant region (9 in focus group session and 8 over one-on-one interviews); 13 participants in total from the North Africa region (7 in focus group session and 6 over one-on-one interviews) and 5 participants from the Gulf region (5 in focus group session).

2. Profiles of Participating Arab Women Scientists

Participant mix reflects the great diversity of female talent in science within the MENA region. The majority of participants are holders of Masters Degrees – from within which, a considerable percentage are pursuing a PhD. 40% of participants already hold a PhD degree. The diversity across the age groups reflects an established talent base for research and scientific development among women scientists in the MENA region, as well as an emerging one.

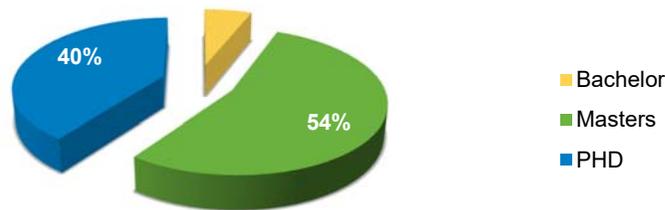
2.1 Personal Profile

Personal Profile Information reflects participants' educational background, age profile and marital status.

1. Educational Background

Slightly more than half of the participants hold Masters Degrees, followed closely by PhD holders who constituted 40% of the total participants. Bachelor degree holders reflect 6% of the total participant population and mainly reflect participants from Oman who currently manage research projects and run research teams. This is reflected in Figure 1 below.

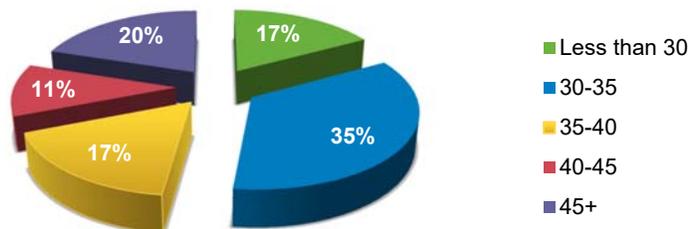
Figure 1: Education Background breakdown for participants



2. Age Profile

The two biggest groups belonged to the 30-35 years old and 45+ years old age groups representing 35% and 20% respectively of the total participant population, reflected in Figure 2 below.

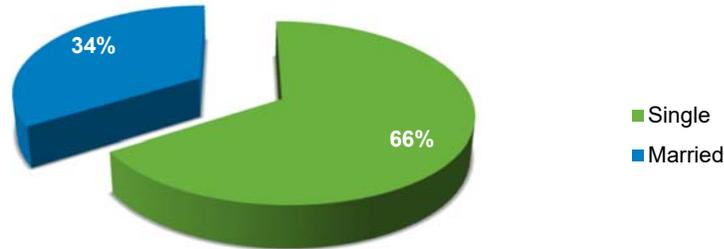
Figure 2: Age Background breakdown for participants



3. Marital Status

The majority of participants are single reflecting 66% of the total participant population, reflected in figure 3 below.

Figure 3: Marital Status breakdown for participants



2.2 Growth Outlook

Participants are optimistic and poised for growth in terms of their outlook on the growth of the research and development sector in the MENA region and their own contributions as women to the field. Despite the economic and political challenges facing the region as a whole and impacting the sector, and the specific gender challenges facing them as women scientists, they remain optimistic based on emerging positive trends for growth.

The Growth Outlook reflects feedback received from participants concerning their expectations on the: 1) Growth of the scientific research and development sector in general in the MENA region 2) Growth of women's contribution to the field of scientific research and development in the MENA region and 3) Growth of their personal careers within the field of scientific research and development in the MENA region.

Across the three regions, the majority of participants reported high expectations and a high growth outlook across the three areas outlined above. Participants from the Gulf region reported the highest growth outlook with 85% of participants responding positively, followed by the North Africa region at 83% and finally the Levant region at 65%.

Some of the factors referenced by participants and leading to their optimistic growth outlook include a perceived increase in national governments' interests in growing both national education and research and development sectors and an increase in national governments' focus on empowering women. Participants also referenced the increase in non-governmental institutional support for science and women in science both globally and regionally.

3. Perspectives of Participating Arab Women Scientists: Ideal Woman in Science Leader and Personal Values

In the last few years, a significant number of Arab women have reached positions of influence in business, politics, science, civil society, academia and the media. As a result of their success, they have not only been able to impact the industries in which they work, but have also had an important impact on the Arab region as a whole¹.

“In the past women striving for leadership were looked upon as a novelty. Nowadays, because of the success of Arab women leaders, aspiring women now have the opportunity to succeed.”

Habiba Al Marashi

Chairperson, Emirates Environmental Group
UAE

The following section explores perspectives of participating Arab women scientists in what they believe distinguishes Arab women leaders in science from the broader group of women in the region. What are the characteristics and skills of an ideal woman in science leader? To answer this, participants were asked to reflect on role models and what they perceive are the characteristics and skills that set these role models apart from the rest. Additionally, participating Arab women scientists were also asked to reflect on their own defining values and key influencers in terms of their effect on career progression.

3.1 Characteristic – Ideal Woman in Science Leader

The concept of leadership in science remains blurred and not well defined. Participants tended to associate women leaders in science to women they have seen in high hierarchical positions, not necessarily inspirational or innovative women in the field. Once participants were facilitated to think of leadership in its true form, they were able to provide views and perspectives on the characteristics and skills necessary for women to excel as leaders in the science field.

Characteristics can be defined as the personal qualities of an individual. Various theories on leadership characteristics emphasize the importance of being honest, forward-looking, competent, inspirational and intelligent.

Determination, perseverance and broad-mindedness were recurring characteristics picked by most participants as key characteristics of successful women leaders in science. Additionally, a large number of participants emphasized the need for leaders to be **assertive** with **independent thinking**.

“In research institutions and departments, you can’t have leaders that don’t understand science and you can’t have scientists that don’t understand leadership. We have to develop and promote a cohort of scientists that are well versed in the field of leadership and in what it takes to be a successful and impactful leader.”

Dr. Ruwaya AlKendi

Assistant Professor, UAE University

3.2 Skills – Ideal Woman in Science Leader

Whether through education or work, participants identified the key skills that they believe enable women to ascend to positions of leadership. It is worth noting, however, that very few of the participants received formal leadership training (only some participants from the UAE and Lebanon confirmed that they have received formal leadership training).

The majority of participants indicated **decision-making**, as a key skill required for effective leadership, followed by **listening skills, conflict management** and **public speaking** skills.



TAMKEEN Design Phase

Participants – Focus Group Session

Amman, Jordan

November 7, 2016

3.3 Key Influencers

Participants were asked to identify elements within their support system that have had the most positive influence in the advancement of both their education and careers. These elements are key influencers and are of central importance to Arab women career progression and empowerment.

The majority of participants indicated that their **mothers** played a central role in supporting their education and career efforts, followed by a supporting role of **fathers** and **husbands**.

According to participants, family influence – that of mothers, fathers and husbands – remains central to women empowerment and their decision to pursue higher education and bigger careers.

IN-FOCUS: Strategic skill base for Arab women leaders

Excerpt from the Arab Women Leadership Outlook Report (2009)

“The vast majority of Arab women leaders agree that a combination of the following skills is required to become a leader: critical and analytical skills, decision making, emotional and social intelligence, influencing skills, listening skills, managing conflict, multi-tasking and being able to manage work-life balance, negotiation skills, problem solving, public speaking, taking initiative and verbal communication.

Although the range of skills associated with leadership is not gender-specific, the interviews revealed that women tend to excel in certain skills more than men. For example, women often have highly developed listening skills. Multi-tasking and the capacity to maintain a work-life balance are also considered areas of strengths for many women.”

3.4 Values – Ethical Architecture of Participating Arab Women Scientists

When discussing the topic of their personal values with participants, these were explained as a set of ideals, standards and principles that guide their lives and behaviors. Across the Arab region in general, values linked to dignity, faith, reputation and modesty play a central role.

When asked about which values play a central role in guiding their perspectives towards life and their behaviors, participants identified **family values, dignity, modesty, justice** and **solidarity** as of utmost importance. Most participants placed utmost importance on the centrality of their families to their lives. Certain ethical values linked to both religion and culture were also valued by participants. Participants were aware of certain cultural traditions that have a potential negative impact on their empowerment and were able to differentiate these from other values – such as modesty, justice and solidarity - that they believe bring uniqueness to their perspectives on life and drivers of behaviors.

4. Perspectives of Participating Arab Women Scientists: Enabling Environment and Challenges

It is important to take a look at the challenges facing the wider enabling environment in the region in general as it has a tremendous impact on the ability of aspiring Arab women to ascend into leadership positions.

The enabling environment with the context described above refers to the status of various factors and whether they play a positive or negative role in empowering Arab women leaders. These factors can be grouped within the following categories (see Figure 4):

1. Education

Figure 4: Enabling Environment

2. Socio-Economic Environment

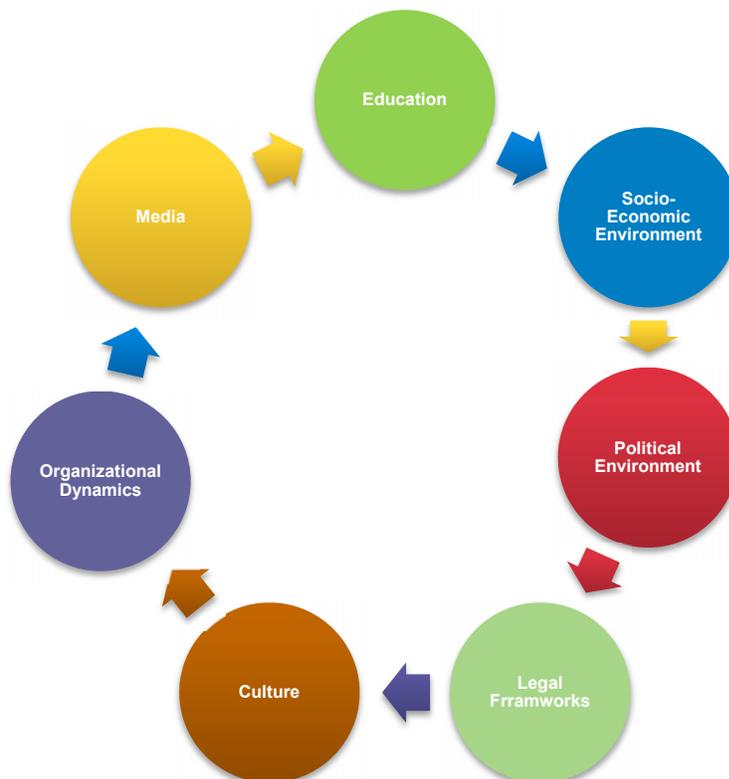
3. Political Environment

4. Legal Frameworks

5. Culture

6. Organizational Dynamics

7. Media & Perceptions of women



It is important to note here that some of the challenges faced across the different factors within the enabling environment are not necessarily gender specific (for e.g. quality of education, unemployment, political instability), whereas others pose increasingly difficult challenges that women specifically need to overcome above and beyond other general challenges (for e.g. perceptions about the role of women, lack of women protection laws and / or lack of their enforcement.).

The following section provides a brief overview of the impact of these various factors on Arab women empowerment in general, and Arab women scientists' empowerment specifically, from the perspective of participating women, and within the context of the research and development industry in the region.

4.1 Education

Education is regarded as a key enabler for women empowerment globally. It also underpins the concept of leadership². Despite gains made in the area of increased female enrollment, especially in tertiary education, there are still significant challenges referenced by participants in this area.

Illiteracy

The rate of illiteracy in the Arab World (see Figure 5) is among the world's highest, when compared to other developing nations, and more than two-thirds of adult illiterates are women³.

Participants referenced illiteracy as a challenge at various levels, including the **detrimental impact of this on a healthy future talent pipeline of scientists and researchers within the agriculture sector** and **on-the-job challenges facing scientists in dealing and communicating with illiterate rural farmers**.

“How can we get young rural girls to aspire one day to become an agricultural engineer? These girls are growing in farming communities and have a tremendous chance at changing the agricultural landscape in the region, but with cultural norms and a lack of access to basic primary education, these opportunities are sadly wasted.”

Karmah Bouazzaa

Nursery Specialist Consultant
SEED, Badia, Jordan

Quality of Education

The quality of education received was cited as a major challenge by many participants, impacting their ability to compete at an international level and develop the right skills to excel both as researchers and as leaders.

Some of the concerns with the status of education includes: **more focus on memorization versus critical thinking, innovation and problem solving, a general lack of awareness on the value delivered by scientific research and innovation, limited effort to encourage girls and women to enter into the scientific research field** and a **lack in training graduates on “employable” and leadership skills that can better prepare them for the job market and the international research and development arena**.

“One of my major challenges on the field is gaining the farmer’s trust in my research findings and recommendations. If I were asked to pinpoint a reason as to why this lack of trust manifests, I would probably say that the farmer has no trust in the quality of research and researchers in general in the region. For me as a female researcher, this is further compounded by challenges relating to culture and the farmer’s view on the value and credibility of female researchers as well.”

Tahany Noreldin

Researcher
Water & Environment Research Institute,
Egypt

It is important to stress again the regional variations, specifically between the Gulf region and the rest of the target countries and regions. The UAE specifically has made huge strides in improving the quality of education, eradicating illiteracy and focusing on developing leadership skills among its university students. Still, however, there is much room to grow specifically in addressing the lack of awareness about the impact of scientific research and development and encouraging women to pursue careers within the sector.

4.2 Socio-Economic Environment

The economic and social constructs of countries can either fuel women empowerment and increased participation in the labor force overall, or it can impede them. Despite clear advantages that are now presented to Arab women in the region - for e.g. through sustainable narrowing of the gender gap in

economic participation between males and females in the MENA region – the socio-economic environment is not entirely favorable to women's participation in society. Certain challenges, whether related to the overall economic conditions of the country or to its business environment, must be overcome in order for women to pursue their ambitions.

Unemployment and **weak economic conditions** were some of the most prominent challenges noted by participants, **more so amplified in the scientific research and development sector that still doesn't receive sufficient attention and funding from national governments, limiting career prospects** within the field. A shortage in the number of locally active, and sufficiently funded, civil society organizations is also part of the socio-economic construct in the region that further makes it unfavorable for women advancement. Participants noted a **lack in women development programs** as a result of this weak presence on the part of the civil society sector.

Touching on the business and organizational environments in the region, **the lack of childcare facilities and supportive organizational human resources policies** were also mentioned as a barrier for women advancement within the socio-economic environment context.

IN-FOCUS: Safe Child Care & Women's Empowerment in the Developing World⁴

Leuning CJ, Ngavirue B. (1995) – US National Library of Medicine

"Women's ability to provide for the health and well-being of their children and families is linked in complex ways to the degree of empowerment they experience. Empowerment for women in the developing world is a perplexing venture, hampered by patriarchal barriers and cultural confusion. The provision of safe child care to women in the developing world positively contributes to their empowerment in different ways. Studies have shown that women with access to affordable and safe childcare acquire: a) increasing vitality, (b) freedom from worry, (c) opportunities to increase financial security, (d) strengthened parenting competence, and (e) personal satisfaction and a sense of fulfillment."

Weak Economic Conditions – The silver Lining

"The weak economic situation is positive in a way as more and more women are being pushed to work to support their families. As economic pressures mount, social pressures preventing women from working are fading. Change is happening."

Cynthia Gharios
PhD Student, AUB
Lebanon

4.3 Political Environment and Political Stability

When it comes to politics in the MENA region, geography is everything. Regional variations in terms of participants' feedback with regards to this factor within the enabling environment are mostly evident here. Whereas the Gulf region has witnessed big strides in the field of representation of women in politics, as well as the region's political stability, the Levant region remains challenged in how its political environment lends space and opportunities towards women empowerment. North Africa has led the region in advocating for the rights of women political empowerment – from as far back as the 1960s – however the conditions that led to the Arab Spring that originated in Tunisia still have current-day implications.

Some of the challenges noted by participants in relation to the political environment from an enabling environment perspective were centered on the **economic repercussions of political instability –**

and the negative impact of that on funding education, research and openness to women participation. Participants also noted that post the Arab Spring, most **national development initiatives and programs** became primarily **focused on economics and security**, rendering women empowerment initiatives and programs lower down on the list of priorities. Participants also discussed **red-tape and bureaucracy driven governing approaches** as a major impediment to efficiency, learning and productivity specifically within the scientific research and development field.

In Palestine, the occupation presents grave challenges specifically around issues of **freedom of movement** and **restrictions with regards to the procurement of chemicals** needed for scientific research and development.

“As a researcher, traveling to attend scientific conferences and meetings is challenging. It consumes time and involves a lot of paperwork and sometimes results in missing a conference or an event that would have been a great learning opportunity.”

Tahany Noreldin

Researcher

Water & Environment Research Institute,
Egypt

“Funding received from the government for research has an extensive list of rules and conditions towards the use of funds. While I understand the value of some control metrics around government research funding, this approach heavily rooted in limiting practitioners; autonomy is neither practical nor efficient.”

Youssef Trifa

Head of Agronomy

INAT, Tunisia



TAMKEEN Design Phase

Participants – Focus Group Session

Rabat, Morocco

November 3, 2016

4.4 Legal Frameworks

The legal frameworks discussed here pertain to the state of personal laws and labor laws affecting women in the region at large, and playing a role towards their empowerment in general. The relationship between the legal frameworks and women empowerment is a strong one. Family law can influence economic legislation, as women are sometimes considered legal minors. In some cases women's ability to travel alone and associated with unrelated men are restricted, limiting their sphere of activity.

Labor Laws: Many Arab countries ensure legal protection for working women through provisions regarding labour legislation. In Jordan and Egypt this protection is stipulated in the national

constitutions, while explicit provisions prohibiting gender discrimination in the workplace are part of Tunisia's labour laws. The majority of participants reported however their **skepticism in the implementation of the laws** and noted a **lack of awareness of procedures to protect against discrimination in the workplace**.

Personal Laws: Mobility laws, or a woman's inability to travel without the consent of a male guardian, are limiting. This however is hugely tied to culture and religion with some participants advocating for **support mechanisms that cover spouse expenses in case of women traveling aboard for work or development opportunities**, as opposed to changing laws.

In general, the majority of participants believe in the need to **raise awareness among women on their rights** under the different laws as a way to alleviate the limitations and as a way to advocate for more consistent implementation of already granted rights.

4.5 Culture

IN-FOCUS : Breaking the Barriers⁵

From the Arab Women Leadership Outlook (2011)

Culture, defined as the attitudes and behavioral characteristics of a given society, has a dual yet equal effect on the empowerment of women leaders across the Arab region. On the one end it entails unique norms that enable women to progress in their career, while on the other it may act as a barrier. Although each country has its own distinct cultural fabric, certain common features can be observed across the region. The traditional gender paradigm in the Arab world determines gender roles and power dynamics in and outside the household. This paradigm is based on the notion that (a) men and women differ biologically and their biological differences define their social functions, (b) men and women bear different responsibilities and, as such, are complements to each other, and (c) these responsibilities are associated with a different, but equitable, set of rights. The paradigm is based on the following elements:

Centrality of the family, as opposed to the individual, making family the primary building block of society: This value placed on the family and the separation of roles between men and women implies that a woman's primary priority should be the family, and her economic participation will depend on her ability to combine work with family. For example, in Arab countries where women's hours of work are not regulated by law, women face pressure from their families to avoid working long hours and to take up part-time work instead.

Establishment of the man as the sole breadwinner and head of the household, which in some Arab countries is codified by the law: This cultural value establishes the position of women and children as needy of protection, implying that women cannot and need not provide for themselves. A woman's participation in the workforce has also been viewed as the inability of the man to provide for her and the family, putting the man's honor and reputation at stake.

As a result of these cultural stereotypes that assign different roles to the two sexes, women face family and societal pressure (including pressure from other women in the family and/or social circle) for early marriages and childbearing. Thus, the traditional gender paradigm is a serious constraint faced by Arab women on their journey towards leadership, as it discourages women's participation in economic and/or political activity, which is a core requirement for leadership to flourish. However, the strength of these cultural norms varies across the region. Women in Tunisia and Morocco, which embraced progressive policies towards women's rights and education in the 1950s and 1960s, do not face to the same extent the kind of cultural challenges faced by women in other countries of the region.

The cultural paradigm evoked a multitude of challenges shared among participants. As culture is constructed and experienced uniquely among the various regions and countries, presented here below is a breakdown of cultural challenges relayed by participants per region.

Gulf

Participants from the Gulf region expressed that cultural barriers that stand in the way of women empowerment are embedded in notions that **men are still regarded as the primary breadwinners**. This notion creates barriers to women empowerment in two ways: 1) **hiring decisions give preference to males over females** because of the shared societal notion that males are supposed and expected to be the primary providers towards their families and 2) Working is still tied to financial need and it can still be seen as "embarrassing" for a woman to "need to work" as this implies an inability on behalf of the husband to provide, casting a negative perception over familial reputation.

Additionally, participants from the Gulf region indicated that the region is undergoing a cultural transformation with a lot of men and women from the region rediscovering the boundaries of gender roles.

Other cultural challenges faced by women scientists in the field in the Gulf region is the ***need to travel – which is sometimes frowned upon without an accompanying male from the family – and working in proximity to male colleagues specially on field trips outside the more culturally acceptable “office environment”***. A few comments raised the issue of certain instances of ***male refusal to work under a female leader***.

It is worthy to note that such gender dynamics are shifting rapidly in countries such as UAE and Oman. Women employment rates in some public sector institutions are exceeding male employment rates and more women are ascending to leadership positions among the public sector ranks. This in itself is paving the way for cultural shifts surrounding the role of women in the society at large.



Levant

Cultural challenges in the Levant region are centered on ***the pressure still felt by women to get married and start a family by a certain age***. This is specially challenging for women in the scientific field as such pressures ***affect their decisions on pursuing higher education and careers in time intensive industries such as that of scientific research and development***.

On the field, women scientists and researchers reported several challenges including: ***incidents where farmers can be dismissive of women’s opinion, perceptions of traveling women researchers as “opposing religion” when doing so and perceptions that women can’t effectively operate technical equipment or manage the more physical aspects of field work***.

“Women are still an “odd sight” in the fields. However, this can be overcome. Once you are able to build rapport and develop trust based on credibility, these barriers disappear. A lot comes down to the skills you have in handling such situations”.

Karmah Bouazzaa

Nursery Specialist Consultant
SEED, Badia, Jordan

“With the absence of the lab technician, we were left with no access to a specific equipment at the lab as no one knew how to operate it. When I suggested to give it a try, I was met with opposition and told I was technically not capable of figuring it out on my own. I made contact with the supplier and obtained the catalogue and managed to operate the unit. It’s a matter of sustaining your confidence and finding the right resources to figure out how you can solve a problem.”

Waffaa Odeh

PhD Student
Jordan

North Africa

Participants from North Africa indicated several challenges related to culture including a reference to how ***men in general are more visible across various aspects of the societal life making it hard***

for women to achieve the same visibility without affecting other responsibilities towards their families. On the field, women researchers stated that fieldwork is regarded as not feminine, which creates a stigma that limits female researchers to the boundaries of laboratories hindering their credibility as researchers.

4.6 Organizational Dynamics

Organizational dynamics are defined as the processes of continuously strengthening resources and enhancing employee performances. It can also be described as how an organization manages and promotes organizational learning, better business practices and strategic management. It also refers to how people in a given organization behave and react to each other.

Participants relayed some challenges faced at the organizational dynamics levels that further hinder career growth. These include: **1) limited training and development opportunities – and even in their presence, a limited opportunity to practice skills acquired 2) the scientific research and development industry is still primarily male dominated which translates to female exclusion in some instances from networks and collaborative projects 3) the need for women to produce a superior amount of work in comparison to the men and 4) appropriation of work conducted by junior researchers and scientists is an even bigger challenge for female researchers.**

4.7 Media & Perceptions of Women

There was a unanimous agreement among participants on the need to redefine the stereotypes about women as portrayed in the media in the MENA region. One of the major challenges noted here by participants is the overwhelming male dominance at the leadership level in media institutions, leaving women with a small sphere of influence on what gets published and produced.

“23 studies reported in the Arab Women Development Report found that 78.68% of the images of Arab women in Arab media were negative. Research on the Arab media's depiction of women has focused mainly on the mental and psychological aspects of their portrayal. The usage of women's bodies as commodities was found to be the main negative image used in the Arab media, followed by an image of women who are in some way immoral. Other negative images included the portrayal of women as being illiterate, of limited intellectual capability, inexperienced, materialistic, opportunistic, weak, or dependent.”

Dr. Rasha Allam

Professor of Journalism and Mass Communication
American University of Cairo, Egypt

5. Perspectives of Participating Arab Women Scientists: Challenges Beyond Gender

Arab women scientists interviewed for the purpose of this report cited various challenges that they believed all researchers faced, regardless of gender. It is important to highlight some of these challenges, as a potential capacity building program will help alleviate some of these challenges and roadblocks for women scientists in the region.

Challenges in MENA – Beyond the Gender Dynamic Paradigm

- Overall lack in Research and Development Institutions
- Weak funding for research projects
- Weak awareness about the impact of Research & Development
- Lack of coordination among research centers within the same country which results in inefficiencies and waste in resources
- Low levels of collaboration and opportunities of sharing learning among researchers in the region
- Lack of a centralized database about research projects, scientific data and general information
- Limited applied research in the agriculture scientific research and development field
- Lack of trust in researcher and research findings quality
- Lack of understanding on the nuances of scientific research and development which result in management challenges for researchers
- Wide spread of a risk averse attitude in the scientific research and development community – for e.g. researchers who present controversial results are challenged and discouraged
- Limited researcher / supervisor feedback as a result of weak science and management skills among supervisors and managers
- Lack of career planning researcher
- Limited recognition for researchers' contributions



6. Perspectives of Participating Arab Women Scientists: Ideal Leadership Capacity Building Program



TAMKEEN Design Phase

Participants – Focus Group Session

Dubai, UAE

November 1, 2016

The discussion on creating a leadership capacity building program to develop and grow Arab women scientists was met with large enthusiasm. Participants referred to such efforts in capacity development as “education that qualifies versus education that certifies”. In discussing the recommendations shared by participants on the design and structure of the program, several categories were formed. The recommendations per category are outlined in the following section.

6.1 Participant Profiles (Age, Education & Experience)

The overwhelming majority of participants indicated a preference for a non-restrictive approach towards the age factor, advocating for **no-age limit** and a **consideration instead towards factors such as experience, years in research, passion for innovation and aspirations for sharing and transmitting knowledge and skills acquired**.

Participants also recommended including a **post-Bachelor track** in the program to capture and convert talent early in the process. Additionally, participants recommended **considering women re-entering the research field after a break** as they defined valuable skills brought forward by this group including experience, maturity and an eagerness to re-engage.

6.2 Program Length

The majority of participants anticipate the program to run over a longer-term period (the ranges suggested fell between **6 months to 2 years**)

“The time-frame of the program cannot be short; you need to assess the needs of these groups and plan well. Skill development takes a long time; it is not something that can be achieved with one-off trainings.”

Cynthia Gharios
PhD Student, AUB
Lebanon

6.3 Modes of Training Delivery

Participants recommended the need to focus on **combining an online method of delivery of some training courses and an in-person method**. Some participants expressed reservations over online courses citing challenges such as **reliable Internet access** in some countries and the need to **format them so they are sufficiently interactive**. **In-person workshops** were cited as critical as they allow for **peer education** to take place in addition to much-needed **networking** and expansion of collaborative opportunities.

Other recommendations included: **1) tying training courses – both online and in-person – to deliverables and assignment to ensure learning is achieved and to provide an opportunity to practically apply learning 2) providing opportunities to interact with different regions and exchange approaches and thinking 3) providing an opportunity for a unified platform that women can use to share experiences and feedback online and 4) providing access to trainers for on-going support and deepened learning.**

“The opportunity to travel and learn different approach in different countries was beneficial for me and I think any leadership program should offer the same. It builds independence and self-confidence, which are important leadership traits.”

Maha Lotfy
 Researcher – Climate Change
 Agriculture Research Center, Egypt

6.4 Leadership & Technical Skills

Participants shared an extensive list of both **leadership and technical skills** that they need to further develop and grow and where they see a need for in the wider community of Arab women scientists in MENA.

Leadership Skills		
Influencing	Strategic Thinking	Creativity & Innovation
Analytical Skills	Career Planning	Social Media for Research
Emotional Intelligence	Work Ethics	Collaboration
Negotiation	Overcoming Adversity	Assertiveness
Public Speaking	Serving Leadership	Conflict Resolution
Time Management	Independent Thinking	Gender Awareness
Communication	Team Work	Networking Skills
Building Confidence	Resource Management	Self-Branding & Marketing

List of technical skills includes: English language proficiency, Computing Skills, Quantitative Skills, Student Rights in Research, International Standards of Research, Science Writing, Writing Proposals, Fundraising Development, Environmental Economics, Policy Law and Legislations and Applied Skills (training on using specific equipment).

“To be successful in the workforce you have to be exposed to different approaches and ideas; a leadership program should lend to participants’ knowledge on issues such as environmental economics, policy, laws and legislation. Leaders need to not only think about science, but about sustainability and other factors – they need to know that they are not working in a vacuum and learn to think comprehensively.”

Yara Dahdal
 Researcher, Waste Water Treatment
 Palestine

6.5 Funding

The majority of participants reported a ***need to have access to opportunities for research funding, opportunities to work in specialized labs and funding towards advanced scientific training with international research institutes.***

6.6 Mentoring and Networking

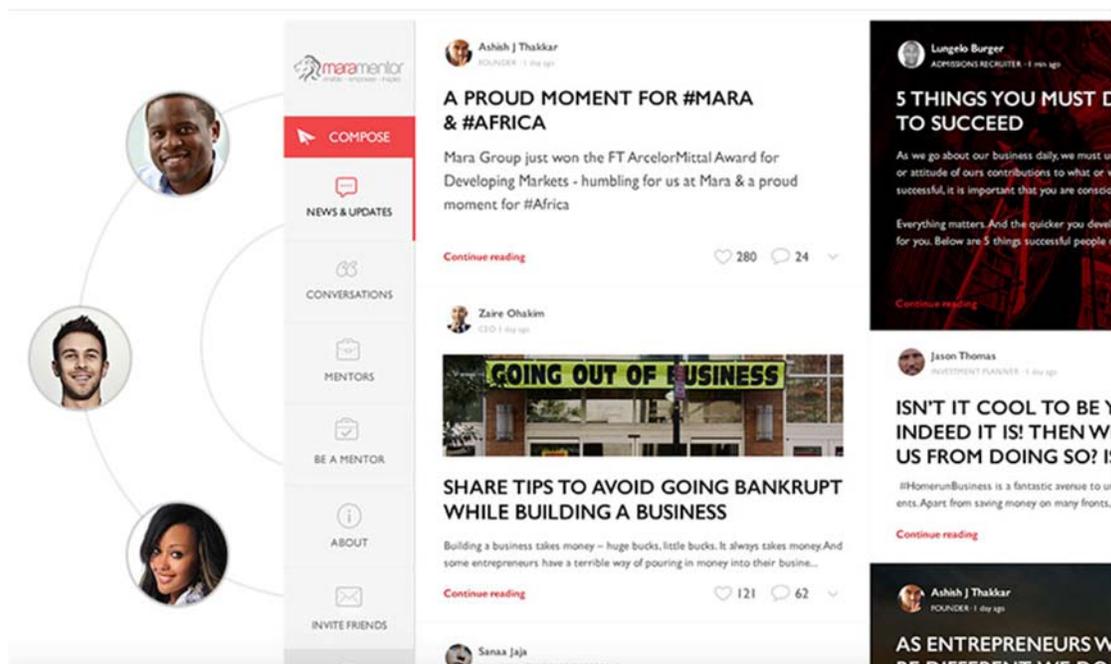
Most participants could identify with the concept of networking and how crucial it is to build networks across countries and across disciplines to enhance their research capacities and growth potential. Most participants also acknowledged that they have never received any ***formal training on best approaches to network, how to build impact from existing networks and how to build future networks that are aligned with future growth plans.***

The concept of mentoring however was harder to relate to participants with the overwhelming majority reporting that they have never engaged in formal mentoring relationships. ***Informal mentors in the form of managers and academic advisors were more prevalent.*** When introduced to the concept of formal mentoring together with its advantages and challenges, the overwhelming majority concluded that having ***formal mentors within the scientific community leadership would contribute positively to their career growth.***

IN-FOCUS: Mara Mentor – An online mentoring platform⁶

Mara Mentor is an online mentoring platform (see Figure 5) which assists Africa based young and women entrepreneurs realize their business dreams through exchange of ideas, guidance, learning and connecting with like-minded people. Among other components, the platform is a meeting ground to network with industry leaders, share knowledge and adapt to an ever-changing business landscape regionally and globally.

Figure 5: Mara Mentor Online Platform (available from: <https://mentor.mara.com/#/home>)



6.7 Community Outreach

Most participants emphasized the need for potential participants on the program to be **passionate and engaged about giving back to the communities** within which they exist. Not only does this provide a venue to **practice leadership skills directly**, participants also believed that this aspect is **critically needed to empower girls and women in the wider community**.

Participants also recommended **reaching out to other organizations to raise awareness about issues such as professionalism, leadership and gender**. They believe this is critical to **establish an overall environment driven by professionalism, work ethic and sound leadership practices**. Part of the community outreach recommended by participants includes their recommendations on tapping into **local talent and expertise for the delivery of the program**.

Stories from the Field

“My presence in the field as a woman who managed to build credibility and rapport with farmers and leaders in local communities – both men and women – gives permission to local women farmers to step up and break social and cultural barriers that have long held them back from interacting and collaborating with the men in their communities for the betterment of the land. Women are powerful role models for other women, paving the path for wider empowerment and impact.”



Karmah Bouazaa

Nursery Specialist Consultant
SEED, Badia, Jordan

6.8 Measuring Impact

Most participants stressed the need for the program development efforts into results and impact of

“Don’t train women just so you can say you trained make a difference within the current communities with them in their everyday environment; this will really help you understand and help them address the challenges they face.”

to be able to translate capacity participants on the ground.

them. Train them so they can really they live in. Observe them and work

Lina Ismael

Assistant Researcher, Environmental Science
GVC, Palestine

IN-FOCUS: Impact Assessment of Capacity Building– Assessment Framework - Gordon & Chadwick (2007) - Australian Centre for International Agriculture Research⁷

Analytical framework-mapping from inputs to benefits



Operationalizing the framework-measuring changes along the way



Tools for estimating impacts and benefits

- Clear logics of why capacity-building activity should lead to benefits
- Describes major direct pathway and minor and indirect pathways
- Allows indicators or measures of changes to be identified ex ante, for monitoring ex post

- Assesse feasibility and cost of measuring changes
- Identified methods for estimating higher-level changes from lower-levels changes where possible
- Selects indicators to be monitored at each level where feasible

- Describes the array of tools that can be used to collect and analyze data to provide:
 - Estimate of impact
 - Estimates of net benefits
 - Supporting evidence

7. Concluding Remarks

The MENA region has made significant advances in furthering women's leadership. Nevertheless, compared to the rest of the world, the region has a long way to go and there is considerable scope for improvement. Focusing on the various facets of an enabling environment is important to advance the agenda of Arab women leaders in science and to allow for the development of future generations of aspiring women in the region.

A capacity building program that is rooted in advancing the leadership and science skills of Arab women scientists can create a positive change in favor of women in science leadership. Taking a holistic approach that factors in the various challenges and needs of Arab women scientists is critical for the success and the effectiveness of the program, as is building partnerships across the various sectors to help raise the levels of awareness and understanding of gender dynamics, sound leadership practices and collaboration.

The Arab women scientists interviewed for this report shared an overwhelming optimistic outlook for the growth of research and development and the growth of their own contributions as women in the field. The challenges faced by them arise from challenges applicable across the entire industry, challenges directly linked to a woman's environment in the MENA region and their own individual development challenges. TAMKEEN can help in addressing some of the challenges across these several categories through identifying its potential sphere of influence and control and designing a capacity building program around these parameters.

Some of the most critical aspects identified by women scientists interviewed for this report include:

- Providing them with the tools to build their leadership and science skills through various channels of structured and applied learning
- Offering them opportunities of attachments with international research centers of excellence
- Providing a platform to build networks and relationships with national, regional and international counterparts
- Offering a more long-term approach to learning and development to ensure learning and application has ample and sufficient time to be both acquired and practiced
- Connecting them with mentors to guide their career development and learning
- Provide opportunities to access information and tools needed to acquire funding for research projects and to access fellowship opportunities
- Developing partnerships with other regional institutions to raise awareness about organizational gender dynamics, shift attitudes and raise peer skills
- Arab Women scientists in the region have tremendous potential and a diversity of skills, knowledge and values. This potential and diversity presents an exciting opportunity for the region, as well as for the scientific community globally, as when Arab Women scientists in the region are able to access tools to help them become more empowered, they carry the potential to deliver impact and change not only on the individual level, but also across their national, regional and international communities.

"We must change our working methods and operate in networks. We must build associations to support women and share more our views on challenges and opportunities. It is through a strong network of women leaders, who have the will to advance the gender agenda, to advance their careers, their communities - both nationally and internationally- that we can make a real impact."

Sanae Zebakh

Director, Institute of Agriculture & Veterinary Sciences
Morocco

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