

# Information and Communication Technologies: Prospects for Promoting Gender Equality in the Arab Region

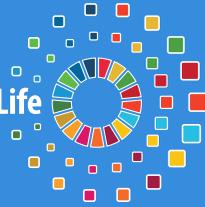


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# **Information and Communication Technologies: Prospects for Promoting Gender Equality in the Arab Region**



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The study was developed by Ms. Rouba Arja and Ms. Sukaina Al-Nasrawi from ESCWA Centre for Women (ECW) under the overall guidance of Ms. Mehrnaz El Awady, Director of ECW. It is based on an initial draft prepared by Ms. Sophia Huyer, Gender and Social Inclusion Research Leader, Research Program on Climate Change, Agriculture and Food Security, Consultative Group for International Agricultural

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# Executive Summary

Gender equality is not only a human right that constitutes the foundation for a just society, it is also a prerequisite to sustainable development. The digital transformation offers new opportunities to boost the efforts for empowering women and achieving gender equality. Enabling technologies, particularly information and communication technologies (ICTs), are a core means of implementation for Goal 5 of the Sustainable Development Goals (SDGs) on gender equality and the entire 2030 Agenda for Sustainable Development. ICTs can be employed to leapfrog advances in women's empowerment and assist in bridging the existing multidimensional gender gaps by supporting women to access and increase incomes, employment opportunities and services and knowledge and training, just to name a few benefits.

The Arab region has been witnessing notable development efforts with increased commitment to the achievement of the ambitious 2030 Agenda. However, the progress towards achieving gender equality and women's empowerment has been slow. Acknowledging that women's empowerment is a process of change that is multidimensional and context-specific, ICTs offer key opportunities that can accelerate this sluggish pace and steer the wheel towards implementation of Goal 5. The Arab region needs to seize these opportunities to foster sustainable development.

This study seeks to examine how ICTs can be used as means of implementation to accelerate

the achievement of the six targets of Goal 5 and assist governments and key stakeholders in their efforts to attain this purpose. Framed by the concept of women's empowerment, the study discusses the prospects to advance gender equality that ICTs offer in the Arab region, the possible risks generated by the improper use of these technologies and measures to overcome them. It regards the notion of empowerment as a process of change through which women and girls acquire the ability to make strategic life choices they have heretofore been denied. The ability to exercise choice incorporates three interrelated dimensions, namely resources, agency and achievements.

Through the analysis of a wide range of good practices implemented in the Arab region and in developing countries whose contexts are comparable to the region, the study shows that the use of ICTs facilitates and enhances the access of women and girls to resources by circumventing barriers posed by gendered norms and stereotypes or transforming them. These resources include, but are not limited to, information on legal rights, financial resources, income-generating activities leading to economic empowerment as well as health and education services. ICTs also enable access to capacity-building initiatives leading to the acquisition of new skills needed for today's digital world. Access to these resources provides the preconditions required to increase the ability of women and girls to make choices by availing them alternatives. The resources made available

and the agency gained using ICTs increases women's capabilities to achieve their goals and further lowers barriers raised by inherent biases, social norms and stereotypes. Conversely, the analysis also observes that the use of ICTs can reinforce existing discriminatory norms and stereotypes in addition to perpetrating existing forms of violence and creating new ones. The right policy, reflected in the form of coordinated and complementary actions, can reverse these trends and forge a more inclusive development path leading to gender equality. This requires raising awareness and tackling gender stereotypes while at the same time enabling enhanced, safer and more affordable access to ICTs and fostering strong cooperation across stakeholders to remove barriers to girls and women's full participation in the digital world.

The study highlights the need for governments and relevant stakeholders to embed gender transformative approaches in ICT-related programmes and mainstream the transformative opportunities offered by ICTs in gender policies. It recommends improving the affordability of digital technologies in the Arab

region and promoting gender-inclusive digital access with special focus on harmonizing public policies with bottom-up initiatives that involve local associations and the civil society. It also advises overcoming normative barriers and increasing the online safety of women and girls in the Arab region by addressing the factors preventing women and girls from equally participating in the digital transformation and benefiting from the opportunities it offers. Lastly, yet importantly, the study highlights the need for building an enabling and conducive environment to advance women's empowerment in the Arab region with a focus on addressing the gender norms and power structures create constitute barriers and limit women's choices.

This study provides the basis to expand the regional efforts in bridging the digital gender divide and harness the opportunities provided by ICTs to promote gender equality and the empowerment of women in the Arab region. Inaction would cost the region the opportunity to harness ICTs to achieve sustainable and inclusive growth.

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# List of Acronyms

<b>AI</b>	Artificial intelligence
<b>AR</b>	Augmented reality
<b>BPfA</b>	Beijing Declaration and Platform for Action
<b>CEDAW</b>	Convention on the Elimination of all Forms of Discrimination Against Women
<b>FGM</b>	Female genital mutilation
<b>ICT</b>	Information and communications technology
<b>MENA</b>	Middle East and North Africa
<b>MOOCs</b>	Massive open online courses
<b>NGOs</b>	Non-governmental organizations
<b>NWM</b>	National Women's Machineries
<b>OCW</b>	Open courseware
<b>OER</b>	Open educational resources
<b>RH</b>	Reproductive health
<b>SGBV</b>	Sexual and gender-based violence
<b>SDGs</b>	Sustainable Development Goals
<b>SRH</b>	Sexual and reproductive health services
<b>STEM</b>	Science, technology, engineering and mathematics
<b>TVET</b>	Technical and Vocational Education and Training
<b>UNDP</b>	United Nations Development Programme
<b>UNHCR</b>	United Nations High Commissioner for Refugees
<b>VAW</b>	Violence against women
<b>VR</b>	Virtual reality
<b>WoMN</b>	Women Mayors' Network



# Introduction

## Background

While the Arab region has been making notable efforts to increase development and achieve the ambitious goals of the 2030 Agenda for Sustainable Development, the progress has been slow and fragmented. This can be attributed to the substantial challenges in the global environment and the difficult circumstances specific to the Arab region.

The improvements documented in the Human Development Index between 1980 and 2010, which were mainly driven by gains in education and health,<sup>1</sup> were not accompanied by comparable positive impacts in other development areas. In fact, over the past three decades, the Arab region has not succeeded in harnessing its wealth in a way that improves human well-being in its countries.<sup>2</sup> In addition, despite significant improvement in the situation of women and girls since the adoption of the Beijing Declaration and Platform for Action (BPfA) in 1995, gender inequality in the economic, political and legal spheres remains a key persistent challenge and a priority that the Arab region still needs to address.<sup>3</sup>

Putting gender equality at the core of sustainable development as a cross-cutting theme, underpinning principle and fundamental driver, the 2030 Agenda for Sustainable Development offers an opportunity to fulfil the potential of all women and girls and advance their rights in the overall context of development. In addition to the legal reforms and policy advances that have been

dominating the discourse on gender equality for nearly three decades, the 2030 Agenda put forward technology, in particular information and communications technologies (ICTs), as one of the means of implementation to achieve Goal 5 and the 2030 Agenda as a whole. As ICTs offer unprecedented potential to empower women and boost the realization of gender equality by providing health care, education services, training that enhances skills, access to markets, support small business initiatives and increase the participation of women in the workforce, they are a means of implementation of this goal.<sup>4</sup>

## Purpose of the study

This study aims to explore how ICTs can be used as means to achieve the six targets of Goal 5 on gender equality of the Sustainable Development Goals (SDGs) (figure 1). While noting the broad definition of ICTs includes any product or tool, such as personal computers, digital television, mobile phones, email, radio and others,<sup>5</sup> that stores, retrieves, manipulates, transmits or receives information electronically in a digital form, this study highlights the potential opportunities in using ICTs to redress gender inequality in the Arab region and the key threats intensified by their use when relevant. It also presents, when possible, associated measures to overcome these threats.

By achieving this objective, the study at hand will put forward a target-based approach to the opportunities to achieve gender equality in the

Arab region through ICTs. By exploring how ICTs can be a means to achieve gender equality, this study will assist governments and relevant stakeholders in promoting the realization of the obligations of the Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW) and in advancing the principals of gender equality promoted in the BPfA. It also seeks to contribute to strengthening the capacity of various stakeholders in the region to attain the central principal of the SDGs of “leaving no one behind”.

This study is particularly timely and relevant to the region as most Arab countries who are engaged in the SDGs adaptation and implementation processes are stressing the need for knowledge and practical support on how to accelerate their efforts to fully employ one of the key means of implementation of Goal 5. The focus on the use of ICTs for women’s empowerment arises from the momentum the issue has gained globally and, in the region, the need to showcase how to harness ICTs for gender equality as part of the 2030 Agenda for Sustainable Development.

**Figure 1. ICTs and the six targets of Goal 5**



## Methodology

This study was undertaken through a thorough desk review of available literature relating to the use of ICTs for gender equality. Relying on a critical analysis of existing good practices implemented in the region and in developing countries whose contexts are comparable, this study presents ICT-based initiatives that can foster gender equality in Arab States. The study benefited from an expert group meeting that discussed the study in its draft format. The meeting was attended by regional and international experts from the private sector and academia in the field of ICTs as well gender equality who helped fill analytical gaps and strengthen the arguments.

The study is composed of six chapters. Chapter 1 explores the status of women in the Arab region and the regional trends regarding women and ICTs. It highlights how the 2030 Agenda provides an opportunity to achieve gender equality for all and introduces the international frameworks and mandates supporting gender equality and ICTs. Chapters 2 to 6 focus on each of the six targets of Goal 5 in the Arab region, tackling gender discrimination, violence against women and girls, socioeconomic empowerment, participation of women in decision-making and public life and women's access to health services. Chapter 3 focuses on targets 5.2 on violence and 5.3 on harmful practices, given the similarities in the analysis and the approaches to address these two targets.

Each of the chapters 2 to 6 starts by providing a regional overview of the related target's status. It then presents an analysis on the opportunities offered to achieve its related target. When relevant, it presents the potential threats stemming from ICTs and sheds light on negative implications the ICTs, if used

improperly, may have. Used correctly, the positive impact of ICTs outweighs the negative and allows women and girls to have the agency to use them however and whenever they chose.

The study concludes with a set of recommendations aimed to inform policies and strategies addressed to the governments of member States and relevant stakeholders on how to redirect institutional efforts to maximize the potential impact of technology, particularly ICTs, in promoting gender equality and empowering all women and girls in the Arab region.

## Conceptual framework

The study employs a rights-based approach, geared towards the fulfilment of the rights of women and girls, the attainment of equality between men and women and the elimination of all forms of discrimination and violence against women (VAW). It relies on the principal that women have the right to live free from discrimination; to live free from violence; to enjoy the highest attainable standards of health and education; to be empowered to equally and fully participate in the economy and to participate in decision-making and public life.

The present study relies on the empowerment framework developed by Naila Kabeer,<sup>6</sup> which considers empowerment as a process of change. The framework links the notion of empowerment to the processes by which those who have been denied the ability to make strategic life choices can acquire such an ability. The ability to exercise choice incorporates three interrelated dimensions, namely: (1) resources, considered as the means through which agency is exercised and is broadly defined to include access and future claims to both material and

human and social resources; (2) agency, or the power by which choices are made and put into effect, including processes of decision-making, as well as other manifestations such as negotiation, deception and manipulation. Agency also leads to challenging power as a result of exercising one's ability to make choice and involves challenges to the distribution of resources as an integral aspect of power relations.<sup>7</sup> And lastly, (3) achievements which are associated with the end results of agency also referred to as well-being outcomes. These three dimensions of empowerment are indivisible in the analysis of women's empowerment. [Figure 2](#) captures the notion of empowerment and its relation to the three interrelated dimensions of exercising choice noting that resources and agency make up people's capabilities and their potential for living the lives they want. Achievements refer to the extent to which this potential is realized.

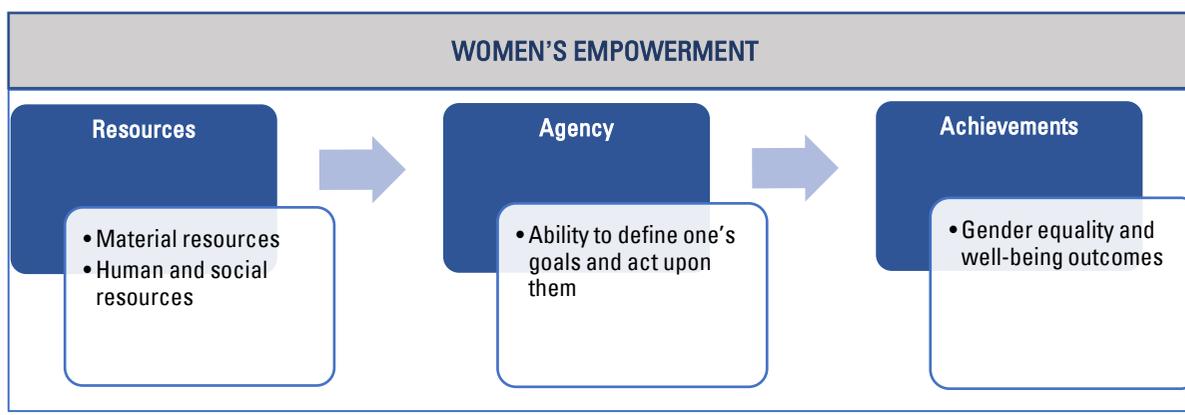
In the context of the present study, and based on the above empowerment framework, ICTs are resources that facilitate access to other resources such as information, finances and government services. The access to these resources and the ability to use them are key drivers that boost women's agency and contribute to their achievements. In the Arab context, existing power and institutional structures and gender norms affect access to resources which, in turn, affects women's agency. It is worth mentioning at this level that the access to ICT resources might be denied to women in certain contexts due to established gender and social norms. However, the study focuses on the potential ICTs offer and assumes they are available to women.

To maximize the benefit of utilizing ICTs to accelerate the achievement of Goal 5 and advance gender equality and empower women

in the regions, the analysis uses rights-based and empowerment frameworks, taking into account four main considerations:

*ICTs as a resource to empower all women and girls:* The access and use of ICTs by women and girls does not in itself systematically lead to empowerment or equality. Empowerment will only happen when women have the ability to decide when and how to use ICTs for their own defined purposes and when they are able to bypass the potential threats ICTs might pose. The use of ICTs is empowering when it improves the lives and choices of both women and men and increases their participation in the decision-making that affects their lives. The use of ICTs may have negative consequences: if the social, political and economic structures in which they are embedded are not challenged and questioned, they may in fact reproduce and reinforce gender power relations. If ICTs are positioned within a gender-sensitive context where women and girls are free from harassment and exploitation and can express themselves without constraint and if women and girls have the agency to use ICTs however and whenever they need to use them, then ICTs can be a resource for empowerment. Similarly, gender norms in the region reflect elements of a patriarchal society in which women and men have different roles defined by gender. The role of women in the private sphere – namely within their homes and families – is highly valued while men's role as breadwinners and decision-makers is in the public sphere.<sup>8</sup> These norms are also mirrored in the institutional frameworks that still discriminate against women. Accordingly, the use and benefits of ICTs must be articulated around the above-mentioned approach to empowerment, or the promotion of women's ability to take on independent agency, gain access to resources and benefit from resulting opportunities for achievement.

**Figure 2.** Empowerment framework adapted from Kabeer's framework



*Bridging the digital gender divide:* capitalizing on the use of ICTs as an implementing resource to accelerate the achievement of gender equality and women's empowerment in the Arab region hinges on the assumption that the digital gender divide, in terms of digital literacy, equal access and use, is addressed.

*Comprehensive approach to gender equality and women's empowerment:* gender equality and women's empowerment issues are intertwined. They are also closely linked to all sustainable development dimensions including the economic, social, political and environmental aspects. Therefore, addressing gender equality and women's empowerment requires a comprehensive approach that mirrors and promotes the complexity and interconnectedness of gender-related development issues while enabling and building on the systematic mainstreaming of the gender perspective in all sustainable development dimensions. This will create an enabling environment to redress gender inequalities. The 2030 Agenda reflects this comprehensive twin-track approach by dedicating a specific goal, Goal 5, to gender

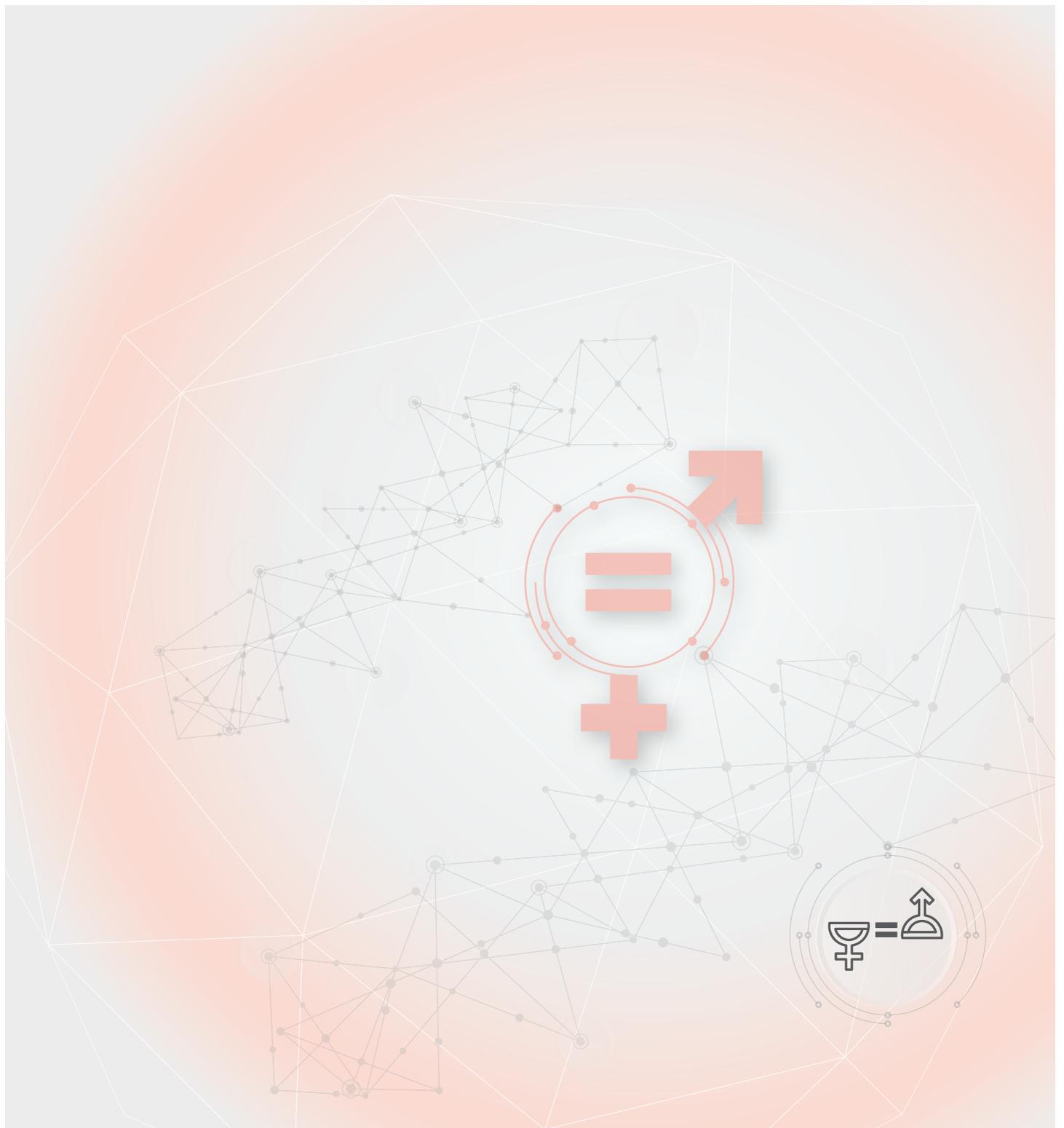
equality and the empowerment of women, in addition to mainstreaming gender equality in all other Goals. Goal 5 and its six targets mirror the multifaceted nature of gender equality as they (i) ensure interlinkages among several dimensions of sustainable development are demonstrated and strengthened during the implementation; (ii) ensure efforts on several fronts are combined and geared towards the ultimate goal that is gender equality and women and girls' empowerment rather than seeking singular objectives, such as solely focusing on access to labour markets, poverty reduction, etc.; and (iii) ensure the 2030 Agenda includes all gender-related issues that are not covered in the 16 other goals, such as combating gender-based violence, which is prerequisite to any empowerment.

The present study is structured along the six targets of Goal 5 and follows this comprehensive approach linking gender equality to the dimensions of sustainable development. Following such an approach presents some challenges in categorizing and organizing the various ICT-related initiatives to empower women and promote gender equality

as one initiative can serve multiple purposes: for example, leveraging ICTs to promote women's education is a pathway to facilitate integration and participation in the labour market as it can be considered also as a pathway for promoting political participation. Therefore, given the interlinkages among the various areas framed by the six targets of Goal 5, many of the initiatives and practices that the study considers can serve the purpose of one or more targets. The matching of initiatives to targets is done according to the direct relevance of the target to the initiative.

*Arab women as a heterogenous group:* a comprehensive approach to addressing gender equality is particularly important to the Arab region where persistent gender inequality

intersects with other inequalities related to identity, social, economic and political aspects. The complex socioeconomic and political factors shaping the Arab region, including ongoing conflicts and the movement of people, poor governance, institutional deficits and unstable economic growth, are compounded by gendered social norms and patriarchal power structures which further challenge the attainment of gender equality. Significant disparities among and within Arab countries make it impossible to consider women as one homogeneous group. The study acknowledges these differences and endeavours to shed light on the opportunities and challenges of using ICTs to promote gender equality while recognizing the need for further contextualization.



**1. The 2030 Agenda - an Opportunity to Achieve Gender Equality and Empower all Women and Girls in the Arab Region**



# 1. The 2030 Agenda – an Opportunity to Achieve Gender Equality and Empower All Women and Girls in the Arab Region

## A. The status of women in the Arab region

Since 1995, efforts exerted by various actors in the Arab States to advance women's issues and rights have yielded substantial results. National Women's Machineries (NWMs) have been put in place and, where needed, reinforced institutional mechanisms entrusted with the advancement of women in accordance with the strategic objectives and actions of the BPfA. They play a leading role in raising awareness on gender equality, advocating for legal reforms and gender mainstreaming in sectoral governmental policies, and advising on policy and strategy formulation and reform. Governmental actions have led to key improvements in the situation of women in the form of legislative and policy reform, programmes for the advancement women and the provision of a wide range of services. Civil society organizations and activists have also advocated for women's rights and participated in the development of national policies and strategies. However, thus far this progress has not lived up to expectations or to States' international commitments.

The gains in gender equality attained in the region so far need to be maintained and enlarged as the legal arsenals in all Arab countries still fall short of adhering to

international principles and include elements that maintain and perpetuate discrimination.<sup>9</sup> While constitutions in many Arab States declare equal rights for all citizens, this is not usually translated into legislation and policy interventions. In most Arab countries, national legislation, including personal status laws, labour laws and penal codes fall short of adhering to the State's commitment to achieve gender equality as they are often based on patriarchal power relations, creating an environment that inclines towards discrimination.<sup>10</sup> In general, personal status laws discriminate against women in areas such as marriage, divorce and child custody, to cite a few examples. National labour laws in many countries comprise provisions that also discriminate against women and influence their economic participation including imposing an earlier retirement age, providing insufficient maternity leave and placing restrictions on holding some positions.

In all cases, legal reforms and amendments are not enough to redress gender inequality. Promoting gender equality necessitates the establishment of an all-inclusive environment including adopting comprehensive legal frameworks, strengthening institutional structures and mechanisms to enforce the laws, developing related policies and implementing strategies and programmes to ensure that

required, related services are provided. Establishing a comprehensive environment to advance gender equality and the empowerment of women in the Arab region is still deficient which is clearly reflected by the situation of women in the region.

The role of the region's women is still generally perceived as predominantly and intimately linked to the family and household. Women face daunting challenges when accessing the job market and/or participating in political processes. According to a survey conducted in four Arab countries, men tend to "support mostly inequitable views when it comes to women's roles. [...] Women often internalize these same inequitable views: about half or more of women across the four countries support the same idea".<sup>11</sup>

Gains in educational attainment for girls have not translated into a significant increase in women's participation in the labour force, which remains extremely low in Arab States, particularly for young women. The labour force participation rate for women aged 15-64 does not exceed 52 per cent in any of the Arab States. To cite a few examples, the labour force participation rate for women aged 15-64 amounted to 11.9 per cent in Iraq in 2017; 21.8 per cent in the State of Palestine in 2018; 23.3 in Saudi Arabia in 2016; 30.9 in Oman in 2016; 45.2 per cent in Bahrain in 2015; and 51.6 per cent in Kuwait in 2016.

The prevalence of VAW is high in the Arab region where 1 out of 3 ever-married women in the region have experienced physical or sexual violence,<sup>12</sup> and female genital mutilation (FGM) and child marriage still constitute serious problems in several countries. Conflict further exacerbates prevalence since VAW is also used as a weapon of war.

Although there has been progress in the rates of women's political representation, it continues to be low in comparison to global averages at different governance levels, whether national or local. So far, only Tunisia has attained the goal of 30 per cent female political representation at the national level as recommended by the BPfA.<sup>13</sup>

## **B. ICTs as a means of implementation to accelerate the advancement on gender equality in the Arab region and achieve the SDGs**

The 2030 Agenda for Sustainable Development presents an opportunity to accelerate the path to gender equality, harness the potential of all women and girls and advance their issues and rights. Gender equality and the empowerment of all women and girls have been clearly highlighted as a driver of sustainable development that play a catalytic role in achieving the 2030 Agenda.<sup>14,15</sup> The 2030 Agenda accords substantial importance to gender equality and women and girls' empowerment, following a twin-track approach which in addition to mainstreaming gender equality throughout its various goals, dedicates a specific goal for the purpose, Goal 5. This SDG aims to end all forms of discrimination against all women and girls everywhere; eliminate all forms of violence against all women and girls in the public and private spheres; eliminate all harmful practices, such as child, early and forced marriage and FGM; recognize and value unpaid care and domestic work; ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life; and ensure universal access to sexual and reproductive health and reproductive rights.

Three means of implementation have been identified to boost the realization of Goal 5, namely: undertaking reforms to give women equal access to economic resources, financial services and inheritance and natural resources in accordance with national laws (target 5.A); enhancing the use of enabling technology in particular information and communications technology (target 5.B); and adopting and strengthening sound policies and enforceable legislation (target 5.C). When mobilized appropriately and simultaneously, all the three together and with other means of implementation identified throughout the other goals (in particular, Goal 17), enable the realization of Goal 5.<sup>16</sup> The need is thus growing to focus on all identified means of implementation. Such an approach will allow the combination of efforts at several fronts, including economic reforms and financial services, legal environments and technology. So far, Arab States have focused on two out of three means of implementation mainly 5.A and 5.C through the initiation of legal and policy frameworks to promote gender equality. On the legal front, substantial efforts have been made as demonstrated by the legal reforms achieved and the debates concerning Arab States increased commitment to CEDAW and its obligations. Constitutional and electoral law reforms in 13 of the 22 Arab countries, for example introducing quotas for women in parliament and other elected assemblies, in the recent years have resulted in an increase in women's political representation. The representation of women at the executive level of governments has also improved.<sup>17</sup> Legal reform relating to VAW is gaining momentum, with six countries adopting full-fledged laws criminalizing domestic violence, while others have put draft laws for discussion before their

parliaments. In some countries, family laws have been amended to enshrine certain rights for women, including marriage by consent, equalizing the minimum age of marriage for men and women, and eliminating repudiation as a means of divorce.<sup>18</sup>

Similarly, Arab States have made significant progress at the policy level and have developed a wide range of women-focused and gender-sensitive policies. These range from more general national policies and plans dedicated for women, to thematic plans on certain national priorities such as VAW, child marriage or FGM. National efforts have also extended to mainstreaming gender in sectoral policies and actions plans in areas such as environment.<sup>19</sup> Several countries have also launched initiatives to incorporate, to various extents, elements of gender budgeting into their national budgets.

When compared to the emphasis on legal and policy development and reforms, despite the existence of numerous ICT-related initiatives in the region, the focus of Arab countries on technology and particularly ICTs as a means of implementation of Goal 5 has been relatively limited so far. Though introduced to the development arena several decades ago, the focus on ICTs as an avenue for women's empowerment has been gaining momentum only relatively recently. Its potential scope is parallel to its rapid development and potential for exponential use. This theme remains under researched. As a result, examining how ICTs can support the achievement of Goal 5 in the Arab region is a necessity, both to fill a knowledge gap that will inform the development of sound legal frameworks and informed policies and programmes on gender equality and women's empowerment.

## C. Gender equality and ICTs: International frameworks and mandates

The role of ICTs in empowering women and girls and fostering gender equality is an area of focus in the 2030 Agenda for Sustainable Development. ICTs are identified as a cross-cutting tool that can be utilized for the achievement of all the SDGs. However, the application of ICTs is not new to global development agendas and frameworks. The United Nations has made note of the intersections between gender equality and women's empowerment and ICTs for development in its various global normative frameworks. The latter includes the BPfA, the Committee on the Status of Women (CSW) and the World Summit on the Information Society (WSIS), among others. In the following section, the chronological advancement of the adoption of ICTs for gender equality at the global level is presented.

The focus on ICTs for women's empowerment began at the Fourth World Conference on Women in Beijing which resulted in the BPfA in 1995. The BPfA called for the empowerment of women by "... enhancing their skills, knowledge and access to information technology. [...] Women therefore need to be involved in decision-making regarding the development of the new technologies in order to participate fully in their growth and impact".<sup>20</sup> The BPfA also called upon governments to ensure the participation of women through new technologies of communication. Moreover, the BPfA reaffirmed the importance of promoting and maintaining gender equality and women's empowerment, guaranteeing the inclusion of women in the emerging Global Information Society.<sup>21</sup> Reviews of BPfA implementation have reaffirmed ICTs as fundamental to the effective

participation of women and girls in civil, political, economic and social and cultural life.

Harnessing ICTs for gender equality has also been on the agenda of the CSW. In its fifty-fifth session in 2011, the CSW developed agreed conclusions on "Access and participation of women and girls in education, training and science and technology, including for the promotion of women's equal access to full employment and decent work".<sup>22</sup> During this session it was noted that access to education in science and technology should be considered as a human right which, when granted, would promote development. Conversely, unequal access and participation in technology would lead to a loss of talent, hampering women's economic empowerment leading to a gender pay gap. To ensure this equal access to technology, the commission called for strengthening the national legislative framework, policies and programmes to expand access and participation in gender-sensitive quality education including in the field of science and technology and supporting the transition from education to full employment and decent work.

In parallel to the BPfA and the CSW, the World Summit on the Information Society (WSIS) carried this further by including gender mainstreaming as a cross-cutting issue in its preamble and the positive role that ICTs can play in this regard. In 2003, the WSIS outcome document affirmed that, "development of ICTs provides enormous opportunities for women, as an integral part of, and key actors, in the Information Society". In the WSIS Declaration of Principles, there was also a call to harness ICTs the "promotion of gender equality and empowerment of women" and to mainstream a gender equality perspective and "enables women's empowerment and their full

participation on the basis of equality in all spheres of society”.<sup>23</sup> In 2005, the WSIS Tunis Commitment confirmed that, “... the full participation of women in the Information Society is necessary to ensure the inclusiveness and respect for human rights within the Information Society”.<sup>24</sup>

The World Summit on the Information Society (WSIS) committed to mainstream a gender equality perspective and use ICTs as a tool to that end.<sup>25</sup> Ten years later, in resolution 70/125 of 16 December 2015 (para. 6), the General Assembly expressed concern about the significant digital divide and the gender divide forming part of it and encouraged all stakeholders to ensure the full participation of women in the information society and women’s access to new technologies, especially ICTs for development. In Busan in 2014, the International Telecommunication Union (ITU) revised its resolution 70 on mainstreaming a gender perspective in ITU and promotion of gender equality and the empowerment of women through ICTs, considering them as integral to the creation of societies in which both women and men can substantively contribute and participate.

On the same note, the United Nations General Assembly review of the overall implementation of WSIS resulted in a UNGA Resolution A/70/125 that was adopted on 16 December 2015 and provides guidance on the implementation of the WSIS outcomes until 2025. The call for close alignment between the WSIS process and the 2030 Agenda for Sustainable Development (para. 5) led to a mapping the Sustainable Development Goals and their targets against the 11 action lines of the WSIS that constitute the key principles to build an inclusive information society.<sup>26</sup> These action lines focus on the role of governments and all stakeholders in the

promotion of ICTs for development (C1); ICTs infrastructure (C2); Access to information and knowledge (C3); Capacity building (C4); Building confidence and security in the use of ICTs (C5); Enabling environment (C6); ICT applications (C7); Cultural diversity and identity, linguistic diversity and local content (C8); Media (C9); Ethics (C10) and Regional and International Cooperation (C11). This mapping has contributed to and improved explanation of the potential of ICTs as enablers for the SDGs and takes the interlinkage between ICTs and gender equality to a higher level. It showed that Goal 5, through its six targets, links to 8 out of 11 of the WSIS action lines.<sup>27</sup> The mapping highlights a direct connection between targets 5.5, 5.6 and 5.b to C1, C3, C4, C5, C6, C7 e-business, C7 e-health, C7 e-agriculture, C9 and C10. This reaffirms how ICTs contribute to socioeconomic development and increase women’s visibility throughout the development process.

## D. Gender equality and ICTs – Regional trends

The availability and use of different types of ICTs, the capacity to use them and ways to engage with them varies between regions, between countries within a region and even within a country. Addressing these disparities and taking the necessary action to reach an inclusive information society is explicitly stated in the Geneva Declaration of Principles, an international instrument adopted by countries through which they expressed having a “...common desire and commitment to build a people-centred, inclusive and development-oriented Information Society, where everyone can create, access, utilize and share information and knowledge, enabling individuals, communities and peoples to achieve their full potential in promoting their sustainable development and improving their quality of

life, premised on the purposes and principles of the Charter of the United Nations and respecting fully and upholding the Universal Declaration of Human Rights". Based on this international instrument, building an inclusive information society is an agreed upon common interest to all countries, including in the Arab region.

There are considerable differences between geographic regions in level of ICT development and notable variation in the situation of individual countries within each region. This is supported by the ICT Development Index<sup>28</sup> (IDI) developed by the ITU, the United Nations specialized agency for ICTs. The IDI is a composite index that combines 11 indicators into one benchmark measure that can be used to monitor and compare developments in ICTs between countries and over time.<sup>29</sup> It is based on a three-stage model, namely: ICT readiness – reflecting the level of networked infrastructure and access to ICTs; ICT use – reflecting the level of intensity of ICTs in the society; and ICT impact – reflecting the results/ outcomes of more efficient and effective ICT use. Advancing through these stages depends on a combination of three factors: the availability of ICT infrastructure and access, a high level of ICT usage and the ability to use ICTs effectively, derived from relevant skills.

The Arab region is witnessing positive progress in connectivity and use of ICTs, though in varying degrees, as shown through the IDI 2017.<sup>30</sup> Countries in the Gulf Cooperation Council (GCC) subregion occupy the top five regional positions<sup>31</sup> with IDI values well above the world average of 5.11, along with two middle-income countries in the region, Lebanon and Jordan, coming sixth and seventh. The most substantial improvements in IDI value since 2016 were

made by Algeria (up 0.35 points), Oman (up 0.29 points) and Kuwait (up 0.23 points). The greatest improvements in "access" were made by Algeria, Bahrain, Lebanon and Libya, while the greatest improvements in "use" were made by Oman, Kuwait, Algeria and Lebanon. At the bottom end of the rankings are four least developed countries in the region, which fall into the lowest quartile of the IDI distribution. While two of these countries – Mauritania and Djibouti – have improved IDI values of 0.18 points, Comoros has achieved only weak growth and the Sudan has seen a marginal decline in IDI value. All in all, the development status of ICTs in the region is improving and this makes the use of ICTs for sustainable development, particularly gender equality in the region, a realistic possibility. On the issue of connectivity, it is important to mention the ITU's Connect 2020 Agenda calls for at least 50 per cent of developing countries' households to have internet access by 2020 through its inclusiveness pillar and to increase internet affordability.<sup>32</sup>

However, despite the progress in the region, attributing attention to the digital divides within Arab societies is of critical importance. Closer examination of IDI subindexes reveals that the most significant rates of improvement across the Arab region were made in internet bandwidth and in fixed and mobile broadband subscriptions. Each of those rose by more than 15 per cent on average between 2016 and 2017. However, this does not necessarily translate into equal use and access to ICTs by both men and women, boys and girls. As shown in [figure 3](#), internet penetration rates in the Arab region are higher for males (47.7 per cent) compared to females (39.4 per cent) with a digital gender gap in access and use of internet in the Arab region of 17 per cent in 2017 ([figure 4](#)). This gap has decreased between 2013 and 2017, however it is still above the average for developing countries.

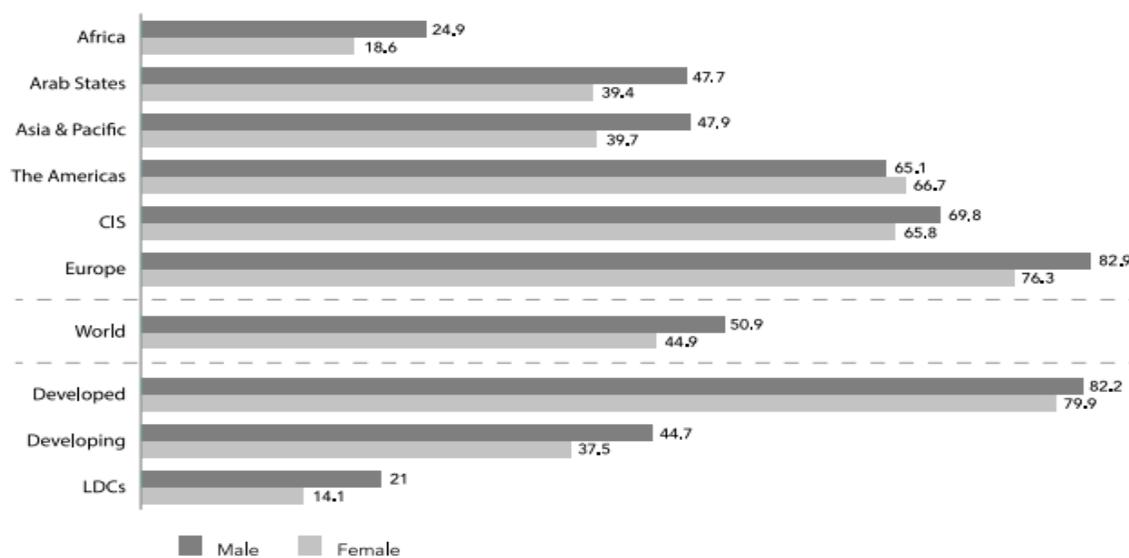
### IDI rankings and values, Arab States, IDI 2017 and IDI 2016

Economy	Regional rank 2017	Global rank 2017	IDI 2017	Regional rank 2016	Global rank 2016	IDI 2016	Global rank change 2016-2017	Regional rank change 2016-2017
Bahrain	1	31	7.6	1	30	7.46	-1	0
Qatar	2	39	7.21	3	36	7.12	-3	+1
United Arab Emirates	3	40	7.21	2	34	7.18	-6	-1
Saudi Arabia	4	54	6.67	4	45	6.87	-9	0
Oman	5	62	6.43	5	64	6.14	2	0
Lebanon	6	64	6.3	6	65	6.09	1	0
Jordan	7	70	6	7	66	5.97	-4	0
Kuwait	8	71	5.98	8	70	5.75	-1	0
Tunisia	9	99	4.82	9	95	4.7	-4	0
Morocco	10	100	4.77	10	98	4.57	-2	0
Algeria	11	102	4.67	12	106	4.32	4	+1
Egypt	12	103	4.63	11	104	4.44	1	-1
Libya	13	115	4.11	13	112	3.93	-3	0
State of Palestine	14	123	3.55	14	122	3.42	-1	0
Syrian Arab Republic	15	126	3.34	15	124	3.32	-2	0
Sudan	16	145	2.55	16	141	2.56	-4	0
Mauritania	17	151	2.26	17	152	2.08	1	0
Djibouti	18	158	1.98	18	161	1.8	3	0
Comoros	19	164	1.82	19	162	1.78	-2	0
Average			4.84			4.71		

Source: ITU, 2017b, p. 73.

Note: The State of Palestine is not an ITU member State; it's in ITU is the subject of resolution 99 (Rev. Busan, 2014) of the ITU plenipotentiary conference.

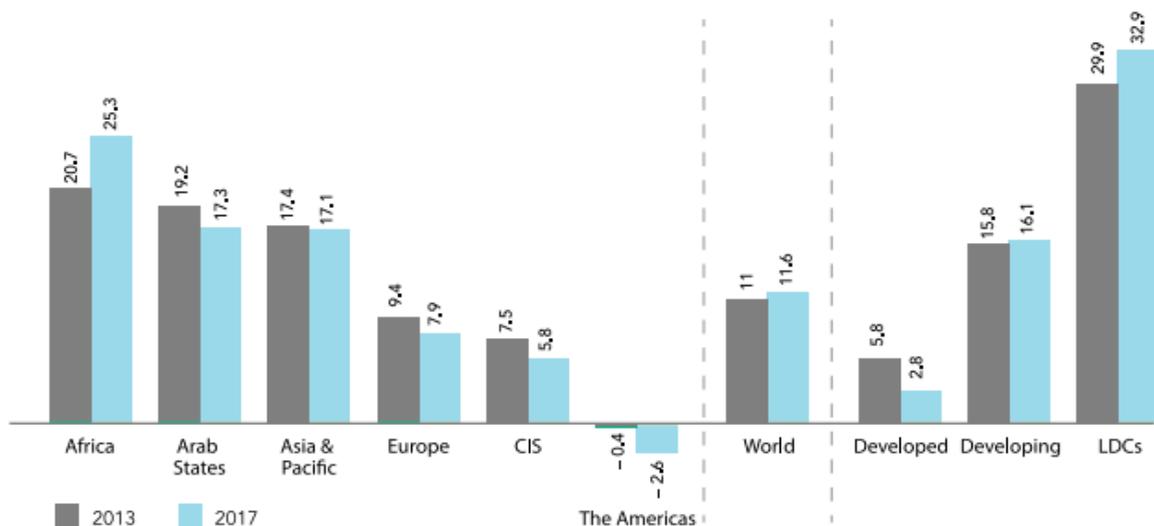
**Figure 3.** Internet penetration rates for men and women, 2017



**Source:** ITU, 2017b, p. 19.

**Note:** Estimates. Penetration rates in this chart refer to the number of women/men using the internet as a percentage of the respective total female/male population. CIS refers to the commonwealth of independent States.

**Figure 4.** Internet user gender gap in 2013 and 2017



**Source:** ITU, 2017b, p. 19.

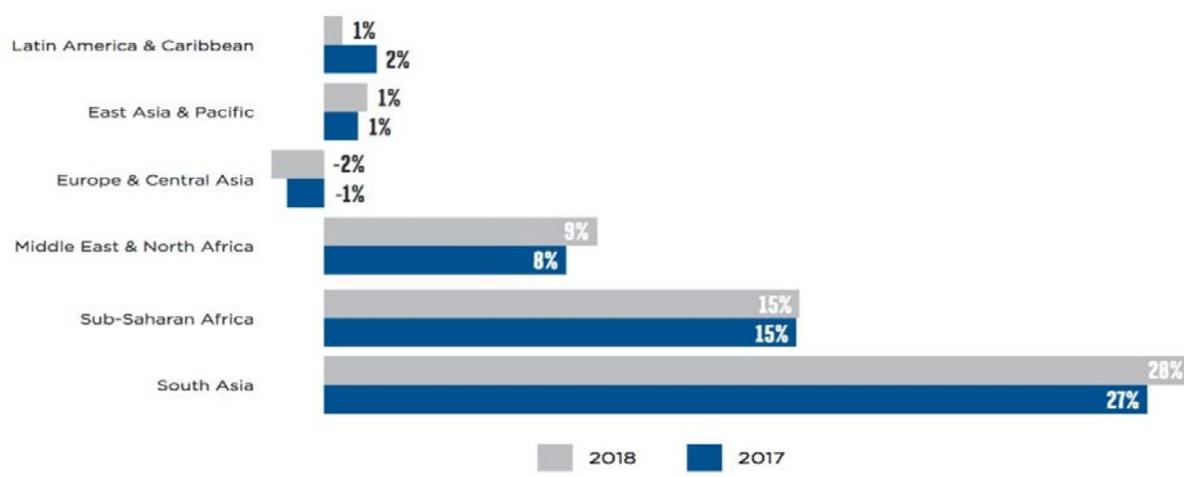
**Note:** Estimates. The gender gap represents the difference between the internet user penetration rates in for male and female relative to the internet user penetration rate for males, expressed as a percentage. CIS refers to the commonwealth of independent States.

Mobile phones provide an important channel to access the Internet in low- and middle-income countries, making mobile ownership and mobile internet an important indicator of gender equality in ICTs.<sup>33</sup> Globally, women are 10 per cent less likely than men to own a mobile phone and 26 per cent less likely than men to use mobile internet.<sup>34</sup> In general, the gender divide tends to be wider in rural areas than urban areas.<sup>35</sup> In rural areas, the gender gap reached 9.4 per cent in high-income countries and 7.5 per cent in low- and middle-income countries. The higher gender gap in rural areas is higher in high-income countries is inverted in urban areas, where the gap reaches 6.6 per cent in low- and middle-income countries, and 6.3 per cent in high-income countries. This data on urban-rural Internet use is available for 16 countries covered in the dataset of the ITU which includes 69 countries and is consistent with the results of other research. In one example the World Wide Web Foundation conducted an online research which surveyed urban poor communities in 10 low- and middle-

income countries. The results showed that women are around 50 per cent less likely to access the Internet than men in the same communities.<sup>36</sup> Granting rural women access to digital technologies is core to improving their well-being as it exposes them to opportunities for education, provides them with access to markets and to traditional and non-traditional financing institutions.

In the Middle East and North Africa (MENA), the mobile ownership and mobile use of internet are below the global average by 1 per cent and 5 per cent respectively. Women in the region are 9 per cent less likely than men to own a mobile (figure 5) and 20 per cent less likely than men to use the mobile internet.<sup>37</sup> Attributing attention to this gender gap is necessary considering estimations done by Ericsson telecommunications company showing that by 2020, 70 per cent of the world's population will be using smartphones, and 90 per cent will be covered by mobile broadband networks.<sup>38</sup>

**Figure 5. Gender gap in mobile ownership 2017 vs. 2018**



Source: GSMA, 2019.

Reasons for the digital gender gap include the availability of the cost of accessing and using ICTs and the women's limited income; lower levels of technical literacy and digital skills; scarcity of relevant content; illiteracy and language barriers; lower levels of education; sociocultural norms; a lack of time as a result of their double workload of domestic and productive activities and lower rates of participation in technology education and professions.<sup>39</sup>

According to the ITU, individuals in the Arab region who do not use the Internet reported that they "do not know how to use it" (ITU, 2017) – necessitating the need for digital literacy and, particularly, for Science, Technology, Engineering and Mathematics (STEM) education. LinkedIn undertook research in 2017 which resulted in ranking the job skills that are most in demand. STEM skills came out on top. Computer skills ranked in the top 10 per cent including cloud computing, data mining and statistical analysis in addition to programming mobile applications. Projections show that by 2024, 73 per cent of STEM jobs will require computer skills while only 6 per cent of jobs will necessitate physical and life sciences.<sup>40</sup> STEM education underpins the 2030 Agenda for Sustainable Development, since it provides the knowledge, skills, attitudes and behaviours required for inclusive and sustainable societies.<sup>41</sup>

At the global level, 35 per cent of all students enrolled in STEM related areas are female and 28 per cent of researchers are women. The quality of the learning experience is directly affected by gender stereotypes and biased attitudes. These biases also exist within STEM disciplines, with the lowest female enrolment observed in information technology (IT)-related subjects: engineering, manufacturing and

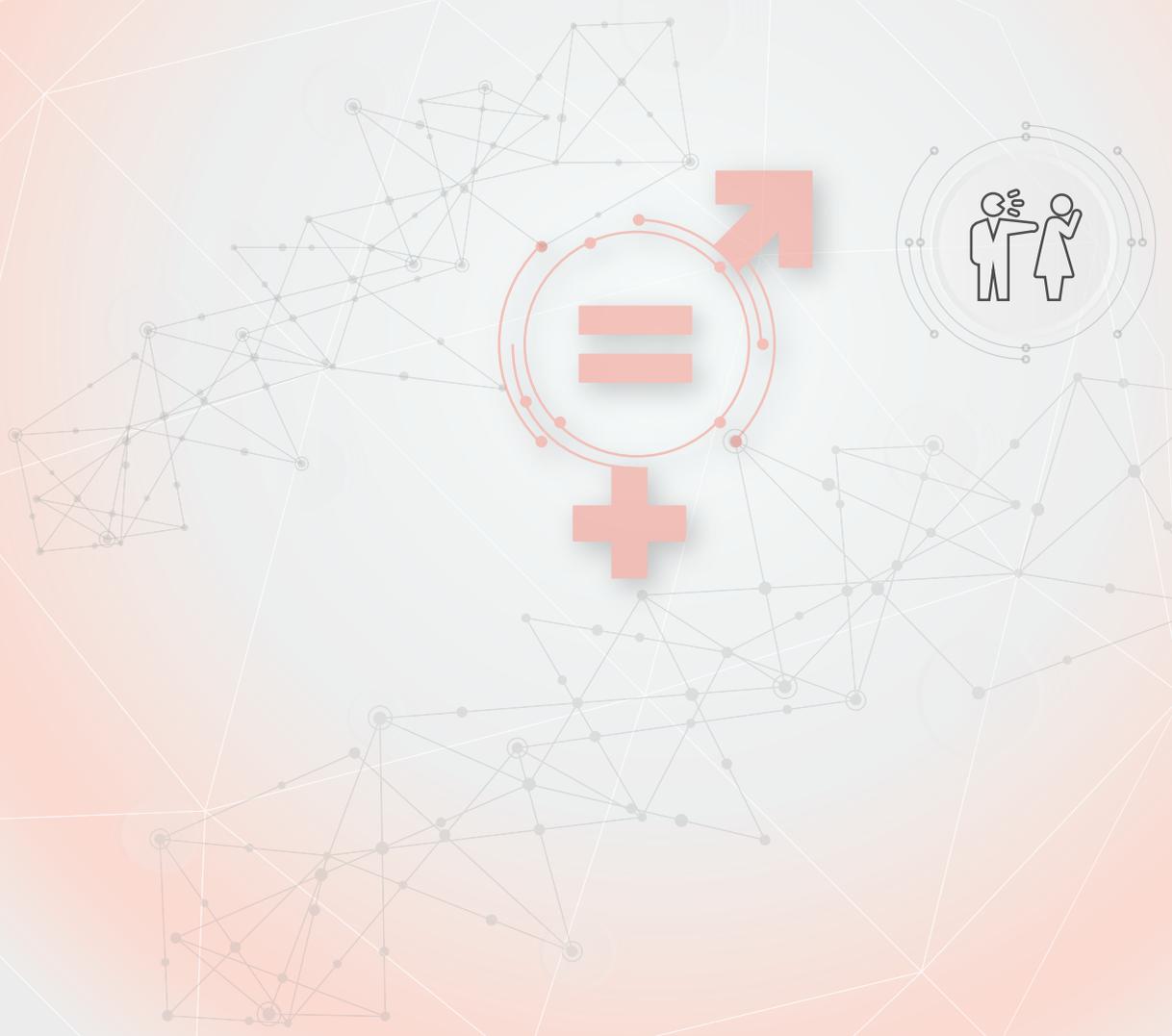
construction and natural science, mathematics and statistics.<sup>42</sup> In contrast with this global trend, the situation is different in the Arab region. As per the United Nations Educational, Scientific and Cultural Organization (UNESCO) and World Bank statistics, Arab women are now actively pursuing STEM subjects offered by universities in the region. For example, in state universities in Saudi Arabia in 2014, women comprised 59 per cent of the total student enrolment in computer science, whereas in the United Kingdom and the United States, women's enrolment in computer science was 16 per cent and 14 per cent respectively (noting that these numbers included international students, some of whom came from the Arab region).<sup>43</sup> Overall, the percentage of Arab women enrolled in and graduating with degrees in STEM fields is relatively high.<sup>44</sup> However, the paradox of this achievement is that it does not transfer into the region's work force in STEM-related fields, leading to lack of women representation in related sectors. On this note, in STEM-related sectors the quality of jobs is higher than in most other sectors with respect to flexibility of working modalities and the social environment, thus women could benefit greatly from working in such sectors. As these sectors are also among the highest paying, the ICT sector could be a way for reducing the current gender pay gap. Having more women in ICT jobs would contribute to reducing the gender pay gap.

Using ICTs as a catalyst to achieve gender equality in the Arab region is possible, with the understanding that the digital gender divide needs to be addressed in terms of equal access and use, digital literacy, and gender equality in the STEM workforce. They provide a great opportunity to level the playing field for gender equality, taking into consideration that the

ability to effectively use and benefit from them will be affected by age, income, culture, ability, urban or rural locality and other factors. The following chapters address the potential of ICTs in promoting gender equality and achieving the

targets of Goal 5 within the framework of agency, resources and achievements while acknowledging, when relevant, the negative impact ICTs can have on gender equality in the Arab region.





## **2. Gender-based Discrimination and the Role of ICTs**



## 2. Gender-Based Discrimination and the Role of ICTs

**Target 5.1:** End all forms of discrimination against all women and girls everywhere.

Ending all forms of discrimination against all women and girls everywhere is a target and a prerequisite for the achievement of gender equality and the empowerment of all women and girls, ensuring equal rights and access to resources, assets and services and equal economic and political participation. It is enshrined in international human rights law and agreements, most notably CEDAW and the BPfA, that hold States accountable for eliminating discrimination against women in all its forms and promoting gender equality.

Gender norms and stereotypes, stemming from prevalent power structures, govern the distribution of resources at several levels, including in the family and the community. Consequently, they highly influence the differential agency of men and women in a given household or community. Most often, they are embedded in the legal frameworks and institutionalize and sustain the discrimination against women and girls. These norms and stereotypes constitute major barriers for women's empowerment. There are two options to initiate an empowerment process: transforming these norms or circumventing them. This chapter explores how ICTs can be

used to challenge the prevailing gender norms at both community and household level.

### A. Goal 5 – target 5.1: Regional overview

The scope of discrimination against women in the region is wide-ranging and embedded in social structures and patriarchal gender norms and consequently anchored in institutional structures. Recent research conducted on masculinities in the region has illustrated the perspectives of discrimination against women in four Arab countries namely, Egypt, Lebanon, Morocco and the State of Palestine.<sup>45</sup> Most of the findings echo and are compatible with the findings of other studies on patriarchal views and norms in the Arab countries:<sup>46</sup> most men and women support inequitable views of women's role in society, confining women to conventional roles and prioritizing men's access to jobs over women's. Changes in women's roles outside the household are accepted as long as the man remains the main breadwinner and the woman continues to be the main caregiver and organizer of domestic life. Young men in the region do not have significantly

different views than older generations, in contrast to other regions. However, education emerges as a key influence on change in perceptions and attitudes in the four countries in the region: men with greater wealth and higher education and whose mothers had more education are more likely to develop gender equitable views.<sup>47</sup>

The legal frameworks reflect these discriminatory views.<sup>48</sup> Despite continuous efforts over the years, discrimination against women persists in legal frameworks, particularly in personal status laws,<sup>49</sup> considerably affecting women's situations and constraining them from fulfilling their full potential. As a result, women in the Arab region still trail on numerous fronts as demonstrated by the low ranking and scores in the Gender Gap Index; among the Arab States, the best ranked is Tunisia at (119) and with (0.648) as overall score and the lowest ranked is Yemen at (149) with an overall score of (0.499). The major gaps outlined pertain to the economic and political participation, while Arab States are achieving significant progress under the Educational Attainment Index.<sup>50</sup> However, discriminatory schemes are seen even at the level of education when thoroughly examined. A point in case is the percentage of female students in social sciences, journalism and information, health and welfare and arts and humanities are much higher than in programmes related to ICTs, business, administration and law in Arab States. This situation confirms conventional views that confine women to selected domains and work to exclude them from others.

Discrimination against women in social and institutional structures limit their access to resources and diminish their agency as it limits their alternatives and influences their processes

of making choices. Therefore, discrimination against women constitutes a major barrier towards their empowerment and the achievement of their full potential in numerous ways: by constraining their access to assets and resources, by assigning solely to them the burden of unpaid care and hampering their participation in the economies, by limiting their participation in the political and decision-making spheres, to name a few.

## **B. ICTs: A means to challenge gender norms and stereotypes**

### **1. ICTs: A Means to transform existing gender norms and stereotypes**

ICTs can promote meaningful social practices for women and their active engagement for economic, social, and political participation. It has been well documented that the use of ICTs empowers women and girls by increasing their self-confidence and social status.<sup>51</sup> Alternative representations of women in non-traditional roles can lead to progressive changes in social attitudes towards women and girls, as well as in their personal aspirations.<sup>52</sup> In other words, even in micro settings, women's agency evolves over time when resources are available and accessible leading them to become agents of change and achievers.

One example to mention is that of India when computers were introduced to a village through telecentres. The female operators were regarded as experts in a sophisticated technology that most inhabitants of the village did not know how to operate. Participants were proud of their status as the "girl/woman with the computer" as opposed to being referred to in terms of their relationships to others – as daughter, wife, or sister. These women earned

the status of computer operators. They were also able to leverage the opportunities and resources acquired because of their association with telecentres<sup>53</sup> to increase their agency. Similarly, women participating in the M.S. Swaminathan Research Foundation's Village Knowledge Centre in Pondicherry "have acquired some status and standing in the community".<sup>54</sup> Men – farmers, landless labourers, traders – turned to women for information. As per the project, women have set up self-help groups and microenterprises. They have taken part in discussions held at the Foundation and answered questions posed by many overseas delegates. In this case, ICTs empowered women and led to breaking gender norms and stereotypes. Only few years prior to the involvement of these women in the project, they would not have had the same roles within the household and in the community with more financial independence and greater confidence.<sup>55</sup>

Online media can promote and disseminate analysis and critique of gender norms and social expectations. For instance, the "Feminism in India" website (<https://feminisminindia.com>) highlights comments on social trends such as the rise of women taxi drivers. At the same time, this website profiles women historians and outlines "How Internet Beauty Gurus Sell the Myth of Perfection Online".<sup>56</sup> It even has a comics section that addresses issues such as online harassment, the legal definition of consent and other topics. The Media Watch section is a significant example of how this kind of platform can combat gender-based discrimination, by tracking media coverage of issues such as rape, attitudes towards women with disabilities, and even how essentialist or biological arguments are used to entrench

traditional views of women's roles and abilities. The site also calls for attention to how women are presented in the media, and the stereotypes that prevail in Indian society, for example in articles such as "how does mainstream media represent sportswomen?" and "Ever-growing obsession with mothers in advertisements".

Platforms for networking, organizing and advocacy can increase women's ability to combat direct discrimination, either in relation to specific events or issues, or in a more general way to equip women and girls to address discrimination faced in their daily lives. A survey targeting the use of social media by women during the Arab uprisings found that social media is an increasingly important tool for women's empowerment in the region. It enabled women to take on a new form of leadership through building connections and networks. A higher percentage of women (9 per cent of the respondents) than men (3 per cent of the respondents) reported having used social media during the uprisings for "organizing actions and managing activists". A high percentage of women and men respondents, with slightly higher percentage of women, considered social media as an empowering tool that "makes it easier for Arab women to express themselves"; "can enhance Arab women's participation in civil society"; "can empower Arab women to be role model for social change"; "can advance women's rights"; "provides Arab women with economic or entrepreneurial opportunities"; and "supports gender equality in the Arab political landscape".<sup>57</sup> On this note, some suggest that Twitter is emancipatory for women in Saudi Arabia because it allows them to express opinions and highlight areas of concern that they are unable to in other public spaces.

## 2. ICTs: A means to circumvent existing gender norms

Women may use ICTs as a means to circumvent norms as a first step toward introducing change. Women activists in the region are using social media and online platforms to avoid restrictions on their movement, take their place in the public space and challenge and disrupt dominant social and cultural codes and systems. Debates on Twitter about women's right to drive in Saudi Arabia may have contributed to it being granted. It also certainly called public attention to the restrictions imposed on women in the country<sup>58</sup> through #W2drive movement which is a campaign by Saudi women which started in 2011 aimed at granting the right for Saudi Women to drive vehicles on public roads.<sup>59</sup> In Yemen a social media campaign gained momentum with the hashtag #BringDevBack – or Bring Development Back to Yemen – highlighting how years of war have destroyed the opportunity for development. This campaign demonstrates how ICTs can support women to be active agents for peace and development. Using online platforms to speak about experiences publicly is a process of public reclamation of space and agency. This is exemplified by Amina el-Rbou, a volunteer at Women Labour Action in Morocco, a survivor of domestic violence who left her employment to focus her efforts on getting a divorce. Once the divorce was finalized, she published an article in a newspaper to share her experience. Through the act of publicizing her story, she gained self-confidence and felt she had regained control of her life. Sharing her experience with others constituted an act of challenge and defiance of social and cultural codes and taboos that restrict women's access to the public sphere in the name of morality and “decorum”.<sup>60</sup>

## C. ICTs: A means to influence household decision-making and resources distribution patterns

The use of ICTs either to access information or facilitate communication and interaction among household members can contribute to empowerment through improving women's participation in household decision-making. In some cases, men became more willing to take on tasks previously considered the responsibility of women as a result of ICT-mediated community and family discussions. For example, Dimitra, a globally implemented project led by the United Nations Food and Agriculture Organization to promote community listening clubs, facilitates bringing together rural groups of women and men to discuss challenges and solve problems.<sup>61</sup> The project provides wind-up solar-powered radios and mobile phones to access information but also to enable communications with other groups, radio stations and other actors in rural areas. The interaction of women and men to address community and household issues together prompted changes in behaviour: women were encouraged to speak up in public while becoming more confident to engage in leadership roles and new income-generating activities.

In India, access to voice-based agricultural information reduced knowledge gaps between large and small farmers and between women and men. The listening rate of women farmers was equivalent to that of men farmers, with 70 per cent of women farmers stating that the advisories had increased their knowledge about farming practices and increased their yields as a result. In one region, 83 per cent of women farmers reported having acted on the information they received through this service.

Interestingly, women also felt that the information increased their participation in family agriculture.<sup>62</sup>

Gender content offered by a mobile services provider in Madagascar was highly popular among its users – in fact, it was the most popular of all the topics offered (the others being health, family planning, water and sanitation, agriculture, microfinance and land tenure), and made up over 46 per cent of all services accessed. The content offered information on the importance of equal decision-making in the household. A survey revealed that men reported listening to the gender content and that almost 91 per cent of female users reported having increased their participation in decision-making. It showed also that listening to this content has encouraged some women to open their own bank account and manage their finances. The majority of both male and female gender content users “felt increased appreciation of the value of education, education for girls, human rights, and gender equality. Interestingly, male users reported particularly high levels of improvement”.<sup>63</sup>

#### D. Minimizing the risk of ICTs in reinforcing discrimination against women

ICTs have become platforms for women and girls to express their voice and assert their rights. They can provide means to overcome social isolation, to communicate and support others in the face of discrimination and provide alternatives to stereotypical perceptions about the roles and aptitudes of men and women. However, the use of networking, social media and other tools heighten some risks in carrying out and reinforcing existing discriminatory social norms against women.

ICTs are often considered as a “male” domain in the belief that they are not suited to nor needed by women, either in the household or workplace. Consequently, women and girls are less included in the domain compared to men. The dominance of males in many technical spheres tends to influence the design as well as the content, so that women’s and girls’ interests and perceptions are less represented, and in many cases discriminatory views of women and girls are perpetuated. This is exemplified in the case of Wikipedia and a trend in Artificial Intelligence (AI) applications such as word embedding, as explained below.

Wikipedia provides an example of how stereotypes and discrimination against women are promoted due to their lack of agency on the subject matter. Noting that Wikipedia editors may stay anonymous if desired, existing statistics show that it is a male-dominated platform – less than 10 per cent of Wikipedia editors are women<sup>64</sup> – with resulting gender bias in content and working culture. Given the fact that the free online encyclopedia is an important knowledge generator and disseminator, the lack of women editors means that women have a reduced say in what kind of knowledge is generated and distributed (content), leading to concerns about discriminatory and missing content in relation to the interests and accomplishments of women and other groups not represented as editors.

Likewise, concerns have been raised about the potential of artificial intelligence (AI) applications to reinforce and perpetuate gender-imbalanced and racially discriminatory perspectives on the internet. For example, “word embedding is a popular framework to represent text data as vectors and has been utilized in many machine learning and natural language

processing tasks. A recent study demonstrated that this tool, when based on Google News articles, exhibits female/male gender stereotypes to a disturbing extent". Given as example, the platform Word2Vec "connected men to "computer programmer" and women to "homemaker"". <sup>65</sup> This illustrates concerns how AI can repeat and intensify existing biases.

Examining the realm of video games, research shows that girls and women tend to be less involved with or interested in video games than boys and men, and when they do play, they often prefer different games. <sup>66</sup> Reasons for girls' lower interest in games can include lack of meaningful social interaction, violent content, stereotyping of characters in games and the competitive nature of many games. <sup>67</sup> Additionally, research in this genre has demonstrated that games tend to reinforce discriminatory gender norms and stereotypes. Women characters in games tend to mirror the ideals of young adolescent males rather than real-life females. Female characters are often objectified as sexual, passive objects or victims. This occurs frequently with female characters, with comments on their attractiveness made more often than for male characters. <sup>68</sup> The clothing of female characters tends to be more revealing or tighter, their physical features are exaggerated, 88 per cent of the characters displaying some nudity are portrayed as females. <sup>69</sup> Hyper-masculinized and hyper-feminized versions of women and men in video games are common, with macho attitudes and desire for action and danger contrasted to dependence, submissiveness and sexuality. <sup>70</sup> Finally, even when female characters in video games are depicted in a more "realistic" manner, they tend to conform to a thin body weight ideal <sup>71</sup> and are often in need of rescue by the male characters. <sup>72</sup>

Women-developed content poses an alternative to gender discrimination in its representation of women as active agents who are responsible for their own destinies. Some examples include the digital comic "Princeless", where the superhero is a woman of colour who challenges masculine super-hero archetypes. In "Qahera", a veiled superhero combats Islamophobia and sexual harassment. <sup>73</sup> Having more women in the area can lead to sensitizing initiatives and reducing the risk of reinforcing existing discriminatory gender norms and stereotypes.

Therefore, to redress the consequences of gender discrimination in digital platforms and content, a critical mass of women programmers and computer professionals is needed. There are some signs of this in different regions: In Malaysia, women are participating at roughly equal levels in the IT sector. Reasons include women's predominance in the precursor electronics industry in the country, as well as it being a new area where gender stereotypes have not yet taken root. <sup>74</sup> In the Arab region, recent statistics show that 1 in 3 start-ups is founded or led by women – a higher percentage than in Silicon Valley. The reason behind this could be the absence of a legacy of the field being male-dominated since the ICT industry is relatively new to develop in the Arab region. The technology sector is thus perceived as by many as one of the few spaces where it is possible to transform the prevailing gender norms, making it an attractive sector for women. <sup>75</sup> If this trend continues, ICTs may contribute to women's economic empowerment, through online platforms that can increase their income and reach new markets both within and outside of their countries.

In summary, as a platform for increasing networking and discussion, ICTs in various forms contribute to confronting gender norms

and stereotypes that constrain women's agency and affect their ability to make their views known and be recognized, and consequently, their achievements. The dissemination of knowledge and information via ICT channels is another facet of ICT-mediated empowerment of women as they can access information that can inform their decisions and life choices and can contribute to increased participation in household decision making and changes in gender roles.

The examples provided in this chapter illustrate the need for women to acquire the skills to exercise agency with these tools, and to create

platforms and content that reflect their interests and needs including the language needs, specifically Arabic in the case of the region, their narratives, knowledge and perspectives to confront gender norms and stereotypes and fight discrimination. While gaining skills is mandatory, it is not sufficient on its own as it must translate into further involvement as programmers and computer professionals in order to influence the digital content and technology design. Moreover, the addition of skills should be accompanied by the enhancement of substantive freedoms in various areas including the economic and political arenas.





### **3. Combating Violence Against Women and Girls and the Role of ICTs**



### 3. Combating Violence against Women and Girls and the Role of ICTs

**Target 5.2:** Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation; and

**Target 5.3:** Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation.

Violence against women takes place in all countries, in both public and private spaces. In most cases, it is perpetrated by someone the victim knows – most often an intimate partner. It can take many forms, including physical, sexual, psychological and economic violence. The results are long-term physical, mental and emotional problems which affect women's communities and families, including their children. Violence and abuse prevent women from fully participating in society. Harmful practices such as child, early and forced marriage and FGM also violate women's human rights. Child marriage is associated with a reduced chance of education and an increased likelihood of early pregnancy. In a 2016 report to the United Nations Human Rights Council, the Special Rapporteur on torture and other cruel, inhuman or degrading treatment or punishment, reaffirmed that child marriage and FGM, as well as other harmful practices such as honour-based crimes, constitute gender-based violence, ill-treatment and torture.<sup>76</sup>

Eliminating all forms of VAW as well as all harmful practices present a two-way relationship with many SDGs. VAW and harmful practices eradicate or reduce the alternatives available to women and/or their ability to make choices among available alternatives. Eliminating VAW and harmful practices is thus a prerequisite to achieve gender equality and empower all women and girls so that they can fully contribute to sustainable development. Similarly, empowering all women and girls is key to reducing VAW. Empowerment can follow a multitude of pathways that might increase the alternatives and/or the ability to make choices including increased access jobs and incomes and/or increased political participation and/or increased access to decision-making spheres and/or increased access to reproductive health services, to name a few. Additional pathways to eliminate violence and harmful practices consist of confronting the social norms that generate and perpetuate them and reform the legal frameworks to prevent and protect against

them. The SDG framework stresses the importance of eliminating VAW and harmful practices in the context of sustainable development as it specifies several measures that aim at reducing violence including promoting a culture of peace, providing safe public spaces and transport and others. The SDG framework seeks also to strengthen the administrative and legal measures that protect women and girls against violence and harmful practices.

This chapter scrutinizes the possibilities that ICTs present to reduce and eliminate VAW and harmful practices.

## A. Goal 5 – targets 5.2 and 5.3: Regional overview

Violence against women in the Arab region takes many forms including, but not limited to, domestic violence, so-called honour killings, child marriage, forced prostitution and trafficking, FGM and sexual harassment. Data is often incomplete regarding intimate partner violence in the Arab region, mainly because of the sensitivity of the issue. Only 44 per cent of the Arab region countries collect data on the prevalence of different forms of VAW.<sup>77</sup> At the regional level, available data published by World Health Organization in 2013 suggests that 1 out of 3 ever-married women in the MENA region have experienced physical or sexual violence by an intimate partner in their lifetime.<sup>78</sup> In Jordan in 2012, approximately one third of ever-married women aged 15-49 reported being subject to some form of physical violence at some point after their fifteenth birthday. The most commonly reported perpetrator of physical violence is the current husband (57 per cent). More than one in four (27 per cent) women report physical

violence by a brother, one in five (21 per cent) women report physical violence by their father, and one in ten (10 per cent) women report physical violence by a former husband.<sup>79</sup> In Egypt, 46 per cent of ever-married women aged 18-64 have experienced some form of spousal violence.<sup>80</sup>

Evidence from the region proves that the prevalence of VAW significantly increases in conflict-affected and war-ravaged countries and sexual violence is systematically used as tactic of warfare: for example, 5,866 cases of violence including rape, sexual harassment and child marriage were reported in Yemen in 2015.<sup>81</sup>

Child marriage exists across the region with 18 per cent of girls married before the age of 18 and 3 per cent before the age of 15.<sup>82</sup> This prevalence varies significantly between countries with substantially higher rates in the poorest and conflict affected countries.<sup>83</sup> In Egypt, teenage childbearing has increased from 9 per cent in 2005, to 10 per cent in 2008 and then to 11 per cent in 2014.<sup>84</sup> In Yemen, in 2013, nearly 32 per cent of women aged 20 to 24 were married before reaching 18, and more than 9 per cent were married younger than 15.<sup>85</sup> In Somalia these rates were 45 and 8 per cent, respectively.<sup>86</sup> Research suggests that the increase in the incidence of child marriage serves as a form of protection and as a way to maintain the honour of girls in conflict-affected or displaced families.<sup>87</sup>

Trafficking in persons is rising globally with cases increasing from around 20,000 in 2003 to over 25,000 in 2016. Fifty per cent of the victims of trafficking in the region are females including 46 per cent of adults and 4 per cent of children. In the region, the major purpose of trafficking is forced labour (55 per cent) followed by sexual exploitation (36 per cent).<sup>88</sup>

Furthermore, FGM continues to prevail in several Arab States despite the declining trends observed over years. According to ESCWA, the highest prevalence rates are seen in Somalia, Egypt and the Sudan, followed by Mauritania with a relatively moderate prevalence and “low prevalence in Iraq, Oman and Yemen where it is practiced by certain groups or in certain regions”.<sup>89</sup>

Existing research and statistics show that sexual harassment in public spaces is a serious issue. A national study conducted in Morocco by the High Commissioner of Planning in 2009 found that 63 per cent of women had experienced some form of sexual violence in public spaces.<sup>90</sup> This was reaffirmed through a field survey with a sample of 40 women from various backgrounds living in Rabat. The results of the survey showed that most interviewees were victims of harassment or sexual assault in public spaces.<sup>91</sup> In 2016, the Centre for Research, Studies, Documentation and Information on Women in Tunisia interviewed 3,000 randomly selected women, aged 18 to 64. The results indicated that 54 per cent experienced psychological or physical violence at least once in public spaces between 2011 and 2015. Their experiences included being followed by men to being insulted or sexually harassed. In 2015, the Egyptian Central Agency for Public Mobilization and Statistics (CAPMAS) in cooperation with United Nations Fund Population (UNFPA) and National Council for Women (NCW) launched the first national survey measuring prevalence of the different types and forms of gender-based violence inflicted on women and girls in the age group 18-64 years and its impact on women's health, reproductive health and general wellbeing. According to the results of this survey, around 46 per cent of ever-married

women age 18-64 years have at some time experienced a form of spousal violence, with 43 per cent reported having been subjected to emotional violence, 32 per cent physical violence and 12 per cent sexual violence. On another note, with respect to violence in public spaces, 10 per cent of women age 18-64 were subjected to harassment at streets, markets, squares and others and around one quarter of girls age 18-19 years were subjected to harassment in these places.<sup>92</sup> The severity of sexual violence and harassment of women in public spaces and the need to combat it cannot be doubted.<sup>93</sup>

The prevalence rates of VAW in the region are closely linked to norms and attitudes, namely the extent to which it is seen as acceptable for a man to discipline his wife and, more broadly, the extent to which violence and abuse against women are accepted by society.<sup>94</sup> VAW witnessed in the Arab region is rooted in women's limited capacities, in attitudes supportive of violence and in the highly violent childhood experienced by some men.<sup>95</sup> In Jordan, for example, about 50 per cent of women believe that a husband has the right to physically discipline a rebellious wife.<sup>96</sup> The situation is not dissimilar when it comes to violence in the street as the majority of men who carry out this type of violence blame women's attire as a provocation for their actions. The views, attitudes and norms that perpetuate VAW continue to be widespread in the region.<sup>97</sup> Examining men's attitudes and behaviours regarding VAW globally and at the regional levels suggests that norms related to violence are being transmitted from one generation to the next. Men who witnessed their mothers being abused by their fathers are more prone than others to perpetrate violence against their partners in their adult relationships.<sup>98</sup>

Overcoming VAW is a prerequisite for women in the Arab region to reach their full potential. VAW greatly affects their agency as it significantly alters the process of decision-making and thus negatively impact their achievements.

## **B. ICTs: A means to combat violence against women and girls**

ICTs can be leveraged to combat VAW and harmful practices in a multitude of ways. First, ICTs increase the sense of safety and security of women and girls in situations where they might be at risk.<sup>99</sup> They promote women's agency by providing a platform to report and develop counter-strategies for incidents of harassment and other forms of violence. Second, the use of ICTs provides a platform for women to mount campaigns against social attitudes and practices victimizing women and girls, prompting changes in norms and legislation. Third, as research on the use of justice apps in Canada has demonstrated, it can provide a powerful voice to women and girls to use to counteract harassment, bullying, and violence and can simplify reporting of such incidents in ways that are rapid and ensure the safety of the victim.<sup>100</sup>

### **1. ICTs: A means to enhance security of women and girls**

Women and girls feel safer and more independent when owning a mobile phone as per a survey conducted in Bolivia, Egypt, India and Kenya.<sup>101</sup> They use their mobile phones in public places to deter potential harassers. Many technological applications exist to allow online identification of dangerous incidents.

One is HarassMap, a crowdsourcing application to map sexual harassment. This online mapping tool allows users to tag an incident with the location where harassment occurred, type of harassment and date, all via different platforms such as the HarassMap website, text messages (SMS), Facebook, Twitter or email. It also includes an option for users to recount interventions by bystanders to stop the harassment and thereby encourage this type of positive action. Data are uploaded to an online map where reports are logged. Resist Harassment Lebanon is a similar initiative.

In conflict situations, women may be displaced or unreachable by regular service organizations. ICTs enable the sending of messages, as well as tracking, storing, and distribution of information and evidence. Examples include the "Jordan Online Services Advisor" platform and app supported by the United Nations High Commissioner for Refugees (UNHCR), which identifies the location and services available in response to sexual and gender-based violence (SBGV) in the vicinity of the user. It also provides information for refugees on food, water and medical care. To support the apprehension and prosecution of perpetrators, incidents of VAW in areas of conflict are tracked through apps such as "MediCapt", developed by Physicians for Human Rights. MediCapt allows clinicians to record medical examination results digitally as well as photograph victims' injuries, upload them online and send them directly to law enforcement officials and lawyers. Developed to identify incidents of sexual violence, it can also serve as an early warning signal, to track mass violence and provide evidence for war crimes.<sup>102</sup>

### Box 1. Support coping in the face of armed conflict

Women in Nigeria used mobile phones, combined with their social networks, to build resilience during a sectarian crisis in April 2017. Traditional restrictions on women's physical mobility because of social norms, customs and family responsibilities affected their ability to find escape routes during the violence – something that was even more difficult for Muslim women in purdah. They used phones to track their family members, mobilize remittances, confirm the safety of business associates and reach families and friends on the opposing side of the conflict. Text messages and calls were used to negotiate with marauding youths and community elders for safe passage and to spread information about outbreaks of violence. Phone credit was also used to buy food. Phones enabled them to get information from friends and family with access to the Internet and radio outside the conflict area, especially BBC World Service (which regularly broadcasts in the main language spoken in Kafanchan and Hausa), to become better informed about possible flashpoints and danger zones. This news was in turn disseminated to other friends and family members.

**Source:** Comfort and Dada, 2014, pp. 111-121.

## 2. ICTs: A means to identify, report and confront norms leading to VAW and harmful practices

ICTs can be an instrument for tracking and reducing harmful practices. Through content analysis of social networking sites such as Twitter, trafficking can be more easily identified. For example, advertisement of prostitution can be tracked by searching for the term “escort” on Twitter. Other existing applications can be used to counteract this activity, such as private social networking services, database-sharing software or the sharing of information among anti-violence organizations. PhotoDNA is an

application to identify incidents of trafficking, a photo recognition software that detects pornographic photos of minors on the internet, even if the photo is altered (a common method to avoid detection). Crowdsourcing technologies can aggregate information from different groups to map and connect international anti-trafficking organizations and survivors of trafficking.<sup>103</sup> An SMS project in Haiti coordinated by Ayiti Resurrect,<sup>104</sup> forwards text messages reporting abuse or requests for services or advice to a referral and response team. The request or information is then referred to a network of non-governmental organizations (NGOs) and service providers. The data is tracked on an area map, once it is stripped of identifying information.<sup>105</sup>

The #MeToo movement is an example of a social movement that started as a group of women sharing experiences about sexual harassment and violence in the workplace. Due to the nature of the technology the hashtag expanded exponentially and was picked up by news media, especially after it made an appearance at the Golden Globe and Academy Awards. This is an example of how social media can keep an issue alive, and lead to changing prevailing norms about what is an acceptable interaction between women and men in the workplace.<sup>106</sup> In the United States, the #MeToo movement led the American Congress to reconsider its reactions to allegations of sexual harassment in the workplace. This has exposed hundreds of high-profile men and forced them to resign or have been fired or have suffered significant consequences as a result of sexual assault allegations. Also, legislators in states like New York and California called for the elimination of confidentiality agreements and forced arbitrations, which are often used in sexual harassment lawsuits.<sup>107</sup> In just one year, the #MeToo movement led to a series of

changes that have had a direct positive impact calling for an environment that is free of sexual harassment.<sup>108</sup> With regards to the Arab region, Arab women took part in the campaign and “reminded the world that sexual harassment knows no age, no limits and no dress code”.<sup>109</sup> Indeed, this is an example of how ICTs can be used to express women’s opinions and have an impact.

SafeNes<sup>110</sup> and StreetPal<sup>111</sup> are mobile applications developed in Tunisia and Egypt respectively. SafeNes aims at increasing awareness and connecting victims with specialized non-governmental organizations. It gives users a way to report sexual harassment and designate a trusted person to track their movements when they are somewhere and they do not feel safe. StreetPal is a smart application platform which aims at building a community of well-trained advocates who can help spread awareness about sexual harassment and effectively take part in combating the crime of sexual harassment and, at the same time, provides options for survivors.

Social media, blogs, as well as “traditional” ICTs such as radio, film and television can be powerful tools to confront social norms that perpetuate VAW. Blogs in Jordan highlighted honour crimes and linked them to news stories. Another blog called attention to the issue that “a woman, no matter how modestly she is dressed, cannot walk on the streets in Amman without being subject to catcalls or other inappropriate behaviour from men”.<sup>112</sup> In a creative example from New Zealand, students developed a parody of the music video for “Blurred Lines”, a song that has been widely criticized for condoning rape, with a video called “Defined Lines” that included lyrics such as “What you see on TV, does not speak equality, it is straight up misogyny”.<sup>113</sup> Radio

has been used effectively in the region to provide women with legal and rights information, with the examples of Radio Nisaa<sup>114</sup> (Women’s Radio) in the State Palestine and Radio Mousawat<sup>115</sup> in the Kurdistan region of Iraq.

### **3. ICTs: A means to campaign and raise women’s voices**

Other uses of ICTs and social media to address violence are exemplified by the activities of Wadi, an Iraqi women’s group, which uses online tools, film and television to campaign against FGM. The organization trains female activists in the use of multimedia tools to engage with rural women and gather evidence of the practice, while promoting a campaign through public media. This campaign contributed to the enactment of a law by the Kurdistan Regional Government.<sup>116</sup>

In Egypt, social media campaigns raising awareness about sexual harassment against women in public were so successful in advocacy that the national parliament criminalized sexual harassment.<sup>117</sup> One of these initiatives is “Shoft Taharosh” (I Saw Harassment) led by a group of activists who describe themselves as pressure group to end the crime of sexual harassment. The group aims to protect women against sexual harassment and raise awareness. The campaign involves various local NGOs, human rights and women’s groups that monitor harassment and execute means to fight it on the legal, social and psychological fronts. The campaign uses three approaches: social media, volunteer work and legal support. In August 2013, the group warned against sexual harassment during the Eid al-Fitr celebration and volunteers from the group were present in downtown Cairo to protect women and report incidents of harassment.<sup>118</sup>

### C. Minimizing the risk of facilitating existing forms of VAW and generating new ones

While ICTs are providing women with new means to organize their action, advance their status and position in society and affect dominant social attitudes, they can also facilitate the increase of VAW in scale and scope. This was noted in 2018 by the United Nations Special Rapporteur on violence against women, its causes and consequences, whose report showed that technology-related VAW was aggravated, in part or fully, through ICT use (A/HRC/38/47).<sup>119</sup> The report also noted that technology-related violence took many forms and targeted women and girls in multiple and different ways. A 2015 United Nations report by the Broadband Commission for Digital Development Working Group on Broadband and Gender, entitled “Cyber violence against women and girls: a world-wide wake-up call”<sup>120</sup> revealed that almost three quarters of connected women have been exposed to some form of cyberviolence and that women in the age range of 18 to 24 are more likely to experience stalking and sexual harassment, in addition to physical threats. Reforming and strengthening legal, regulatory and procedural frameworks are a necessity, and awareness-raising among individuals and institutions about such risks and their impact on work and personal life are also key.

The characteristics of this form of violence include its fast spreading (“viral”) nature and global searchability. The persistence, replicability and scalability of information can take VAW to new levels. For example, social media and the use of video can increase the audience and spread of bullying exponentially. Forms of online violence and aggression include but are not limited to dissemination of

reputation-harming lies, cyberbullying, image manipulation, electronic sabotage through spam and malignant viruses, impersonation of the victim online, sending abusive emails or spam, blog posts, or tweets or other online communications in the victim’s name and cyberstalking, among others. According to a study produced in 2014 on teens’ online behavior, 87 per cent of teens have witnessed cyberbullying – use of electronic media such as texts, emails, photo sharing and instant messaging to act cruelly or to threaten or embarrass someone – and 26 per cent have been victims themselves.<sup>121</sup> Technology-related violence infringes on women’s right to self-determination and bodily integrity. It causes psychological and emotional harm, reinforces prejudice, damages reputation, causes economic loss and poses barriers to participation in public life. In some cases, it leads to sexual and other forms of physical violence.<sup>122</sup>

Different forms of VAW can be accelerated and expanded through ICTs. This includes control of women’s mobility and independence, trafficking, stalking and harassment. ICTs offer new ways to control or constrain women’s independence and mobility, such as geo-tracking and surveillance or monitoring of mobile phone and computer use. The use of mobile phones has cited as a cause of marital tension, sexual harassment, and even violence – in all regions.<sup>123</sup> Women and girls who use mobile phones may be viewed as transgressing gender norms by interacting with men outside the family without informing other household members. As a result, they may be prohibited from owning or using them.<sup>124</sup> Many felt that paying for women’s internet use was not a good use of household resources. Monitoring technologies are commonly used in intimate partner stalking and surveillance of women.

In Cambodia men used GPS and spyware devices to secretly monitor their female partner.<sup>125</sup> Threats to share sexualized content online to humiliate the stalker's target, are common.<sup>126</sup>

The influence of the use of ICTs on human trafficking should also be noted. Trafficking is the movement or trade of people for the purpose of forced labour, sexual slavery, or commercial sexual exploitation. The rise of the Internet, mobile phones and social media has provided new opportunities for human traffickers to reach larger audiences and extend the reach of their activities. Social networks and online classified sites are used by traffickers to market, recruit and sell sex services, often on legal sites such as Craigslist, Backpage and Myspace, in mainly two ways: (1) via online classified sites to advertise sex and labour services, and (2) via social networking sites to recruit victims. While the trafficking of minors is expanding across different social media, the "rise of mobile phones may fundamentally transform the trafficking landscape".<sup>127</sup> As a tool for real-time communication and coordination that is not limited by physical location, mobile phones are providing unprecedented opportunities for traffickers. Online advertisements require the dissemination of a mobile phone contact number and various detailed information including time, place, types and prices of services are shared through phone calls or text messages. Posting, viewing and responding to advertisements is increasingly being undertaken via mobile phones given that a growing number of websites have developed mobile applications. Since they are not tied to a location, it is more difficult for both traffickers and clients to be identified and located. Many of these phones are pre-paid, pay-as-you-go or disposable phones, purchased without a long-

term contract and with service and features paid for upfront – facilitating anonymity because the personal identification or credit check required for a contract are not done.<sup>128</sup>

Mobbing, stalking and harassment are old forms of violence which can be facilitated and expanded by new technologies. Indeed, online platforms are an expanded venue for harassment since they are anonymous and not tied to location. Telephone harassment and stalking have been identified as a major problem in several region. In a Pakistan survey, 30% of women reported being sexually harassed over their mobile phones, either through social media such as Facebook, direct texts, or phone calls.<sup>129</sup> A survey by the Egyptian Centre for Women's Rights found that 80 per cent of female survey respondents experienced sexual harassment, with a significant portion of this harassment taking place over mobile phones.<sup>130</sup> Examples included the attempted blackmailing of women by men who threaten to disseminate their pictures<sup>131</sup> or numbers publicly when women stopped to talking to them.<sup>132</sup> In Pakistan, a 16-year-old girl who was unknowingly videoed with her boyfriend was blackmailed into having sexual relationships with the perpetrators.<sup>133</sup> A common form of harassment in many countries is mobile texting by men who get hold of the phone numbers of women through commercial or other sources. In Egypt, one woman was quoted saying, "Some of my friends have stopped using their phones. Every woman has patience but there is a limit. Some women cannot bear constant phone calls from strangers".<sup>134</sup> In India, a recent study by "Truecaller Insights" found that 1 out of 3 women (36 per cent) in India receive sexual and inappropriate calls or texts, 78 per cent receive harassing calls with inappropriate and sexual content at least once a week and 82 per cent

receive unsolicited videos and pictures with inappropriate and sexual content at least once a week. Elsewhere, mobile phone recharging outlets have been charged with selling phone numbers of young women to men.<sup>135</sup>

Women who have a well-known online profile, such as bloggers, journalists, activists and leaders, often experience online abuse and threats. GamerGate, for example, revealed an aggressive male gaming subculture that perceived women as sexual objects. Women gamers who voiced objections to this were assaulted, harassed and threatened with rape and even death.<sup>136</sup>

New forms of violence are facilitated by technology include “doxing” (the publication of private information, such as contact details, on the Internet with malicious intent), “sextortion” (the use of ICTs to blackmail a victim), and “trolling” (posting messages, images, videos and creating hashtags to harass or provoke VAW).

To combat these forms of cyber threats, reforming and strengthening legal, regulatory and procedural frameworks are a necessity as is awareness-raising among individuals and institutions of such risks and their impact on work and personal life.<sup>137</sup>

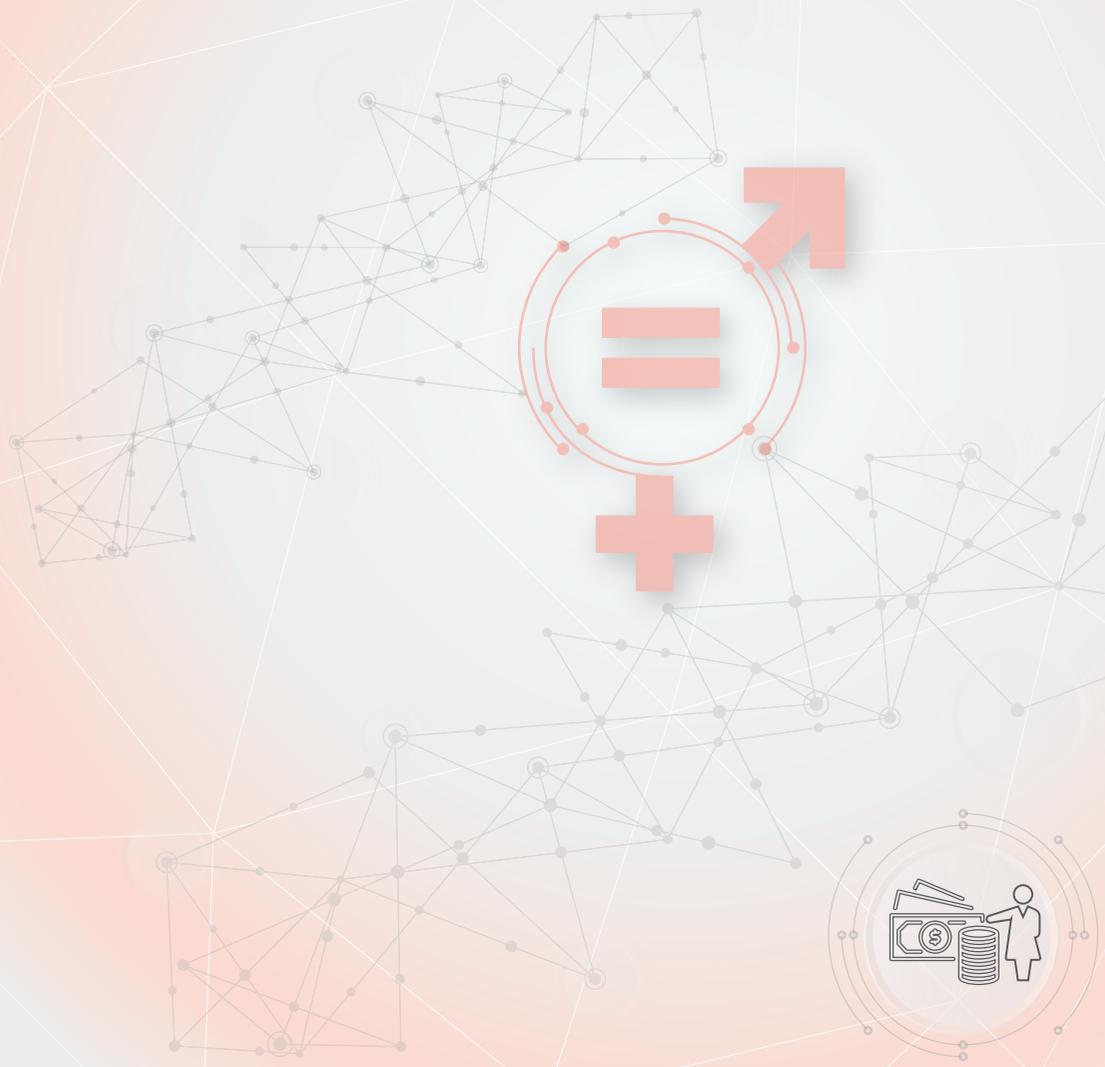
In summary, ICTs, can contribute to reducing VAW and harmful practices when used as means to confront gender attitudes and

norms in society, as highlighted in chapter 1. They enhance the sense of safety and security of women and girls. They support women and girls in disseminating news and information on abuses against women. Stories from alternative sources can be disseminated, as well as alternative commentary on mainstream news and information. Hashtags can be used to target specific audiences or to help social media-based support and advocacy groups connect with each other. In conflict situations, both new and traditional ICTs can be used to connect women to relief and support services, allowing them to connect with each other and their families, and identify perpetrators of war crimes.

Nevertheless, to expand the opportunities ICTs can offer in the elimination of VAW and harmful practices, it is important to prevent technology-related violence through the development and enforcement of laws, regulations and governance mechanisms that would stop perpetrators from committing these acts. This would complement the significant efforts exerted by the Arab States, mentioned in Chapter 1, to reform their legal frameworks to protect women and create a comprehensive legal corpus to eliminate VAW and harmful practices.

Provided this is achieved, women’s agency to acquire ICT skills and be aware of the regulations framing their use are core to avoid exploitation and abuse via these tools and key drivers to use them to accelerate the achievement of gender equality.





## **4. Economic Participation of Women and the Role of ICTs**



## 4. Economic Participation of Women and the Role of ICTs

**Target 5.4:** Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate.

Economic empowerment entails increasing alternatives and the ability to access job markets, earn incomes and participate in the management processes. Several barriers block women's economic empowerment including their overrepresentation in unpaid care activities and lack of access to necessary resources including information, physical assets and financial support and services. Most of these barriers stem from the gender norms and power structures.

Achieving the economic empowerment of women is linked to many SDGs and targets, including poverty eradication, education, social protection systems and economic and productive resources. Attaining full and productive employment and decent work for women is a prerequisite to inclusive and sustainable economic growth overall. Accordingly, ensuring women's economic rights and particularly their equal access to land and resources, including financial services and control over income, equal opportunities for equal pay and suitable working conditions, are core issues to accelerate the achievement of the

2030 Agenda. A major issue that directly impacts women's socioeconomic empowerment is the unpaid care work that impedes their participation in the paid labour market. The SDG framework stresses the importance of addressing all these issues and considers ICTs as one of the means to address them.

All over the world, women undertake almost 75 per cent of unpaid care work. According to the Organisation for Economic Co-operation and Development (OECD), men spend approximately one hour per day on unpaid care work compared to five hours for women in the region (figure 6).<sup>138</sup> Unpaid care tends not to be recognized as work and are therefore not valued. This means that governments do not include this work in national assessments of the labour force, policy and/or investments in the economy. Unpaid work consists mainly of domestic work and "community or volunteer work. Domestic work includes food preparation, dishwashing, cleaning and upkeep of a dwelling, laundry, ironing, gardening, shopping, installation, servicing and repair of personal and household goods, childcare, and care of the sick, elderly or

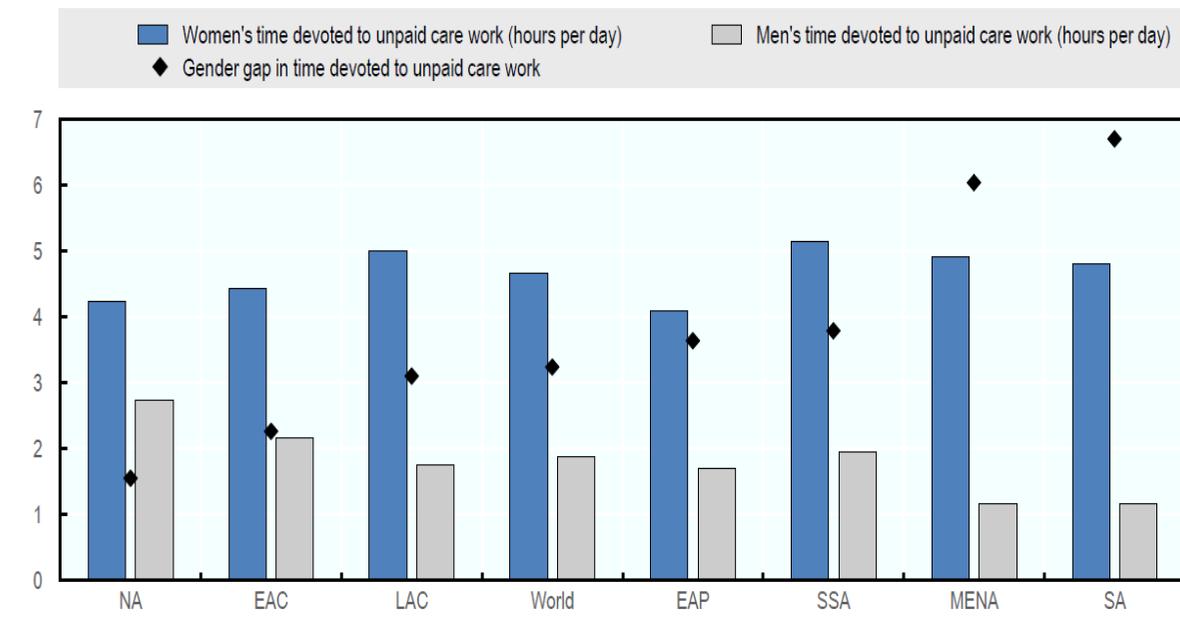
disabled household members, among other activities".<sup>139</sup> Community or volunteer work includes volunteer services for organizations, unpaid community work and informal help to other households, among other activities. The unequal distribution of this type of work – between women and men and between families and societies more broadly – is a major constraint to gender equality. According to UN Women, “across the globe, women and girls perform the bulk of this work, leaving them with less time for education, income generation, political participation, rest and leisure”.<sup>140</sup>

Women also engage in a range of businesses and livelihood activities, although they tend

to be highly represented in the informal or microsector as petty traders, small producers and in a range of casual jobs (more so than men in many regions).<sup>141</sup> Furthermore, social norms may restrict women’s mobility and mandate that they prioritize family over career.

This chapter explores the possibilities ICTs offer to increase the participation of women in income-generating and entrepreneurial activities, enhance the access of women to information and financial services as necessary resources for economic empowerment and mitigate the precarious working conditions of women.

**Figure 6. Regional gender gaps in unpaid care work**



**Source:** OECD Gender Institutions and Development Database (GID-DB), 2019, [oecd.stat.org](http://oecd.stat.org).

**Note:** This graph shows regional gender gaps in time devoted in unpaid care work. NA stands for North America, ECA for Europe and Central Asia, LAC for Latin America and the Caribbean, EAP for East Asia and the Pacific, SSA for Sub-Saharan Africa, MENA for Middle East and North Africa, SA for South Asia.

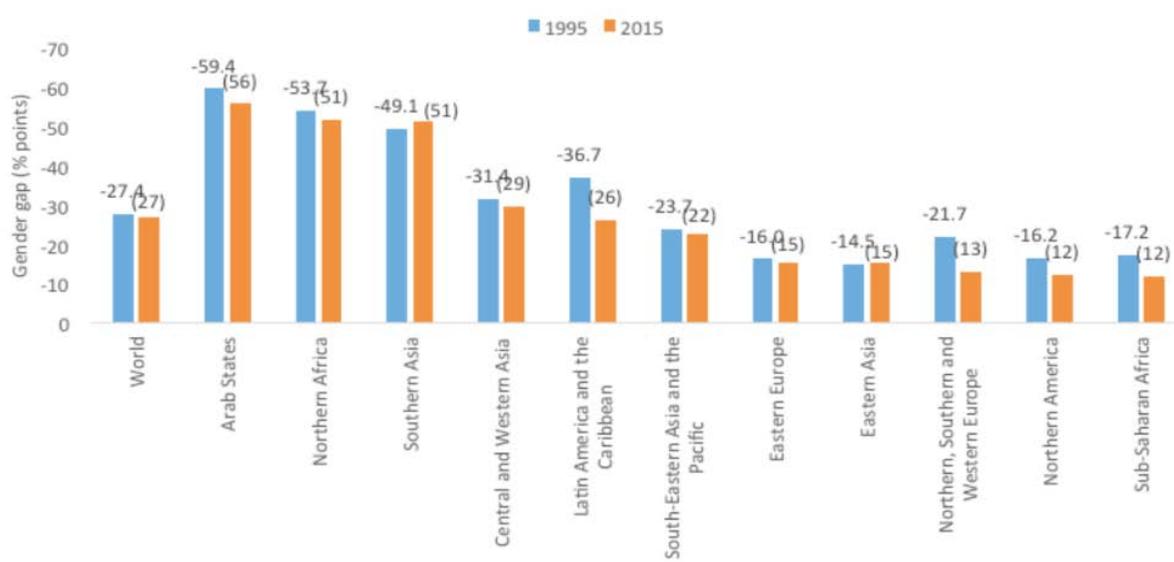
## A. Goal 5 – target 5.4: Regional overview

Gains in educational attainment for girls have not translated into an increase of female participation in the labour force. As of 2018, the global unemployment rate of women of 6 per cent was approximately 0.8 percentage points higher than that of men, leading to a ratio of female-to-male unemployment rates of 1.2 in 2018.<sup>142</sup> This ratio is expected to stay stable until 2021 in developing countries and to increase in both developing and emerging countries. According to McKinsey & Company, \$12 trillion could be added to global GDP by 2025 by advancing women's equality.<sup>143</sup> Gender parity is not just an ethical or moral issue, but also an economic one.

According to the Global Gender Gap Report of 2018, 19 countries, predominantly from the Middle East and North Africa, region have yet

to close at least 50 per cent of their gender gap in the index on economic participation and opportunity.<sup>144</sup> The labour force participation rate for men in the Arab region reached 77 per cent compared to 19 per cent for women. The unemployment rate for men in 2018 reached around 7 per cent compared to more than twice for women at around 16 per cent.<sup>145</sup> The gender gap in the labour force participation in the region declined slightly to about 58 per cent in 2018 compared to 60 per cent in 1995.<sup>146</sup> However, Arab countries have the highest labour force gender gap which stands out compared to the rest of the regions over the same period (figure 7).<sup>147</sup> Sectoral and occupational segregation is noticeable since men and women have access to different jobs. The fact that women can often only access inferior quality jobs which expose them to higher rates of vulnerable employment including in the informal sector where their work is not accurately measured.<sup>148</sup>

**Figure 7. Regional gender gaps in labour force participation**



Source: ILO, 2017.

Unpaid care work is one of the main reasons behind the bleak situation regarding women's economic participation. Women bear most of the daily care of children and other household tasks. Women in the Arab region spend 5 hours 48 minutes per day on this work compared to 1 hour 10 minutes for men.<sup>149</sup> Globally, the lowest employment rate is registered by mothers of children aged 0-5 years compared with fathers, non-fathers and non-mothers of young children. In 2018, this rate was 47.6 per cent globally compared with just 9.3 per cent for mothers of children aged 0-5 years in the Arab region – the lowest employment rate in the world.<sup>150</sup>

Despite the difference between several Arab States, common patterns of women's labour force participation and employment are observed throughout the region namely: (1) low participation rates; (2) concentration of women in occupations and job fields that confirm the prevailing gender norms, especially in social and public services; (3) minimal participation of women in administrative and managerial positions; (4) age, marital status and household headship being significant barriers to women's participation in the labour force; and (5) the persistence of high unemployment rates among women since the mid-1990s.<sup>151</sup>

This situation is rooted in widespread gender norms about the different roles of men and women. According to a perceptions survey conducted in four Arab States, the role of women is still largely perceived to be as wives and/or mothers.<sup>152</sup> The majority of men and women still support the priority of men's access to the job market over women.<sup>153</sup> Attitudes arguing for the complementary roles of men and women, whereby men are the breadwinners and women take care of the children and the home, continue to prevail in the region.<sup>154</sup>

The deficiencies in institutional structures and mechanisms to modify these norms so that household and family responsibilities are considered as something to be shared between women and men contribute to persistent gender inequality. Policies in place tend to perpetuate the understanding that household chores and family responsibilities are to be assumed by women and both public and private services are necessary to relieve women from the double burden of unpaid care.

Women's paid work does not systematically nor necessarily translate in bridging the gender wage divide. For example, the pay wage gap by sector in Jordan is 41.3 per cent in manufacturing, 27.9 per cent in health and social work and 24.5 per cent in education.<sup>155</sup>

The above-described elements constitute major barriers to women's empowerment as they hinder their access to resources and negatively affect their agency. Obviously, legal frameworks with discriminatory biases need to be reformed to support equal access of women to resources and to support their efforts to participate in the labour efforts. Putting in place mechanisms to ensure the legal framework is also a necessity. Furthermore, significant and sustained progress is still needed to provide alternatives to issues related to unpaid work. ICTs offer a substantial opportunity to be seized in this area.

## B. ICTs: A means to engage women in income generating and entrepreneurial activities

ICTs can provide a means for women to generate income from activities derived from their presumed gender roles and unpaid work activities. Examples include the Asian

Development Bank-funded Plant Doctor programme, started by a housewife who established a business advising Bangladeshi farmers over a mobile phone on their crop production.<sup>156</sup> Another is the virtual network “www.ehomemakers.net” which promotes work from home, telework and the running of Small Office-Home Office (SOHO) businesses. It supports more than 10,000 women in Southeast Asia to work from home, hosting an e-community of homemakers and “homepreneurs”. It also raises the profile of unpaid and home-based work in Malaysia by advocating for reduction of exploitation in the homeworking sector and the inclusion of homeworking in the formal sector. In another example, the Ministry of Women’s Empowerment and Child Protection for Gender Mainstreaming in the Economy in Indonesia is promoting entrepreneurship for mothers and housewives through use of the internet to increase household income. Platforms such as Facebook are viewed as more efficient and effective for microenterprise development than traditional media.<sup>157</sup> The Arab region also is home to several initiatives on the issue. For example, the “Yummy” food delivery application in Libya delivers homemade meals cooked by women in their own kitchens. It connects women who cook at home with customers wanting to order food. It offers anonymity options for the cooks and allows women to take food orders from men without having to speak to them. Over 300 cooks participated at the time of start-up in late 2018.<sup>158</sup> The “Women Weavers in Morocco” project enables women weavers from rural Moroccan villages to sell hand-made rugs directly over the internet, thus maximizing profits. About 50 women of all ages participate in the project and determine their own prices for the rugs, pillows, and wall hangings in traditional local designs.<sup>159</sup>

Technological advancement has given rise to a growing digital economy which continues to create new forms of work leading to a transformation of the employment landscape. Even so, unemployment remains a major development challenge globally and in the region. In developing countries, ICT is a growth sector which offers employment and income opportunities for skilled and qualified women. According to data available in 2008, women occupy 30 to 40 per cent of total employment in the Egyptian ICT sector including 35 per cent in traditional, landline communication and 27 per cent in mobile communications.<sup>160</sup> In Bangladesh women previously employed in the garment factories have moved to the microchip manufacturing factory lines. Jobs related to data-entry, call centres and telemarketing in the country are predominantly filled by women.<sup>161</sup>

A McKinsey survey published in 2011<sup>162</sup> found that “among the countries which account for more than 70 per cent of global GDP, including G8 countries, Korea, Sweden and the large, high-growth economies of Brazil, China and India, the ICT sector appears to have delivered substantial economic growth and created jobs on a large scale. While the survey is by no means the final word on the impact of ICTs on the global economy, it found that the Internet is, and will remain over the coming decades, one of the biggest drivers of global economic growth”.

There are notable contributions for ICTs in entrepreneurship. Women entrepreneurs can use new opportunities to use mobile phones, electronic platforms and networks, radio, television, blogs and the Internet, to access the markets and run their businesses. Effective use of ICTs allow women entrepreneurs to circumvent numerous challenges in both developed and developing countries.<sup>163</sup>

These challenges include lack of access to markets and access to tools.<sup>164</sup> In the Arab region, ICTs are viewed as a promising option to support women's entrepreneurial activities in different locations on a flexible time schedule. It should be recognized that programmes to support women's home-based enterprises are only partial progress towards empowerment, since they do not challenge social norms that consider women's role as the family managers in the home. However, they may be viewed as instruments that move women closer to economic empowerment by increasing their access to resources. In Bahrain, the Ministry of Industry, Trade and Tourism launched a new initiative in 2017 called "SIJIL" to register establishments that do not have a fixed address and legalize their presence. The owners of these establishments function remotely from different locations without a specific address using ICTs. Accordingly, a Bahraini citizen can obtain a commercial register that legally enables him or her to perform certain commercial activities without the need to register the establishment at the address of an office or headquarters. The most important added value is that this initiative provides flexibility to the entrepreneurs, legalizing the business' status and allowing it to sign contracts with companies that require a commercial record. By the end of 2017, 238 women had benefited from this programme and registered virtual establishments.<sup>165</sup>

The role of mobile phones and computers in decreasing transaction costs, increasing direct contact with suppliers and clients and improving marketing are important ingredients for improving business profitability of women's enterprises in particular, due to their restrictions

of mobility, time and resources. The example of a women's farming cooperative in Lesotho demonstrates the opportunity provided by the spread of mobile phones. Since transportation infrastructure in the region is poor, travelling even short distances was expensive and time-consuming. Distances to markets and major centres could involve a 16-hour round trip by taxi costing ZAR130 (approximately US \$13 at the time) and requiring an overnight stay. In this case, ICTs not only contributed to reducing prohibitive transportation costs, but also increased productivity and marketing opportunities. Using their mobile phones, women farmers were able to get market prices ahead of time without needing to travel in person to have access to the information. They were also able to better coordinate product exchange with other cooperatives. Groups in the lowlands would swap maize for wheat from the highlands. External trade outside the cooperative improved: a surplus of beans in one region was taken advantage of through the ability to contact potential markets. Mobile phones also provided the basis for new income-generating activities such as trading airtime vouchers which involved the purchase of discounted airtime vouchers by the cooperatives from outlets in the town for sale in their local communities. Despite very small margins on each sale, the cooperative has expanded the number of mobiles collectively owned and held by members from 10 to 27 – and 17 new phones were purchased from the sale of airtime over four years. The profits from airtime sales also allowed members to diversify agricultural activities by investing in livestock, a savings wheel, buying and selling second-hand clothes sourced from a major city, and investing in tourism activities.<sup>166</sup>

### Box 2. “Forsati for Her” in Bahrain – women’s socioeconomic empowerment

The University of Bahrain (UoB) launched the “Forsati for Her” project in 2018, in partnership with United Nations Development Programme (UNDP), Microsoft, Think Smart and Tamkeen. It aims to educate 3,000 female programmers with the goal of setting up tech businesses, working on the assumption that the road to becoming an innovation economy starts with having skilled human capital. The project is part of UoB’s five-year Transformation Plan, developed in 2016, to make science, technology, engineering and mathematics (STEM) education attractive, improve access to technology education, widen the active participation in digital literacy, play an active part in the entrepreneurship ecosystem and increase working partnerships.

This initiative designed to develop highly skilled female programmers came online in parallel with the launch of the FinTech Bay and the startUp Bahrain initiatives.

## C. ICTs: A means to increase access to financial services

Billions of people across the developing world do not have access to banks or bank services, and a financial gender gap ranging between 8 per cent to 16 per cent exists across the developing world.

A study conducted by the Union of Arab Banks shows that the Arab region has the one of the lowest levels of financial inclusion in the world. Also, as shown by the Global Findex database, account penetration is even lower for women in the region and the weighted average of the account penetration stands at 24.5 per cent – exposing a significant gender gap.<sup>167</sup>

Digital transfers and payments improve access to finance for underserved groups, save time,

increase the use of formal savings and reduce business costs – thereby improving resilience of households. It can give women greater control over the money they earn. The 2017 Global Findex database includes several indicators on the use of technologies in formal and informal financial services such as the use of mobile phones to undertake financial transactions. It compiles national data of more than 150,000 adults in over 140 countries. According to this database, there are opportunities to expand the digital financial services among those who do have an account but also develop “the unbanked” services by providing access to financial services to people who do not have an account.<sup>168</sup>

Studies in Afghanistan, Bangladesh, India and Niger found that some barriers can exist, including gender-based barriers to account access and use.<sup>169</sup> Nevertheless, digital money transfers have a great potential to support women’s wide range of care work and paid activities, as well as to reduce poverty and increase their empowerment and agency through better and increased control and access to financial resources. Mobile money allows monetary value to be stored on a mobile phone and sent to other users via text message. It has been adopted by most Kenyan households and recent research estimates that it has increased per capita consumption levels and lifted 194,000 households out of poverty. These effects are more pronounced for female-headed households and appear to be a result of increased financial resilience and savings. As a consequence, more women are moving out of agriculture and into business.<sup>170</sup> In another study in Kenya, it was found that Vodaphone’s M-Pesa money transfer services give women the ability to save money in a safe place and to monitor spending more effectively. It also reduces the ability of their husbands to manage

their savings, allowing women to expand their businesses, send children to school and meet other household needs.<sup>171</sup> Results have also been documented for women's increased financial autonomy and welfare because of digital money.<sup>172</sup>

Bitcoin, a digital currency platform, could also be an alternative to traditional banks and money management services for women. It may be especially useful in facilitating remittances. A women's education programme in Afghanistan, run by the Women's Annex Foundation, is experimenting with this, teaching young women and children how to use Bitcoin. Some of the women are paid in Bitcoin for articles and blogs they write, to allow them to make their own decisions on how they spend their earnings.<sup>173</sup> It can also promote crowdfunding for women's activities. Bitmari,<sup>174</sup> an African Bitcoin wallet service, provides diaspora communities with relevant financial tools. This project is using crowdfunding to collect Bitcoins and provide funding to 100 women farmers. BitGive<sup>175</sup> takes advantage of digital financial instruments in the environment globally, with a focus on women and girls. The goal is to facilitate the transfer of money and aid to organizations in the developing world with minimum transaction and service fees, increase the transparency of donations and minimize vulnerability to fraud, corruption and mismanagement. Women's Coin is a series of digital strategies for women's access to credit and finance. Beneficiaries access preloaded top-up cards transfer funds in local currencies, and users and donors can buy and send coins over the Women's Coin website. Transactions can be made across borders without fees or delays and can be in the form of person to business, person to customer or person to person, with the purpose to increase security, and prevent fraudulent use of cryptocurrency. A mobile app is in development.<sup>176</sup>

## D. ICTs: A means to increase access to information

Ensuring women have access to information and knowledge that they value and can use effectively is an important step towards gender equality and women's empowerment.<sup>177</sup> Women use and value a wide range of information, related to their household, family and childcare responsibilities in terms of providing for the health, food, and education of family members. Martin and Abbott<sup>178</sup> found that more women (36 per cent) than men (15 per cent) adopted the mobile phone solely for kinship maintenance in Uganda. GSMA surveys on women's information priorities found that for rural women, housing and health care, particularly for their children, is a primary concern, as is education access and stable income.<sup>179</sup>

Women have fewer resources and lower access to information to support their household and productive activities. This inhibits their ability to adopt new techniques and practices in agricultural production, household energy use and access to water.<sup>180</sup> For example, "NextDrop" is a mobile application used in India to spread information to its users specially women about the location of clean water.<sup>181</sup> Such initiatives are of significant importance as context-specific gender differences in household responsibilities, social norms, lower literacy rates, or male bias in extension services can restrict rural women's access to agricultural information.<sup>182</sup> Actively involving rural women in the design of the services, while adapting communication channels to consider their concerns, responsibilities, travel and mobility capacity and schedules, can reduce the barriers they face in accessing these services.<sup>183</sup>

Food production and processing activities take up a large amount of rural women's time,

much of which is unrecognized as work, and as a result, unsupported. The use of ICTs to access agricultural, weather and climate information increases women's food production and household food security, it also contributes to their participation in household decision-making around food production and use of the increased income they help generate.<sup>184</sup> An innovative project in Egypt investigated whether a web-based agricultural extension programme could support women to manage their own land. Web-based research by women on agricultural production and management increased their confidence in their abilities. With this increased knowledge they convinced their male relatives that they were equally capable of managing the farm and became more involved in the household farms as a result. Revenue from crops on 16 of the women farmers' lots increased by 40 per cent over two successive planting seasons. Fourteen women out of the 20 became managers of their own land. Access to a computer and the Internet allowed them to start selling their products to national and international agricultural marketing companies, in turn increasing their revenues and recognition from male family members.<sup>185</sup>

### E. ICTs: A means to mitigate precarious working conditions

The work undertaken by female migrants in caring for other people's families is an aspect of women's care work that is not necessarily well recognized. Although paid, it tends to be low-wage and precarious. Workers often experience job insecurity, poor working conditions and little recourse if they find themselves in an abusive or unfair working situation. Overall, women and young migrants are particularly vulnerable.<sup>186</sup> Women migrants can use ICTs via mobile phones to find and establish social support

networks to reduce stress, access support services and successfully navigate the conditions in their new country. Enhancing social welfare is also an important aspect of technology and very important for women. Connections enabled by mobile phones and social media allow women to overcome the constraints of busy work schedules, isolated working conditions and long distances from family and friends, to maintain ties with children and family members and retain a sense of control over their lives. They are also able to maintain and develop social networks at home and in their new positions that allow them to promote their own development, support each other, and develop a sense of solidarity and strength in a precarious work and personal environment. A study in Singapore found that use of phones alleviated stress for migrant Filipina domestics primarily by increasing their sense of social and emotional support.<sup>187</sup> Chinese women migrants used mobile phones for social networks in their new homes to maintain ties with family and friends back home in rural villages through both direct contact and the sharing of pictures. Even when prohibited from using the phones at work, they found ways to maintain these connections.<sup>188</sup>

Distance parenting or family care is of increasing relevance as rural out-migration increases in many regions. Migrant parents in many countries use phone calls, text messages, social media, email and video conferencing to maintain a connection with home, but these technologies have limitations, including cost and the type of communication they can enable.<sup>189</sup> The ubiquity of mobiles allowed migrant Filipino mothers to reach family members individually on their own phones, rather than speak to whoever happened to be at home when they called. Being able to call their children individually meant they could check

that their child had returned from a night out and that he or she had done their homework. However, the cost of the calls meant that children were not able to reach their mother – although they were able to use texts or missed calls to signal to their mothers that they wanted to talk.<sup>190</sup>

In general, use of mobiles enables overcoming the problems of distance in maintaining family relationships and social networks. In one example, a woman was able to connect with her parents as well as practice “remote mothering” of her children who lived elsewhere.<sup>191</sup> One woman found that a mobile phone changed the way she interacted with her mother, brothers, two grown-up children and other relatives. It made up for her physical absence by allowing her to contribute to resolving family problems from afar. It was also very useful for organizing social events and meetings with other women.<sup>192</sup>

By increasing women’s opportunities to benefit from financial, information and educational resources, ICTs promote women’s agency through the ability to counteract their dependence on unpaid work, make informed decisions in all parts of their lives, increase their participation in household decision-making, and increase recognition for their contributions to household income and status. As such, they constitute an important tool for empowerment.

In summary, ICTs, as means to confront norms and stereotypes and eliminate VAW and

harmful practices, can pave the way for women’s economic empowerment. ICTs can provide alternatives to unpaid work, by providing the means to convert women’s unpaid work into income-generating activities or allowing women to develop businesses while engaging in their unpaid care activities at home. Access to mobile and virtual finance presents the potential to close the gender finance gap in the developing world and has been demonstrated to increase women’s decision-making in the household, access to finance and promote the development of women-run enterprises. Access to a range of information such as on land rights, agriculture and food production, nutrition, health and employment opportunities are critical factors for allowing women to make decisions in their domestic and working lives. ICTs provide a significant potential to support women’s entrepreneurship, decrease the precariousness of working conditions and offer support channels for migrant workers.

The examples provided in this chapter go a long way to affirm that nowadays, ICTs go hand in hand with most forms of entrepreneurship that are presented to the market. On this note, it is important to highlight the role of ICT-based innovations in fostering the achievement of gender equality and women’s empowerment. The region has embarked on a wave of innovation, but much effort still needs to be exerted to explore how innovation policy can be applied to tackle key issues such as youth employment and gender equality.<sup>193</sup>



## **5. Women's Participation in Public Life and the Role of ICTs**



## 5. Women's Participation in Public Life and the Role of ICTs

**Target 5.5:** Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.

Women's full and effective participation and equal opportunities for leadership at all levels of decision-making, in political, economic and public life, is a condition to ensure that the outcomes of the development process equally benefit all according to their needs and in a sustainable manner. Women's participation in decision-making is necessary to the realization of various SDGs including reducing inequalities and promoting peaceful and inclusive societies, increasing productivity and contributing to economic growth, improving health outcomes, participating to reducing climate change and sustainably managing natural resources. The SDG framework stresses on the full and effective participation of women at all levels.

Women are involved in various roles at different levels of government. They vote, run in local and national elections, sit in local councils, governments and parliaments and they also lead governments and States. Nonetheless, gender norms and expectations heavily influence their women's political participation that remains far from being on equal basis with

men. Their ability to be heard in politics is limited and their perspectives not often considered.<sup>194</sup> Women's leadership and political participation are restricted at all levels. Discriminatory norms, laws and institutions are among the barriers that face women's participation in political sphere as they reduce their options to run elections. Women lack the capacity-building and knowledge-sharing opportunities necessary for effective leadership not only in the political arena but also in the private sector where women also remain underrepresented in corporate boards and in managerial positions despite evidence that shows that women's involvement is associated with increased profits.

Participation in leadership and decision-making at all levels of society and government is one indicator of the level of empowerment of women in society. This chapter examines how the use of ICTs can support women to increase their voice in political discussions, to enhance their political participation, leadership and decision-making, and to support the provision of public services.

## A. Goal 5 – target 5.5: Regional overview

Although women's political representation in the Arab region has seen progress since 2010, it remains low compared to the global average at various governance levels. Gains in the region were minor, such as the increase in women's representation in senior executive posts to 9.7 per cent in 2017 from 9.5 per cent in 2015. Women's representation in the Government of Tunisia rose significantly from 10.5 per cent in 2015 to 23.1 per cent in 2017, after two additional women joined the government, while the United Arab Emirates increased women's presence in government to 26.7 per cent in 2017.<sup>195</sup>

The Arab States have made significant inroads over the past 10 years to ensure greater gender inclusiveness in the conduct of public affairs. In 2016, women's share of seats in parliament (both houses combined) increased by just over half a percentage point (+0.5 points), to 18.0 per cent, which is still far below Europe and Americas where women make up between 28 to 31 per cent of seats in government. Much of this gain has come as a response to increasing public and international pressure for greater transparency and democratic accountability. Women held around 15 per cent of the parliamentary seats in Egypt in 2015 and in Jordan in 2016. This figure increases to almost 20 per cent in Morocco (2016) and Mauritania (2018) and to 25 per cent in Iraq (2018).<sup>196</sup> Only Tunisia has passed the 30 per cent female political representation level called for in the Beijing Platform for Action.<sup>197</sup>

The representation of women in cabinet positions is improving in the region. However, women are generally assigned portfolios corresponding to traditional social roles,

such as education and health.<sup>198</sup> Similarly, representation of women in the judiciary is improving following a slow and uneven path. In 2016, women were represented in only five constitutional courts (or the equivalent) in the region.<sup>199</sup> Data on the representation of women in local councils is scarce, but the available numbers demonstrate that women are poorly represented in local councils in most countries, with women mayors particularly rare in larger municipalities.<sup>200</sup>

This relatively low political participation of women is intricately related to various factors discussed in the previous chapters including the gender norms and their considerable influence on the legal frameworks in place; the high prevalence of VAW; the low economic participation and the lack for financial means, to name a few.

## B. ICTs: A means to support women in politics and decision-making

Creating communities and public spheres for women where they can participate is integral to supporting women in politics and decision-making. Virtual communities can enable the exchange of information, support advocacy networks and assist in the development and leadership of campaigns among a wider group of people. They provide alternative channels for self-expression and interaction in the public and political sphere for girls and women, enabling action regardless of physical or geographical location and allowing those who might be otherwise inhibited or constrained from doing so by social, political or gender constraints, to publicly express their concerns. Once concerns and messages are online, they are spread widely and quickly through many different media platforms.<sup>201</sup> ICTs can also provide new

opportunities for women by breaking the boundaries between the public and private spheres as they help women express themselves anonymously, which is important if their freedom of speech is limited or if they feel vulnerable to potential repercussions. For example, some young Iranian women who would not ordinarily engage in public media use blogs and other digital platforms to share their views publicly.<sup>202</sup>

A global survey by the National Democratic Institute on Women, Technology and Democracy found that participants were most likely to use ICTs for political purposes to communicate with others, share information and access it, with regional differences: women in the Middle East and North Africa, Europe and Central Asia are most likely to use ICTs to engage in discussions (52 per cent and 49 per cent, respectively), while women in Europe and Central Asia (53 per cent) are significantly more likely to use ICTs to participate in online networks. The numbers of women in Latin America and MENA are also quite high (40 per cent), with women in sub-Saharan Africa and Asia being much less likely to use ICTs for political engagement.<sup>203</sup>

There are many examples of use of ICTs to interact with policymakers to register claims and concerns, improve local conditions and increase the quality or quantity of government services. In Niger, the power of women in community radio listening club proved to increase as they succeeded to obtain a lease on land to undertake their activities on the long run following negotiations with the local authorities. Three women members of the listening club were included by the village chief in traditional decision-making meetings in Borobon village.<sup>204</sup> Women from Mahila Milan, a grassroots organization in India, were able to influence

local authorities during a slum reconstruction process by sharing their vision of why their housing should be using geographic information systems.<sup>205</sup>

ICTs are also used to access important civic information. In many regions, land rights and access are a major barrier for women – despite laws in place in many countries which guarantee women’s rights to land and inheritance, custom and discriminatory practices restrict women’s access.<sup>206</sup> Various digital strategies inform women of their right to land, support access to documentation and promote coordination with local and district authorities. For example, they can be used to support the monitoring of land grabs, such as in Kenya, where women used mobiles phones to exchange information between “watchdog” groups in different areas and to report cases of land grabbing.<sup>207</sup>

New forms of communication and interaction for women make networking easier and widen the range of networks. There are many examples of online women’s movements organized through digital media or expanded by its use. During the 2009 military coup in Honduras, “Feministas en Resistencia” recorded crimes committed by the military that were put up on YouTube. Women’s groups engaged in protests and lobbying across the region and secured support for their cause.<sup>208</sup> Likhaan (Centre for Women’s Health), a grassroots organization in the Philippines, has been actively involved in a decade-long campaign for the passage of a reproductive health bill. Different forms of online media were used to portray the realities of women and youth in marginalized communities in the reproductive health debate. Women and youth from marginalized communities were trained to become community journalists and wrote blogs

for an online magazine on the importance of sexual and reproductive health services for their well-being. The aim was to influence lawmakers directly and generate general public support, contributing to the campaign for a reproductive health law. In late 2012, the law was enacted in the Philippines.<sup>209</sup>

In the Arab region, social media can be a positive platform for women to express their views. In many cases, it leads to offline organization and advocacy by reducing the need for travel for face-to-face meetings and reducing the risk of publicly expressing their views. A campaign to lobby Arab governments to lift all reservations on CEDAW was successful partly because campaign members were able to develop a trans-national network of support and coordination via Internet and email, as well as to gain international support.<sup>210</sup>

Social networking sites allow communication with fewer resources than mainstream media channels and reduce control by men over women's engagement, resulting in expanded mobilization. The rise of the use of social media by women, as seen in the Arab uprisings, is contributing to changing gender norms in the region, by providing spaces for women to voice their opinions and advocate for change. In fact, it is argued that the Arab uprisings launched many Arab feminist movements for empowerment and emancipation, with men also participating.<sup>211</sup> Women in the Arab region were active on social media sites throughout the uprisings, using them to organize actions and interact with other activists.<sup>212</sup> Young Arab women's activism via social media was empowering since it helped them achieve leadership and visibility in challenging mainstream media coverage.<sup>213</sup> In Tunisia, Facebook gave voice to feminist organizations to mobilize public opinion in their favor.<sup>214</sup>

Women also used it (though less than men) for spreading information and raising awareness of the causes of the Arab uprisings, both inside and outside of their countries.<sup>215</sup>

By effectively using ICTs, women can organize, promote their messages, build campaigns and initiate new dynamics that can be taken up and further advanced through various actions.

In Indonesia, digital media training provided rural women with better social status in their communities. Because of the ICT skills they gained, they were asked to participate in village meetings to take part in documenting the discussions, gaining status, bargaining position and even influence in village policies.<sup>216</sup>

In Kenya, Kamba women who listened to the community radio station Radio Mang'etele were able to hear themselves on the radio providing market information, notification of social events, discussion forums and entertainment in the forms of radio vignettes and plays. The opportunity to interact with community leaders and programme hosts online to suggest programming and offer content, enabled them to speak out publicly and demand answers from local leaders. As a result, they experienced increased agency and positive self-perception as well as recognition of their input from the larger community.<sup>217</sup>

### C. ICTs: A means to promote women's political participation

Women can and do use social media, the Internet and other online platforms to support their leadership aspirations, promote their political agendas, develop networks and promote their political messages. In Uganda, a radio presenter used her radio programme to build a political career in Buganda. She used the platform to challenge patriarchal and cultural

perceptions constraining women's participation in leadership while creating a community of listeners who accepted both her message and her leadership. By the time she ran for political office, her supporters recognized her ability and fitness to compete with men.<sup>218</sup> In the Arab region, women candidates in the Jordanian municipal elections in 2013 were trained in strategies to reach potential voters, including through SMS. This election witnessed an unprecedented number of women elected to office – 36 per cent, up from 28 per cent in the previous elections.<sup>219</sup>

Online networks can also be platforms of mutual support and capacity development for women already in political office. The Women Mayors' Network (WoMN) is an international, nonpartisan membership organization to support women who are running municipal governments, connected to a Twitter campaign on #LeadingDifferently. The Network is open to women mayors of nationally significant urban centres and provides networking and support opportunities, including: technical assistance, an online platform for innovation and exchange; a biennial conference with executive training; and a prize for a project that improves gender equality.<sup>220</sup> The National Democratic Institute works to get more women into politics in several ways, including raising the awareness of politicians on VAW, collecting data on women's political participation and highlighting news stories about women in politics. Specific digital campaigns include #NottheCost: Stopping VAW In Politics and an online reporting mechanism for incidents of VAW in politics.<sup>221</sup>

In addition to promoting campaigns for political office and for justice for women in politics, increased knowledge gained through virtual media can support women to attain political positions. For example, the training of

indigenous women leaders in Bolivia in ICT skills is thought to have contributed to an increased number of women gaining political positions. Software such as Skype helped them to communicate with each other more easily and cheaply, which increased their confidence, as did their use of online platforms to broadcast messages to larger audiences. When one of these local leaders took up a national leadership position, she took the demands and concerns of local women leaders with her.<sup>222</sup>

#### D. ICTs: A means for governments to improve services for women and girls

Governments are increasingly using ICTs to promote inclusive citizens' participation and enhance access to information about public services and rights for women. Delivery modes overcome the barriers women face, such as physical distance, mobility and sociocultural restrictions on male and female interactions outside of the family. ICTs can be used to collect data to improve the targeting of services. For example, in Brazil the Programa Mae Paulistana aims to coordinate all the necessary care services for pregnant women. The programme found that using data to monitor and coordinate health provision resulted in the proportion of pregnant women who made all six recommended prenatal visits increased from 10 per cent to 80 per cent.<sup>223</sup> In South Africa, girls and boys identified spaces where they felt either safe or unsafe through a participatory mapping project in urban townships. The data mapped results were used by the Government to create new safe spaces where adolescent girls could meet to socialize in safety.<sup>224</sup> In India, "e-Seva Centres" are run by self-help groups of women from the poorest segments of society, with the aim to help them achieve economic independence. E-Seva Centres offer access to

Government services such as paying fees, applications, licenses, etc. The project claims its statistics suggest that citizens can save around \$0.10 per house as consumers of e-Seva services, leading to district-level savings of over \$100,000 per month. They also provide a sustainable income for the women running the centres.<sup>225</sup> In the Arab region, municipalities use social media such as WhatsApp and Facebook to reach their citizens – to announce events, send out public service messages and recruit volunteers, etc.<sup>226</sup> In Jordan, social media was used extensively in the 2017 municipal elections, to promote candidates, post live-stream footage, urge people to vote, rally supporters and discuss issues.<sup>227</sup>

In summary, online communities and spaces enable women to interact with each other for advocacy, networking and campaigns as well as to promote their own political aspirations and influence laws and policies in their countries and communities. While women with high public profile, including those in leadership, may be exposed to online abuse and violence as presented in chapter three, it provides them with an alternate channel to promote their perspectives and platforms in the political realm. Conversely, online and e-government services can improve the ability of governments to deliver public services to women, including through access to skills, where online and mobile capacity building formats can provide more options for women and girls in terms of time availability, literacy, mobility and cost.

Avenues for women's agency in the public realm are available, and their access

to important resources expanded. However, there is a need to continue enhancing the measures undertaken to promote the participation of women in the political arenas such the introduction of quotas to avoid confining the women to only virtual spaces.

### Box 3. Women's information centres in India

The women-run, ICT-enabled Information Communitary centres in India run by the Prakriye Centre for Community Informatics and Development, IT for Change is an example of how an information centre initiative provided an avenue to build capacity, increase women's status in the community and increase access to government and public services. Partnering with *dalit* women's "collectives", or *sanghas*, in the Mysore district of Karnataka State, the project supports women to run digitally enabled community information centers for entitlements-seeking. The information centers have strengthened *sangha* members' connections with local Government (Gram Panchayats) and with other public institutions in the community such as schools. The strategy has increased women's credibility in the villages, helping them bypass informational gatekeeping by the local power elite. The information centres have even been approached by local authorities to undertake household surveys for Government programmes, highlighting their credibility as non-partisan public institutions. The project adopted a community media strategy consisting of a weekly radio programme and periodic video screenings, produced with the participation of the *sangha* women, as a way of promoting citizenship education and encouraging peer-based reflection on governance and democracy among members of women's *sanghas*.

**Source:** Gurumurthy and Chami, 2014.



## 6. Universal Access to Sexual and Reproductive Health and the Role of ICTs



## 6. Universal Access to Sexual and Reproductive Health and the Role of ICTs

**Target 5.6:** Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences.

Access to sexual and reproductive health and reproductive rights in addition to access to sexual and reproductive health services leads to a reduction of maternal mortality, better family planning and the eradication of communicable diseases such as HIV and AIDS. It increases the autonomy of women and girls over their sexual and reproductive health and overcomes some of the limitations and consequences that can hinder their participation in the social and economic life including education, employment and the promotion of peaceful and inclusive societies. The ability of women to control and manage their own sexual and reproductive health is recognized as central to women's human rights and empowerment.

This target tackles the numerous obstacles many women face in relation to their sexual and reproductive health and reproductive rights. Some of these obstacles are anchored in the legal frameworks such the limited access to services according to age and marital status or based on an authorization provided by the husband or a parent before accessing services.

The quality and affordability of sexual and reproductive services remain also a major obstacle even when these services are available. According to UN Women, “women also lack autonomy in decision-making – for example, in refusing sexual intercourse with husbands or partners, in contraceptive use and in their own health-care choices”.<sup>228</sup> Social norms raise a major barrier since issues related to sexual and reproductive health are considered as taboos and are not being viewed from a health perspective.

This chapter investigates the role of ICTs in increasing information on sexual and reproductive health to increase women's autonomy.

### A. Goal 5 – target 5.6: Regional overview

Despite a significant decrease witnessed in the last three decades, fertility still constitutes an important challenge to sustainable development

in many Arab States. For the period 2010-2015, only seven Arab States out of 22, namely Bahrain, Kuwait, Lebanon, Libya, Qatar, Tunisia and the United Arab Emirates, registered near or below replacement fertility rates.<sup>229</sup> A considerable decline occurred in the 1970s and 1980s, followed by a deceleration since 2000. A demographic counter-transition has been observed in recent decades in some countries when fertility rates rose.<sup>230</sup> This situation calls for relevant and consistent family planning efforts and for increase awareness and efficient reproductive health services.

The Arab region continues to witness inequities and disparities in sexual and reproductive health due mainly to the limited access to and use of family planning and inequities in access to knowledge on sexual and reproductive health.<sup>231</sup> The proportion of married women in the region that use modern contraception is estimated at 40 per cent. The percentage of women using contraception varies considerably between countries: it is the highest in Oman with a rate of 99 per cent, but it decreases to 67, 63, 61 and 59 per cent respectively in Morocco, Tunisia, Jordan and Egypt. It further decreases to 11.4 per cent in Mauritania. Considerable subnational disparities exist in the percentage of women using contraception.<sup>232</sup>

A lack of awareness and information about family planning and sexual and reproductive services constitute one of the main reasons for the non-use of contraception in the region. Access to sexual and reproductive health information by women and girls in the region is hampered by social norms and traditions. Access to this information is generally restricted to married women through their gynaecologist and health-care providers. Given as example, the proportion of women in Egypt that reported receiving the information on family planning on

television decreased from almost 90 per cent in 2005 to less than 40 per cent in 2014.<sup>233</sup> However, the spread of ICTs which provide women with a means to access the information needed is changing this situation, despite the prevailing cultural norms framing the subject matter.

## B. ICTs: A means to increase access to health information

An increasing number of online platforms, applications and networks are developing to better serve health needs in the region. The well-being and empowerment of girls and women is being served in several ways through these platforms and networks which are providing a wide range of services to give patients better medical information and act as a channel for girls and women of all ages to access sexual and reproductive health information. Health-care providers are also using mobile phones applications to reach women, especially in remote and rural areas, with maternity and family planning information. Many approaches are still at a relatively early stage of implementation, with more research and assessment needed to fully understand their relevance, effect, cost effectiveness.<sup>234</sup>

Several areas provide evidence of the effectiveness of ICTs on good health in general.<sup>235</sup> These include but are not limited to the improved dissemination of public health information and facilitation of public discourse and dialogue around major public health threats; remote consultation, diagnosis and treatment through telemedicine; facilitation of collaboration and cooperation among health workers, including sharing of learning and training approaches; more effective health research and the dissemination and access to research findings; strengthened monitoring of

the incidence of public health threats and the response in a more timely and effective manner; and improved efficiency of administrative systems in health-care facilities.

In various forms, digital technologies have contributed to preventing avoidable maternal deaths; reminding patients to take medication; increasing awareness of HIV and AIDS; and tracking outbreaks of epidemics to ensure that effective prevention and treatment methods can reach people in time.<sup>236</sup> In relation to gender and e-health, few studies integrate significant gender analysis. No particular attention has been paid to the differential impact of specific health interventions on men and women or to the role of ICTs in addressing women's health concerns. The focus so far has been increasing on the opportunities offered by e-health applications and practices in developing countries.<sup>237</sup>

On another front, ICTs assist the government/public sector in data collection and dissemination of health-related information and services.

A multi-country survey found that women often use the Internet to access information on health services and many value the ability to find information on sensitive health topics anonymously.<sup>238</sup> This approach allows girls and women to access accurate sexual and reproductive health information while their security and anonymity is protected. Mobile phone advisory services are a popular and successful strategy for health information. Help lines can provide medical advice, sometimes including prescriptions for over-the-counter drugs, and/or further referral. Bangladesh's six mobile phone companies operate health call centres which provide information about women's health, smoking, alcohol or drug

abuse, HIV/AIDS, immunization and nutrition. In Kenya, the "Aunty Jane Hotline" is an interactive voice recording service that provides confidential and reliable information on sexual and reproductive health.<sup>239</sup>

Strategies to reach girls and young women can effectively rely on ICTs. In Jordan, Wisdom and Information on Sexual Health Education by Girls (WISE Girls) proposes crowdfunding to work with Syrian and Jordanian adolescent girls to develop, organize and share a sexual and reproductive health rights (SRHR) toolkit with their peers.<sup>240</sup> The girls will do their own research on the needs of girls in their community to develop a toolkit that addresses their priorities, fills gaps in knowledge and information identified by girls and presents the information in an adolescent-friendly way. The toolkit will be available as a smartphone app (with an audio version for those girls who cannot read) as well as in paper form for girls who lack ICT access. UNICEF is turning to online tools and social media to promote menstrual hygiene for girls. Examples include the Brown Paper Bag project, a digital community for girls to discuss menstruation with their peers; Raaji, an animated female character who tackles shame and stigma around menstruation; and "The Change Every Girl Needs", a mobile app to help girls track their periods while linking to relevant information on pain medication and others.<sup>241</sup> Assessments of this kind of health information approach shows their accessibility to girls. A smartphone app on reproductive health, Girl Talk, was found to be used for an average of 48 minutes on weekends by those who accessed it, for 10- to 15-minute intervals. Sixteen out of 17 participants (94.1 per cent) stated that the application provided new and/or more detailed information than health classes.<sup>242</sup>

Radio can be a useful information source for those who are unable to afford relatively more expensive media. In Bhubaneswar, India, a project focused on educating adolescent girls in the city's slum area on menstrual hygiene resorted to radio and podcasts to convey information, complemented by individual counselling, focus group discussions and film screenings in slums and in nearby high-schools.<sup>243</sup> An integrated approach was taken in the Philippines on water, sanitation and hygiene. The module included information on personal hygiene, dengue fever, diarrhoea, scabies, typhoid fever and environmental hygiene. In addition to providing non-formal training on these issues, changes in knowledge, attitudes and behaviour with regards to proper hygiene and sanitation were also assessed. In both sites, the module was delivered via computer. The module was tested and delivered in an urban and a rural site, with both using a digital, multimedia format for distance education and it was found that women experienced increased health knowledge and changed attitudes more than men. By focusing on sanitation and hygiene and incorporating local gender roles and circumstances, the use of distance education technologies empowered different socioeconomic groups. The project took gender into account at different levels, including the collection of sex disaggregated data, gender balance in recruiting staff, consultants, and volunteers, and integrating gender in materials and tools. The development and improvement of the platform involved the entire community and the participatory nature of the project facilitated localization and adaptation of the technology.<sup>244</sup>

Online health information is predominantly accessed by women at older ages. Many apps have been developed for tracking menstrual cycles, filling prescriptions for contraceptives,

fertility, nutrition, basic first aid and other female health issues. These include Period Tracker, Glow Ovulation, Clue Period and Health Tracker. A study in Mirzapur, Bangladesh found that both male and female college students use mobiles and computers to find a wide range of health information ranging from expert biomedical knowledge to experiential patient information and even unsubstantiated myths. Women use this approach to avoid medical and sociocultural gatekeeping of information about sex and reproduction and share this information with friends and networks either online or face-to-face. Gender norms about reproductive rights and activities can be challenged in this way, as women find the knowledge, they need to make their own decisions about reproduction.<sup>245</sup>

Many health initiatives across developing countries rely on mobiles to inform community health workers, government health supervisors and clinical health care providers, as well as women themselves. In the Aceh Besar initiative in Indonesia, mobile phones connected midwives working in isolated communities to obstetrician-gynaecologists in hospitals and health centres. This was found to facilitate communication between the midwives and their clients as well as between midwives for consultation and exchange of information. Other benefits included greater time efficiency, better access to medical information and faster a response in cases of emergency situations.<sup>246</sup> Mobile midwife,<sup>247</sup> a programme of Grameen Foundation, delivers medically sound, stage-based health information to pregnant women and nursing mothers in Ghana and Nigeria. It is voice-based, presenting the information in local languages.

However, it is worth noting that provision of services and information that are in opposition to social and gender norms – such as FGM and reproductive health information for unmarried

women and girls – can face fierce opposition. Nevertheless, models for addressing these constraints show that there are ways forward. In Sudan, Internet and phone-in radio shows were used to promote public discussion on FGM. A religious leader discussed the issue with radio phone-in callers, explaining the lack of religious basis for the practice. This format also allowed women who had undergone circumcision to talk about the health and psychological issues they experienced as a result, and to call for a law to prohibit it. A related website that provided health and human-rights information was used especially by young people, some of whom initiated spontaneous campaigns against FGM in their own communities.<sup>248</sup>

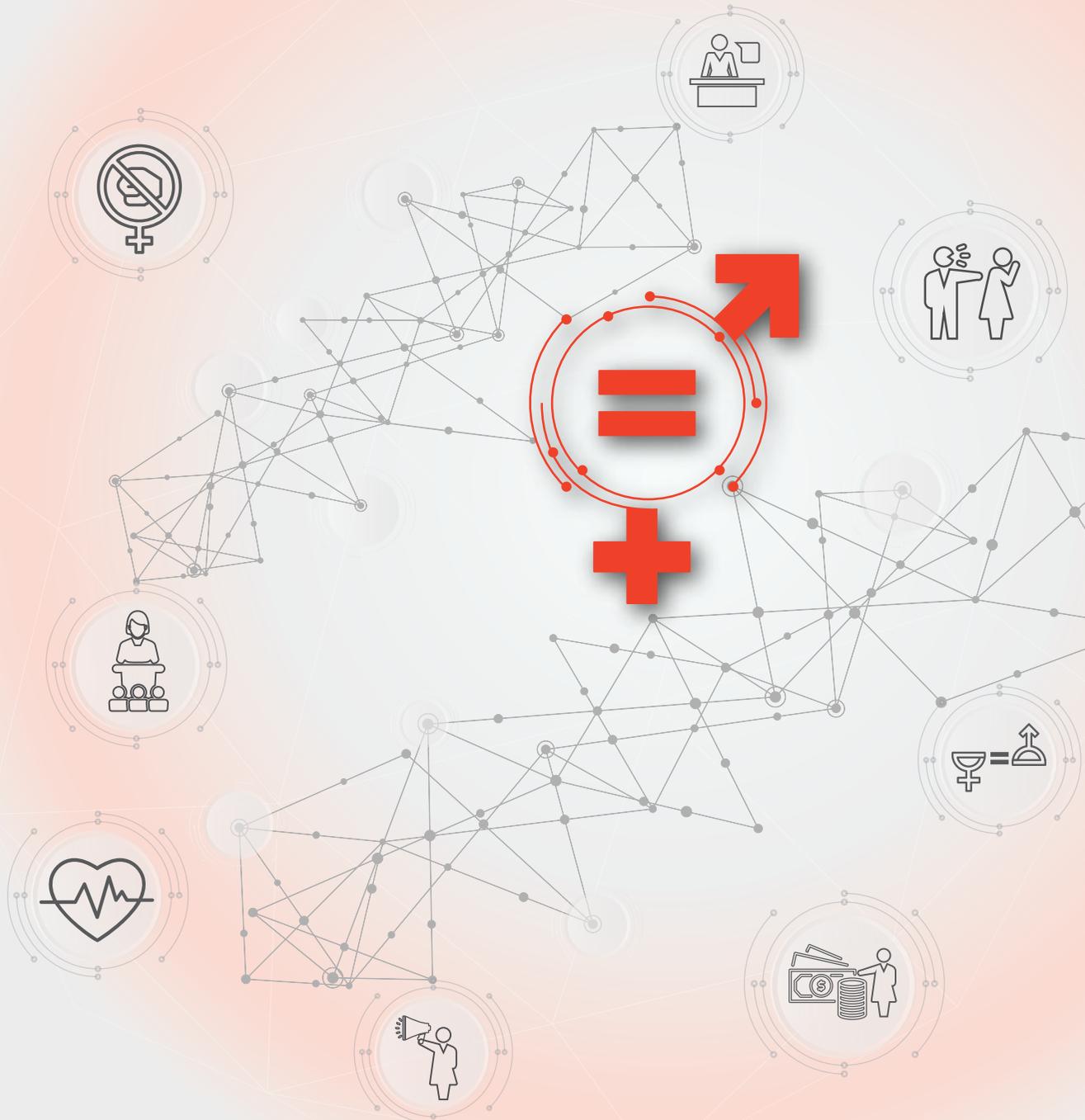
Another challenge is related to the issue of allowing young girls and children to access information on sexual and reproductive health that may not be considered appropriate. It is to

be noted that control options for access are available to address these concerns.

In summary, online, radio and mobile-based health information and services are important channels to increase women's access to these services which they may not otherwise have access to for reasons of gender norms, sociocultural taboos, and distance from health providers.

The examples provided, from both within and external to the region, are positive models for forward momentum in the region. By supporting the agency of women and girls to access and use health information in their own best interests and the interests of their families, they are promoting both the health of women and girls as well as their ability to bypass harmful sociocultural norms and make their own informed decisions.





## Conclusions and Policy Recommendations



# Conclusions and Policy Recommendations

## Conclusions

The present study investigated the prospects of ICTs as means to accelerate the implementation of Goal 5 on gender equality and the empowerment of all women and girls, with a particular focus on the Arab region. It provided a practical insight on how ICTs can be employed to support achieving the different targets of Goal 5 while shedding light on the possible threats generated by the improper use of these technologies and proposed measures to seize the opportunities and overcome the threats.

Building on the current situation of women in relation to the various targets of Goal 5, the study explored the potential offered by ICTs to redress this situation through the scrutiny and analysis of a wide range of good practices implemented in the Arab region or in developing countries which development status is comparable to the region. Drawing on these practices, ICTs have demonstrated to play a salient role to empower women and girls and promote gender equality by:

- *Facilitating and enhancing women's access to resources:* The use of ICTs has been proved to facilitate the access of women and girls to a wide range of resources. These include access to information and services which include, but are not limited to, information on legal rights; financial resources income-generating activities leading to economic empowerment added to health and education services. ICTs also

enabled access to capacity-building initiatives leading to the acquisition of new skills needed in the digital world we are living in;

- *Influencing women's agency:* The access to resources provided the preconditions to increase the ability of women and girls to make choices by availing alternatives. For example, the access to information on agriculture created the alternative for women to participate in decision-making at the household level and to increase their responsibilities in the management of the farms. Also, access to financial services such as digital money generated a new possibility for women to expand their businesses, increase their savings and manage the household spending. Furthermore, the use of ICTs presented an alternative for women to network, campaign and lobby to raise their voices and influence the local and/or national decision-making processes. One example worth mentioning is the enactment of laws prohibiting sexual harassment in public spaces and/or in the workplace as a result of ICT-based campaigns.

The resources made available and the agency gained using ICTs resulted in increasing women's capabilities in achieving their goals. By having access to resources and gaining agency, women were able to enhance their economic status through increasing their incomes, influencing the legal reforms in various areas such as reproductive health and VAW in different contexts, further participate in

public life and advocate for transforming the existing gender norms.

These achievements implied, in some cases, a change in the rules and norms that govern the access to resources and that influence the ability of making choices. In other cases, the rules and norms were only circumvented. The use of ICTs helped women overcome some of the barriers raised by the inherent biases and social norms and stereotypes, and in certain cases it also proved to provide a means to challenge and transform these norms and biases. The use of ICTs ensured women's access to virtual platforms to raise their voices and concerns. To cite one example, Saudi women's use of online platforms and social media to create a campaign that led to their being granted the right to drive. Another example is the global campaign related to ending sexual harassment in the workplace or in public spaces. Women with access to online platforms were able to share their stories related to sexual harassment they faced. This showed the magnitude of this pandemic and led to enacting laws in various countries penalizing sexual harassment.

In addition to the key opportunities presented by ICTs in the process of women's empowerment, this study highlighted the drawbacks and threats related to access and use of these technologies, stemming from the prevailing biases and social norms. It noted that ICTs, if not used properly, can reinforce existing discriminatory norms and stereotypes in addition to perpetrating existing forms of violence and creating new ones. To reverse these trends and lead to inclusive development where gender equality lies at the core, policy and coordinated actions are needed. The latter requires raising awareness and tackling gender stereotypes. It also necessitates safe and affordable access to ICTs added to strong cooperation across stakeholders to

remove barriers to girls and women's full participation in the digital world.

The study provided an in-depth understanding of the pathways to women's empowerment that can be facilitated by the use of ICTs in the Arab region. It developed a comprehensive picture of the various potentialities offered by ICTs in the full spectrum of issues related to Goal 5 and raised by its interconnected targets. It is to be considered the beginning of a research process that would benefit from focusing on the measurement of the scope of changes in women's agency and capabilities facilitated by the use of ICTs.

This study provides the basis for furthering the regional efforts and constructing an innovative, ambitious, and proactive approaches to bridge the digital gender divide and harness the opportunities provided by ICTs to promote gender equality and the empowerment of women in the Arab region. It highlights the need for governments and related stakeholders to further prioritize gender equality issues, integrate ICT policies with gender and development policies, and move beyond rhetorical commitments and towards concrete actions. To do so, this study proposed a set of policy recommendations.

## Policy recommendations

*Improve affordability of digital technologies in the Arab region and promote gender-inclusive digital access*

ICTs should be available and accessible to all women and girls who, in turn, must be educated in the skills to use them. Therefore, promoting gender-inclusive digital access implies removing all sort of barriers that might hinder

the use of ICTs by women and girls. This can be achieved by:

- Developing the ICT infrastructure and investing in women's and girls' equal and affordable access to ICTs as well as digital education from an early stage by resorting to public private partnerships leading to joint investments and shared knowledge and expertise;
- Advancing women's digital inclusion, digital skills and entrepreneurship and attract and retain more female talent in the ICT sectors by taking measures ensuring equal rights, access to technical trainings, equal wages and flexibility. This will help sensitizing the digital content to avoid the exclusion of women and girls repelled by the represented gender roles and stereotypes. It will also assist in addressing the digital skills deficit and will open up huge market opportunities for women.

Promoting digital literacy and strengthening digital skills of women and girls at all ages by mainstreaming ICT literacy and capacity development programmes in national educational programmes and by developing digital literary programmes for adult women. Leveraging the capacities and resources of the civil society and non-government organizations is a key driver at this level. Promoting digital literacy could be achieved by appropriately combining public policies with bottom-up initiatives and with the involvement of local associations and the civil society.

*Overcome normative barriers and increase online safety of women and girls in the Arab region*

Policies can only have an impact if they address the underlying factors preventing women and girls from fully participating in the

digital transformation and benefiting from the opportunities it offers. This requires addressing normative barriers and beliefs to overcome biases and stereotypes as well as reforming discriminatory legal frameworks. Lack of awareness and language barriers should be considered and measures to confront technology-related VAW should be addressed. This could be overcome by:

- Increasing digital Arabic content in general and the content focused on women's issues specifically;
- Enabling women's access in the digital economy by ensuring women are safe online. Safe access to technology is core to staying connected, taking advantage of education and economic opportunities, getting information and seeking support;
- Ensuring that policies, legislations and regulatory processes confront cybercrime, uphold digital rights and that fundamental rights such as freedom of speech and privacy are protected;
- Enhance women's participation in STEM education and workforce, as high-level professionals and decision-makers to produce and disseminate more gender-balanced digital content, address existing gender-discriminatory digital content and design gender-sensitive technologies. Encouraging more women to specialize in STEM fields can be done by exposing girls in an early educational stage to STEM and initiate their interest and curiosity, undertaking campaigns to raise awareness on women and girls' abilities to undertake STEM and ICT-related jobs and showcasing role models in the field.

*Build an enabling and conducive environment to advance women's empowerment in the Arab region*

Advancing women's empowerment necessitates making alternatives available and increasing women's ability to achieve their own goals. Therefore, addressing gender norms and power structures is a key element to remove barriers to women's empowerment and choices.

Circumventing these barriers is a pathway to enhance women's capabilities as it supports the increase in resources and the ability to use them. However, the ultimate objective is to transform these norms and structures to remove all barriers, widen the number and scope of alternatives for women to choose among and achieve gender equality. The use of ICTs provides an opportunity for women to defeat barriers related to their participation in the decision-making processes and raise their issues and concerns via online platforms. However, the sole use of ICTs also confined them to virtual spaces far from the real decision-making arenas. Similarly, online income-generating activities created alternatives for women to participate in the economies while continuing to bear the unpaid care burden. The use of ICTs permitted thus to overcome barriers anchored in the norms and structure but did not transform these norms. Therefore, it remains crucial to promote enabling and conducive environment to advance the empowerment of women by:

- Increasing collaboration between governments, private sector, academia and the civil society and creating a mechanism of collaboration among various governmental entities related to technology and women empowerment including the national women machinery (responsible for women's programmes), the national ICT authority (responsible for ICT-related programmes) and the national statistics offices (responsible for collecting ICT data disaggregated by sex);
- Mainstreaming a gender perspective in national ICTs policies, strategies and plans to eliminate gender biases, reduce digital gender gap and promote the use of ICTs to advance women's empowerment;
- Mainstreaming ICTs in national women policies, strategies and plans to foster the use of ICTs by women and girls as an enabler for women's empowerment and sustainable development taking into consideration the various interlinkages among the targets of Goal 5;
- Integrating ICTs as means to promote gender equality and the empowerment of women in various sectoral policies and strategies to avoid having sectoral stand-alone projects on ICTs and innovations. This is particularly relevant to the national policies and strategies related to health, education, labour and industrial development;
- Fostering women's entrepreneurship and engagement in innovation by enacting the national policies needed to ensure sustainability of the startup efforts in the region given that one in three start-ups in the region are headed by women;
- Collecting data disaggregated by sex across development sectors including the ICT sector to inform digital policy and track progress as data by gender are generally insufficient to monitor and evaluate gender-related policies;
- Continuing to exert efforts to undertake needed legal reforms to eliminate all forms discrimination against women girls including in criminal, personal status and labour laws and to raising awareness on the importance of redressing gender norms and power structures. This will lead to building a comprehensive enabling environment to capitalize on the use of ICTs to achieve gender equality.

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The present report examines how information and communication technology (ICT) can be used as a means of implementation to accelerate the achievement of Sustainable Development Goals (SDG) 5, and assist Government and key stakeholders in their efforts to attain this purpose. Based on the analysis of a wide range of good practices implemented in the Arab region or in developing countries whose development status is comparable to the region, the report shows that ICT plays a key role in empowering women and girls, and in promoting gender equality by facilitating and enhancing their access to resources, including information, services and capacity-building initiatives. It also provides a practical insight on how ICT can be employed achieve the targets of SDG 5: it examines how ICTs are used to circumvent or transform exiting norms and stereotypes; how ICTs can help combat violence against women by enhancing the security of women and girls and by organizing campaigns to raise women's voices; how ICTs support women's engagement in income generating activities and increase their access to information and financial services; how women are using ICTs to increase their participation in decision-making and political processes; how Governments are using ICTs to increase women's access to services; and how ICTs increase access to health information. The report also sheds light on the possible threats generated by the improper use of these technologies, and proposes measures to seize opportunities and overcome threats.

The present report concludes with policy recommendations aimed at improving the affordability and accessibility of digital technologies, overcoming normative barriers, and increasing online safety to create a conducive environment for advancing women's empowerment in the Arab region.

