Gender dimensions of employment trends and future of work: Where would women work next?

Naoko Otobe
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Naoko Otobe
Preface

The primary goal of the ILO is to work with member States towards achieving full and productive employment and decent work for all. This goal is elaborated in the ILO Declaration 2008 on Social Justice for a Fair Globalization, which has been widely adopted by the international community. Comprehensive and integrated perspectives to achieve this goal are embedded in the Employment Policy Convention of 1964 (No. 122), the Global Employment Agenda (2003) and – in response to the 2008 global economic crisis – the Global Jobs Pact (2009) and the conclusions of the Recurrent Discussion Reports on Employment (2010 and 2014).

The Employment Policy Department (EMPLOYMENT) is engaged in global advocacy and in supporting member States in placing more and better jobs at the center of economic and social policies and growth and development strategies. Policy research and knowledge generation and dissemination are essential components of the Employment Policy Department’s activities. The resulting publications include books, country policy reviews, policy and research briefs, and working papers.

The Employment Policy Working Paper series is designed to disseminate the main findings of research on a broad range of topics undertaken by the branches of the Department. The working papers are intended to encourage the exchange of ideas and to stimulate debate. The views expressed within them are the responsibility of the authors and do not necessarily represent those of the ILO.

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Foreword

Across the globe, gender gaps in the world of work persist both in developed and developing countries. Women continue to experience lower labour participation, higher un- and under-employment, vulnerability, informality and precarious employment compared to men. Though gaps are slowly narrowing, gender wage gaps also persist. Such disadvantages faced by women are caused by entrenched patriarchal social norms which continue to shape labour markets, and are very slow to change.

Against this backdrop, this report reviews gender dimensions of the global labour market, focusing on unemployment, vulnerable employment and overall sectoral changes during the last two decades. The paper also explores gender dimensions of mega factors, such as demographic transition, globalization, environmental change, and technological change and innovation, which have a profound impact on the future world of work.

It is hoped that this paper will stimulate the debate on gender and the world of work, in particular, in the context of ILO’s Future of Work and Women at Work centenary initiatives.

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Abstract

The paper analyses gender dimensions of global employment trends using the ILO’s *Global Employment Trends* data with a focus on unemployment, vulnerable employment, informal employment and sectoral change, specifically highlighting gender differences. The paper also explores gender dimensions of mega factors, such as demographic transition, environmental transformation, technological change, and globalization, which have substantial implications on the world of work. These factors will have gender differentiated impacts on the future scenario of both quantity and quality of employment. The paper also explores policy implications for the future of work from a gender perspective.

Key words: Feminist economics, employment, unemployment, gender equality, government policy

JEL Codes: B54, J60, J7, R28
Acronyms

FAO  Food and Agriculture Organization
G20  Group of Twenty
ILO  International Labour Organization
ICT  Information and Communication Technology
OECD Organisation for Economic Co-operation and Development
SDGs Sustainable Development Goals
TVET Technical and Vocational Education and Training
UNCTAD United Nations Conference on Trade and Development
UNDESA United Nations Department of Economic and Social Affairs
UNFCCC United Nations framework Convention on Climate Change
WHO World Health Organization
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1. Introduction

Eight years after the 2008 global financial and economic crisis which led to massive job cuts, many developed economies have achieved only a fragile recovery. The world continues to face major employment challenges, in particular, for women and youth. At the same time, income inequality has increased across and within countries. Labour markets in most countries have not fully recovered both in terms of quantity and quality of jobs. In a number of developed economies, not only do high unemployment rates persist, but working conditions have also worsened – employment contracts are more precarious and wage levels have stagnated (ILO, 2015). In developing economies, women in all regions continue to face higher unemployment, vulnerability, working poverty and often more informality of employment than men (ILO, 2016).

Employment trends are directly and indirectly impacted by macroeconomic, demographic, environmental and technological changes, the dynamics of which are rather complex. Furthermore, regions affected by continuous conflicts and political instabilities have displaced millions of people internally and externally, resulting in unprecedented numbers of migrants and refugees.

Against the overall backdrop of this global socio-economic context, this report aims to: review gender dimensions of the world of work during the last two decades; explore the impacts of mega factors such as demographic transition, globalization, environmental transformation, and technological advancements; and draw relevant policy implications. The first part of the paper will analyse global employment trends, in particular, gender differentials in overall global trends of unemployment, vulnerable employment (combination of own-account and unpaid family work employment status), informal employment, and employment patterns by sector during the last twenty years. In the second part, the paper examines gender dimensions of the future of work and policy implications, and presents conclusions.

The paper uses the ILO’s data from Global Employment Trends (2014) for the analysis of gender differentials in global employment patterns, and is largely based on a literature review.
2. Gender dimensions of employment trends

2.1 Unemployment trends

In 2015, the global unemployment rate for women was estimated at 6.5 per cent, compared to 5.8 per cent for men. According to the 2014 ILO Global Employment Trends report, the world labour market saw 61 million less workers in employment by 2014, as compared to pre-economic crisis figures. About half of this figure is attributed to substantial declines in employment rates, with millions of people having dropped out of the labour market altogether – or becoming discouraged workers. Further, women (mostly adult women) accounted for about 73 per cent of global job gaps in 2014 (ibid.).

In developed economies, the unemployment rates for women and men were converging with the female unemployment rate declining faster than for men until the economic crisis. At the onset of the global economic crisis in 2008–2009, many more men lost jobs than women, and consequently, the male unemployment rate shot up faster than for women. However, during recent years, the female unemployment rate has been edging higher, with the 2015 rate estimated at 8.5 per cent for women, and 8.3 per cent for men. In terms of overall changes in unemployment rates, men saw an increase of 2.7 per cent, as compared to 2.4 per cent for women between 2007–2015 (figure 1). However, many women are likely to have dropped out of the labour market becoming discouraged workers, i.e. they are no longer counted as part of the unemployed.

Figure 1. Unemployment trends by sex in the world and developed economies, 2005-2015 (per cent)

In developing economies, while the unemployment rate is not the best indicator of labour market strength, given that the poor cannot afford not to work, unemployment rates increased due to the impact of the 2008 global economic crisis in all regions, except in Southeast Asia and the Pacific, and Latin America and the Caribbean, where the rates were lower than pre-crisis levels (figure 2).
Gender gaps are the widest in the Middle East and North Africa, where many countries have also seen instabilities following the uprising of the Arab Spring and the political crises which ensued. Women’s unemployment rate is estimated at substantially higher rates of 20.8 per cent and 21.2 per cent (compared to 8.8 per cent and 9.2 per cent for men) respectively, in 2015 in these sub-regions. In particular, the female unemployment rate increased much faster than for men in the years after the Arab Spring of 2010, and remains higher at 21.1 per cent, or 3.6 per cent higher, than in the pre-crisis year of 2007 (figure 3). This is a reflection of changing perceptions of societies towards conservatism with respect to women’s role in public spheres, despite a more visible public role of women in positive social dynamics, which has been seen in countries such as Egypt, Morocco and Tunisia.¹

¹ There are many reports of more important and visible public roles for women since the Arab Spring and the political changes which have ensued in North African countries since 2010.
2.2 Trends in vulnerable employment

Vulnerable employment is a combination of “own-account” and “contributory family” worker status of employment, which is more socio-economically insecure than “wage employment” or “salaried worker” status. A majority of those in vulnerable employment, particularly in developing countries, work outside the scope of labour law and social protection, and hence without benefits. Though “informal employment” is not equivalent to “vulnerable employment”, those who are in vulnerable employment are often informal workers and employers, subject to market dynamics, with low productivity, and working in poor conditions without any social or legal protection. In general, however, data on the nature and extent of informality of employment is scarce.

While the global economic crisis slowed down the pace of decline in vulnerable employment between 2008 and 2010, the rate declined from 53.8 per cent and 49.6 per cent in 2005 to 48.7 per cent and 46.6 per cent in 2015 for women and men, respectively. Though the rate of vulnerable employment remains higher for women, gender gaps have been narrowing over the last decade (figure 4).

Among all the regions, East Asia saw the largest decline in the rate of women’s vulnerable employment, followed by the Middle East and South Asia between 2007 and 2015 (figure 5). This reflects the growing share of wage employment, particularly for women in these regions, despite the global slowdown in 2008. Conversely, in Central and South Eastern Europe and sub-Saharan Africa, women saw a slower reduction in the rate of vulnerable employment than men, and the smallest declines among all the regions.

Figure 4. Global trends in vulnerable employment by sex, 2005-2015 (per cent)

Note: 2013-2015 figures are projections.
2.3 Trends in wage employment

The reverse coin of vulnerable employment is wage employment, which is typically better quality employment, compared to vulnerable employment. The fact that vulnerable employment has been decreasing in some regions means that the global share of wage employment has been increasing – an indication that the overall quality of employment has been improving during the last seven to eight years. The largest decline in vulnerable employment has been observed in East Asia where China’s fast economic modernization has played an important role and where the share of wage employment has increased faster in women’s employment, compared to that in men’s. The overall increase in a better type of employment in the East Asia region is also an indication that economies have been doing better, compared to other regions, combined with overall higher growth and faster economic transformation, which is a prerequisite for increasing wage employment (figure 6).

2.4 Informal employment

Informal employment (defined as employment in informal unregistered establishments, and employment without contracts and social benefits in formal establishments) continues to be prevalent in developing regions. The rate of informal employment is higher for women than for men, in such regions as sub-Saharan Africa and Latin America and the Caribbean, with gender gaps of 13 per cent and 6 per cent, respectively. In other regions, the rate of informal employment was higher for men, compared to that of women.

In particular, in the Middle East and North Africa, the gender gaps were as much as 12 per cent. In these two regions, women’s labour force participation is substantially lower than for men. They also face substantially higher unemployment than men, and those fewer employed women are more likely to work in formal employment than men. In Asia, except for China where the rate is higher for women at 36 per cent (men at 30 per cent), both women and men are equally affected by high levels of informality of employment – above 80 per cent in South Asia and about 64 per cent in East and South-Eastern Asia regions (figure 7).

Figure 7. Informal employment (non-agriculture): global estimates by sex

Source: ILO: Facilitating transition from the informal to formal economy, (forthcoming).

2.5 Trends in employment by sector

Globally, both in women’s and men’s employment, services account for the largest share at 50.1 per cent and 43.0 per cent, respectively – 7.1 per cent higher for women. Agriculture accounts for about a third of total employment for both women and men, but is 2.7 per cent higher for women at 32.4 per cent. In men’s employment, manufacturing is far more important at 27.3 per cent, compared to 17.5 per cent for women (figure 8).

Looking at the overall sectoral distribution of employment across various regions in 2015, it is noted that the poorer the region, the bigger the share of agriculture. In a number of developing regions, the share of agriculture in women’s employment is higher than for men. In South Asia, the Middle East and North Africa, the gender gap is greater than 10 per cent in the agriculture share of employment, i.e. a higher percentage of women’s employment is in agriculture than men’s. This also implies a higher working poverty and lower productivity of employment for these women workers than their male counterparts. In particular in South Asia, the share of agriculture in women’s employment is 64 per cent with a gender gap of 24.5 per cent. While women in these regions continue to work in agriculture, men have left agriculture to take up jobs in other sectors.
Conversely, larger shares of services in women’s employment are found in developed economies and the EU region (86.4 per cent), Central and South Eastern Europe (61.8 per cent), Latin America and the Caribbean (79.5 per cent), and in the Middle East (62.6 per cent). Across all regions, the share of manufacturing in men’s employment is higher than in women’s employment. Generally, in East Asia the sectoral distribution of employment for women and men is relatively similar, as compared to other regions (figure 9).

The fact that women have a higher share of agricultural employment than men in poorer regions raises the issue of persistent poorer quality of employment for women. Further, this has implications for future prospects for quality of work for those young women entering the labour market in these regions. It is generally known that much of women’s work in agriculture is unpaid. When the hours of work for both paid and unpaid work are combined, women in these countries work much longer hours compared to men. The major issue for these countries, therefore, is whether they can manage to transform their economies, on the one hand, to improve overall productivity in agriculture, and on the other hand, to diversify their economies to include higher value added branches, creating more and better quality jobs.

Figure 8. Employment by sector and sex, 2015 (per cent)

Note: Figures are projections.
Source: Data from Global Employment Trends (ILO, 2014).

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2 In Tanzania and Benin, women have 14.0 and 17.4 more working hours per week than men, respectively. See M. Fontana and C. Paciello (2009).
The changes in the patterns of employment are directly linked to sectoral changes and economic diversification in general. As seen in figure 10, depicting the overall changes in sectoral distribution of employment by gender in various regions between 1995–2015, East Asia has seen substantial changes (largely led by China) in sectoral distribution in employment with a substantial reduction in the share of agriculture, and increases in the two other sectors, particularly in services. The region has seen a reduction of agricultural employment from 57.3 per cent to 30.5 per cent for women, and from 43.2 per cent to 27 per cent for men in two decades. Whereas the share of manufacturing increased from 21 per cent to 28.4 per cent and from 27.3 per cent to 33.5 per cent for women and men, respectively. The service sector share has doubled for women’s employment to 41.1 per cent, while it increased by 10 per cent for men to 39.5 per cent by 2015. In all the developing regions the share of services has increased more substantially for women than for men during the last two decades, except in South Asia. Women across the world are increasingly employed in the services sector, and this trend is likely to continue, including in developing regions (figure 10).

However, the key challenge is that many jobs created in non-agricultural sectors in developing regions are often informal in nature, i.e. not covered by labour law or social protection, and with low remuneration/income and productivity. Neither are these workers organized, nor do they have a voice or representation to be able to participate in policy-making, or effectively engage in collective bargaining with their informal employers. The rate of informality in non-agriculture sectors is substantial in many developing countries, and often higher in women’s employment (ILO, 2013a).
Clearly, the patterns of economic transformation and change will have major implications for future employment trends, in general, and the gender dimensions thereof, given that labour markets are strongly gender segregated. The share of service sector employment will continue to increase, while the share of agriculture will continue to decrease across regions, but more slowly in poorer developing regions, such as South Asia and in sub-Saharan Africa where the feminization of agriculture is a concern.

This section has reviewed the gender dimensions of global employment trends, with a focus on gender differentials in unemployment, vulnerable employment, wage employment, as well as sectoral distribution of employment. As the future world of work will be influenced by various mega factors, the next section will explore the gender dimensions of such factors and their impact on the world of work.
3. Global forces and the future of work

So what are the factors affecting the future of work? Globally, there are many mega factors at play, such as: demographic transition and increasing labour migration; technological change and the expansion of use of information and communication technology (ICT) and robotization; green economy transformation in the context of climate change and environmental degradation; and continued globalization. What do all these global factors imply for labour markets, particularly from a gender perspective?

The key challenge that many developing countries continue to face is the need for economic diversification and transformation in an environment of slowing global economic growth, as seen in the post-2008 global economic crisis period. Particularly for women in developing countries, the future of work depends on how countries manage to diversify their economies, and how women can benefit – on an equal basis with men – from the emerging job opportunities created in non-agricultural sectors.

This section intends to explore the mega factors which are likely to shape the future of work both for women and men, taking into consideration past trends and a review of the current and emerging social, economic, and environmental challenges.

3.1 Demographic transition and labour migration

The world is undergoing a demographic shift: on the one hand, developed country populations are ageing, with an increasing percentage of people above 65 years old. On the other hand, some developing country populations have a large youth populations. The global population is expected to increase from 6.9 billion in 2010 to 9.3 billion in 2050, despite decreasing fertility trends. The global fertility rate of 2.5 children per woman in 2005–10 is expected to decrease to 2.2 in 2045–50. Over the coming decades, the global population increase will be concentrated in developing regions, while the population of the more developed regions is expected to remain largely unchanged over the period to 2050 (ILO, 2013b).

These global demographic trends are largely shaped by a significant increase in longevity and a decline in fertility which are projected to continue to various degrees in most countries. While some developing countries still have a large youth population – which can be both a challenge and a window of opportunity for economic development – all developed countries face the opposite: a shrinking of youth cohorts and a growing percentage of persons over 65 years old. Within the next decades almost all countries will follow this pattern of ageing. In this context it is noted that the number of persons under 15 years will stabilize over the coming decades after having increased by 30 per cent since 1970. In comparison, the size of the working-age population (aged 15–64 years) will increase by 30 per cent, and the population over age 65 will nearly triple, to represent more than 1.5 billion persons by 2050. The majority of the world’s older persons now live in developing countries. In 2005, 63.5 per cent of the population aged 60 years or older lived in the developing world. By 2050, three-quarters of the older population will be living in developing countries. These overall trends will mean that in 2050 for every four people of working age there will be six people depending on the income of these four (ibid.).

A key aspect of the gender dimension of global ageing is, because women tend to live longer than men, a larger number of women will be among the older people in the world.

3 See also UNDESA, 2011 and 2015. Unless otherwise noted in this chapter, estimates, figures and tables are based on population under the medium variant.
Globally, women currently account for 54 per cent of the population aged above 60 and over. In China and India where families have a preference for boys, the feminization of older age groups will slow down and could even turn into dominance of older men in the old-age groups (ibid.). Feminization of old age poverty, even in advanced industrialized countries, is a major concern given that women tend to work fewer years in the labour market and, thus, accumulate less social security benefits, such as pension. Older workers also tend to face discrimination in access to employment, as well, which is even worse for older women workers.

However, there are regions where negative factors are driving down longevity, such as in Russia and the Commonwealth of Independent States (CIS) region and in sub-Saharan Africa, due to behavioural issues negatively impacting on men’s longevity in the former, and generally HIV and AIDs in the latter (ibid.).

Another demographic factor which may very well be able to provide answers to the challenges of ageing societies in advanced countries is migration, and labour migration in particular. According to a UNDESA-OECD report (2013), the number of international migrants reached 244 million, having risen by 71 million (a 41 per cent increase) since 2000, accounting for 3.3 per cent of the global population. Slightly less than half of migrants are women. Despite the 2008 economic crisis which had negative impacts on labour migration, global migration continues to rise. About half of migrants from the South lived in the South, and another half lived in the North. In terms of gender distribution of migrants, women’s share in total migration ranged from 52 per cent in the global North to 43 per cent in the global South. The number of tertiary educated immigrants in the OECD countries increased by 70 per cent during the last decade - reaching 27 million in 2010–2011. About one third of all migrants in OECD areas were highly educated and about 20 per cent were from India, China or the Philippines. Some 55 million persons in OECD countries aged 15 and over worked outside their country of origin in 2010–2011 (ibid.).

As seen in recent political discourse in Europe, receiving countries are increasingly becoming less receptive to immigrants. While the number of migrants seeking resettlement in other countries has exponentially increased during recent years, recipient countries so far have not been able to find viable solutions to the global “migration crisis”. However, global total refugees account for a relatively small proportion of the global number of migrant stock, representing an estimated 7 per cent of international migrants (ibid.).

While many of the labour migrants leaving the African continent for Europe are largely young men, there are also women and children taking high risks at sea, trying to escape dire situations in their origin countries: political instability and persecution (lack of security and threat to life); human rights violations; poverty; and environmental displacements, etc. In migration processes, female migrants are vulnerable to sexual harassment and violence, and both women and children face higher risks of trafficking for commercial sexual exploitation. Many migrants take chances at the hands of human traffickers which exposes them to extremely risky situations.

Such global demographic trends have major implications for economic development, natural resources, environmental change and the labour market and, therefore, need to be taken into account in the formulation of labour market policies. In the G20 context, countries face the dual challenges of both an ageing population and high youth unemployment which pose important fiscal constraints on social security and insurance, such as health insurance

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4 In 2014, the applications of asylum seekers annually increased by 45 per cent, and the EU received 570,820 asylum applications, with Germany having received the largest number of 173,070 applications (UNHCR, 2014).
and pensions (European Commission, 2011). As the population ages and the share of the working population becomes smaller, young people face higher unemployment and increasingly are forced into precarious employment, which subsequently decreases the overall contribution to social security. This dependency ratio of older people on the working population has already caused serious concerns in ageing developed countries such as those in Europe and Japan. In this context, G20 countries have responded by committing to reduce gender gaps in labour force participation by 25 per cent by 2025, tackle youth employment challenges, as well as raising the retirement age.

Nonetheless, the increasing care needs of older people are creating more job opportunities for women, particularly for women migrant workers from developing countries (Rianne and Robinson, 2011) and youth, even though the quality of such employment, especially of domestic work, is often questioned. This has, in turn, increased the need for more innovative and family-friendly policy solutions to these problems, which includes valuing the contribution of care workers, both paid and unpaid. In addition, working conditions of domestic workers (a large majority of which are women) also need substantial improvement, as well as expanded social protection.

3.2 Globalization

Much has been analysed regarding the gender dimensions of the impact of globalization on the labour market (Benería, Berik, and Floro, 2015; Çağatay and Ertürk, 2004; Otobe, 2011). Globalization is characterized by increasing trends of human, financial, economic, technological transactions and communications across countries and regions. The debate is divided between those who support globalization, and those who are more opposed. Export-oriented development strategies have contributed to the increase of women’s paid employment in various developing countries. Feminist economists have, however, questioned the quality of such employment which is often done for low wages and under difficult working conditions, and may even be characterized as decent work deficits.

On the one hand, proponents of globalization argue that increasing economic transactions across countries can improve overall human well-being, including for women, through economic growth, enabling social interaction across cultures, and making consumption goods cheaper through increased international competition. On the other hand, opponents argue that globalization has not necessarily benefitted workers – in developed countries by shipping jobs out to labour-cheap countries, and in the developing South by exploiting workers, particularly women. Employers prefer to hire women in labour-intensive manufacturing in developing countries, as they have more nimble fingers and are less likely to engage in trade union action than male workers. Further, it is argued that as multinational corporations shift their production sites to locations where cheaper labour is readily available and labour and environmental regulations are not as stringent as the country of origin, this could lead to a race to the bottom, compromising labour and environmental standards. Increased importation of cheaper consumer goods under trade liberalization also crowds out

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5 The European Commission report on ageing estimates that by 2030, the total social security costs will increase by 2.4 per cent and by 4.7 per cent by 2060, compared to 25.9 per cent of the total GDP.
7 See also ILO’s Domestic Workers Convention, 2011 (No. 189); and the Domestic Workers Recommendation, 2011 (No. 201).
locally produced goods, hence, negatively impacting the income and employment of local workers.\(^8\)

Nonetheless, export-oriented strategies in poorer developing countries have created millions of jobs, particularly for low-skilled women who mostly come from rural areas.\(^9\) China, for instance, has taken full advantage of its export capacities through establishing Special Processing Zones (SPZs).\(^{10}\) But when external shocks drastically impact exports and production, workers can be negatively affected, as seen in recent years. In the immediate aftermath of the 2008 global economic crisis, a number of developing countries saw a substantial decline in ready-made garment exports. Women form a large majority in the sector, and tens of thousands of workers lost jobs, resulting in worse working conditions and increased poverty (Otobe, 2011). The Rana Plaza factory collapse which killed 1,129 people and injured 2,515 people in Bangladesh\(^{11}\) is still very vivid in our recent memory.\(^{12}\)

Due to the lack of improvements in working conditions and the “poor image” of women workers in garment factories, recent trends show that women have begun to shun garment sector factory work, and sometimes work abroad even as domestic workers in Sri Lanka (Otobe, 2013). At the same time, in countries where industrialization has diversified and advanced from labour-intensive to more capital-intensive manufacturing, climbing the technological ladder, women’s share in total employment in manufacturing has declined (Kucera and Tejani, 2014).

The main question, then, is how the developing countries which intend to industrialize could access foreign direct investments and international markets with a view to create more and better jobs. In Asia, as wages have increased in China, labour-intensive manufacturing (e.g. garment, textile and electronic assemblies) has moved to other Asian countries, particularly to Southeast Asia where wages are lower. Poorer Asian countries, such as Cambodia, where ready-made garment manufacturing is a major export sector, continue to enjoy preferential trade treatment by the USA and the EU. However, for those women workers paid below survival wages, efforts to improve working conditions and increase wages have proven difficult due to their weak bargaining power.\(^{13}\)

Another emerging sector benefitting from increased employment in developing countries is outsourcing in services. Such sectors include call centres (customer care), back office services, Business Process Outsourcing (BPO), software development and transcription. Particularly, in India and the Philippines, the information technology (IT) sector has been employing tens of thousands of workers, both women and men. According to a case study done in the Philippines, most of the workers in the sector are college

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9 A study undertaken by Cirera and Lakshman (2014) shows that some 54.74 million jobs were provided through an estimated 3,500 export processing zones established in various developing countries.

10 According to estimates, China had some 40 million workers in SPZs, a total investment of US$17.03 billion, representing 59.3 per cent of total exports in the mid-2000s (ILO, 2007).


13 In September 2016 the Cambodian Government increased the minimum wage for factory workers to US$153 from US$140 per month after protracted negotiations between the factory owners, workers and the government ( Reuters News Agency, 2017).
graduates. Unlike the case of Indian call centres, where the lack of career development and relative low pay has been criticized, in the Philippines, many workers see jobs in this sector as a stepping stone to the future potential of working abroad (Beerepoot and Hendriks, 2013). In comparison to “blue collar” jobs in manufacturing, such as garments or electronics assembly requiring only lower education and skills, the IT “white collar” jobs are considered more “decent” and prestigious. Such outsourcing in the services sector can potentially provide expanding decent work opportunities, especially for those who are more highly educated and skilled.

Globalization is here to stay, and likely to further accelerate, despite expected policy changes in the major economies. The benefits of globalization, therefore, should be harnessed in such a way that would benefit both enterprises and workers. But this can be achieved only if companies respect basic labour rights, remunerate and compensate workers fairly, and provide fair and decent working conditions. While governments continue to face fiscal constraints, countries should make special efforts to provide a “social floor” through the provision of basic social benefits and safety nets that could serve as a better buffer for poor workers in developing countries, especially in times of economic downturn.

3.3 Environmental transition and imperative

The 2030 Sustainable Development Goals were adopted in September, 2015. Moving toward more environmentally sustainable production and consumption is a global imperative. According to an ILO report, not taking action to reduce greenhouse gas emission would reduce overall productivity by 7 per cent by year 2050 (ILO, 2012). Further, unabated increases in pollution could lead to a doubling of premature deaths caused by increased airborne particulate matter in urban areas for up to 3.6 million people by 2050, with most deaths occurring in China and India (OECD, 2012). The UN Framework Convention on Climate Change (UNFCCC) has also warned that global warming could expose an additional 400 million people to the risks of malaria by the end of the century (2007).

The greening of economies and the demand and provision of green goods and services has a higher employment elasticity than average demand. It is also substantially greater than demand for resource- or energy-intensive goods, with the exception of car maintenance. A study undertaken by GHK Consulting (2011) estimated that if the EU realizes a “green budget” over the period 2014-2020 – investing 14 per cent in four green sectors (renewable energies, environmental conservation, energy saving in buildings and sustainable transport) – more than a half a million jobs on a net basis could be created. Forestation also has the potential to create additional employment for some 25 to 30 million people. Developing renewable sources of energy could employ an estimated 5 million people worldwide, 1.6 million in China, half a million in the US, and 1.1 million in the EU (ILO, 2012). A transition to green manufacturing remains a main challenge. Analysis done on basic industries (metal production sectors and paper manufacturing) in the US, indicates that only 13.8 per cent of related employment was found to be in green goods and services (ibid.). While such sectors as renewable energy employ more men than women, for instance, textile and garment manufacturing employs tens of millions of women workers. The textile and garment sector poses environmental challenges as it requires a lot of water and involves the use of chemicals at various stages of the value chain, from cotton farming, production of fibres and yarn, weaving, colouring, and finishing garments, etc. (World Bank, 2014; Kant, 2012).  

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14 The World Bank estimates that nearly one fifth of industrial water pollution comes from textile dyeing and treatment. The large volume of synthetic chemicals used throughout the world in the textile industry contributes to the pollution of freshwater sources.
There are specific gender dimensions related to climate change and environmental degradation. For instance, due to the less physically mobile nature of women and their unequal access to resources in general, women are likely to suffer disproportionately in natural catastrophes and climatic change. Women and girls need to walk longer distances to fetch fuel and water in rural communities in developing countries. Further, the land that they have access to, is being degraded due to climate change and the lack of proper land management and other natural resources.

Women already play an important role in national resource conservation, as farmers and forest products gatherers, and there are an increasing number of initiatives to provide support to women workers through introducing better conservation methods in farming as part of the climate change adaptation process. For instance, the Green Belt Movement in Kenya initiated in 1977 to tackle deforestation, soil erosion and water scarcity is very well known as a programme that regenerates the environment and economically empowers women at the same time. In Bangladesh, a programme to install solar panels for electricity generation in rural households is improving the quality of life and promoting women’s economic activities (Bäthge, 2010).

In the Republic of South Africa, the Working for Water (WfW) Programme established in 1995 has cleared more than 1 million hectares of invasive alien plants. It has provided jobs and training to approximately 20,000 people from among the most marginalized sectors of society per annum, 52 per cent of which were women. The programme is globally recognised as one of the most outstanding environmental conservation initiatives in Africa. It enjoys sustained political support for its job creation efforts and its contributions to the fight against poverty. WfW considers the development of people as an essential element of environmental conservation. Short-term contract jobs have been created through the clearing activities, with an emphasis on recruiting women (the target is 60 per cent), youth (20 per cent) and disabled persons (5 per cent). WfW creates an enabling environment for skills training and invests in community development wherever possible, which includes implementing HIV and Aids projects and other socio-development initiatives (Republic of South Africa, n.d.).

One of the key challenges in greening the economy and generating green jobs, is that workers in “polluting” industries may be displaced in the process, but may not be able to take up jobs in green sectors due to skills mismatch. As economies need greener adaptation, workers will also need adaptation in developing new skills, including the use of green technologies. Women tend to be less educated and skilled than men on average, and as economies change their patterns of production and services, skills development and lifelong learning will be essential for both women and men. Encouraging girls and women to take up Science Technology Engineering and Mathematics (STEM) subjects will also be essential, to ensure that they are better equipped with the education and skills necessary to take up future jobs in green sectors.

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15 According to a WHO/UNICEF survey (2017) in 75 per cent of developing country households, women spend at least 15 million hours per day fetching water from distant sources, compared to 6 million hours for men, and 4 million hours for children.

16 According to the FAO (2003) land degradation can lead to changes in gender roles. As men migrate to urban or other areas and sectors, women play a pivotal role in natural resource management and food security, including soil conservation.
3.4 Technological change and innovation

Since the 1990s, the world has witnessed a revolutionary expansion in the use of ICT, particularly in the use of mobile telephones. A World Bank report, *Information and Communications for Development 2012: Maximizing Mobile*, estimates that worldwide mobile subscriptions have grown from fewer than 1 billion in 2000 to nearly 6 billion, of which 3.4 billion are in low- and middle-income countries. More than 30 billion mobile applications, or “apps,” were downloaded in 2011—software that extends the capabilities of phones, for instance to become mobile wallets, navigational aids or price comparison tools. In developing countries, citizens are increasingly using mobile phones to create new livelihoods and enhance their lifestyles, while governments are using them to improve service delivery and citizen feedback mechanisms (2012).

Mobile devices are getting cheaper, more powerful and are expanding into rural areas. Various countries are taking advantage of this potential, for example:

- **In India**, the state of Kerala’s Mobile Governance Programme has deployed over 20 applications and facilitated more than 3 million interactions between the government and citizens since its launch in December 2010.
- **Kenya** has emerged as a leading player in mobiles for development, largely due to the success of the M-PESA mobile payment ecosystem. Nairobi-based AkiraChix, for example, provides networking and training for women technologists.
- **In Palestine**, Souktel’s JobMatch service is helping young people find jobs. College graduates using the service reported a reduction in the time spent looking for employment from an average of twelve weeks to one week or less, and an increase in wages of up to 50 per cent (World Bank, 2012).

In advanced countries, multinational companies are applying ICTs to their increasingly decentralized production and service provisions. According to a report produced for the European Union, ICT application is strongly correlated with firm level productivity and expansion, including employment levels (Van Reenen et al., 2010).

Countries would, therefore, need to harness the fast changing technological advancements for their economic development and the improvement of national well-being. Developing countries are making efforts to enhance ICT knowledge and skills. For instance, Rwanda established Tumba College of Technology in 2007 to produce a highly skilled workforce that could meet industry and social needs. In India an increasing number of jobs are being created in the IT sector, from call centre jobs to software engineering (Kumari, 2012).

The question is how women can better take advantage of the increasing application of ICT, not only through becoming new technological workers in the sector, but as a benefit to their well-being. Promoting STEM education and capacity building in ICT applications for girls and young women becomes critical. Redressing gender bias in technical and vocational education and training (TVET) is also another measure that countries can take to reduce gender stereotypes in ICT.

This section has explored the gender dimension of various mega factors which could have impacts on labour markets. As labour markets are affected by many local and global forces, analyses of both medium- and long-term potential impacts of such forces are complex and can only be speculative. Different patterns of demographic change impact the supply side of labour markets, whereas overall economic trends and economic transformation under globalization could have impacts on future demand for labour. Climate change and environmental degradation have already demonstrated substantial impacts on the quality and quantity of available natural resources, which could be used for production and consumption.
for an increasing number of global human race. The transition to green economies will have an impact on the patterns of economic transformation, hence on the labour markets and future needs for green skills. New technologies are providing innovative solutions for production, services and consumption. Applications of new technologies – from robotization, to new technological applications, to various production and services processes – certainly will have gender differentiated impacts on the quality and quantity of employment, due both to gender segregation of labour markets and women’s lower access to technologies and technical skills. In ageing countries robotization and de-industrialization may continue or accelerate, whereas the youth in poorer developing countries could take advantage of ICT for start-ups and businesses. However as societies apply and use new technologies, continued efforts need to be made to ensure that those who tend to be marginalized from the use of technologies will have equal access to them, both for their economic activities and their well-being, in particular, the female population.
4. Conclusion

Progress has been achieved in advancing gender equality in the world of work with varying degrees of success across regions. However, compared to men, in developing regions women remain more affected by higher levels of unemployment, more precarious and vulnerable employment, lower wages, and often by a higher incidence of informality of employment. In developed economies, especially since the 2008 global economic crisis, labour markets have been further deregulated, making employment more precarious, and the overall wage share of income continues to decline or stagnate. The combination of higher labour market vulnerability and unemployment and a declining share of wages are key factors which have contributed to increasing income inequality across and within countries. Given that women tend to be engaged in poorer quality employment than men on average in all countries, it is not surprising that women continue to experience greater disadvantage in the world of work, and have a higher risk of falling into poverty.

In terms of overall sectoral transformation of employment, East Asia has seen the fastest changes during the last two decades. The share of services has been increasing in most regions, in particularly faster for women, and this is likely to continue in developing countries. In East Asia the manufacturing sector is likely to remain an important source of employment, especially for women. There remains, however, a need to formalize employment of those working in informal services in order to improve both working conditions and productivity.

The mega factors examined will continue to have major impacts on the world of work: demographic transition, environmental change, technological advancements, as well as continued globalization. The relations between these factors and the world of work are rather complex, and there are gender dimensions which need to be fully taken into consideration in policy-making for the promotion of more and better jobs, for all women and men equally.

As all countries are engaged in making progress toward the achievement of SDGs, it is essential that they fully integrate gender dimensions into their socio-economic policies, in particular, putting employment as a policy priority. In the process of economic transformation and diversification, particular attention should be paid to gender differentiated impacts of such transformation on labour markets. Particular emphasis needs to be placed on enhancing skills and employability for both women and men, breaking gender stereotypes in occupations, and making sure that skills meet labour market demands. At the same time, countries should increase fiscal space to provide for expansion of social protection for women and men, including maternity protection provisions. Public investments in social services are needed for caring of children, the elderly and the sick, as well as improving overall social and physical infrastructure. This will reduce the burden of unpaid work and be extremely useful in alleviating women’s time poverty and enhance their labour force participation. Increasing financial inclusion and access to other productive factors, assets and technologies for women are other measures countries can take to promote equal access to the business and economic activities as men. In order to provide a more effective legislative and policy environment, countries can revise/adopt laws and policies which ensure equal opportunity for all in education and training at all levels, and in the labour market. Across the board, change in perceptions on the roles of women and men need to change, for which a wide range of media and other social campaigns can be undertaken.

As the Group of 20 Declaration has stated, all G20 countries have committed to enhance women’s labour force participation by 25 per cent by 2025 (2014). The future of work, therefore, would entail feminization of the labour market across the globe. In order to generate more and better jobs for all, the relevant policies need to fully integrate gender dimensions of the world of work.
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