

# Examining Women's Roles in the Future of Work in Indonesia

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October 2019

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## Foreword

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Despite economic growth and declining poverty levels across Asia, inequalities continue to grow, with large groups of society remaining marginalized in economic and social terms.

Women in Asia continue to experience massive structural disadvantages, from early childhood education through their retirement from work—if they wanted and were allowed to work—and into their older age. It is mainly women who are exploited as cheap labour in Asia's export industries and low-skill sectors, especially agriculture, textiles and the footwear and electronic industries. They are paid subsistence wages and experience increasing precariousness of their working as well as living conditions.

On the heels of all the mentioned inequalities now comes rapid technological transformation that is altering the present and future nature of work in ways that offer a multitude of opportunities but also add new levels of risks for social groups across worldwide, but particular for the Global South to widen the existing gaps.

The gig and platform economies as well as crowdworking are prone to ignoring decent work principles. Women are particularly vulnerable and disproportionately affected by these changes, both in the context of the Fourth Industrial Revolution and in the ever-expanding care work across the formal and informal sectors.

Unfortunately, the predicted productivity gains through automation and digitalization in many sectors possibly will not give women much hope for fundamental improvements of their prospects under the status quo. Due to their poor access to education, skills development and professional know-how, Asia's women are at risk of slipping deeper into unemployment or resorting to migration far from their home for jobs they can manage.

The goal for them and for us in development cooperation work is to find socially just and gender-equal responses to these challenges by promoting an efficient, fair and

affordable system to skill, upskill and reskill workers, by identifying job transition pathways, by defining policies, which guarantee gender justice in the current and future world of work and by renegotiating the distribution and remuneration of care-work. Solidarity and coalitions across a range of progressive movements in Asia and beyond are essential in this process.

Through our regional networks, Friedrich-Ebert-Stiftung (FES) brings together diverse voices from social movements, civil society organizations, trade unions, political parties and academia to work together in developing progressive ideas and narratives for advancing social justice. Among the most innovative platforms is the newly established FES Asia project Women's Perspectives on the Future of Work. With insights from distinguished researchers in nine Asian countries, FES and its partners aim to further promote gender equality in the world of work, with emphasis on enhancing women's participation in public and political life and promoting decent work for all along with gender-just and human-centric economic models.

The study at hand serves as a starting point for further analysis and discussion on the situation of women with regards to the trends and perceptions about the future of work in Indonesia and how to achieve gender justice. We would like to thank our cooperating partners Desintha Dewi Asriani and HERNI Ramdhaningrum for authoring this study. We also extend our gratitude to Dewi Candraningrum and Christa Wichterich who commented constructively on an earlier version of this paper.

We hope that this publication contributes to a fruitful discussion and provides valuable insights for future initiatives.

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# Introduction

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Indonesia's economic volatility is challenged by the verge of the Fourth Industrial Revolution, which will change the structure of work, productivity and, in particular, the dynamic of gender equality. Certain jobs and tasks are already disappearing. Nevertheless, some work opportunities are emerging; and countries that succeed in upgrading and re-skilling their labour force will benefit greatly from this transformation.

Amid a demographic surplus, the government has responded to the momentum of the Fourth Industrial Revolution by aiming to make Indonesia one of the world's 10-largest economies by 2030. The target will be achieved through several policies, such as the Making Indonesia 4.0 Roadmap and the Vocational Development Policy Roadmap 2017–2025, launched by the Ministry of Industry and the Coordinating Ministry for Economic Affairs.

Making Indonesia 4.0 aims to revive manufacturing in five sectors: food and beverage, textile and apparel, automotive, electronics and chemicals.<sup>1</sup> The Vocational Development Policy Roadmap 2017–2025 attempts to meet the needs of industry and business with the required high-skilled labour force, focusing on six sectors: agribusiness, tourism, e-commerce, manufacturing, health care and labour exports.<sup>2</sup>

The Fourth Industrial Revolution has also gained attention from non-government actors, such as labour

unions and civil society organizations. Both parties have been working collaboratively in a Decent Job Coalition that promotes multi-stakeholder dialogue and partnership in dealing with job disruption caused by digital transformation. The coalition looks at how inequality can be tackled through the improvement of labour skills to strengthen access to decent work, including for women—something that has been missing in the government's policy discussions.

Both policies claim to be a holistic approach in creating and using the opportunities in the digitalization era. Yet, the discussion process and policy stipulations have never imbued a gender lens. The government appears to lack understanding on how a gender framework is important to permeate the future challenges so that men and women can equally benefit from digitalization.

This paper explores the future of women's work, based on the sectors in which women have traditionally participated, and offers a projection based on several determinants, such as the demographic dividend, climate change, the environment and technology disruption. Due to the lack of adequate research and data to date, however, there are limitations in the analysis on how digitalization has impacted women in the labour force. What largely exists are media reports highlighting how digitalization is being used by women through the digital platform economy, such as e-commerce.

# Gender and work in Indonesia

## Women's roles in workplaces

The Fourth Industrial Revolution is a momentum that can help deconstruct multiple obstacles encountered by women in Indonesia towards gaining equal rights, particularly access to work, because the number of jobs may increase as a result of the expansion of sectors. However, until now, norms and the socio-culture remain deterring factors in controlling women's labour participation. In addition, policies and institutions have restrained women from obtaining equal rights. Findings from the latest Indonesia National Labour Force Survey (2018)<sup>3</sup> show that the ratio of men to women in the working-age population is nearly same, at 97.2 million men to every 97.6 million women. Yet, there remains dramatic disparity between men and women when it comes to workforce participation.

Table 1 illustrates that nearly half of all productive-aged women are missing from the working sector, while more than 80 per cent of men are participating.

Women's participation in the labour force is not only smaller than men but also concentrated in fewer sectors. Women are primarily found in the manufacturing, service and agriculture sectors. This raises questions about where the other half of working-age women is if they are not included in the workforce. In fact, women's participation in the labour force has never been separated from their ascribed role as care workers in the family and community.

Figure 1: Labour force %.

Source: Central Agency of Statistics, National Labour Force Survey 2018 (Jakarta: Government of Indonesia, 2018).

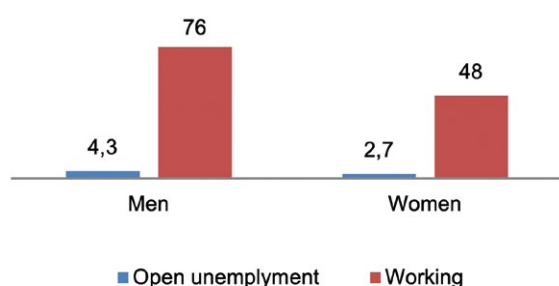


Table 2 confirms that women are dominant in paid household activities and services.

Table 3 shows that 35 million women are not participating in the labour force due to domestic responsibilities. It can be said that women, once they marry, disappear from paid work.

The argument to shift unpaid care work into professional and decent work is a response to and preparation for the demographic transition in 2050, when Indonesia will enter an ageing-population era with 80 million older persons. Creating professional and high-standard care work could be effective in encouraging women to participate in the labour force and also in creating another type of paid work. This means professional and paid care work can kill two birds with one stone: reducing women's burden in unpaid care work and providing a support system for them to increase their participation in the labour market. This is amplified by the Organisation for Economic Co-operation and Development, which argues that employment tends to grow mostly in sectors traditionally dominated by women, such as small and medium-sized enterprises (SMEs), health, education and social services.<sup>4</sup>

## Changes in employment trends and the impact of the Fourth Industrial Revolution on women

Based on general employment trends in 2017 and 2018, the percentage of the labour force has increased in several sectors, mainly in the provision of accommodation

Figure 3: Not in the labour force %.

Source: Central Agency of Statistics, National Labour Force Survey 2018 (Jakarta: Government of Indonesia, 2018).

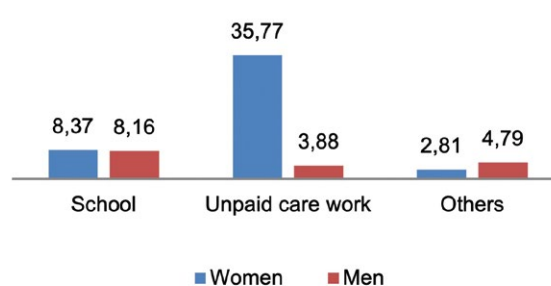
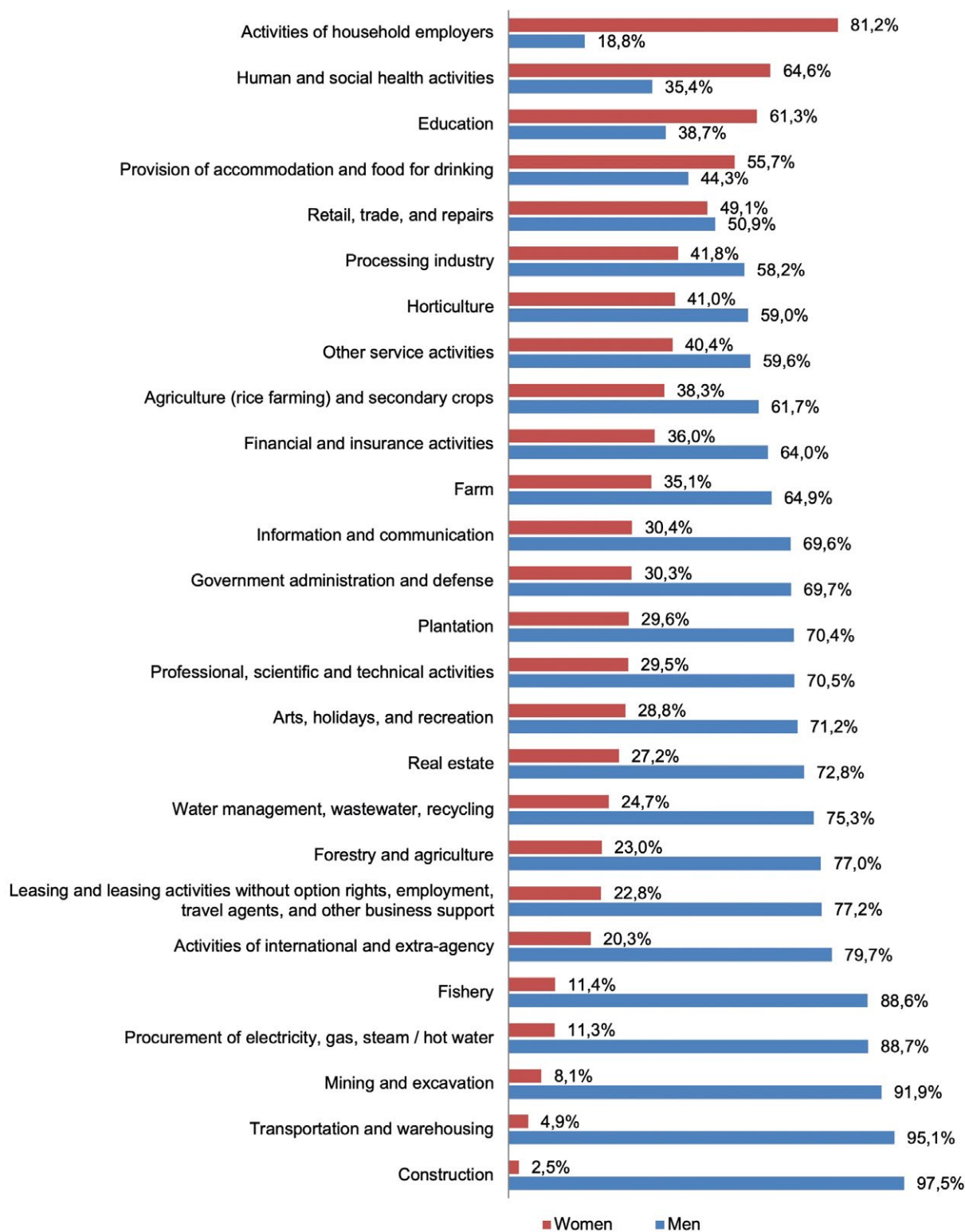


Figure 2: Gender-segregated labour market.

Source: Central Agency of Statistics, National Labour Force Survey 2018 (Jakarta: Government of Indonesia, 2018).



and beverages (by 0.68 per cent), other services (by 0.40 per cent) and the processing industry (by 0.39 per cent), while the working-age population in other sectors has decreased, such as agriculture (by 1.41 per cent), construction (by 0.20 per cent) and educational services (by 0.16 per cent) (Central Agency of Statistics, 2018).

Generally, women and men share hopes and fears for the differences ushered in by the new digital technology. Automation is most commonly used in such sectors as agriculture and manufacturing; but it is expected to spread, albeit at different levels, in all sectors and most types of jobs, including those traditionally carried out by women, such as retail, trade, food and beverage services.

Digitalization is already affecting economic sectors in Indonesia, including the transformation of traditional SMEs into e-commerce platforms. But the limited available data indicate that women in SMEs are not benefiting. Based on e-commerce traction data from 2016 to 2017, the utilization of digital platforms by small-scale entrepreneurial women is relatively low; it even decreased in that time period, from 42.7 per cent to 34.4 per cent.<sup>5</sup> The percentages reflect a wide gap in women's participation in the digital economy, considering that among the 57 million SMEs in Indonesia, 60 per cent are owned or headed by women.<sup>6</sup> A survey conducted by Facebook, the OECD and World Bank found that more women run SMEs than men. Yet, men entrepreneurs are using online platforms more than women.

Another example is the phenomenon of online shopping that has arisen in Indonesia over the past few years. It could be beneficial as an alternative occupation for women because it is not tied to strict working hours and office spaces. But the high growth rate of online-shopping tends to target women as potential consumers, despite data showing no significant difference in the use of the internet based on gender, at 48.6 per cent women and 51.4 per cent men.<sup>7</sup>

### **Care work for women and the impact of the demographic dividend**

The concept of a gender dividend was recently coined in a broader discussion on the demographic dividend.

A gender dividend can flow from low fertility rates, which reduce women's burden of caring for dependants and free up time for other productive activities, notably formal employment. Care work, such as caring for children and older persons, providing meals, washing clothes and cleaning a house, has been constructed socially and culturally as a task carried out by women in a family. This type of work is unpaid care work. Thus, women are perceived as non-income-earning family members. In addition, care work often limits the social and productive roles of women, even though the International Labour Organization (ILO)<sup>8</sup> states that care work is at the heart of humanity and thus contributes to an economy.

### **Impact of climate change and environmental issues on women's labour force participation**

Women in the Global South are experiencing new forms gender discrimination due to environmental degradation.<sup>9</sup> The expansion of industry has been generating complex issues affecting women, such as handling the threat of food insecurity and issues of land rights due to climate change. Rural women no longer have space to use their wisdom in nurturing nature due to the expansion of industrial activities, which has caused them to lose their access to nature as a source of well-being. In Indonesia, indigenous women's protests in Bengkulu, Manggarai, Molo, Papua and Rembang, ranging from rallies to nudity movements, have highlighted how women's roles in securing the food supply for families and society remain devalued. The arbitrary decisions in extractive industries development not only affect environmental degradation but also negatively impact the livelihoods and everyday life of women because women's activities are so much intertwined with the natural environment.

Environmental degradation may damage important components for health in general and maternal health specifically (such as the supply of clean water, fresh air and nutritious food), including the sexual and reproductive health and rights of women.

When the palm oil industry began operations in 1960, for instance, forest clearing through logging permits



proliferated. The government at that time gave the industry access to land for clearing and concessions.<sup>10</sup> In just 20 years (1990–2010), palm oil plantations expanded from around 1.1 million hectares to 7.8 million hectares and then to 11.9 million hectares in 2017.<sup>11</sup> The impacts of the palm oil industry on women are more devastating than on men due to how it threatens women's role as well as families' livelihoods. When women work in palm oil plantations, they are often ignored and discriminated against, even though their involvement strongly influences the production process. Wright<sup>12</sup> argued that 86 per cent of palm oil plantation workers are male because companies perceive that the physical work is not suitable for women.

Furthermore, women's participation in the palm oil industry has never been acknowledged as wage labour, thus they do not obtain the same rights as male workers. Most women participating in the industry remain "invisible" and unrecognized as their work is to "help" their husbands achieve excessively high targets set by the company.<sup>13</sup> This can generate a domino effect, whereby girls within these families must deal with future threats, such as child marriage. National data over the past three years (2016–2018)<sup>14</sup> reflect 1.6 million child marriage records. The highest percentage of child marriage occurred in Kalimantan, a province where one million hectares of land has been used and marked for palm oil plantations.

# The future of work for women and narratives of digitalization

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## Feminist perspective

In patriarchal structures, Indonesian women are often regarded as household managers, as opposed to the “moral” duty of men as husbands and breadwinners. Such gender segregation, which is also reworked within capitalism and conservatism,<sup>15</sup> creates the process of “housewifization”<sup>16</sup> and contributes to devaluing household chores, which are categorized as unpaid care work.

With regard to the future of work, the treatment of care work could be different on the grounds that its utilization by family and community has already expanded, resulting not only in the idealization of motherhood but also in the normalization of the division of labour. According to Walby,<sup>17</sup> the recognition of care work as a productive activity would help reduce the gap caused by unequal job opportunities. She also noted that there are rational factors of why and how an equal sex ratio in the labour force is a potential solution to the productivity gap: First, the human capital of women would relatively increase, in both education and through their increased participation in the labour market. Second, there would be flexibility to combine “work” and “care” responsibilities, which would also help reduce interruptions in employment due to child and family obligations. Third, a fairer market has the potential to reduce discrimination and improve security for the female workforce. The challenge is that social norms from culture, customs and religion have long constructed care work to be understood in the sense of voluntarism, love, sacrifice and devotion.

Due to social constructions, technology is still perceived as a non-feminine field, hence the low participation of women in related jobs or in the benefits of how it is affecting the world of work, particularly innovations and advancements.<sup>18</sup> On the other hand, while digitalization and automation are advancing, there is an urgent need to equip women and girls with science, technology, engineering and mathematics (STEM) knowledge. Yet, when women’s participation increases, they tend to be part of the consumer group rather than as participants in the platform economy.<sup>19</sup> Digitalization in Indonesia is

still considered as a transformation of the conventional business method.<sup>20</sup> This transformation results in an environment that discourages active participation in innovation and instead transfers the women to the new consumers. But the composition of economic capital holders of new technology remains the same, with women lagging. The roots of this lack of awareness and use of digital platforms are inseparable from the gender stereotypes and inequalities that hinder girls and women from accessing opportunities to seek out, and benefit from, careers in STEM fields.<sup>21</sup>

Within the presumption of technology as an outcome of male knowledge, the future of work should not only produce space to increase the number of women in technology production. But women’s participation should be perceived as valuable input, hence technological development should be linked to the process to expose how women comprehend and take advantage of science and technology.<sup>22</sup>

## Main sectors in the future of work for women

### *Women’s involvement in e-commerce*

Digitalization is already affecting economic sectors in Indonesia, including the transformation of traditional SMEs into e-commerce platforms. But the limited available data indicate that women in SMEs are not benefiting. Based on e-commerce traction data from 2016 to 2017, the utilization of digital platforms by small entrepreneurial women is relatively low; it even decreased in that time period, from 42.7 per cent to 34.4 per cent.<sup>23</sup> The percentages reflect a wide gap in women’s participation in the digital economy, considering that among the 57 million SMEs in Indonesia, 60 per cent are owned or headed by women.<sup>24</sup> A survey conducted by Facebook, the OECD and World Bank found that more women run SMEs than men. Yet, men entrepreneurs are using online platforms more than women.

However, women do not appear to be participate in the platform economy as much as men.<sup>25</sup> The roots of this

lack of awareness and utilization of digital platforms are inseparable from the gender stereotypes and inequalities that have hindered girls and women from accessing opportunities to contribute to, and benefit from, careers in STEM.<sup>26</sup> The gender-based problem also happens to the phenomenon of online-shopping that has arisen in Indonesia over the last few years. The high growth of online-shopping tends to target women as potential consumers despite data showing no significant difference in the utilisation of the internet based on gender, with 48.57 percent of women and 51.43 percent of men using the internet.<sup>27</sup>

### ***Advancing the role of women in the manufacturing sector***

Manufacturing is the third sector in which women in Indonesia are heavily participating, after agriculture, retail, trade and repair servicing (such as electronics and automotive mechanical repair). Women are highly likely to participate in the manufacturing sector because it does not require much educational attainment nor advanced skills. According to the Minister of Industry, the manufacturing sector employed up to 18.3 million people in 2018.<sup>28</sup> The industry has long been feminized and women have long been dealing with a wage gap, unsafe working environments and lack of gender-based protection. Now, with the emergence of the Fourth Industrial Revolution, another concern is added to that mix: the termination of employment of 37.5 million workers who could be replaced by technology.<sup>29</sup>

There is a common perception that several types of jobs are disappearing, such as in retail shops, travel agencies and banking.<sup>30</sup> Labour unions have expressed concern over how the technological revolution has triggered the loss of jobs in the manufacturing sector. If advanced technology leads to automation and robotization, women's work in manufacturing will likely be replaced. Due to women's inability to participate in STEM-related education for socio-culture reasons, they likely will be unable to compete in the coming technological era. Thus, to ensure women's sustainable participation in the priority manufacturing sectors, such as food and beverages, textiles and garments, women should be equipped with advanced skills appropriate to the future of work.

### ***Women's work is key to agriculture productivity***

In rural areas of Indonesia, women are the backbone of the economy. There are 13 million women farmers among the 38 million smallholder farmers working in the agriculture and forestry sectors.<sup>31</sup> The Food and Agriculture Organization of the United Nations (2018) estimated that 61 per cent of rural women were actively engaged in livestock production and forestry and were practising agriculture activities in a more environment-friendly manner. As well, women farmers contribute to their family's economy.

Yet, the feminization of poverty within female-headed households in rural areas is considerably high.<sup>32</sup> The number of female-headed households in Indonesia is more than 10 million, amounting to 10 per cent of the entire female population.<sup>33</sup>

The increasing advancements in technology are reaching rural areas in many developing countries, including Indonesia. But it is challenging farmers' productivity because the technology transfer system from traditional to modern agricultural management has not been widely accepted by farmers, who still use traditional equipment rather than sophisticated technology equipment.

In addition to limited resources limited knowledge is also hindering the pace of technology adoption in the agriculture sector. The problem is even more serious for women, who face a triple divide: digital, rural and gender.<sup>34</sup> Women farmers experience difficulty accessing information, new farming technology, financial products and services and expanded markets through digitalization platforms.<sup>35</sup>

Hence, the mainstreaming and expanding of digital literacy training for women is crucial to prevent widening of the digital divide and ensuring that agriculture technology will be adopted by, and thus beneficial to, women farmers.

### ***Technology-based education and training for women***

The retraining and up-skilling of the labour force should be provided to close the gap between labour market demand

and workforce supply. This can be done through technical vocational education and training (TVET) programmes to improve employability and participation in lifelong learning. However, the International Centre for Technical and Vocational Education and Training<sup>36</sup> argues that TVET in Indonesia needs improvement, especially in two main aspects: strengthening the correlation between practical training and skills taught in TVET institutions and the demands of the labour market; and increasing the ratio of teachers with academic and practitioner backgrounds in TVET institutions, where the latter are under-represented. TVET is necessary because the education level of the labour force is dominated by workers with lower than a secondary school education. The quality of human resources can be accelerated through TVET.

Career opportunities for women may seem like a free choice, but significant social barriers keep girls and young women from entering the STEM fields in their studies or in seeking related employment options.<sup>37</sup> Candraningrum and Dhewy<sup>38</sup> argued that children and young women can master STEM subjects at school but feel afraid, anxious and ashamed when dealing with their teachers. This indicates there is still a strong bias in the STEM learning process in schools. The authors also quote a UNESCO report citing that less than 19 per cent of employment contracts in the STEM fields are held by women. Consequently, women are not present in decision-making on science and technology policies. This then affects the pattern of infrastructure policy and

broad economic politics and reinforces gender-based disparities. In Indonesia, two of every ten women have chosen to work professionally in the STEM industry, and three of every ten women have become researchers in a STEM field.<sup>39</sup> The Central Agency of Statistics also found that only around 30 per cent of female workers has a job in a STEM industry.<sup>40</sup>

### ***Care work and diversity of workplaces for women***

The Central Agency of Statistics estimates there are around 24 million older persons (older than 60) in the country.<sup>41</sup> With the demographic surplus, this number is predicted to reach 80 million persons in 2050, making Indonesia one of the world's largest ageing populations. This demographic transformation of the population requires government interventions to provide support for older persons. This, then, presents opportunity for women—if the government and society alter their low appreciation of unpaid care work and accept it as paid and professional work.

The lack of government support, such as child care and elder care, has caused the stagnation of women's participation in care work. Thus, unpaid care workers need adequate support from the government because most women in unpaid care work are not financially independent. A set of policies to support and value unpaid care work is imperative.

# Future research priorities

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## Women and care work

Further research on care work with a feminist perspective would be helpful to map how women's activities have contributed economic productivity. It could also be beneficial for determining the extent to which women's experiences in care work can be formulated as input to alleviate the feminization of poverty. In a more practical way, what women do in terms of care work, especially within household routines, is a fundamental service (and need) in society. The absence of recognition of such work in the form of a policy not only traps women but also drives people to increasingly leave care work because they prefer to be involved in an income-generating economic activity.

This situation poses the risk of causing disaster. For example, the current demography trend is leading to a large proportion of older persons in the future; but as long as there is no contingency plan to care for the growing number of older persons, social inequalities could emerge that influence the stability of productivity in general. To reap the optimum benefits of the demographic dividend, considering that Indonesian women still lack market-required skill sets, greater investment in girls' human capital is necessary and may lead to future cohorts of women in more decent jobs and with higher wages.

## Future social protection

To reinforce the participation of women in the future of work, social protection must be further explored.

Women's participation in workplaces, including in agriculture, is often not accompanied with legal protection to ensure that they have access to sources of welfare and social security. It is important to resolve this issue. The experiences of women in subsistence work, however, suggest an alternative approach to protecting them from exploitation through appropriate support systems.

Future research on social protection would be beneficial for exploring ways to recognize unpaid care work as advantageous capital for national economic development and thus recognizing women's economic contributions. It is undeniable that care work has an important role in society. Further examination of social protection that is also contextualized within the gender framework is crucial.

## Gender framework for policies relating to the future of work

The government has stipulated policies and a road map on how Indonesia could change the threat of the Fourth Industrial Revolution into opportunities. However, the lack of a gender framework in these policies will not strengthen women's participation in the labour force. Thus, to optimize those policies, it is important to further study how a gender framework could generate different inputs and outputs, in which women better participate in the future of work.

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The views expressed in this publication are not necessarily those of Friedrich-Ebert-Stiftung.

## Imprint

© 2019 Friedrich-Ebert-Stiftung Indonesia Office  
Jl. Kemang Selatan II No. 2A  
Jakarta Selatan 12730  
Indonesia

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This publication is part of a series under Women and the Future of Work, a regional project coordinated by the FES Office for Regional Cooperation in Asia, based in Singapore.