

Future of Work for Youth in Indonesia

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List of Abbreviations

APINDO	Asosiasi Pengusaha Indonesia (Indonesian Employer's Association)
APJII	<i>Asosiasi Penyelenggara Jasa Internet Indonesia</i> (Association of Indonesian Internet Service Providers)
ASEAN	Association of South-East Asian Nations
BAPPENAS	Kementerian Perencanaan Pembangunan Nasional (Ministry of National Development Planning of Indonesia)
BLK	Balai Latihan Kerja (Job Training Center)
BLT	Bantuan Langsung Tunai (Direct Cash Assistance)
BPS	Badan Pusat Statistik (Central Bureau of Statistics)
COVID-19	Coronavirus Disease of 2019
DPR	Japan Meteorological Agency Dewan Perwakilan Rakyat (People's Representative Council)
EIU	Economist Intelligence Unit
FGD	Forum Group Discussion
FWA	Flexible Working Arrangements
GDP	Gross Domestic Product
GVC	Global Value Chain
ICT	Information and Communication Technology
IESR	Institute for Essential Services Reform
IPCC	Intergovernmental Panel on Climate Change
IT	Information Technology
KemenPPPA	<i>Kementerian Pemberdayaan Perempuan dan Perlindungan Anak</i> (Ministry of Women and Children Empowerment)

List of Abbreviations

Kemnaker	Kementrian Ketenagakerjaan (Ministry of Labour)
KSPSI	<i>Konfederasi Serikat Pekerja Seluruh Indonesia (Confederation of All Indonesian Trade Unions)</i>
LFPR	Youth Labor Force Participation Rate
LSIH	Lembaga Sertifikasi Industri Hijau (Green Industry Certification Institute)
MK	Mahkamah Konstitusi (Constitutional Court)
NEET	Not in Education, Employment, or Training
OPSI	Organisasi Pekerja Seluruh Indonesia (Indonesian Workers Organization)
OUR	Open Unemployment Rate
P2P	Peer-To-Peer
PMI	Pekerja Migran Indonesia (Indonesian Migrant Workers)
PPKM	Pemberlakuan Pembatasan Kegiatan Masyarakat (Enforcement of Restrictions on Community Activities)
R&D	Research and Development
SAKERNAS	Survei Angkatan Kerja Nasional (National Labour Force Survey)
SIH	Standar Industri Hijau (Green Industry Standard)
SMA	Sekolah Menengah Atas (Senior High School)
SMK	Sekolah Menengah Kejuruan (Vocational School)
UN Women	United Nations Entity for Gender Equality and the Empowerment of Women
USA	<i>United States of America</i>

1. Introduction

Indonesia faces a significant challenge in the unemployment issue with demographic dividends over the last forty years that will only continue for the next 5-10 years. Despite posing as a huge opportunity to reduce poverty and promote economic growth, without being appropriately managed, this rapid increase in the working population will further aggravate Indonesia's workforce struggle in securing employment opportunities and negatively impact the economy. In terms of youth, young people (15-24 years old) are three times more likely to be unemployed than adults (IFAD, 2019). Lack of formal employment and social protection leads to work poverty, where people live below the poverty line despite having a job. This phenomenon affects more than 169 million youth worldwide (ILO, 2015), including in Indonesia.

The main problem regarding youth unemployment in Indonesia generally revolves around a skill gap closely linked with low quality and quantity of education, limited job training, high cost of laborers' mobility, and inadequate labor market information that leads to labor productivity (World Bank, 2020). Moreover, economic structure, work-related policies, and labor rights also affect the youth employment landscape as they influence access to education, skill, decent jobs, and the labor market, as well as the latest economic and technology development (Kemnaker, 2020). Policymakers in Indonesia still face a challenge in determining which policies and programs will stimulate the creation of decent jobs while ensuring that young workers are better protected from the risks that threaten their income. Decisions on labor policies are challenging because they can directly affect the well-being of youth workers inside and outside the formal labor market.

That being said, this study aims to explore youth participation in the labor force that also faces challenges rooted in a complex interaction of various current 'megatrends' shaping the future. This white paper adopted Oxfam's four megatrends lense: demographic change, technological change, environmental pressures, and shifting power. The criteria for dividing megatrends and their sub-trends into clusters were: 1) the consensus around trends emerging from the analysis and 2) the scope of the trends, with some megatrends being further divided into sub-trends (Oxfam, 2020). After understanding the trends and challenges the current working-class youth need to face, some recommendations are then formulated for the government to approach the issue from all four megatrends angles.

2. The Four Megatrends

2.1. Demography

2.1.1. Trends in Demography

Since 2019, Indonesia has experienced a demographic dividend, where the productive age population (15-64 years) dominates Indonesia's demographic structure (Kemnaker, 2020). The working population increased from 53.4 million in 1961 to 170.9 million in 2015. This working-age population will continue to grow until 2050 to reach more than 200 million people. The population aged 0-14 years is slowly decreasing and the population aged 65 years and over slightly increased (Wisana, 2020). This demographic dividend is expected to increase productivity, income per capita, and national economic growth.

Economic potential benefits from demographic dividends can be seen in Youth Labor Force Participation Rate (LFPR). Unlike other countries in Southeast Asia and the Pacific, which are experiencing a decline, Indonesia's LFPR (15-29 years) has continued to rise since 2018 at a rate of about 0.02% per year to 67.77% in 2020 (World Bank, 2020). However, the increase in the workforce only occurred in Java, Bali, Sumatra, and Papua; in Kalimantan, Sulawesi, Nusa Tenggara, and Maluku, there has been a decline (World Bank, 2020).

Based on age, the percentage of LFPR shows that most youth workers are aged 25-30 years old, indicating that the younger generation has not been required to earn a living and still pursue their education (Kemnaker, 2020; BPS, 2020). According to BPS (2020), youth workers are absorbed in the service sector. Specifically, youth workers aged 16-18 years work in the service and agriculture sectors. Meanwhile, youth workers aged 19-24 years and 25-30 years primarily work in the service sector. By gender, men dominate the agriculture and manufacturing sectors, while women dominate the service sector (BPS, 2020). Most men work as production workers, transportation equipment operators, and manual laborers, while women mostly work as sales personnel as well as service and other business sectors such as accommodation, culinary, and education.

From 2018 to 2020, the percentage of youth that worked in rural areas is slightly higher (54-55%) than in urban areas (50-52%). On the other hand, the percentage of youth participation in education in rural areas is lower than in urban areas. The agricultural sector takes in a majority of youth in rural areas. Other statistics in 2018-2020 stated most rural youth work as farm laborers, gardeners, livestock, fishery, forestry, and hunting (BPS & KemenPPPA, 2018). The agricultural sector is dominated by workers who did not go to school until they finished elementary school (Kementerian Pertanian, 2020). It indicates that rural employment may require lower skills to better absorb the workforce. Rural youth who work in the services sector mainly work as production

workers for transportation equipment operators and manual labor. Both agricultural and services sectors have relatively lower incomes than other sectors (BPS, 2020b). Although the agricultural sector in rural areas still dominates, the percentage decreases year by year and is replaced by the service sector.

In line with shifting sectors in rural areas, The World Bank (2020) states that the Indonesian economy is undergoing structural changes. There is a shift in employment from the agricultural sector producing raw materials to industries that provide more added value, namely manufacturing and services. In the Indonesia Vision for 2045 document, the industry will be encouraged to be the driver of economic growth (BAPPENAS, 2019). Industrial modernization focuses on natural resources processing industries and industrial centers with supply chain and value chain integration from upstream to downstream, supported by innovation, quality human resources (HR), and partnerships between large, medium, and small industries. The industry is encouraged to be part of the global value chain (GVC), prioritizing the food and beverage, textile and apparel, automotive, electronics, and chemical and pharmaceutical industries.

2.1.2. Challenges to Demography

Even though Indonesia is experiencing a demographic dividend, Indonesia still lacks in optimizing its economic benefits. Several factors challenge Indonesia to optimize demographic dividend advantages from a demographic aspect: (1) mismatch between vocational education and job requirements; (2) low-skilled workforces; (3) women participation in work; (4) low disabilities participation; and (5) increasing of unemployed youth due to COVID-19. Those challenges also need to be addressed to prepare for an economic shift in Indonesia's manufacturing and services sector.

A Mismatch between Vocational Education and Job Requirements

Based on the level of education, the open unemployment rate (OUR) in Indonesia is always dominated by high school graduates, followed by university graduates (BPS, 2020). The most significant OUR in Indonesia is dominated by the vocational high school graduates group, amounting to 13.35% (BPS, 2020). It happens due to the low quality of the vocational high school. Based on FGD with BAPPENAS (12 July 2021), out of 11,000 vocational high schools in Indonesia, only 400-500 are categorized as high quality. Most vocational high schools in Indonesia face problems with inadequate or incompetent teachers, inadequate curriculum, and limited infrastructure. In addition, so far, vocational schools in Indonesia have not been prepared to respond to how the industry will absorb their graduates. It happens due to a lack of industrial cooperation or skills irrelevancy to the industry's needs.

Low-Skilled Workforces

In 2017, 62% of Indonesians worked semi-skilled jobs, followed by 21.5% in low-skilled jobs, and 16.5% in high-skilled jobs (World Bank, 2020). This is due to the current low level of workforce education, where 65% of the workforce is filled by people with the latest education equivalent to junior high school (World Bank, 2020). On the other hand, Indonesia is experiencing an increase in the education level of youth, indicated by the increasing percentage of Indonesian youth occupying high school/equivalent and

tertiary institutions every year and decreasing rate in the categories of graduating/not graduating from elementary school. Hence, the number of youth graduates from high school (SMA) and vocational high school (SMK) has not correlated with the absorption of many workers from both levels of education. Kemnaker (2019) also stated that Indonesia's 2018 Global Competitiveness Report score was still low. The report presents information and data that were compiled and/or collected by the World Economic Forum to measure countries' productivity and the competitiveness ecosystem.

Low Participation of People with Disabilities

Based on data from the 2018 National Socio-Economic Survey, in Indonesia, 30.38 million people (14% of the total population) are people with disabilities. The average length of schooling for persons with disabilities is far below that of non-disabled youth in 2017-2020 (only 6-7 years compared to around ten years for an average person). Even though Indonesia already mentioned inclusivity in employment through Disability Law, it impacted the opportunity for the person with disabilities to compete with non-disabled persons in employment. Moreover, the stigma that the person with disabilities is incompetent, even risking the company experience loss, is still common in many companies (Gaol, 2020).

Women's Participation in the Workforce

The 2016-2020 data show that Indonesia's LFPR is dominated by men, indicating the role of men who are the primary breadwinners of families in Indonesia (Kemnaker, 2020). Studies conducted by Siswati (2020) and Sitepu (2017) confirm the decline in the number of female youth workers aged 24-35 years is due to marriage and having children. The role of women in taking care of the household, children, and the whole family, is the reason for the decline. Other reasons include women's mobility which has been associated with the role of women who commute, take and pick up children to daycare, school, shop, and go to/come home from work (Setyonaluri, 2019). The length of time and a large number of transportation costs made women who are already married consider to stop from working. Another reason, early marriage and unpaid care work pose challenges for women to enter the workforce and have a career. In Indonesia, the proportion of women aged 20-24 years who are married or living together before the age of 18 is 11.28%, and under 15 years is 0.94% (BAPPENAS, 2021). This early marriage limits education, health, income potential, and even the security of girls' health. Unpaid care work and the inequality of unpaid care work experienced by women, prevent them from being actively involved in the labor market and the availability of quality job opportunities (OECD, 2014). In Indonesia, women are actively involved in unpaid care work from an early age (SMERU, 2016).

Increasing Number of Unemployed Youth due to COVID-19 Pandemic

The COVID-19 pandemic also has an impact on employment. According to the Central Bureau of Statistics (BPS) (2020), the unemployment rate in the young workforce in 2020 rose by 1.8% compared to the previous year. On the other hand, the number of youth who are self-employed continues to increase, from 23 million people in 2018 to 26 million people in 2020. It is followed by the number of entrepreneurs assisted by

temporary workers/unpaid workers, the number of entrepreneurs assisted by family workers, unpaid workers, and casual workers also increased in 2020 (BPS, 2020). It indicates a shift from the employee/labor category to the other four categories and shows that several categories are becoming increasingly vulnerable in a pandemic situation, especially those who obtain irregular pay, low wages, or even no pay at all.

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2.2. Technology

2.2.1. Trends in Technology

In the global context, companies have integrated their business with technology (Monk's Hill Ventures & Glints, 2021). Technology-enabled financial inclusion, crowdfunding, peer-to-peer lending, and similar mechanisms also provide more significant opportunities for young entrepreneurs to attract investors (ILO, 2020). Digital innovation decentralizes units of economic activity from companies to individuals, giving workers more opportunities to participate in the labor market and start their businesses (ILO, 2020). Technology-based solutions have also helped young people actualize their entrepreneurial aspirations by providing access to market information, financial skills, and digital literacy.

In line with this, the accessibility and convenience of the internet have also increased, including in rural areas of Indonesia. According to 2018 BPS data, up to 87% of farmers in villages use the internet and 91% of villages in Indonesia have successfully connected to the internet network. BAPPENAS (2021) agrees that information and communication technology (ICT), e-commerce, and other digital applications are being utilized to promote entrepreneurship and innovation, support productive activities, and increase employment. The presence of several unicorn technology companies such as Tokopedia and Gojek with a value of up to US\$ 1 billion in Indonesia also inspires many young people (ibid.). More than a third of young Indonesians aged between 15 and 35 years claim to want to have their own business (WEF, 2019). Not surprisingly, the number of online merchants in Indonesia has doubled every year for the past few years. Indonesia's e-commerce market value also increases 2-5 times per year.

in using technology. Digital literacy is also very important for optimal, effective, and productive use of technology and information to create promising economic opportunities. According to the results of the FGD with BAPPENAS and Kemkominfo (July 2021), currently, many young people from rural areas have taken the initiative to

take advantage of technological developments to build agricultural models with a modern business approach. This modern business approach is carried out by integrating agriculture, tourism, and local education. This practice is also encouraged by e-commerce and various peer-to-peer (P2P) lending practices.

This development makes it easier for small businesses and entrepreneurs in developing countries to connect with global markets. Currently, technology indirectly gives birth to various new commodities that can be monetized, including services. This is shown in the emergence of various new jobs in today's digital economy era, such as the rise of content creators, the gig-economy culture (having a side job in addition to a permanent job), the increased number of freelancers, as well as technology-based jobs that are booming (data engineers, video editor, social media officer, etc.). The presence of technology in the digital economy space creates new economic opportunities that also empower and provide youth with the right skills.

With information technology, women are also being benefitted as they now have easier access to establish and develop their businesses. Technology and the digital economy provide options for women with families to prioritize their role as housewives and participate in income-generating activities. Women can carry on their business from home and position themselves as entrepreneurs who have high productivity without leaving domestic life, such as taking care of children, having a family, and other household matters (Nurcahyani and Isbah, 2020). This phenomenon is in line with research conducted by UN Women in 2020, which stated that at the micro and small business level, women have adopted the use of the internet in marketing and selling their products, higher than the use of the internet by male-led micro-enterprises.

In the context of the COVID-19 pandemic, the internet and digital technology have enabled the implementation of flexible working arrangements (FWA). In the new normal phase, working hours, working spaces, and work relationships such as part-time workers or freelancers (Spurk & Straub, 2020) are now being transformed to adapt to the limitations of the pandemic era, keeping the economy running despite the challenges. The COVID-19 pandemic has also opened up capacity and skill development opportunities due to the increased ease of access to courses/training for youth. Many online courses/training are provided free of charge, such as Coursera and Ruangguru, while the government procures the Pre-Employment Card (Kartu Prakerja) program (Kompas.com, 2020). In addition, the government also provided subsidies for internet data packages to support the online teaching and formal learning process, even though this assistance was yet to be distributed evenly.

Additionally, despitefully recognizing the potential of automation, Indonesia is still currently going to boost its manufacturing sector as it can absorb more labor (FGD with Kemkominfo, 2021). However, automation is still deemed essential by Indonesia as President Joko ("Jokowi") Widodo is determined to transform Indonesia into an Industry 4.0 economy (McKinsey, 2019). Automation in Indonesia has the potential to increase GDP growth and income for the workforce, and provide new opportunities for business actors. Automation is expected to generate 4 to 23 million jobs by 2030. This figure

includes 10 million new jobs that do not yet exist (McKinsey, 2019). However, this benefit requires an integrated effort from all stakeholders in the business ecosystem to address skills transitions.

2.2.2. Challenges to Technological

As mentioned above, it is found how impactful technology is on the Indonesian economy and how important it is for workers to have the suitable skills to seize its benefit. Technical skills in operating technology and supporting non-technical skills are becoming increasingly important to strengthen the foundation and culture of economic digitization. In the future, all economic sectors will need digitally skilled workers considering the transformation towards a digital economy (Kemnaker, 2020).

However, it is challenging the Indonesian workforce by not having the skills needed in the current technology and digital era. It is very much in accordance with one of the main challenges in labor absorption in Indonesia is the mismatch between the skills of the available workforce and the existing job demands. Citing the 2015 BPS National Labour Force Survey (SAKERNAS) analyzed by the Demographic Institute of the University of Indonesia, there are currently around 53.3% of workers with educational backgrounds that are different from their current work, leading to what is termed Critical Occupation. As many as 35 types of work included in Indonesia's Critical Occupation List by World Bank (2018) represent the manufacturing, telecommunications, and IT sectors, accommodation and food services, construction, and other professional services.

Furthermore, with better internet penetration in urban areas and most rural areas, issues related to technology and digitalization are now no longer about geographical access gaps or the first digital divide. More than that, the current issue has turned into a second digital divide related to the gap in digital knowledge and skills that is widely experienced by youth from rural areas. Also, despite that the internet and technology have digitized rural areas and provided them with better access to information and income generation activities, youth community representatives observed in FGDs that young people are more inclined to use digital technology solely for entertainment purposes. It shows that the education and training direction in Indonesia needs to be adjusted to the business needs and the latest industrial world, which is closely related to technology, including automation.

Automation and Job Loss

As a result of technological developments, automation occurs in all industrial sectors. Consequently, every individual who feels they are in a job where the demand for labor is decreasing needs to make a job transition. The McKinsey Global Institute scenario (2017) shows that by 2030, 75 to 375 million workers (3-14% of the global workforce) will need to switch job categories.

The impact of this automation is not evenly distributed in all countries and will depend on the level of development in the country (ILO, 2020). The effect of this automation will not be felt the same in every group of workers. Youth workers with vocational education are threatened more easily by automation than those with a bachelor's

degree (FGD with BAPPENAS, 2021). This challenge is caused by their specific and non-adaptive skills, so they are at high risk of being replaced by automation. They eventually have to change jobs and therefore are at risk of joining the Not in Education, Employment, or Training (NEET) group. In addition, administrative jobs are also at risk of being replaced by machines or artificial intelligence (World Bank, 2020).

Indonesia faces significant challenges in welcoming and maximizing the opportunities brought by automation and disruptive technological developments in the economy. Protection of personal, government, and company data is an information and communication technology (ICT) issue that has not been handled, regulated, or well-guarded in Indonesia (FGD with Kemkominfo, 2021). Coupled with infrastructure that is not sufficiently accommodative, professional transformation amid the rapid development of the technology and digital era has become very difficult (ibid.). Moreover, it is predicted that there will be 23 million jobs globally at risk of being replaced by automation (McKinsey, 2019).

Women's Access to Technology

Unfortunately, even though digital penetration is already massive in many places, young Indonesian women face more significant barriers to accessing information technology and using it as a productive platform than young men. Quoting the Association of Indonesian Internet Service Providers (APJII) in 2017 from Indonesia Digital for Future Economy and Inclusive Urban Transformation report, a gap in internet usage rates between women (48%) and men (52%) from 7000 research samples conducted nationally. This gap marks systemic gender inequality in Indonesia's Information and Communication Technology (ICT) sector and has implications such as limited opportunities for young women to access education, find high-paying jobs, and start technology-based businesses (Kemkhadze, 2021). Moreover, the limited access to ICT for girls in primary or secondary schools also makes it difficult for young women to access the labor market increasingly demanding digital skills and knowledge.

Based on research from the World Wide Web Foundation and Open Data Labs in Indonesia, this digital divide is exacerbated by various factors, such as perceptions of the potential benefits and costs of using the Internet, online vulnerabilities due to a discriminatory patriarchal culture, education level, teacher training in ICT, and the limited content on women empowerment in Indonesia. In the technological development of the automation field, women are also more at risk of losing their jobs because more women work in the administration and services. Technological automation will impact 11% of female workers compared to 9% of male workers. Low education low-skilled women and women aged 40 years and over will be increasingly threatened with losing their jobs due to technological automation (Lagarde, 2018).

2.3. Environment

2.3.1. Trends in Environment

According to Statistic Indonesia, youths working in the agriculture sector slightly fluctuated in 2018-2020. In 2018 and 2019, there was around 4.8% of youth working in the agricultural sector in urban areas. In 2020, the percentage increases to 6.2%. In

rural areas, the number fluctuates between 36 to 29% during those periods. On the other hand, from a model conducted by Salamah et al. (2021), youth contribution in the agricultural sector shows a decrease in trendline over the past five years. The same statement is also delivered by Ningsih and Sjaf (2015), whereas youth involvement in the agricultural sector was declining, especially inland and seed preparation and its maintenance. They also identified two factors that hinder youth participation in Purwabakti village, Bogor Regency, in the agricultural sector that are (1) a low number of land ownership because of lack of land security and (2) the income obtained from agriculture is not able to meet the needs. Nowadays, the agricultural sector also faces climate change as another challenge. Due to climate change, agriculture activities are considerably influenced. Climate change increases the unpredictability and intensity of rainfall, while agricultural production is highly dependent on variations in rainfall between years. Average annual rainfall tends to decrease in southern Indonesia, including Java, resulting in significant changes in water availability (Marhaento, et. al, 2018). Furthermore, according to the Intergovernmental Panel on Climate Change (IPCC), extreme events such as droughts, floods, and heatwaves will continue to negatively impact consumers and producers in the developing world (IPCC, 2014).

Meanwhile, the green industry is starting to become a rapidly growing sector globally and also in Indonesia. This development is taking place on a global scale which can be seen over the last few years, 2.3 million people have managed to find new jobs in the renewable energy sector alone, and the potential for job growth in this sector is vast (ILO, 2020). It is estimated that in Indonesia in 2030, there will be a demand for 1,721,435 jobs in renewable energy due to the addition of renewable energy sources, such as hydropower, geothermal, bioenergy, solar, wind, and other sources (Potential for Green Energy Jobs in the Energy Transition Era/IESR, n.d.). The transition to low-carbon and sustainable development will trigger a shift in the labor market in Indonesia and create demand for a new skilled workforce.

Indonesia also has a positive trend regarding green labor sectors. Indonesia established regulations and policies to promote the green industry by giving green industry awards, issuing 28 Green Industry Standard (Standar Industri Hijau/SIH), and increasing institution capacity. It includes the Green Industry Certification Institute (Lembaga Sertifikasi Industri Hijau/LSIH), which gives green industry certificates to 37 companies or industries such as cement, fertilizers, textiles, paper pulp, and rubbers (Ministry of Industry, 2021). At the same time, Indonesia is also experiencing a rise in green startups. For example, Daur and Waste4Change as waste management startups; Sei Balai Green Energy and Xurya Daya Indonesia in renewable energy; GeoFast in the green cement industry; and Mycotech in sustainable architecture and fashion materials. However, there is no exact study about the rising trend of the green labor sector in Indonesia.

2.3.2. Challenges to Environment

Agricultural Sector

Lack of water availability and other disasters induced by climate change have direct implications for the economy of the people who depend on the agricultural sector for

their livelihoods. For instance, the frequent delays at the start of the rainy season led to massive crop failures in Indonesia's main rice-producing areas. Other commodities, such as coffee and chili, also experienced losses. There is a decrease in chili production, leading to a significant decline in income. Arabica coffee farmers in Aceh Tengah also experience the effect: temperature changes lead to new pests and diseases previously found at lower altitudes. The long drought and shorter harvest period for coffee resulted in an increase in harvesting load, delays in peeling off the fruit skin, and over-fermentation that reduced the quality.

In the sea fisheries sector, climate change has impacted the uncertainty of the weather, currents, winds, waves, and seasonal patterns. It becomes more difficult for fishermen to predict when they can sail. It results in reduced fishing opportunities and income. The Southeast Sulawesi Climate Risk and Vulnerability Assessment Report (USAID, 2018) shows that changes in seasonal patterns at sea impact the production of small pelagic fisheries and traditional fisheries. This causes a loss of fishing productivity, profits, and even jobs due to uncertain fishing seasons. It also causes environmental damage in communities in eastern Indonesia, where 80% of the population depends on marine resources, especially shallow marine fisheries, pelagic fisheries, coral reef resources, seagrass (seaweed), and mangrove forests. In Java, fish, shrimp, and salt ponds are also vulnerable due to high rainfall, high tidal waves, and strong winds. The lives of workers in the fishery sector also cannot be separated from the material aspect of their lives, for example, by submerging houses and losing their homes, which also forced them to change locations and livelihoods.

COVID-19 pandemic, climate change, and environmental crises have affected agricultural sector workers in rural areas in Indonesia. The impact of social restrictions on agricultural production chains in rural areas creates a new problem: the vulnerability of youth employment opportunities in rural areas, especially in the agricultural sector. In line with the social restriction policy in critical areas in Indonesia, this regulation's application has hampered remote rural areas' economic activity. In 2020, it was predicted that there would be a more severe drought than usual. The phenomena added the risk to the agricultural sector beyond the impact of the COVID-19 pandemic. All of this has an impact on the relevance and urgency of the agricultural sector to get more attention in handling the crisis.

Green Labor Sector

Even though green industries are proliferating and are supported by several policies, green industries in Indonesia still face some challenges. According to the Minister of Industries in Catriana (2021), those challenges are: (1) green industry needs extensive research and development (R&D) that can be applied in a multisectoral manner; (2) a lot of industries still use old technologies that are not efficient and produce a large amount of waste and pollution; (3) shifting to green and efficient equipment, and tools require high costs; (4) green industries need highly qualified and experienced human resources; and (5) lack of incentive, both fiscal and non-fiscal to support the development of the green industry. Of all the challenges, point number (4) is related directly to youth labor.

As mentioned before on Demography Challenges, Indonesian workers are primarily occupied in semi-skilled jobs and low-skilled jobs. Thus, an increasing green industries trend should be anticipated by increasing the labor skills to optimize youth participation in green industries.

2.4. Democracy and Civic Space

2.4.1. Trends in Democracy and Civic Space

The Indonesian Democracy Index continued to fluctuate from 2015 to 2019 with an average of 72 points (BPS, 2020). According to the 2020 Democracy Index released by the Economist Intelligence Unit (EIU) in 2021, Indonesia is placed 64 out of 167 countries, scoring 6.48. With this score, Indonesia is labeled as having a flawed democracy. Countries with flawed democracy hold free and fair elections, and even when there are issues (such as violations of media freedom), essential civil freedoms are upheld. However, there are significant flaws in other parts of democracy, such as governance issues, an underdeveloped political culture, and low levels of political engagement (ibid.).

Compared to other ASEAN countries such as Singapore, Malaysia, Thailand, and the Philippines, Indonesia's trend is concerning. The Habibie Center & The Sasakawa Peace Foundation's report on the level of civil liberties in Indonesia (2020) states that there are at least three factors that cause this condition: 1) current regulations and laws that limit people's rights to hold opinions and assemble; 2) increasing political polarization at the national level, and 3) decreasing public trust in many civil society organizations. From the three study areas, from 2015 to 2019, each region experienced fluctuations in the index of civil liberties, political rights, democratic institutions, and the overall value of the Indonesian democracy index.

The involvement of young people in an association or community is one important aspect to increase the power of democracy and civil liberties in the public sphere. The social structure and environment of the community are often found to encourage young people to become agents of change for social improvement through the formation of communities and youth associations. The formation of these youth communities and associations later became a form of youth contribution to strengthening democracy. The civic space that appears and is filled by youth through various associations is used as a space for youth to exchange ideas and as a forum for developing youth capacity and skills such as business skills and knowledge dissemination.

2.4.2. Challenges to Democracy and Civic Space

Omnibus Law

Omnibus Law on Job Creation was created to simplify business licensing to strengthen local and foreign investment (Hamid & Hermawan, 2020). The Omnibus Law amended and abolished up to at least 84 laws and triggered various loopholes in labor regulations. Trade unions and human rights activists claim the law has been designed to support the interests of the political and economic elite at the expense of workers' and indigenous people's rights (Hamid & Hermawan, 2020). For example, the law

removes the sectoral minimum wage clause. The simplification of environmental permits also significantly reduces the power of local communities in discussing environmental issues, which impact local people the most. The Omnibus Law has also been criticized for having the potential to strengthen the central government's power, for example, by providing space for the central government to cancel regional regulations that are seen as hampering investment and job creation.

The government claims to have involved at least 14 trade unions in the consultation process, but several unions stated that they were not substantially consulted (Amnesty International Indonesia, 2020). There was no open and honest interaction between public officials and all segments of society in creating the bill. In fact, the responsibility of State parties to participate in the conduct of public affairs is defined in Article 25 of the International Covenant on Civil and Political Rights. Since the laws and regulations will influence all residents, they must be allowed to exercise their right to participate in public affairs, either directly or through freely chosen representatives. The discussion process also violated the right to information conducted on non-working days (ibid.). In addition, the pandemic conditions limited people's mobility, so it decreased the number of demonstrations against the Omnibus Law.

In November 2021, the Constitutional Court (Mahkamah Konstitusi/MK) stated that Law no. 11 of 2020 on Job Creation is formally flawed because it is not in accordance with the legislation's technical formation in force in Indonesia. In the ratification process, the Court saw that the Job Creation Law did not meet the principle of openness in the discussion process. Despite declaring the law formally flawed, the Court did not explicitly cancel the law but instead called it "conditionally unconstitutional". The Constitutional Court provides an opportunity for the government and the People's Representative Council (DPR) to revise the Job Creation Law according to the procedures for establishing standard laws and regulations and comply with applicable principles. The Job Creation Law will be permanently declared unconstitutional if the improvements are not carried out within two years (The Conversation, 2021).

Although the Constitutional Court ruled that the Omnibus Law was unconstitutional, this rule currently has no effect. The law is still in effect for the next two years during the repair process. However, this condition is not by the definition of conditionally unconstitutional, where the law is declared invalid from the time the decision is read until the expected conditions have been met or will become constitutional if the conditions as stipulated by the Constitutional Court are met. Until now, the Constitutional Court's decision caused a debate because of the potential for multiple interpretations.

Labor Union's Roles to Support Workers and Work Quality during COVID-19

During the COVID-19 pandemic, the problem of the workforce rests on the condition of vulnerable groups. The Economic Policy Institute (2020) report states that the pandemic conditions have forced workers to work online. However, not all workers can work online because of the work conditions that require the work to be done on the spot, such as informal workers and workers in the service sector who must continue to operate as long as the office operates. It gives a new responsibility to trade unions as a

forum for workers to assemble and associate, to guarantee a safe and democratic workspace. These efforts are carried out by negotiating and advocating around regulations and policies made by companies during the pandemic to ensure workers' rights to additional wages, work safety and health, or paid sick leave to create a safe work environment.

The presence of labor unions also criticizes government policies. For example, it was related to providing direct cash assistance (BLT) policy for salary subsidies to workers affected by the pandemic (Okezone, 2020). The Indonesian Workers Organization (OPSI) became a trade union that voiced possible discrimination in providing the salary subsidy because of inappropriate targeting. This program policy targets the active wage-earner group (active formal workers) compared to other more vulnerable groups of workers, such as non-wage workers (informal workers), Indonesian migrant workers (PMI), and construction service workers.

On the other hand, the government and the company's executive are also trying to create conditions for safer industrial relations. The pandemic conditions felt by various stakeholders in industrial relations also gave birth to a declaration of Emergency PPKM with a principle of gotong royong (mutual cooperation). It is considered a form of the shared vision and mission of the three pillars of the government, particularly the Kemnaker, entrepreneur organizations (Kadin and APINDO), and the Confederation of All Indonesian Trade Unions or KSPSI. This declaration symbolizes the awakening of the spirit between the three parties in responding to various employment challenges during the COVID-19 pandemic, including organizing aid receipts for affected businesses to guarantee workers' rights during the pandemic (Tempo, 2021).

3. Conclusion and Recommendation

3.1. Demography

The **demographic** dividend has been frequently discussed in Indonesia. Economic potential benefits can be seen in the Youths' LFPR which shows a rising trend. However, the benefits from demographic dividends have not been optimally gained due to several problems. Firstly, most Indonesian youths work in semi-skilled jobs and low-skilled jobs. It is supported by the workforce absorption phenomenon that is higher in rural areas than in urban areas. Secondly, there is a mismatch between vocational education and job requirements. Thirdly, low disabilities and women's participation in the workforce. There is also an increasing number of unemployed youth due to the COVID-19 pandemic. In addition, the Indonesian economy is undergoing structural changes that add challenges in terms of youth labor absorption as the industries need higher quality human resources.

Recommendation

1. To reduce mismatch problems, conduct a study about future job sector trends and match education and training programs with the study results.
2. Increase education and training quality by improving the teachers' and trainers' competency, improving the facilities, and the scope and variety of skills training programs to increase youth capacity.
3. Improve education and training accessibility by providing facilities and instructors in rural areas. From a disability perspective, improving accessibility means giving adequate access to disabilities to acquire competencies to support workforce participation.
4. Follow up education and training with adaptive and soft skills and conduct job fairs to connect job seekers and employers.
5. Conduct business incubators in the training program up to the stage where these youths can independently run their businesses.
6. Strengthen policies related to youth, women, and disabilities and NEETs to compete in the workforce, not only in entrepreneurship.

3.2. Technology

Technology has created tremendous opportunities and empowered youth, including women, those in rural areas, and belonging to more vulnerable groups by giving them more options on income-generating activities. Technology has also helped young people actualize their entrepreneurial aspirations as they provide access to information, broader markets, financial skills and digital literacy. New commodities, especially in services and various technology-based jobs, have surged and accelerated even further by the COVID-19 pandemic, increasing the demand for skilled workers. However, not having the suitable skills needed in the current technology and digital era remains the main challenge. This challenge is also aggravated by the gap in digital knowledge and skills that is widely experienced by youth from rural areas and women, lacking capacity building and up-to-date education, and accommodative cyber-infrastructure. Additionally, as automation is predicted to pose more risks than fruiting benefits for the current Indonesian economy, the government plans to boost the manufacturing sector first, although still putting technological advancement as a long-term policy focus.

Recommendation

1. The development of adequate technology improvement and information infrastructure and accelerating the transfer and dissemination of technology throughout Indonesia.
2. Cybersecurity improvement and data protection to support digitization through reliable regulations and monitoring mechanisms.
3. Develop a data center that is up to date and available online to promote information equality.

4. Increase the scope and variety of skills training programs around digital transformation and relevant technology, both technically and non-technically, which are current, applicable, can be implemented in industry, and can be accessed by all levels of society in curriculums or free courses.
5. Knowledge incorporation related to technology and digital literacy, cybersecurity, and the ability to think critically and creatively in the education curriculum.
6. Support the growth of businesses that use technology-based solutions and encourage upskilling and reskilling in traditional industries through competitions or incubation programs and incentives for related businesses.
7. Support the improvement or utilization of Balai Latihan Kerja (BLK) to improve skills, especially for the youth belonging to vulnerable groups.

3.3. Environment

Environmental damage, climate change, and lack of land security in Indonesia resulted in the earnings from the agricultural sector fluctuating, uncertain, and relatively lower than other sectors. For instance, delays at the start of the rainy season led to massive crop failures in Indonesia's main rice-producing areas. While in fisheries, seasonal patterns at sea cause loss of fishing productivity, profits, and event jobs. On the other hand, Indonesia shows a positive trend regarding green labor sectors, demonstrated by an estimated number of job demands in renewable energy, policies to support the green industry, and the appearance of green startups. However, the industry still faces some challenges, such as lack of research and development (R&D), inefficient technologies, costly equipment and tools, underqualified human resources, and lack of incentives

Recommendation

1. Help the agricultural and fishery community (labor) to overcome the impact of climate change by socializing to participate in climate change mitigation and adaptation and formulating a comprehensive policy.
2. Anticipate crop failures, fisheries, or the marine industry due to climate change by preparing the policies on climate-smart agriculture.
3. Establish policies that encourage the green industry sector or green jobs and facilitate youth who want to be involved in the field through incentives for green businesses or start-ups.
4. Avoid environmental damage by designing and implementing objective environmental permits for industrial, service, or other investments.

3.4. Democracy and Civic Space

Indonesian **democracy** continued to fluctuate from 2015-to 2019 and is labeled as a flawed democracy. Compared to other ASEAN countries, Indonesia's trend is concerning. The trend is worsened by the presence of the recently passed law, Omnibus Law on Job Creation. The law was created to simplify business licensing to strengthen local and foreign investment. Trade unions and human rights activists claim

the law has been designed to support the interests of the political and economic elite at the expense of the rights of workers and indigenous peoples. Recently, the Constitutional Court stated that Law no. 11 of 2020 on Job Creation is formally flawed because it is not following the technical formation of the legislation in force in Indonesia. The Job Creation Law will be permanently declared unconstitutional if the improvements are not carried out within two years. Until now, the Constitutional Court's decision caused a debate because of the potential for multiple interpretations.

Recommendation

- 1.** Minimize miscommunication and increase government accountability by increasing transparency and socialization related to government policies and initiatives.
- 2.** Promote the further contribution of youth in developing the country and democracy by monitoring, assisting, accommodating aspirations, and providing feedback or follow-up on the aspirations and activities of youth unions, organizations, and communities.
- 3.** Ensure the suitability of solutions to real problems experienced by the community by using a participatory approach and taking into account the regional context in all government programs, initiatives, and services.
- 4.** Promote tolerance, and a sense of unity, and improve youth insight and interpersonal skills by increasing programs that bring together and involve youth from all over Indonesia from different backgrounds.
- 5.** Encourage inclusiveness and unity by eradicating all acts based on radicalism and discrimination in all units of community life through policies and initiatives.
- 6.** Identify and respond directly to community concerns and needs by collaborating and engaging closely with youth groups to obtain creative ideas for dealing with them.

References

- Kementerian Ketenagakerjaan Indonesia. (2020). MENGHADAPI FENOMENA NEET: Memutus Mata Rantai Hopeless Kaum Muda di Indonesia. Jakarta: Pusat Data dan Informasi Ketenagakerjaan. Jakarta: Pusat Data dan Informasi Ketenagakerjaan.
- Wisana, I Dewa Gede Karma. 2020. Bonus Demografi dan Human Capital Indonesia di Era Digital
- World Bank. (2020). Indonesia's Critical Occupations List 2018.
- Badan Pusat Statistik. (2020). Statistik Pemuda Indonesia. Jakarta: Badan Pusat Statistik
- Badan Pusat Statistik dan Kementerian Pemberdayaan Perempuan. (2018). Statistik Gender Tematik: Profil Generasi Milenial Indonesia.
- Kementerian Pertanian. (2020). Rencana Strategis Kementerian Pertanian RI Tahun 2020 – 2024
- Badan Pusat Statistik. (2021). Statistik Indonesia. Jakarta: Badan Pusat Statistik
- Badan Perencanaan Pembangunan Nasional. (2019). Visi Indonesia 2045: Berdaulat, Maju, Adil, dan Makmur
- Gaol, Heru S.L. (2020). Syarat Sehat Jasmani sebagai Diskriminasi Tenaga Kerja Difabel. INKLUSI: Journal of Disability Studies, 7(2), pp. 207-228.
- Siswati, E. (2020). Berhenti Bekerja Demi Keluarga (Dileman Perempuan Karir dalam Perspektif Feminisme). Jurnal Translitera, 9(1), 32-48.
- Sitepu, M. (2017). Hari Ibu: Ekonomi Indonesia bisa lebih makmur jika para ibu tidak berhenti bekerja. BBC Indonesia. Retrieved from <https://www.bbc.com/indonesia/indonesia-42428508>
- Setyonaluri, D. (2019). Pilih karier atau keluarga? Riset tunjukkan perempuan di Jakarta tidak leluasa memilih keduanya. The Conversation. Retrieved from <https://theconversation.com/pilih-karier-atau-keluarga-riset-tunjukkan-perempuan-di-jakarta-tidak-leluasa-memilih-keduanya-120663>
- Badan Perencanaan Pembangunan Nasional. (2021). Peta Jalan SDGs Indonesia Menuju 2030. Jakarta: Badan Perencanaan Pembangunan Nasional
- Monk's Hill Ventures & Glints. (2021). The Southeast Asia Tech Talent Compensation Report 2020/2021
- International Labour Organization. (2020). Global Employment Trends for Youth 2020: Technology and the future of jobs. Geneva: International Labour Office
- Badan Pusat Statistik. (2018). Statistik Indonesia. Jakarta: Badan Pusat Statistik
- World Economic Forum. (2019). In Indonesia, over a third of young people want to be entrepreneurs. Retrieved from <https://www.weforum.org/agenda/2019/08/indonesia-young-people-entrepreneur/>

- Nurchayani, A., & Isbah, M. F. (2020). Perempuan dan Ekonomi Digital: Peluang Kewirausahaan Baru dan Negosiasi Peran berbasis Gender. *Palastren*, 13(1), 27-58.
- UN Women. (2020). *Online Violence Against Women in Asia: A Multicountry Study*.
- Spurk, Daniel and Straub, Caroline. (2020). "Flexible employment relationships and careers in times of the COVID-19 pandemic". *Journal of Vocational Behaviour*, Vol. 19
- Kompas. (2020). Coursera Buka 3800 Pelatihan Online Gratis untuk Korban PHK. Retrieved from <https://tekno.kompas.com/read/2020/04/30/03240047/coursera-buka-3.800-pelatihan-online-gratis-untuk-korban-phk?page=all>
- McKinsey & Company. (2019). *Otomasi dan Masa Depan Pekerjaan di Indonesia*.
- Badan Pusat Statistik. (2015). *Survei Angkatan Kerja Nasional*. Jakarta: Badan Pusat Statistik.
- McKinsey Global Institute. (2017). *Jobs Lost, Jobs Gained: Workforce Transitions in a Time of Automation*
- Kemkhadze, Sophie. (2021). "Where are the women in the digital age?". *TheJakartaPos*, <https://www.thejakartapost.com/academia/2021/04/21/where-are-the-women-in-the-digital-age.html>
- Salamah, U., Saputra, R.E., dan Saputro, W.A. (2021). Kontribusi Generasi Muda dalam Pertanian Indonesia. *Journal Science Innovation and Technology*, 2(1), 23-31
- Ningsih, F. dan Syaf, S. (2015). Faktor-Faktor yang Menentukan Keterlibatan Pemuda Pedesaan pada Kegiatan Pertanian Berkelanjutan. *Jurnal Penyuluhan*, 11(1), 23-37.
- IPCC, 2014: *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, 151 pp.
- Marhaento, et.al. (2018) Hydrological response to future land-use change and climate change in a tropical catchment. *Hydrological Sciences Journal*, 63(9):1368-1385. DOI:10.1080/02626667.2018.1511054
- Kementerian Perindustrian. (2021). *Wujudkan Daya Saing Global, Kemenperin Akselerasi Penerapan Industri Hijau*. Retrieved from: <https://kemenperin.go.id/artikel/22572/Wujudkan-Daya-Saing-Global,-Kemenperin-Akselerasi-Penerapan-Industri-Hijau>
- USAID. (2018). *Kajian Kerentanan dan Risiko Iklim Provinsi Sulawesi Tenggara*.
- Catriana, E (2021). *Menperin Beberkan 5 Tantangan yang Dihadapi dalam Pengembangan Industri Hijau yang Berkelanjutan*. Kompas. Retrieved from: <https://money.kompas.com/read/2021/11/30/153000526/menperin-beberkan-5-tantangan-yang-dihadapi-dalam-pengembangan-industri-hijau>.
- The Habibie Center & The Sasakawa Peace Foundation. (2020). *Civil Liberties and Democratization in ASEAN: Challenges and Recommendation for Indonesia, Malaysia, and Thailand*.
- Hamid, Usman and Hermawan. (2020). *Indonesia's Shrinking Civic Space for Protests and Digital Activism*. Retrieved from <https://carnegieendowment.org/2020/11/17/indonesia-s-shrinking-civic-space-for-protests-and-digital-activism-pub-83250> at June 23th 2021

Deputy Ministry for Coordination of Infrastructure and Regional Development Acceleration. (2019). Indonesia Digital for Future Economy and Inclusive Urban Transformation.

Amnesty International Indonesia. (2020, October 5). 'Catastrophic' Omnibus Bill on Job Creation Passed into Law [Press release]. <https://www.amnesty.id/catastrophic-omnibus-bill-on-job-creation-passed-into-law/>

Putra, A. (2021, November 30). 'Inkonstitusional bersyarat': putusan MK atas UU Cipta Kerja memunculkan tafsir ambigu. The Conversation. <https://theconversation.com/inkonstitusional-bersyarat-putusan-mk-atas-uu-cipta-kerja-memunculkan-tafsir-ambigu-172695>

Okezone. (2020). Kenapa BLT Subsidi Gaji Tak Diberikan Ke Pekerja Informal. Retrieved from <https://economy.okezone.com/read/2021/08/04/320/2450958/kenapa-blt-subsidi-gaji-tak-diberikan-ke-pekerja-informal>

IFAD. (2019). 2019 Rural Development Report: Creating opportunities for rural youth.

Oxfam. (2020). Global Megatrends: Mapping the forces that affect us all.