

Improving Productive Employment in Iran: Improving Overeducation, Aging, and Promoting Renewable Energy

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Abstract

Prior to 1979, Iran's economy was one of the most developed economies in the Middle East, and since then, the country's economy has regressed under multiple influences. Iran's oil exports were cut in 2018, which was a heavy economic blow to Iran, which relies on oil exports as the source of the country's economy, and the Iranian nation's economy fell into a continuous recession, which exacerbated the social burden and conflicts within the country. The research methods used in this paper include survey method, literature research method, and qualitative analysis method to study the problems of the Iranian nation in terms of overeducation, aging society, and development of the green economy. Based on the current situation of the Iranian national economy, implementable recommendations for increasing decent work on social and environmental issues of the Iranian nation are presented to promote the economic development of Iran.

Keywords

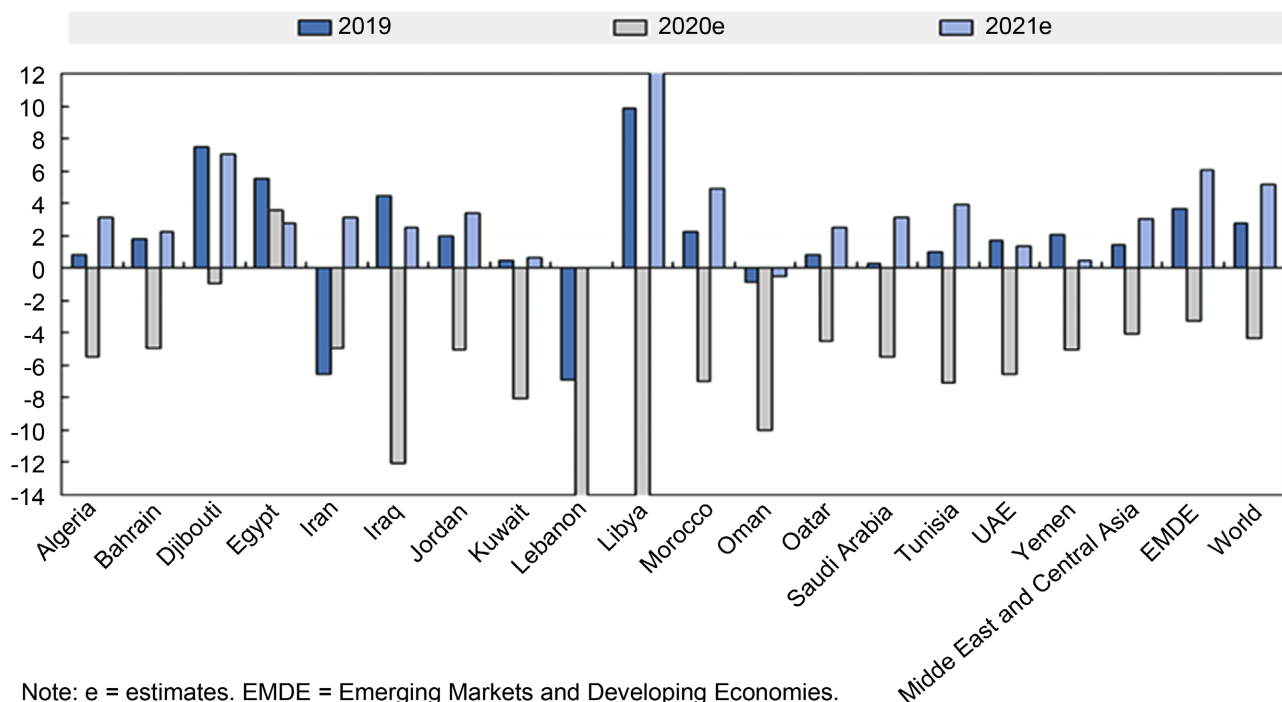
Decent Work, National Economy, Overeducation, Aging, Green Economy

1. Introduction

The pandemic outbreak in 2020 increased the cost to the economy, both from negative demand and supply shocks, as well as from the plummeting price of oil. The impact of disrupted supply chains has resulted in higher unemployment and lower wages, among other things. Even though countries have taken a number of measures to stop the spread of the pandemic by limiting transportation or economic activity, these measures have severely impacted individual jobs and business development. The impact of the pandemic is testing economic and political

developments in the Middle East and could further exacerbate regional instability and political fragility. A global decline in foreign investment of at least 30% in 2020 compared to 2019 and the resulting demand and supply shocks (Figure 1), combined with lower oil prices and declining consumer confidence, as well as political instability exacerbated by the pandemic, could lead to a further decline in foreign investment in the Middle East and a further rise in unemployment in Middle Eastern countries or regions. For the Middle East, lower oil prices have had a direct impact on its economies, once again exposing the vulnerability of Middle Eastern countries as economies that are too dependent on oil and gas. In order to enhance economic diversification, improving education, increasing fertility, and strengthening green economy development are the future priorities for Middle Eastern countries.

Sustained and inclusive economic growth can drive progress and create decent jobs for all. In developing countries, where precarious employment and job shortages are major problems, many people choose to accept jobs in poor conditions, with low productivity, high turnover, low pay, and no social security to survive. They even choose to work several jobs at the same time to make ends meet. Decent work means that everyone has the opportunity to find productive work that offers a fair income, workplace safety, social security for families, better prospects for personal development, and social integration (Decent Work, n.d.). In addition, it is important that all women and men should have equal access to employment opportunities in the workplace. Productive employment, on the other hand, refers to enterprises where individuals can create more jobs and



Note: e = estimates. EMDE = Emerging Markets and Developing Economies.

Figure 1. Gross domestic product in selected MENA economies (y-o-y percent change). Source: international monetary fund, world economic outlook database, October 2020.

income, by going to various types of enterprises to obtain a wage or find employment. Therefore, to promote the upgrading and restructuring of enterprises to provide more productive jobs, the state needs to introduce policies to support the development of enterprises to encourage them to expand their production scale and improve resource efficiency. Currently, there is no complete implementation and management plan for productive employment of Iranian nationals in all sectors and how to implement it. This paper will propose solutions and concrete measures to increase productive employment in three areas: improvement of overeducation and aging society and development of a green economy in Iran.

2. Content of the Section

The Iranian economy is characterized as a developing country dominated by its fossil, agricultural, and service industries, as well as manufacturing and financial services. Although Iran is an oil-exporting country, economic activity and government revenues remain dependent on revenues derived from major oil exports. When oil trade revenues were high, Iran's economy grew rapidly, but after sanctions reduced oil revenues in 2011, Iran's economic development was limited (Figure 2). In Iran, only a limited working-age population is in the labor force, and in the latest report, Iran's population reaches 83.1 million in March 2020, with about 71% of the population being of legal working age (15 - 64 years). As of 2020, the labor force participation rate is 44.8% and the employment-to-population ratio is 39.7%. Both the labor force participation rate and the employment-to-population ratio are 50% higher for males than for females. The overall unemployment rate in 2020 is 10.96% (Figure 3) and the youth unemployment rate in 2019 is 25.46% (Figure 6), with the youth unemployment rate for females 18.8% higher than for males. The rate of youth (15 - 24 years old) not in employment, education, or training was 34.4% in 2010 (ILO, 2017). (Figure 4) Formal employment relies heavily on services and middle-skilled

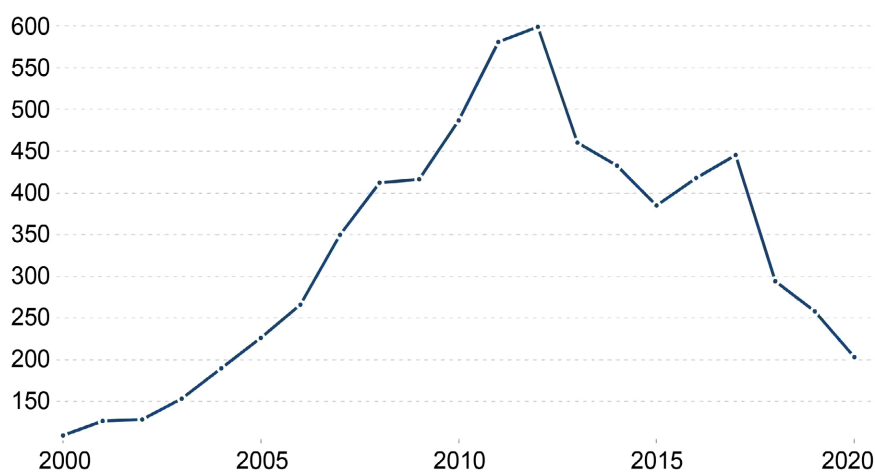


Figure 2. GDP (current US\$)—Iran, Islamic Rep. Source: (GDP (current US\$)—Iran, Islamic Rep. |Data, 2022).

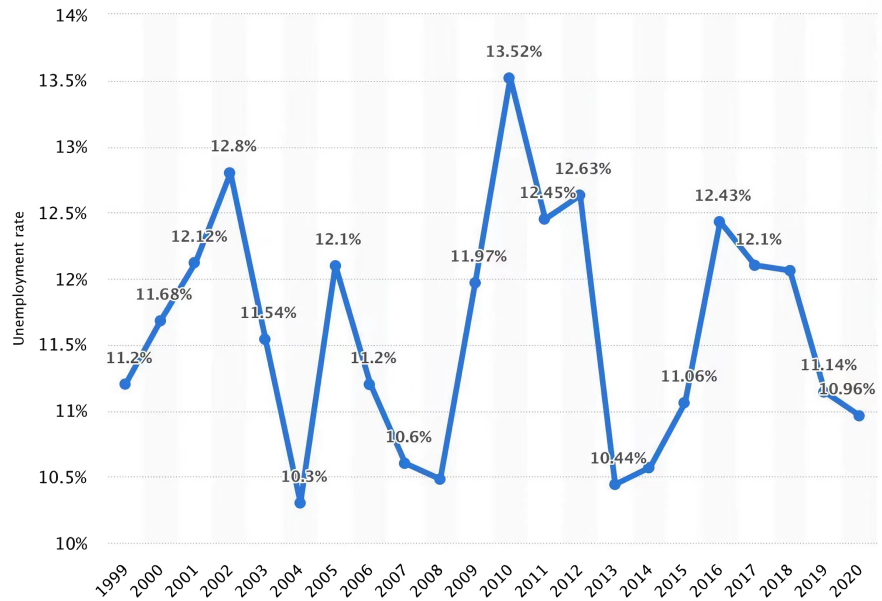
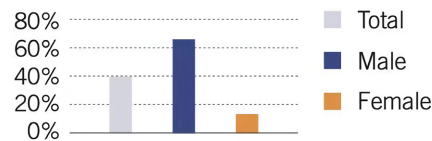


Figure 3. Iran: Unemployment rate from 1999 to 2020. Source: Iran—unemployment rate 1999 to 2020. Statista.

<https://www.statista.com/statistics/294305/iran-unemployment-rate/>.

Employment-to-population ratio (15+ years)



Unemployment

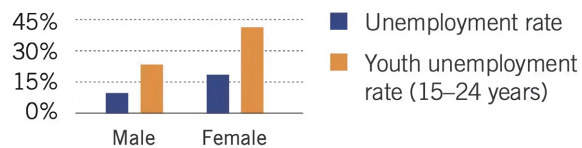


Figure 4. Basic employment statistics for the Islamic Republic of Iran, 2017. Source: Ilo.org. 2022. [online]

https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/publication/wcms_627809.pdf.

occupations, but the industrial sector accounts for more than 30% of total employment. Vulnerable employment in Iran accounts for 39.6% of the labor force, with most workers being self-employed. Self-employed and contributing family workers are more likely than employees and employers to be experiencing low job and income security, as well as incomplete social protection systems and low coverage of employment regulations. Iran’s geographic location and large population make it difficult to achieve substantial improvements in its economic life. Because the plains of southwestern and southeastern Iran are uninhabitable, the majority of Iran’s population is concentrated in mountainous areas. Unlike countries with underpopulated and less challenging geographic locations, such

as Saudi Arabia and Kuwait, Iran cannot enjoy the potential shift in economic vulnerability that would result from higher oil prices and increased production. The lack of habitable plains means that any industrial plants must develop in areas where higher infrastructure costs make them less profitable. Trade-in oil has kept Iran's economy from sinking deeper into crisis, but oil alone cannot lift Iran out of its current economic malaise.

3. The Challenge

3.1. Iran's Education Problem

Iran's domestic universities are producing far more college students than the domestic economy can absorb, and most college students are of low professional quality, a trend that has gotten worse in the last decade, in turn exacerbating Iran's internal economic, social and political problems. From 2005 to 2015, Iran's higher education enrollment jumped 80%, with more than 1 million graduates entering the labor market each year, resulting in higher unemployment rates with higher levels of education. Women make up 60% of Iranian university students (Esfandiari, 2003), yet have one of the lowest labor force participation rates in the world (Figure 5). This situation has left senior Iranian professionals feeling that there is no future in staying in Iran and that Iranians who typically study abroad do not return to Iran after graduation, choosing instead to put their expertise to work in their country of residence, which has led to an almost threefold increase in the rate of Iranian migration, both permanent and temporary. A large number of these immigrants are well-educated or in prominent

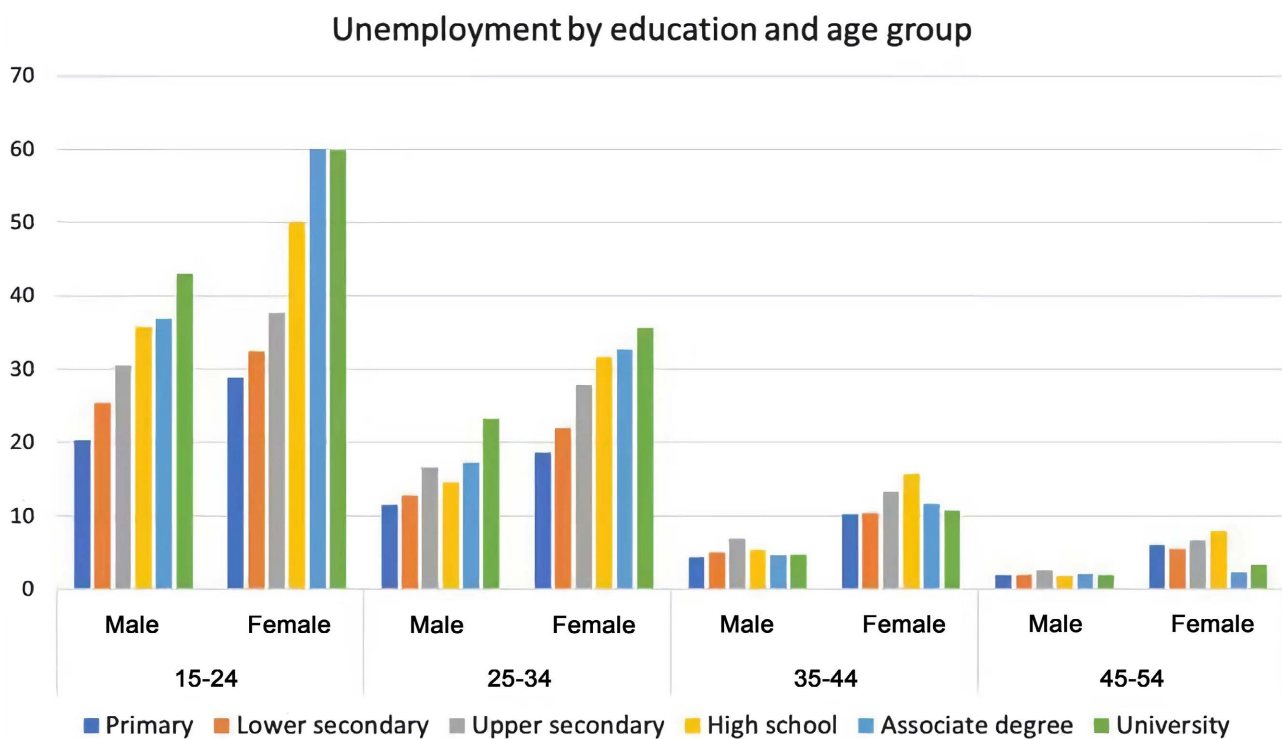


Figure 5. Unemployment by education and age group. Source: Iranprimer.usip.org, 2022. Revolution at 40: Economy by the Numbers.

social and cultural positions. Gallup’s Potential Net Migration Index for 2015 to 2017 found that more than a quarter of highly educated Iranian residents would leave the country if possible (Mahmoudi, 2021). In official data from the World Bank, the youth unemployment rate in Iran in 2019 was 25.46% (Figure 6). The majority of unemployed youth, about the average college-educated with university degrees, has higher expectations regardless of the quality of their education and relevance to the Iranian economy and are therefore more dissatisfied with the performance of the current Iranian economy.

3.2. Aging Society: Low Labor Force Participation Rate

According to the Iranian Ministry of Health, the fertility rate among Iranian women has declined by 25% in the last four years, and according to this statistic, the decline in Iran’s birth rate means that the number of babies born per woman is about 1.6% per year. This is well below the 2.1% replacement fertility level needed to sustain the population, and statistics show that the number of childless families or families with only one child has risen by more than 5.6% in the past decade (Bozorgmehr, 2020). Increasingly, young people are choosing to have only one child or no children because of the high cost of raising children and the economic downturn within Iran. Due to the significant decline in fertility, the proportion of the older population increased from 7.27% in 2006 to 8.20% in 2011 and to 8.65% in 2016. Population aging is expected to rise to 10.5% in 2025, and in 2050 will Iranian society will age dramatically, with aging rising to 21.7% and the proportion of older people (65+ years) reaching a

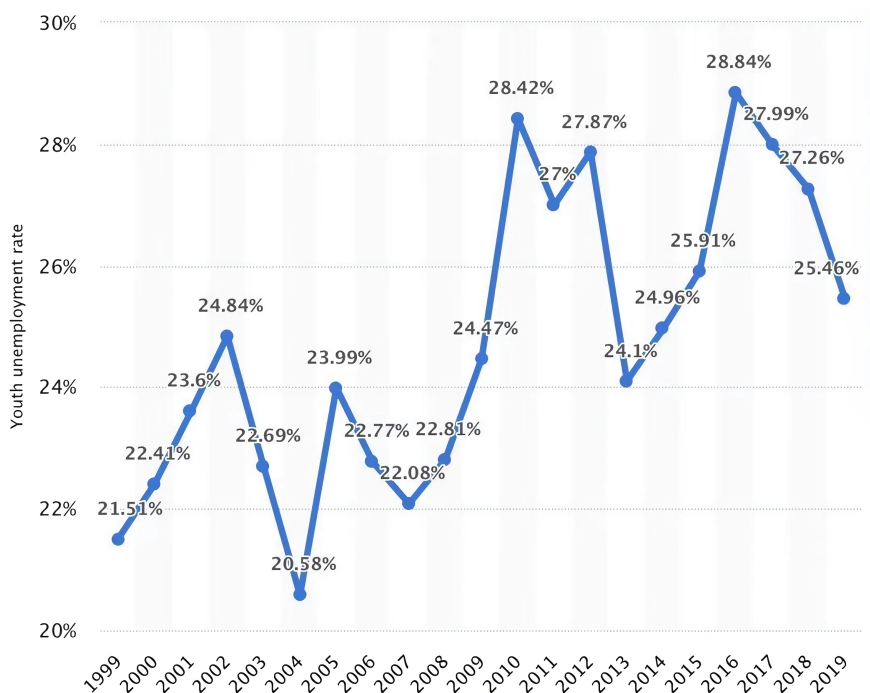


Figure 6. Iran: Youth unemployment rate from 1999 to 2019. Source: Iran—youth unemployment rate 1999-2019|Statista, 2022.

quarter of the total population. Gender-related issues are the key problems caused by the rapid aging of the population. Meanwhile, so far, Iran has not been able to take full advantage of the “demographic dividend” by widely creating jobs and increasing the labor force participation of the domestic population. It is crucial for Iranian society to increase productive employment and labor force participation in the coming years, not only to boost economic growth but also to cope with the aging of the society.

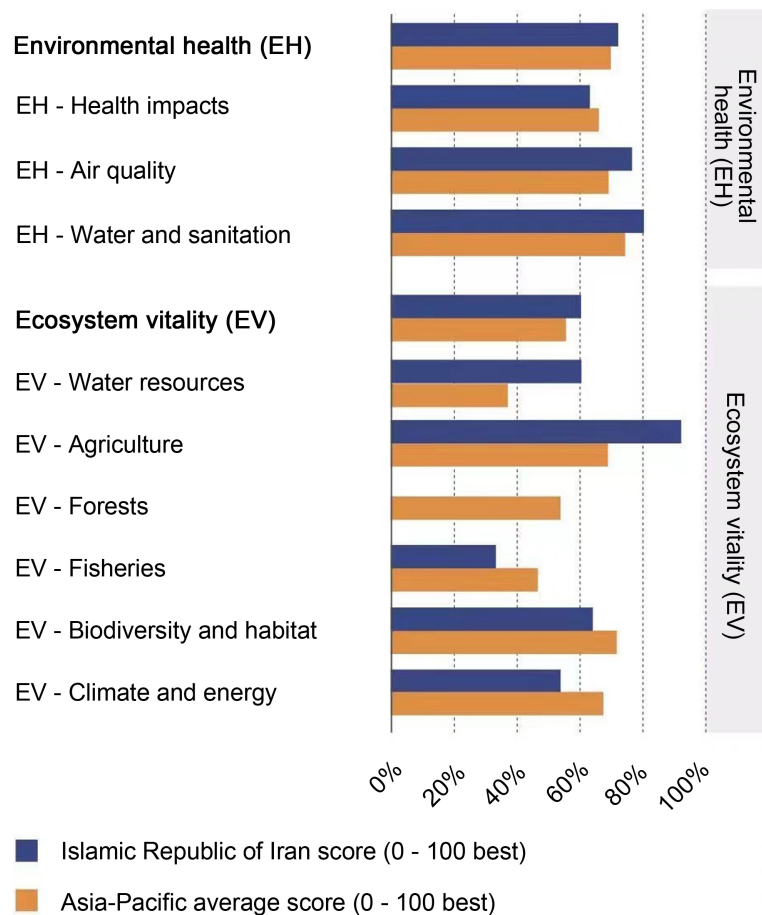
3.3. Green Economy

Iran is recognized worldwide as a country with significant oil deposits, and in 1908 the first oil well in the Middle East was discovered. With the exploration and exploitation of oil reserves, Iran’s economy, like the world economy, has become increasingly dependent on crude oil consumption and export revenues for industrial growth (Soleymani, 2021). In the wake of COVID-19, many countries around the world have made green measures a central part of their economic stimulus plans, and countries have begun to develop and use alternative sources of energy, such as solar, wind, hydro, and other renewable energy sources, which has led Iran and other countries to become less dependent on oil. Iran’s oil consumption as a percentage of total energy demand has declined significantly from 91% to 43% in 2018 (Soleymani, 2021). The use of natural gas has increased, from 7% in 1980 to 56% in 2018 (Mahmoudi, 2021; Soleymani, 2021). Although the share of oil use has decreased and has been partially replaced by natural gas, the share of oil in total consumption is still high. Iran’s Environmental Performance Index (EPI) score is 66.3, ranking 105th out of 180 countries. Iran’s scores in the two EPI categories of environmental health: air quality and water and sanitation, and the two categories of ecosystem vitality: water resources and agriculture, exceed the Asia-Pacific average score. However, there is still much room for improvement in most environmental areas, especially in environmental health and ecosystem vitality, such as fisheries, biodiversity, climate, and energy. Actions to improve environmental health, ecosystem vitality, climate change, and resilience to weather disasters all have the potential to provide productive employment in the country, reduce the number of unemployed people, and grow the green economy. In 2016, about 39,700 people were employed in renewable energy, 97% of whom worked in large hydroelectric facilities (Decent Work). In 2016, Iran’s employment rate in electricity, gas, steam, and air conditioning was only 0.7% (Decent Work). With the increased reliance on renewable energy, there is greater potential for decent jobs in the future (Figure 7).

4. Proposal

4.1. Solution 1—Reducing Overeducation and Retaining National Talent

The higher the education level, the higher the unemployment rate in Iran is due



Note: Score 0 - 100 best. Islamic Republic of Iran: No score for EV-Forests due to lack of data. Asia-Pacific: Each score is an average of all data for ILO member States in the region, excluding four countries with no data (Cook Islands, Marshall Islands, Palau and Tuvalu).

Figure 7. Environmental performance index 2016 for the Islamic Republic of Iran. Source: Ilo.org, 2022. [Online] https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/publication/wcms_627809.pdf.

to: first, the high number of university students but the low quality of education; and second, the fact that there are too few high-end jobs and too many low-end basic jobs in Iran. After the compulsory education in Iran until the age of 14, the government should set up funds for specialized technical schools, so that some people can go directly to vocational or technical schools to learn skills and expand the labor force participation in industrial construction. Close some of the universities that are not very academic and lack advanced professors, and reduce the number of higher education students in Iran to a level that the domestic economy can absorb. This would improve resource utilization and focus on improving the quality of education for university students. In order to improve the quality of domestic students, universities can be encouraged to actively recruit excellent teachers to teach, increase the income of domestic teachers, and periodically select some domestic teachers to study in developed countries at pub-

lic expense; give some preferential policies to foreign teachers who come to Iran to teach, such as tax exemptions for foreign residents or increase their income from teaching; and provide incentives for foreign students studying abroad or The government should also provide priority recruitment to enterprises for outstanding Iranian students studying abroad or in domestic universities, reduce the purchase tax of real estate, and encourage students to choose to continue teaching in domestic universities or do national research projects after graduation. The government should also establish a subsidy policy for talented people to stay in Iran and start their own businesses, so as to reduce the rate of brain drain in Iran and further reduce international migration from Iran.

4.2. Solution 2—Equal Employment for Fertility

Iran decided in 2020 that Iran's state hospitals and clinics will no longer accept vasectomies and distribute contraceptives, except for women whose lives are in danger to continue using family planning contraceptives (*Guardian News and Media, 2020*). Also 500 million Iranian rials in loans and dowries for young couples include basic household appliances. The government is trying to restore the declining population growth with such policies. Such measures can only be a comfort to the government and do not address the root cause of people's reluctance to have children. The fundamental reason is that Iran's domestic inflation has reached about 15 percent, devaluing the currency and increasing the cost of living; secondly, the economic downturn caused by sanctions, which has been exacerbated by the recent spread of epidemics; and finally, because more and more women now have their own careers after receiving a quality education and are not willing to let childbearing delay their development, especially when Iran's male and female labor force participation rate is imbalanced. Therefore, in order to prevent women from becoming "baby-making machines" and to allow women to have children voluntarily, the government should first address the problem of low female participation in the labor market, enact policies to encourage companies to recruit female employees, improve legal rights for women in terms of labor and employment laws, and allow more women to have safe and stable sources of income. The government should also improve the legal rights of women in labor and employment laws so that more women can have safe and stable sources of income. In terms of health care, in addition to providing women with maternity leave for nine months, maternity benefits should be provided, such as government incentives based on the number of babies born in a family. Meanwhile, at least 85% of kindergartens in Iran have now been privatized, and kindergarten tuition fees range from 150 million rials (about \$3600) to 300 million rials per year, while the minimum wage in Iran is currently \$215 per month, making such expensive prices unaffordable for many ordinary families. Iran's Ministry of Education should control the rising cost of private kindergarten education while providing the necessary funds for the establishment of public kindergartens and increasing the coverage of public kindergartens.

4.3. Solution 3—Green Economy, Renewable Energy Research and Management

However, there is still much room for improvement in most environmental areas, especially in environmental health and ecosystem vitality, such as fisheries, biodiversity, climate, and energy. Actions to improve environmental health, ecosystem vitality, climate change, and resilience to weather disasters all have the potential to provide productive employment in the country, reduce the number of unemployed people, and grow the green economy. In 2016, about 39,700 people were employed in renewable energy, 97% of whom worked in large hydroelectric facilities. In 2016, Iran's employment rate in electricity, gas, steam, and air conditioning was only 0.7%. With the increased reliance on renewable energy, there is greater potential for Decent jobs in the future. (Decent Work)

Although Iran is not currently implementing the relevant elements of the Kyoto Protocol and the Paris Agreement, the development of clean and sustainable renewable energy is something that the government should insist on implementing. Renewable energy is the future of the world's energy system, and the emergence of renewable energy will not only simplify access to energy, but also ensure the health of the population, reduce environmental pollution, and protect the ecological environment. Therefore, Iran should maximize the use of natural resources, develop a green and sustainable economy, reduce Iran's dependence on fossil resources, ensure a new energy supply for the country in the future, and achieve energy independence for the country.

Renewable energy technologies do not fully play an important and appropriate role in the current energy supply of Iran (Solaymani, 2021). Natural climate change, climate change, drought, and economic sanctions have had an undeniable impact on the use of water resources in Iran. However, most of Iran's water use problems are man-made and are the product of decades of mismanagement caused by the government's lack of vision, incoherent planning, and misconceptions about development. In recent years, Iran has seen a significant increase in wind energy production from 186 GWh in 2014 to 320 GWh in 2018, but achieving 4 GWh by 2021 still requires extensive research and significant financial investment. For long-term research and use of renewable energy sources, it is necessary for the government to provide incentives to private companies or investors, such as outsourcing the testing of renewable energy generation equipment to private companies, allowing them to recruit skilled employees from society for regular maintenance and repair, recruiting experienced and talented people to continue developing more advanced power generation technologies, and also cooperating with other countries to learn about natural energy expertise and recruiting developed For solar power generation, Iran has an average of 300 sunny days per year, but solar power generation technology and installation technology of solar panels are the main obstacles. Although the cost of transportation is higher than the cost of power generation, Iran has sufficient conditions for biomass power generation and biomass power generation can bring profit to the country, so the government can set up fuel subsidies to supplement the cost of

transportation of biomass materials.

4.4. Summary

To summarize, to increase productive employment in Iran, resolving the education conflict, the fertility conflict, and developing new energy technologies are three essential areas. Resolving the education paradox will level the playing field and allow better talent to emerge from the competition; resolving the fertility paradox will address gender equality, allow women to work and have legal and reasonable maternity protection, promote women's economic empowerment, and reduce the burden of life; developing new energy technologies will allow the country to provide more jobs, and the government to renew and redesign cities and communities, promote community cohesion and personal security, stimulate entrepreneurship and employment, and boost the economy while increasing labor force participation rates.

5. Conclusion

In conclusion, this paper examines the issues of overeducation, aging, and green economy development in Iran in the economic context of the productive employment deficit in Iran. A survey study of relevant data was conducted for these three issues. The results show that the reasons for the lack of productive employment in Iran are: first, over-education leads to low basic employment in society; second, unequal treatment of women leads to a declining fertility rate and the aging of society's population leads to low productive employment participation; third, underdevelopment of green economy leads to low productive jobs. The results of this study imply that these three aspects should be considered first in the future to increase productive employment in Iran, so as to improve the relevant systems of the society, increase productive jobs, and increase the productive labor participation rate of the country's people.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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