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EVALUATION OF LABOR MARKET INDICATORS IN THE EVELOPMENT OF GREEN ECONOMY

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ABSTRACT

The Green Economy proposes that these habits need to be reversed and relationships established with both the planet and other people need to be overhauled. It is seen that the free market system, which is supposed to work properly in inter-crisis periods, plays the leading role in state intervention by bringing Keynesian policies to the agenda when a crisis is in question. As manifested in both the Great Depression of 1929 and the Financial Crisis of 2008, the ongoing mainstream economic regime is not perfect and is being radically challenged by the emergence of areas such as the Green Economy. In this study, it is aimed to present a literature review to explain the concept of green energy with the possible reflections of the green economy on employment and employment and to analyse the example of Azerbaijan, the fastest developing country in the world, basically the effect of employment on employment. Correlation, ADF test and Granger Causality tests, which are statistical and econometric models, were used as research methods. As a result, it is seen that employment has an effect on "General power supply", "Solar electricity" and "Total energy supply from renewable sources". However, the hypothesis that General power supply, Hydropower, Biomass and waste, Wind electricity, Solar electricity and Total energy supply from renewable sources do not affect employment is accepted at the 5% significance level.

Keywords: *Green economy, labor market, indicators, development, Azerbaijan.*

INTRODUCTION

In recent years, climate change and its effects on the environment and economy have become one of the most debated academic and institutional issues. Increases in natural events such as climate change-related floods, temperature fluctuations and decreases in precipitation levels, environmental pollution, loss of biodiversity and gradual depletion of natural resources are expected to adversely affect the overall economy, broader sustainable development, and labor markets as derived markets (Görmüş, 2016, p.1083). In this context, agriculture, tourism, insurance, forestry, fisheries, infrastructure and energy sectors are defined as sectors that are highly sensitive to the direct effects of climate change (MartinezFernandez et al., 2010, p.8; Görmüş, 2016, p.1083). Therefore, protecting the living standards of present and future generations in the face of climate change requires a new economic growth model that reduces carbon emissions and environmental pollution, increases energy and resource efficiency, and protects bio-diversity and eco-system (ILO, 2013a, p.8-9; ILO ve OECD, 2012, p.2). Otherwise, in medium and long-term climate change projections, it is estimated that economic and social activities in many sectors around the world will deteriorate severely (Evans-Klock et al., 2009, p.8-9; ILO, 2012, p.2). In this respect, the transition to a low-carbon and resource-efficient green economy is no longer an alternative, but a necessity.

The importance of this issue is constantly kept on the agenda by organizations such as the United Nations Environment Program (UNEP), the Organization for Economic Cooperation and Development (OECD), the World Bank and the International Labor Organization (ILO). Although there is no complete consensus on the definition of green economy among these organizations, all definitions meet on a common ground. For example, UNEP (2011) defines the green economy as "improving human well-being and social equity while significantly reducing environmental risks and ecological scarcity". On the other hand, according to the World Bank (2012), green economic growth should be "effective in the use of natural resources, clean enough to minimize pollution and environmental impacts, flexible enough to take into account the role of environmental management and natural capital in preventing physical disasters and natural disasters, and at the same time inclusive. " is required (Görmüş, 2016, p.1082-1083). OECD (2011) defines green growth as "assuring the sustainability of natural resources and environmental services necessary for human well-being and welfare while achieving economic growth". The main purpose of the research is to measure the

relationship between green energy resources and employment. In accordance with the purpose of this research, the number of people employed in the country as the dependent variable and the variables "General power supply", "Solar base energy" and "Total energy supply from renewable sources" were chosen as independent variables.

GREEN ECONOMY

The term brown economy, which contrasts with the term green economy, is generally used to emphasize the dominant economic structure before the green economy. The brown economy is based on high material use, low energy efficiency, dependence on unsustainable energy sources, unsustainable use of ecological assets and a high degree of climate risk (UNEP, 2009.p.8). Before the idea of green economy, the social dimension of sustainable development including education, employment and decent work was not taken into account sufficiently. It is stated by some sources that the transition towards green economy requires the second biggest economic transformation after the industrial revolution. (CEDEFOP, 2009. p.1) Today, environmental pollution encompassing water, soil and air pollution as a whole, irreversible loss of biological diversity, the gradual disappearance of natural resources such as water, fertile agricultural lands and fish, are economically and in a broader sense sustainable. It is among the most serious threats facing development (CEDEFOP, 2009. p.8). Although it has been the subject of some criticism, the green economy is expected to find solutions to these problems. can be defined as (UNEP, 2008a. p. 1). With a more specific definition, green economy consists of all kinds of clean technology, goods and service production activities that aim to measure, prevent, limit, minimize and eliminate environmental damage related to water, air and soil, as well as waste, noise and eco-system problems. (OECD, 1999. p. 9). Green jobs are jobs that provide employment opportunities in sectors highlighted by the green economy.

These sectors (Evans-Klock & Poschen, 2008.p.14):

- Renewable energy
- Energy efficient: buildings, industry and transport
- Mobility: public transport
- Recycling, waste management
- Sustainable agriculture and forestry
- It can be classified as environmental services.

Green jobs are expected to find solutions to two decisive problems facing humanity in the 21st century. According to a report published by the United Nations Environment Program (UNEP, 2008açp.1), these problems are;

- preventing dangerous and potentially unmanageable climate change and protecting the natural environment that supports life on earth; and
- ensuring decent work and therefore a life of well-being and dignity for all, in the face of rapid population growth worldwide and the current possibility of exclusion from economic and social development facing more than one billion people.

The green economy offers great opportunities to start new businesses, develop new markets and lower energy costs. Trends and investments observed in the markets confirm this assessment.

GREEN ECONOMY-EMPLOYMENT

Environmental awareness and applied green literacy will become increasingly important in many professions. It should be noted here that not all green jobs will be new jobs. Blue-collar workers can turn into green-collar workers quite quietly (UNEP et al., 2008. P. 39).) state that the green jobs created by the green economy can have four effects on employment. These possibilities can be listed as follows (UNEP et al. 2008. p. 43):

- First, in some cases additional employment may be created (such as the manufacture of pollution control devices in addition to existing production equipment).
- Second, some areas of employment may be displaced (for example, by shifting to renewable sources instead of fossil fuels, rail vehicle production instead of truck production, or recycling rather than landfill and incineration).
- Third, certain jobs may be eliminated without displacement (if packaging materials are discontinued or banned and their production is discontinued).

- Fourth, many existing jobs (especially plumbers, electricians, metal workers, and construction workers) will simply be reorganized with a variety of skill sets, working methods, and new green ideas. It should be noted, however, that this latter view is actually very difficult to document, analyze, and estimate its full implications.

In fact, there is a difference of opinion about the effect of the green economy on employment. On the one hand, there is the opinion that green jobs are a pillar to solve the problems in the country's labor market; On the other hand, it is thought that it may create a new type of unemployment problem due to the replacement of green jobs with old-style manufacturing jobs (Atlama & Özsoy, 2011. p.10). Such studies oppose the view that regulations on climate change will lead to net job creation (Martinez-Fernandez et al., 2010. p. 14). For example, Babiker and Eckaus' (2006) study titled "The Impact of Climate Policies on Unemployment" argues that measures regarding emission restrictions will have real and direct negative effects on employment and growth rates in the USA. According to Arias (2009. p. 154), green jobs will not create a net employment increase. Because every four green jobs created caused loss of nine conventional jobs and only 10 percent of green jobs could be permanent.

However, without ignoring these negative opinions, it would be useful to analyze the net positive employment effects created or to be created by environmental regulations related to climate change. Because it has been proven that negative effects are seen as a very rare outcome (UNEP et al., 2008. p. 44). Although it looks quite ambitious, as stated in the report of CEDEFOP (2010. p. 3), “every job will be green job in the future”. In the "Environment and Employment Evaluation Report" published by OECD in 2004, the possible effects of green economy on employment were analyzed. It is possible to see these possibilities in Table 1.

Table 1. Possible Effects of Green Economy on Employment

Possible Effects	Observation
Positive and Negative Employment Impacts	• Regulations to protect and improve the environment can create new jobs or protect existing jobs.
Direct and Indirect Employment Effects	• On the other hand, environmental programs can cause factories to close. Environmental programs can lead to higher prices, thereby reducing demand, output and employment. It may also cause firms to shift new production capacities to foreign countries where pollution control regulations are more lax.
Short and Long Term Employment Impacts	• The direct employment effect is the first-round effects on increased demand, production and employment triggered by increased environmental protection expenditures.
Temporary and Sustainable Employment Impacts	• Indirect employment effect, on the other hand, is the second and third round effects that occur when other non-environmental expenditures are included in environmental expenditures. Indirect employment effects emerge as follows; - call and service demand triggered by environmental expenditures - multiplier effect from wage increases created by increased demand and employment; - relative wage and price effects; and - level of pollution control investments
Full-Time and Part-Time Employment Impacts	• Most of the direct effects, such as increased demand, occur relatively quickly.
Gross and Net Employment Effects	• Indirect effects take longer to affect the economy. For example, the relocation of capital towards pollution havens creates a negative employment effect in the long run.

Source: (OECD, 2004. p. 9-10)

DEVELOPMENT OF GREEN ECONOMY IN AZERBAIJAN

Azerbaijan has strong potential opportunities and aspects for the development of green economy. However, weaknesses and threats limit the development of the green economy. Currently, the system-creating paradigm of the green economy - the development of human capital forms the basis of the economic policy of the state in Azerbaijan. The complex programs implemented within the framework of this policy (documents on the fight against poverty, sustainable development, socio-economic development of regions, food and energy security, education, information and communication technologies, etc.) are giving their results.

The undermentioned customaries of environmental legislation in Azerbaijan underscore the exploitation of a half-form conservation (Center for strategical Studies underneath the chairman of the commonwealth of Azerbaijan, 2014):

- mutual resolution of socio-economic, ecclesiastical and conscientious problems.
- ensuring sustainable application of characteristic resources,
- preservation and security of bionomical balance,
- ecosystem drawing near to principle of environmental security and application of characteristic resources,
- sanctions on environmental pollution,
- paying for the application of bottom line,
- ensuring bionomical symmetricalness in the spaces and refurbishment of uncomfortable characteristic bionomical organized whole,
- efficient application and refurbishment of characteristic resources, diligence of economical stimulant of individualism application and environmental protection,
- ensuring security of environmental biodiversity,
- application of the "polluter pays" 23 principle,
- responsibility for contravention of sovereign state control, legislation on environmental protection,
- prevention of destruction to the surrounding and classification of destruction caused, responsibleness for it,
- ecologically supported sustainable socio-economic adding to security of anthropoid get-up-and-go and health,
- environmental security is everyone's job,
- participation of the inhabitant and universal confederations in the environment of environmental protection,
- international collaboration in the environment of environmental protection, conformableness of environmental legislation to continent legislation and intercontinental agreements.

It is in the information "Azerbaijan 2030: governmental predominances for Socio-Economic Development" that the exploitation of "green economy" is highlighted as an far-reaching publication in our country. In the governmental Priorities, it is aimed to comprehend the socio-economic exploitation of the sovereign state on five-spot governmental predominances in the coterminous declination (http: az/framework/25029, 2022):

- sustainable ontogenesis competitory economy,
- a sovereign state supported on dynamic, all-encompassing and collective due process,
- competitory anthropoid majuscule and extension for contemporary innovations,
- a comprehensive appearance to the neighbourhoods liberated from occupation,
- unobjectionable surrounding and "green growth" country.

In addition to the oil industry of Azerbaijan, development in the non-oil sector, revitalization of regions, integration into global economic development, and increase in the competitiveness of the economy have become inevitable. Currently, Azerbaijan is pursuing a extraordinary procedure in the progression of construction a half-form conservation as a constituent of sustainable exploitation (Böyükkişi, 2018. p.42). 2010 was declared the "Year of Ecology" in the country. In this direction, various works have been done, electronic resources have been developed in specific fields, and propaganda has been expanded among the population. Azerbaijan has ratified a large number of international conventions in the field of environmental protection and achieved the development of a normative and legal framework. Legislation in this field has been developed in accordance with European legal requirements. There is a basis for implementing a perfect

environmental policy in the country. Azerbaijan is improving environmental policy and legislation. Agriculture is the main source of employment in Azerbaijan and is important for economic diversification. Agriculture is also valuable because this sector is important in terms of food security and poverty reduction in the regions. There are ample opportunities to develop environmentally friendly agriculture in Azerbaijan and to expand the export of its products to the world, especially the European market. The government of Azerbaijan supports agriculture in the form of subsidies, leasing services, preferential loans and tax policy, and implements wide-ranging reclamation and irrigation measures.

In order to assess the current level of the transition to a green economic model in Azerbaijan, we will also use the expanded form of the inter-sectoral balance model in our research. At this time, as the level of the green economic model, the level of greenhouse gases per capita and one unit of GDP and the environmental costs generated in the production process will be taken as the main indicator. Economic consequences of environmental pollution, damage to health, additional costs caused by the use of environmentally friendly technology will be taken into account.

As in the whole world, serious steps are being taken in the direction of environmental protection in Azerbaijan. Azerbaijan actively joins international agreements in this field. Technological innovations and innovations are used to ensure ecological balance in the country. More attention is paid to environmental pollution in the choice of new technologies in the country. This is one of the important conditions required by the green economy. In addition, it is tried to select the technology that works with the help of energy sources that will cause the least harm to the environment. Various laws and normative legal acts have been adopted in the direction of ensuring environmental safety, reducing environmental risks, and reducing the amount of waste discharged into the environment. The Armenian occupation of large areas of the country for nearly 30 years has created a serious environmental disaster in those areas. Nevertheless, the restoration of territories freed from occupation and the creation of a green zone in these territories have been set as a priority task by the country's president. The creation of green villages and cities in the territories freed from occupation, the expansion of the use of green energy, especially the expansion of the use of solar energy, are the focus of the country's president.

The main source of environmental waste in Azerbaijan is related to oil and gas production, the operation of oil refineries, the production of electricity, the development of agriculture, as well as the creation of a large transport infrastructure (Rasulov, 2021. p.315-317).. Of course, in the last 20 years, the increase in the production volume in the country and the increase in the welfare of the population have not left the environment without impact. However, continuous application of new technology both in the mining industry and in the processing industry allows reducing the amount of waste thrown into the environment. A green economy is one that allows for low greenhouse gas emissions. Increasingly, there is a tendency around the world to consider those economies that are developed with high energy efficiency and less carbon dioxide emissions and minimize climate impacts. Of course, Azerbaijan is a country with a small economy, and the amount of carbon it emits into the environment is a very low percentage of the total amount in the world.

In Azerbaijan, activities in the direction of the development of the "green economy" continue step by step, and measures are being taken to eliminate obstacles in this area. As an example, we can mention that according to the "4th national data on Azerbaijan" document submitted to the UN Framework Convention on Climate Change, in 2016, Azerbaijan achieved a 31.6% reduction in waste compared to 1990, and this process continues (Gasimli et al. 2022. p.149). In terms of the transition to a "green economy", Azerbaijan aims to reduce emissions by 40 percent by 2050 as an additional voluntary commitment and to create a "net zero emission" zone in the liberated territories (www.azertag.az, 2022).

Activities of Balakhani Industrial Park: In order to create favorable conditions for entrepreneurs and potential investors in the field of reproduction in our country, the Balakhani Industrial Park was established by the Decree of the head of state dated December 28, 2011. According to the order, "Tamiz Shaher" OJSC was appointed as the managing organization of Balakhani Industrial Park. The recycling process carried out in the Industrial Park is of great importance. Taking into account the increased interest in the Industrial Park, which covered an area of 7 hectares at the initial stage, its area was increased to 10. 15 hectares. The establishment of the Balakhani Industrial Park serves the purpose of expanding the production of competitive industrial products based on high technologies in the country, developing the non-oil sector, including the "green" economy, increasing the population's employment in the field of production, and

improving the ecological situation in Baku and surrounding towns. Balakhani Industrial Park is a suitable place for those who want to start a recycling business and engage in "green" production by applying innovative technologies. 23 residents were registered in the Industrial Park, and waste recycling was involved in the enterprises here, activities were expanded in the direction of increasing the production of "green" products. Acting as a resident in Balakhani Industrial Park brings a number of advantages to entrepreneurs. Residents who operate according to the principles of sustainable development and environmental protection standards by applying modern technological innovations are exempted from profit, land and property tax for a period of 10 years. At the same time, technological equipment imported for production purposes is exempted from VAT and import duty for a period of 7 years. Products made using waste as raw materials in Balakhani Industrial Park are exported to a number of countries ("Green" economy, https://economy.gov.az/az/page/yasil-iqtisadiyyat, 2022).

Activity of Baku Solid Household Waste Incineration Plant: One of the effective practices in the field of waste management and reducing the impact on the environment is to incinerate it and obtain energy from this process. The Baku Solid Household Waste Incineration Plant, which was created within the framework of the "Comprehensive Action Plan for the Improvement of the Environmental Situation in the Republic of Azerbaijan for 2006-2010" and started operating in 2012, is considered the largest enterprise of this type in Eastern Europe and the CIS in terms of production capacity. . The facility was built in full compliance with the strictest standards of the European Union in the field of environmental protection with the application of fourth generation (4G) technologies. The annual capacity of the plant is 500,000 tons of household and 10,000 tons of medical waste . As a result of burning waste, 231 .5 million KWh of electricity is produced, which makes it possible to supply 100,000 households with electricity ("Green" economy, https://economy.gov.az/az/page/yasil-iqtisadiyyat, 2022.).

Waste disposal and sorting: Balakhani City Waste Disposal Landfill was handed over to "Tamiz Shaher" OJSC in October 2009. Electric energy is obtained from the gases separated from the neutralized waste through the modern technical devices used here. The separated water is used for watering the trees planted in the landfill area after special filtration. The most important of the important activities in the field of waste disposal is sorting. "Tamiz Sheher" OJSC solid waste sorting plant has been successfully operating in this direction since 2012. In order to sort household waste and develop the recycling business in the country, the materials separated as a result of sorting in this plant, which has the capacity to receive 200 thousand tons of waste per year, reduce the total volume of waste and form a cheap raw material base for the Balakhani Industrial Park. This gives a great impetus to the development of the recycling process in the country. The operation of the sorting plant serves to save natural resources and energy by properly managing waste ("Green" economy, https://economy.gov.az/az/page/yasil-iqtisadiyyat, 2022.).

"Green" economy potential of liberated areas: The 44-day nationalistic war conflict underneath the management of Commander-in-Chief Mr. Ilham Aliyev resulted in the splendiferous superiority of the adventurous Azerbaijani Army, and our solid ground were liberated from opposition occupation.Large-scale refurbishment and construction, economical reintegration magnitudes are continuance carried elsewhere in the free territories, and individual of the strategical perceptions envisaged therein progression is the introduction of a half-form get-up-and-go territory in these territories. Green energy zone - an area where energy demand is met by maximum use of green energy (renewable energy sources) and environmentally friendly and energy efficient "green" technologies are used in the energy value chain. On February 22, 2021, a memorandum of compassionate was autographed between the sacred calling of get-up-and-go and the bp corporation in progression to facilitate on the valuation of the potentiality and weathers compulsory for large-scale decarbonized, coeducational get-up-and-go and transportation organized whole including renewable get-up-and-go proposals in the municipalities and territories of Azerbaijan. The memorandum was autographed in the circumstance of the variegation of the conservation in Azerbaijan, the introduction of a competitory get-up-and-go market, the deed of magnitudes for the antecedence of a unobjectionable surrounding and "green growth" sovereign state and BP proclaimed the billy-goats of "net insignificancy emissions" in 2020.Within the framework of the memorandum, it is envisaged to explore cooperation opportunities in the direction of clean energy projects, low-carbon transport, "green" buildings, waste management, clean industry, natural climate solutions, integrated partnerships, as well as the development of integrated and decarbonized energy and transport systems. In addition, on June 3, 2021, an Executive Agreement was signed with BP on the construction of a 240 MW

solar power plant in Jabrayil and Zangilan. Within the framework of the document, relevant economic and technical analyzes will be conducted on the power plant project planned to be built by BP, and a final decision will be made ("Green" economy, https://economy.gov.az/az/page/yasil-iqtisadiyyat, 2022.).

What has been mentioned suggests that the future economic development in Azerbaijan will be closely related to the application of ecologically clean technologies, the use of clean energy sources, waste recycling, and increased work in the field of restoration of polluted areas. In accordance with the National Priorities, environmental health, rapid restoration and increase of greenery, efficient use of water resources and sustainable energy sources will be ensured ("Green" economy, https://economy.gov.az/az/page/yasil-iqtisadiyyat, 2022.).

THE METHOD, APPLICATION AND FINDINGS

It was decided to analyze the number of employed population and the green energy data, which is one of the main indicators of the green economy. The data is taken from the official website of the Azerbaijan State Statistical Institute. The data used in the study are annual data for the years 2007-2021. In the model, the variables are abbreviated as follows:

X1- General power supply; X2- Hydropower; X3- Biomass and waste; X4- Wind electricity; X5- Solar electricity; X6- Total energy supply from renewable sources; Y1- Number of employed population (thousands of people)

Hypotheses:

H1: There is a positive relationship between Y1 and X1;

H2: There is a positive relationship between Y1 and X2;

H3: There is a positive relationship between Y1 and X3-;

H4: There is a positive relationship between Y1 and X4;

H5: There is a positive relationship between Y and X5;

H6: There is a positive relationship between Y1 and X6.

Correlation Analysis Unit Root Analysis

The correlation coefficient is a coefficient that indicates the strength of the relationship between the dependent variable and the independent variables. For example; whether there is a relationship between the student's study time and the statistical grade he received, or the relationship between the daily return (X) of a stock traded on the stock exchange in a certain period and the daily return (Y) of an index in which it is included can be examined with the correlation coefficient.

Table 2. Correlation coefficients

	X1	X2	X3	X4	X5	X6	Y1
X1	1						
X2	-0,27473	1					
X3	0,17941	-0,17433	1				
X4	-0,08574	0,337665	-0,45651	1			
X5	-0,0941	0,352771	-0,66915	0,77086	1		
X6	-0,24154	0,790843	0,439749	0,046953	-0,08122	1	
Y1	0,166813	0,393363	0,045397	0,328153	0,324524	0,323666	1

Source: calculated by the author using statistical data.

As can be seen from Table 2, there is a positive relationship between the number of employed population and General energy source 0.166813, Hydroelectricity 0.393363, Biomass and waste 0.045397, Wind electricity 0.328153, and Solar energy 0.324524. it is seen that In summary, it shows that there is a positive relationship between the total energy supply from renewable sources and the number of employed population at 0.323666, close to the average level.

Unit Root Analysis

Stationarity in time series means that the variance does not change over time (Işleyen et al., 2017). In studies using time series data, it is important that the series are stationary. In time series analysis, when non-stationary series are used, the results of the model to be used are not realistic, and the use of non-stationary series causes a false relationship between the variables subjected to the model. The most valid analysis used to determine whether a variable is stationary or the degree of stationarity is the unit root test (Gujarati, 2004). In econometric studies, unit root tests are of great importance and are used in many areas.

Table 3. Philps Peron(PP) Unit Root Test Result

At Level								
		Y1	X1	X2	X3	DX4	X5	X6
With Constant	t-Statistic	-3.2117	-4.6966	-3.6945	-3.3134	-5.8737	-3.2768	-6.6498
	Prob.	***0.0428***	***0.0034***	***0.0187***	***0.0360***	***0.0007***	***0.0383***	***0.0002***
		**	***	**	**	***	**	***
With Constant & Trend	t-Statistic	-3.4458	-5.0129	-3.0915	-3.2840	-6.2068	-3.5716	-8.6991
	Prob.	***0.0888***	***0.0083***	***0.1483***	***0.1125***	***0.0020***	***0.0737***	***0.0001***
		*	***	n0	n0	***	*	***
Without Constant & Trend	t-Statistic	-1.3678	-4.3195	-3.3726	-3.4508	-6.6166	-2.6900	-5.6750
	Prob.	***0.1510***	***0.0004***	***0.0027***	***0.0023***	***0.0000***	***0.0115***	***0.0000***
		n0	***	***	***	***	**	***
At First Difference								
		d(Y1)	d(X1)	d(X2)	d(X3)	d(DX4)	d(X5)	d(X6)
With Constant	t-Statistic	-6.4132	-11.3133	-7.9504	-7.5545	-14.0380	-11.7699	-11.7849
	Prob.	***0.0003***	***0.0000***	***0.0000***	***0.0001***	***0.0000***	***0.0000***	***0.0000***
		***	***	***	***	***	***	***
With Constant & Trend	t-Statistic	-7.5183	-14.2211	-7.5345	-7.2377	-14.0609	-11.0921	-10.7373
	Prob.	***0.0004***	***0.0001***	***0.0004***	***0.0005***	***0.0001***	***0.0000***	***0.0000***
		***	***	***	***	***	***	***
Without Constant & Trend	t-Statistic	-6.5202	-9.4444	-8.5806	-8.0380	-14.3189	-10.1897	-12.6199
	Prob.	***0.0000***	***0.0000***	***0.0000***	***0.0000***	***0.0001***	***0.0000***	***0.0001***
		***	***	***	***	***	***	***

Notes: (*)Significant at the 10%; (**)Significant at the 5%; (***) Significant at the 1%. and (no) Not Significant
*MacKinnon (1996) one-sided p-values.

When Table 3 is analyzed, confidence intervals of %1, %5 and %10 are given for the variables. X1, DX4, X5 and X6 PP are seen to be stationary in unit root tests. The results of PP unit root tests show that Y1, X2 and X3 are not stationary at the level and become stationary when the first difference is taken.

Granger Causality Test

If there is a time-lagged relationship between two variables, one of the tests used to statistically determine the causality of the relationship is the Granger causality test. Although there are various differences of opinion in the conceptual definition of causality, it is agreed that this concept establishes a relationship between cause and effect. There may be a strong correlation between the two observed relationships. However, it may not always be possible for this relationship to carry a causal meaning. Granger's definition of operational causality is based on the following assumptions. The future cannot be the cause of the past. Exact causation is possible only when the past causes the present or the future. The cause always precedes

the effect. This necessitates a time delay between cause and effect. Granger (1969) developed a relatively simple test that identifies causality between variables.

Table 4 shows the results of the Granger causality test. When Table 4 is examined, there are the results of the Granger test calculated with 2 lag values. By looking at Table 4, the causal relationship between the variables can be understood. Accordingly, it can be seen that X6, X5, X3, X2 and X1 do not affect Y1 (employment) at the 5% significance level. However, the hypothesis that Y1 has no effect on X1, X5 and X6 is rejected. That is, it is seen that employment has an effect on "General power supply", "Solar electricity" and "Total energy supply from renewable sources".

Table 4. Granger Causality Test Results

Null Hypothesis:	F-Statistic	Prob.
X6 to Y1	0.06485	0.9377
Y1 to X6	4.30984	0.0537
X5 toY1	1.87607	0.2147
Y1 to X5	3.31088	0.0896
X3 toY1	1.21000	0.3474
Y1 to X3	0.32200	0.7337
X2 to Y1	0.48060	0.6352
Y1 to X2	2.88100	0.1142
X1 to Y1	0.44982	0.6529
Y1 to X1	9.14161	0.0086

According to the results presented in this table, the hypothesis that X6, X5, X3, X2 and X1 have no effect on Y1 is accepted at the 5% significance level. On the contrary, the hypothesis that Y1 has an effect on X1 is accepted at the 5% significance level. Also, the hypothesis that Y1 has an effect on X5 and X6 is accepted at the 10% significance level. That is, there is a one-way causality from Y1 to X1, X5 and X6. In other words, employment is affected by "General power supply", "Solar electricity" and "Total energy supply from renewable sources".

CONCLUSION

In order to ensure sustainable development on the basis of environmental pollution, decreasing natural resources and increasing demand, the measures taken to expand the "green" economy are of great importance. It is no coincidence that the 5th priority in "Azerbaijan 2030: National Priorities for Socio-economic Development", approved by President Ilham Aliyev, is called "The country of clean environment and green growth". In the document, specific tasks are set for the implementation of environmentally friendly technologies, promotion of waste recycling and restoration of polluted areas, expanding the application of ecologically appropriate "green" technologies. It should be noted that the recycling process established in Azerbaijan serves the development of the "green economy", the expansion of the production of competitive industrial products and the improvement of the ecological situation. The concept of "recycling" has an important place in the modern economy. It is possible to make some of the waste's reusable after the consumption process. Recycling is the periodic inclusion of reusable materials in the consumption process. The main goal is to prevent the waste of natural resources and environmental pollution, and also to create an additional raw material base. Recycling is easy and fast, unlike primary production, which saves energy.

As a result, it is seen that employment has an effect on "General power supply" , "Solar electricity" and "Total energy supply from renewable sources". However, the hypothesis that General power supply, Hydropower, Biomass and waste, Wind electricity, Solar electricity and Total energy supply from renewable sources do not affect employment is accepted at the 5% significance level.

They need to expand their efforts to raise awareness of both producers and consumers for the green economy in the country. Initially, free financial support should be offered to initiatives for green economy.

REFERENCES

Altun, Y., Görür, Ç. (2017). The Causality Relationship Between Interest Rate and Income with Investment in USA: 1965-2016. The Journal of Academic Social Science, 5:60, pp. 146-163

Arias, Charles; (2009), "Going Green to Make Green Hiring and Looking for Sustainable Jobs at Colleges and Corporations", Mary Ann Liebert, Inc., Vol. 2, No. 3.

Atlama, Sevilay Ceyda ÖZSOY; (2011), "Possible Effects of Green Economy on Employment", ECONAnadolu 2011: Anadolu International Conference in Economics II, June 15-17, Eskişehir.

Babiker, Mustafa ve Richard S. Eckaus; (2006), "Unemployment Effects of Climate Policy", MIT Joint Program on the Sciences and Policy of Global Change, Report No. 137, MIT, Cambridge.

Böyükkişi, N. (2018). Stimulating the Development of the Qeyri-Neft Sector by the State (Qeyri-Neft Sektorunun Inkişafinin Dövlət Tərəfindən Stimullaşdirilmasi Istiqamətləri.) ,Azerbaijan University. 42.

Cedefop; (2009), "Future Skills Needs for the Green Economy", Research Paper, Luxembourg: Publications Office of the European Union.

CEDEFOP; (2010), "Skills for Green Jobs, Briefing Note", July, (http://www.cedefop.europa.eu/EN/Files/9024_en.pdf)

CEDEFOP-ILO; (2010), "Skills for Green Jobs, European Synthesis Report", (http://www.cedefop.europa.eu/EN/Files/3057_ en.pdf)

Evans-Klock, C., Poschen, P., Sanchez, A. B., Hofmann, C., (2009), "ILO Green Jobs Initiative and Implications for Skills Development", Future Skill Needs for the Green Economy, Research Paper, Publications Office of the European Union, Luxembourg, pp.7-17.

Evans-Klock, Christine and Peter Poschen; (2008), "ILO Green Jobs Initiative and Implications for Skills Development" Paper presented at Cedefop workshop 'Future Skill Needs for The Green Economy', held in Thessaloniki, October 2008.

Fondazione Eni Enrico Mattei, Milan. Martinez-Fernandez, Cristina, Carlos Hinojosa and Gabriela Miranda; (2010), "Green Jobs and Skills: The Local Labor Market Implication of Addressing Climate Change", Working Decument, CFE/LEED, OECD, (http://www.oecd.org/ dataoecd/54/43/44683169.pdf)

Görmüş, A. (2016). Does The Transition To The Green Economy Create New Opportunities For Decent Jobs? England Example, (Yeşil ekonomiye geçiş düzgün işler için yeni firsatlar yaratiyor mu? Ingiltere örneği), Ataturk University Journal of Economics & Administrative Sciences, 30(5).

Granger, C.W.J. (1969), Investigating Causal Relations By Econometric Modelsand Cross Spectral Methods, Econometrica, 37(3), pp.424-438.

Gujarati, D.N. (1999), Basic Econometrics (Temel Ekonometri), Literatür Yayınları, İstanbul.

http://e-qanun.az/framework/25029

https://azertag.az/xeber/Iqlim_Konfransinda_40_dan_chox_olke_komurden_istifadeni_dayandirmagi_ved_edib-1917278, 04.11.2021

IEA (2009), "Ensuring Green Growth in a Time of Crisis; The Role of Energy Technology", (www.iea.org/Papers/2009/ensuring_green_growth.pdf)

ILO and OECD, (2012), "Sustainable Development, Green Growth and Quality Employment",Meeting of G20 Labour and Employment Ministers, Guadalajara, 17–18 May 2012, pp.1-13

ILO, (2013), Green Jobs Becoming a Reality Progress and Outlook 2013, Geneva.

Martinez-Fernandez. C, Hinojosa C, Miranda G.,(2010), Green Jobs and Skills: The Local Labour Market Implications of Addressing Climate Change, 8 February 2010, Working Document, CFE/LEED, OECD.

OECD; (1999), "The Environmental Goods & Services Industry Manual For Data Collection And Analysis", Environment & Sustainable Development, vol. 1999, no. 7, pp. 1-64.

OECD; (2004), “Environment and Employment: An Assessment”, Working Party on National Environmental Policy, Environment Policy Committee, OECD, Paris. (http:// www.oecd.org/dataoecd/13/44/31951962.pdf)

Qasımlı V. Ə., R. Z. Hüseyn, R. F. Hüseynov, R. B. Həsənov, C. R. Cəfərov, A. B. Bayramova, (2022). Green Economy,“(Yaşıl iqtisadiyyat),”. Monoqrafiya. Bakı,pp..149.

Rasulov, R. N. (2021). Petroleum Production and Ecological Balance of the Environment, Conference Materials, (Neft Emalı Və Ətraf Mühitin Ekoloji Tarazlığı. Konfrans Materiallari),pp. 315-317.

UNEP, (2011), Towards a Green Economy: Pathways to Sustainable

UNEP, (2012), “Green Economy Employment”, Briefing Paper, Geneva, pp.1-4

UNEP, as Part of the Joint UNEP, ILO, IOE, ITUC, (2008), Green Jobs: Towards Decent Work in A Sustainable, Low-Carbon World, Worldwatch Institute, Washington, DC.

UNEP/ILO/IOE/ITUC; (2008), “Green Jobs: Towards Decent Work in a Sustainable Low-Carbon World”, (http://www.unep. org/labour_environment/PDFs/Greenjobs/UNEP-Green-JobsReport.pdf.)

UNEP; (2008a), “Green Jobs: Towards Decent Work in a Sustainable Low-Carbon World, Policy messages and Main Findings for Decision Makers”, (http://www.unep.org/labour_ environment/PDFs/Greenjobs/UNEP-Green-Jobs-TowardsSustainable-Summary.pdf)

UNEP; (2008b), “Background Paper on Green Jobs”, (http:// www.unep.org/labour_environment/pdfs/green-jobs-background-paper-18-01-08.pdf) UNEP; (2009), “Global Green New Deal: Policy Brief”, March. (http://www.unep.org/pdf/A_Global_Green_New_Deal_Policy_ Brief.pdf)

Green Development: Energy Efficiency And Alternative Sources,(2014) ,Center for strategical Studies underneath the chairman of the commonwealth of Azerbaijan, 2014 (“Yaşil inkişaf: enerji səmərəliliyi və alternativ mənbələr”, Azərbaycan Respublikasının Prezidenti Yanında Strateji Araşdırmalar Mərkəzi,) Bakı, s.44.