

University Rural Youth Awareness of the Green Economy Contribution to Achieve Some SDGs in Egypt

Tamer Mansour^{*1} Moustafa Qwaissy², Saad Shams Eldein², M.A.R.Fadel²,
Mahmoud Ali ALRewany³, Rabie Sayed Mohamed³

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ABSTRACT

Purpose: This study aimed to identify the university rural youth's awareness degree of the concept of green economy, the obstacles facing transformation towards a green economy, and the role of university education institutions in spreading awareness of the green economy concepts.

Research Method: The research was conducted through random sampling of 330 students from the final year of the faculties of agriculture, agricultural engineering, engineering for boys, and engineering for girls at Al-Azhar University. Data was collected using a questionnaire form in a personal interview with the respondents from October to November 2022.

Findings: 37% of the respondents were highly aware of the concepts of the green economy. The green economy can contribute effectively to achieving the studied SDGs. The transition to a green economy requires reviewing and updating environmental laws and integrating ecological considerations within the frameworks of national plans. The most important obstacles facing the transition to the green economy were the high cost of transition to the green economy, widespread unemployment, high poverty rates, and the lack of protection policies or additional incentives for users of the green economy.

Originality/value: The transition toward a green economy depends on the extent of the youth's awareness of what the green economy is, its importance, and the requirements for its application.

Keywords: Al-Azhar University, Green agriculture, Green economy, Rural youth, sustainable development.

INTRODUCTION

The concept of a green economy emerged on the global scene as a result of economic, environmental, and social crises affecting climate, biodiversity, fuel, food, and freshwater, in addition to financial and economic crises (UNEP, 2011). With the outbreak of the financial crisis in 2007, it became obvious that the "brown economy" model did not fundamentally address social marginalization and resource depletion and that the existing development model would not produce the intended results on all economic, social, and environmental fronts. (Ryszawska, 2019) Therefore, the need to build a new developmental economic model, the "green economy," arose (EEA, 2011). This led to the Earth Summit in Rio de Janeiro, Brazil, where the United

Nations General Assembly decided to hold the 2012 United Nations Conference on Sustainable Development, also known as Rio +20, inspiring numerous governments to implement sizable "green stimulus" packages as part of economic recovery efforts. Its main objectives were to ensure the political commitment of member states towards sustainable development and to face the challenges

¹Agricultural Economic Department, National Research Centre, Giza, Egypt.

²Agricultural Extension Department, (Rural Community) Faculty of Agriculture, Al-Azhar University.

³Agricultural Extension Department, (Agricultural Extension) Faculty of Agriculture, Al-Azhar University.

*tj.mansour@nrc.sci.eg, tamer_baz@yahoo.com

 <https://orcid.org/0000-0002-8244-0119>

facing countries in implementing this concept (Gasparato *et al.*, 2017).

In this context, in 2011, the United Nations Environment Program issued a comprehensive report entitled “Towards a Green Economy, Paths to Sustainable Development and Poverty Eradication,” a report that supports the urgent need to invest 2% of the global GDP to green ten basic economic sectors. The report emphasized the importance of the transformation of the green economy, which would stimulate economic activity while reducing the risks of crises that are more entrenched when relying on the traditional economic model. (Kanianska, 2016) A green economy is one that “improves human well-being and social justice, while considerably lowering environmental dangers and environmental scarcity,” according to the United Nations Environment Program. (UNEP, 2010) A green economy is an effective means of achieving sustainability by focusing on economic growth, resource conservation, and environmental protection. Environment (Matraeva *et al.*, 2019; Yang *et al.*, 2019). Additionally, the economy is low-carbon, resource-efficient, and socially inclusive. It increases resource and energy efficiency and halts the loss of biodiversity (UNEP, 2011).

Chapple (2008) defines it as a clean energy economy that improves the quality of the environment by reducing greenhouse gases and improving the use of natural resources. The green economy is not limited to the production of clean energy, but it includes technologies that allow cleaner production processes. The green economy tries to shift investment priorities to greening up-and-coming industries, current ones, and unsustainable consumption patterns. This economic change is anticipated to lower energy intensity, resource consumption, and output, as well as generate job opportunities and decrease poverty. (Binns, 2012). In order to meet the criteria for sustainable development, the idea of the “green economy” entails more than simply “greening” certain economic sectors. It also entails increasing social justice, improving health care, education, and job security for people, and addressing climate change and pollution in order to reduce environmental risks. It also emphasizes boosting soil fertility, providing access to fresh water, and eliminating environmental shortages. (UNEP,

2010). In response to the deteriorating effects of adopting the traditional economic model, the 2030 Global Sustainable Development Agenda and a set of 17 Sustainable Development Goals (SDGs) were adopted by world governments in September 2015, opening the way for more sustainable, inclusive, equitable, and innovative development. (United Nations, 2015). In this context, sustainable development is the ultimate goal that countries seek to achieve, and the green economy is considered the practical tool for achieving sustainable development and enhancing its basic economic, social, and environmental dimensions. (FAO, 2017).

Egypt achieved high growth through economic policies before the January revolution, but at the same time, this development failed to be comprehensive and provided only a few opportunities for young people who felt economically and socially excluded. (Ghanem 2014), (Mansour *et al.*, 2022) Achieving economic growth is a necessary condition, but it is not sufficient to achieve the development needs of the poor and is unable to address issues of inequality and unemployment as well as environmental issues and sustainability issues directly (Alexander, 2015). Therefore, Egypt began to move towards the green economy as one of the important and main ways in the comprehensive development plans to achieve the 2030 vision. Through the implementation of many projects in solar and wind energy complexes and projects to convert vehicles that run on gasoline into natural gas, in addition to the shift towards public transport, which works with electricity, all of which aim to promote sustainable growth and create more suitable jobs, Egypt aims to double green public investments to 50% by the end of 2025. So far, 691 green projects have been implemented at a cost of about 447.3 billion pounds. Transportation projects account for the largest percentage of the listed appropriations at 50%, followed by housing sector projects at 30%, then electricity sector projects at 9%. and regions. (Ministry of Planning and Economic Development, 2020). Studies indicated that greening the economy in Egypt will help achieve an annual surplus of more than \$2.4 billion, reduce carbon dioxide emissions by 13%, reduce water consumption by 50%, create 8 million new job opportunities, and reduce per capita water consumption by more than 30% by 2025. (Al-Rumaidi and Talhi, 2018) From this standpoint,

environmental issues and their problems imposed themselves on the scene in Egypt, and since youth are the focus of the development of developing and developed societies alike, where youth constitute a positive driving force for the wheel of development when providing them with the knowledge and opportunities that they need (United Nations, 2020). Thus, the awareness of youth of the importance of the environment and the necessity of preserving its components and exploiting them rationally without wasting them are among the matters that must be studied. Hence, this study was trying to determine the degree of awareness of university rural youth in the concept of green economy and its importance in achieving the social aspect of the goals of sustainable development, in addition to identifying the requirements of the transition to the green economy as well as the obstacles facing the transition to it. This was achieved by providing answers to the following research questions:

- What is the degree of university rural youth awareness about the concept of green economy, and what are their sources of information about concepts related to the green economy?
- How does the green economy contribute to achieving some of the SDGs from the point of view of the respondents from the university rural youth?
- What are the requirements for the transition to a green economy from the point of view of the respondents?
- What are the obstacles that limit the transition to a green economy from the point of view of university rural youth?
- What is the role of university education institutions in spreading awareness of the concept of a green economy, and what is the reality of activating the green economy at Al-Azhar University in the Arab Republic of Egypt from the point of view of the respondents?

Perhaps the answer to these questions gives a clear picture to the legislative and executive authorities about the extent of university youth's awareness of the concept of green economy, its requirements and obstacles to achieving it, and their vision of the role and reality of activating the green economy at Al-

Azhar University.

The research mainly aims to identify the awareness of university rural youth about the concept of the green economy and its role in achieving some SDGs through achieving the following goals:

1. Determine the degree of the university rural youth respondents' awareness of the concept of the green economy.
2. Identifying the sources of the respondents' information on concepts related to the green economy.
3. Determining the degree of green economy contribution to achieving the following SDGs: reducing poverty and providing sustainable livelihoods, preserving natural resources, preserving health and providing means of well-being, conserving water, obtaining clean and affordable energy, preserving the environment, and facing climate change.
4. Determining the requirements of the transition to the green economy.
5. Determining the obstacles facing the transition to the green economy.
6. Identifying the role of university education institutions in spreading awareness of the concept of the green economy.
7. Identifying the reality of activating the green economy at Al-Azhar University in Egypt.

The importance of this study lies in the fact that the green economy represents one of the economic models that are compatible with the environment, which has become a basic and inevitable requirement for all countries, including Egypt, to reduce or mitigate environmental degradation and create more green jobs that will alleviate poverty, which is one of The basic principles of sustainable development, and since youth are the locomotive of development and the main engine for it, especially university youth, the transition towards a green economy depends on the extent of these youth's awareness of what the green economy is, its importance and the requirements for its

application, which highlights the importance of research, as well as identifying the obstacles facing the transition towards The green economy can help confront them and choose the best ways to achieve the goals of sustainable development in light of the environmental conditions of the Egyptian society.

MATERIALS AND METHODS

This study is considered a descriptive study, and it relies on the social survey method in the sample due to its suitability to the subject of the study.

Study area

This Study was conducted on students of four faculties on the campus of Al-Azhar University in Nasr City, Cairo Governorate, namely: Agriculture faculty, Agricultural Engineering, Engineering for Boys, and Engineering for Girls.

Study population and sample

The 2304 students who were registered for the academic year 2022–2023 in the Student Affairs Administration database as final-year students in the four faculties were the population of this study. Krejci and Morgan's equation (Krejcie and Morgan, 1970) was used to estimate the sample size for this population, and 330 participants were distributed among the four colleges by the percentage of each college's representation, as shown in Table 01. Participants were selected using a random sampling method. We obtained verification of their rural upbringing by asking an initial screening question about their environment. Data collection was carried out through structured, face-to-face interviews using a standardized questionnaire between October and November 2022.

Pre-test of the data collection tool

A pre-test of the data collection tool was conducted on a sample of 30 students in the final year of

the Faculty of Science at Al-Azhar University in Cairo. Accordingly, some questions were modified. Accordingly, the questionnaire was formulated in its final form in line with the objectives of the study.

Measurement tools and quantitative data processing

First: the independent variables:

1- Gender: It was measured by a binary scale (male or female), and the numbers 2 and 1 were given, respectively, for coding.

2- Work during the study: This was measured by a binary scale (yes or no), and the numbers 2 and 1 were given, respectively, for coding.

3, 4- The educational qualification of both the father and the mother: It was measured by asking the respondent about the educational qualification of both the father and the mother, through a quadruple scale which is: (university, Upper Intermediate, intermediate, and without qualification), and numbers 4, 3, 2, and 1 were given.

5- The number of family members: measured by asking about the number of his family members, and it was expressed as a raw number.

6- The monthly household income: It was measured by asking about the monthly household income, and it was expressed as a raw number.

7- The occupational status of the father: It was measured by asking the respondent about the occupational status of the father, by selecting one of these four categories: government employee, working in the private sector, craft work, and not working, and the numbers 3, 2, 1, and zero were

Table 1: Study population and sample

S.	Faculty	population	%	sample
1	Agriculture in Cairo	497	21.6	71
2	Agricultural Engineering	165	7.2	24
3	Engineering for boys	1015	44	145
4	Engineering for girls	627	27.2	90
	Sum	2304	100	330

Source: Al-Azhar University Student Records

given, respectively.

8- The occupational status of the mother: It was measured by asking the respondent about the occupational status of the mother, by selecting one of these four categories: government employee, working in the private sector, craft work, and housewife, and the numbers 3, 2, 1, and zero were given, respectively.

9, 10, 11 - Participation in volunteer work, participation in student activities, and attendance at training courses related to the green economy: Each variable was measured using a binary scale (yes or no), and numbers 2 and 1 were given, respectively, for coding.

12- Cultural Openness: It was measured by asking the respondent about the average of his 7 activities that reflect his cultural openness on a quadruple scale (always, sometimes, rarely, and never), and scores were given as 3, 2, 1, and zero, respectively.

Second: the respondents' awareness of the concept of green economy: This variable was measured by asking the respondent about his knowledge of 11 phrases that reflect his awareness of the concept of green economy, on a binary scale that is: (knows, does not know), and grades were given 1 and zero, respectively, and the total score was collected to express the degree of respondent's awareness of the concept of green economy. The respondents, according to the degree of their awareness of the concept of green economy, were divided into three categories: low awareness, less than 5 degrees; medium awareness, 5-8 degrees; and high awareness > 8 degrees.

Third: Respondents' sources of information about concepts related to the green economy: It was measured by asking the respondents about the sources of their knowledge of concepts related to the green economy by presenting a number of knowledge sources, and asking them about the degree of their exposure to these sources on a quadruple scale: always, sometimes, rarely, and not exposed, and grades were given as 3, 2, 1, and zero. Respectively these sources were arranged according to the degree of exposure.

Fourth: The degree of the green economy's contribution to achieving the studied SDGs: It was measured by asking the respondent about

his opinion on the degree of contribution of the green economy to achieving the studied SDGs by presenting 29 phrases distributed over the six studied SDGs, with 5 phrases for the first goal, 6 phrases for the second goal, 4 phrases for the third goal, and 5 phrases for the goal. The fourth, and 4 statements for the fifth goal, and 5 statements for the sixth goal, on a quadruple scale: Contribute to a large, medium, and small degree, and does not contribute, and grades were given 3, 2, 1, and zero, respectively. The respondents were distributed according to their opinion of the degree of the green economy contribution to achieving these goals into four categories as follows: low contribution, less than 11 degrees, average contribution (11-20) degrees, High contribution >20 degrees.

Fifth: Requirements for the transition to a green economy: It was measured by asking the respondent about his approval of 20 requirements distributed into four categories: legislative requirements, institutional requirements, community awareness requirements, and financing requirements, at a rate of 5, requirements for each category, on a triple scale: agree, to some extent, and do not agree, grades 2, 1, and zero were given, respectively, and the respondents were arranged according to their opinion of the importance of these requirements according to the weighted average.

Sixth: Obstacles facing the transformation of the green economy: It was measured by asking the respondent about his opinion on the obstacles facing the transition to a green economy, and these obstacles were arranged according to their relative weight.

Seventh: The role of university education institutions in spreading awareness of the concept of a green economy: It was measured by asking the respondents about the expected role of university education institutions in spreading awareness of the concept of the green economy through 15 phrases distributed over the teaching function (5 phrases), the scientific research function (5 phrases), and the community service function (5 phrases). These roles were arranged according to relative weight.

Eighth: The reality of activating the green economy at Al-Azhar University in Egypt: It was measured by asking the respondents about the reality of implementing 11 of the actual activities included in the university's plan (2022) to spread

awareness of the concept of the green economy, and these activities were arranged according to the degree of their implementation by the university administration.

Data collection

The data for this study were collected through a questionnaire form in a personal interview with the respondents from October to November 2022, Data were analyzed using IBM-SPSS program, and frequencies, percentages, the arithmetic average, and the weighted average were used in presenting the results.

RESULTS AND DISCUSSION

Description of the research sample

The results (Table 02.) indicated that 72.8% of the respondents for males, which is a natural result of the fact that 72.8% of the research sample from the faculties of agriculture, agricultural engineering, and engineering are boys, 80.3% of respondents do not work during the study, and the educational qualification of the father is for nearly half of the respondents. (47.6%) university qualification, while the educational qualification of the mother was for 25.8% of them in the same category, 34.1% of the respondents had mothers without educational qualification, and the results showed that more than half of the respondents (53.9%) live

Table 2: Socio-economic characteristics of respondents (N=330)

Characteristics	N	%	Characteristics	N	%
1- Gender:			7- Father's professional status		
Male	240	72.8	governmental employee	174	52.7
Female	90	27.2	Works in the private sector	82	24.8
			Craftwork	43	13.1
			does not work	31	9.4
2 -Work while studying			8-Mother's occupational status		
yes	65	19.7	Government Employee	85	25.8
no	265	80.3	private sector	21	6.4
			Craftwork	5	1.5
			Housewife	219	65.3
3- father educational qualifica- tion	157	47.6	9-Participation in volunteer work		
University	81	24.5	yes	183	55.5
Upper Intermediate	36	10.9	no	147	44.5
Intermediate	56	17			
illiterate			10- Participation in student ac- tivities	122	37
4-Mather educational qualifica- tion	85	25.8	yes	208	63
University	58	17.6	no		
Upper Intermediate	71	21.5			
Intermediate	116	34.1	11- Attending training courses		
illiterate			yes	145	43.9
- 5 family members			no	185	56.1
3-5	141	42.7			
6-9	178	53.9	12- Cultural openness		
10-12	11	3.4	Low (1-7) degrees	118	35.8
- 6Monthly family income			Intermediate (8-14) marks	129	39.1
not shown	233	70.6	High (15-21) degrees	83	25.1
2000 - 4999 EGP	76	23.1			
5000 - 7999 EGP	16	4.8			
8000 - 11000 EGP	5	1.5			

Source: Field survey, 2022

in medium families (6-9 individuals), and 70.6% of the respondents refrained from stating the monthly income of their families. More than half of the respondents (52.7%) have fathers working in the government sector, 65.3% of respondents' mothers were housewives, and the majority of the respondents (55.5%) previously participated in voluntary work, while 63% of them did not participate in student activities, and the level of cultural openness of 39.1% of the respondents was moderate, the results indicated that 56.1% of the respondents did not attend training courses related to the green economy.

The respondents' awareness of the green economy concept

The transition towards a green economy depends on the extent to which society, especially youth, is aware of the concept of a green economy. The root causes of environmental problems lie in wrong behavioral patterns as a result of insufficient awareness of the importance of regulating the relationship between man and his environment (Candamio *et al.* 2018). In this context, the results (Table 03) showed that the majority of the respondents have a high awareness of the concept of the green economy in terms of its nature and

objectives in general. Despite this, the economic goals of the green economy (creating additional job opportunities for youth, alleviating poverty, improving the state of well-being, and social equity) came in the last three ranks, with a ratio of 61.2. %, 55.2%, and 54.8%, respectively, which necessitates carrying out activities that enhance the respondents' awareness of the concept and role of the green economy in achieving economic development.

The results (Table 04) indicated that the percentage of respondents in the middle and high-level categories of awareness of the green economy was close, 40.3% and 37%, respectively, and more than one-fifth of the respondents came in the low-level awareness category, which reflects the respondents' high awareness of the concept of the green economy. These results come in contrast to the results of many previous studies, which indicated that there is a lack of green economy awareness and skills among university students (Zamora Polo *et al.*, 2019) and that there is a weakness in focusing on developing green skills in education in Egypt. (Gamal El-Din, Nagwa Youssef, 2015), and this may be due to the increasing momentum and focus on environmental issues and the green

Table 3: Distribution of respondents according to their knowledge of the concept of green economy.

	Statement	N	%	Rank
1	A green economy reduces carbon emissions, waste, and pollution and uses resources more efficiently	249	75.5	2
2	The green economy aims to link the requirements of achieving economic and social development and environmental protection	253	76.6	1
3	The green economy is one of the tools for sustainable development and enhancing the ability to manage natural resources in a sustainable manner	215	65.2	7
4	The green economy aims to reduce the level of environmental degradation	228	69.1	4
5	The green economy helps reduce global warming and reduce environmental pollution to preserve it	226	68.5	5
6	The green economy works on the sustainable management of natural resources and adaptation to climate change	208	63.0	8
7	The green economy promotes the efficient use of resources and achieves community security in the fields of health, energy, and water	220	66.7	6
8	The green economy aims to improve welfare and social equity	181	54.8	11
9	The green economy includes mechanisms to create additional job opportunities for youth	202	61.2	9
10	The green economy attracts investments in agriculture and industry	239	72.4	3
11	The green economy enhances efforts to reduce poverty	182	55.2	10

Source: Field survey, 2022

economy in the recent period in light of Egypt's hosting of the Climate Conference and the focus of state institutions on these issues.

Second: Respondents' sources of information about concepts related to the green economy

The results (Table 05) indicated that the sources related to information and communication technology came in the first rank, as the social networking sites came in the first place for the respondents' information sources regarding concepts related to the green economy, with a weighted average of 2.56 degrees, followed by the Internet in the second place with a weighted average of 2.15 degrees. While the readable sources of newspapers, magazines, books, or curricula came in the last ranks of the respondents' information sources, these results reflect the absence of traditional information sources in light of the dominance of ICT tools, which confirms the inevitability of employing information and communication technology and benefiting from it in promoting awareness of students with concepts related to the green economy (Khanfar, 2014).

Third: The respondents' opinion about the green economy's contribution degree to achieving the goals of sustainable development

In 2015, the United Nations (UN) adopted the Sustainable Development Goals (SDGs) to eradicate poverty and promote peace and prosperity for all on a healthy planet by 2030 (United Nations, 2015). These goals represent a global framework for achieving the goals of common prosperity, which include economic, social, and environmental issues. Comprehensive green growth aims to ensure the compatibility of economic, environmental, and social sustainability. The green economy is considered the environmental gateway to achieving sustainable development. (Breuer *et al.*, 2019). Countries' focus on achieving the SDGs varies according to many considerations, as some countries focus on the issues of "climate action," "good health," and "well-being and quality education" (Theresa *et al.*, 2020). while other countries focus on "zero hunger," "clean water and sanitation," and "poverty eradication" as the most important SDGs (Lampert and Papadongonas, 2016). In this context, this study focuses on some of these SDGs, as follows:

Table 4: Distribution of respondents according to their level of awareness of the concept of the green economy

The respondents' level of awareness of the green economy	N	%
Low (1 - 4) degrees	75	22.7
Medium (5-8) degrees	133	40.3
High (9 - 11) degrees	122	37
Mean	8	
SD	4.2	

Source: Field survey, 2022

Table 5: Respondents' Distribution according to their degree of exposure to information sources related to the green economy

Information sources	degree of exposure				Weighted average	Ranking
	Always	sometimes	Scarcely	never		
Internet	155	114	17	44	2.15	2
Newspapers and magazines	39	60	212	19	1.36	6
Social media	259	28	13	30	2.56	1
Radio and television programs	98	83	72	77	1.61	4
Family, neighbors, and friends	67	75	140	48	1.49	5
Books	31	22	132	145	0.82	7
educational subjects	40	25	79	186	0.75	8
Student Activities	185	52	24	69	2.07	3

Source: Field survey, 2022

The first goal: reducing poverty and providing sustainable livelihoods

The Central Agency for Public Mobilization and Statistics announced that the poverty rate in Egypt increased by about 4.7% during 2017/2018 due to the implementation of the economic reform program (CAPMAS, 2018). In this context, the green economy seeks to alleviate poverty and works to create decent and sustainable jobs. (UNEP, 2011). Gasparato *et al*, (2017) Results (Table 6) indicate that the majority of the respondents believed that the transition towards a green economy could contribute to achieving the first goal of sustainable development goals by supporting sustainable rural livelihoods, adopting poverty reduction policies, and achieving food security through the use of the most sustainable agricultural technologies and the provision of more job opportunities in the fields of construction, agriculture, and maintenance of water networks, with weighted averages of 2.15, 2.15, and 2.12 degrees, respectively. This result shows the high level of respondents' agreement on the contribution of the green economy to achieving the first goal of the SDGs represented in reducing poverty and providing sustainable livelihoods, which may be due to the fact that poverty is more prevalent in rural communities than in other societies, which makes the respondents of the rural youth are more aware of poverty and aware of its multiple negative effects, and therefore they see the importance of shifting towards a green economy in order to confront poverty and provide sustainable livelihoods. These results are consistent with what was mentioned by Qahham and Sharkaq (2016), that the green economy helps create new job opportunities and a greater income that contributes to reducing poverty in rural areas through the optimal utilization of natural resources.

Second Objective: Conservation of Natural Resources

The two main strategies for creating green economies are investing in natural resources and increasing their efficient use (UNEP, 2011). At the local level, public policy and sustainable development strategies in Egypt focused on the need to protect the environment and reduce pollution (Ministry of Environment, 2018). By studying the development of the environmental performance index for Egypt over the last ten years, it is noted that Egypt ranked 94 out of 180 countries worldwide, with an

improvement of 7.7% over the last 10 years. This is due to the improvement in the areas of air pollution, sanitation, and coping with climate change (Atallah, 2021). In this context, the results (Table 6) indicate that the majority of respondents believe that the transition towards a green economy can contribute to preserving natural resources by encouraging the shift towards industries that rationally consume natural resources, increasing the sustainable use of agricultural lands, enhancing soil fertility by using natural and sustainable fertilizers, maximizing the yield of agricultural production after recycling agricultural waste, and assisting in the production of non-traditional fodder as food for farm animals, with weighted averages of 2.34, 2.29, 2.26, 2.16, and 2.12 out of 3 degrees, respectively, which are higher than the average, which reflects the high approval of the respondents on the contribution of the green economy to Achieving this goal of sustainable development goals, which may be due to the great interest in the recent period by many local and international institutions and organizations in spreading the culture of preserving natural resources.

The third goal: maintaining health and providing means of well-being

The results (Table 06) indicate that the majority of the respondents believe that the transition towards a green economy can contribute to preserving public health and providing means of well-being by reducing the use of chemical pesticides through the use of integrated biological control in order to preserve public health, and work on the production of commodities Healthy food, and the expansion of organic agriculture to maintain public health, with weighted averages of 2.22, 2.18, and 2.14 out of 3 degrees, respectively, which are higher than the average, which reflects the high approval of the respondents on the contribution of the green economy to achieving this goal. This is because this goal of sustainable development, has become a general trend for the Egyptian government recently, and this is now evident in successive government initiatives, especially in rural areas, such as the 100 million health initiative, the eradication of virus C, the women's health initiative, and Corona initiative, with the participation of various organizations in the countryside, that may result in a rise in rural youth awareness of the importance of shifting towards a green economy, as it may cause a quantum leap in

achieving this goal.

Fourth Goal: Water Conservation

Green economy policies and programs can provide the following savings in the water sector in Egypt. The use of drip irrigation saves 40% of water compared to flood irrigation. Rational water management can save 10% in water consumption (African Environment Ministers Conference, 2015). In this context, the results (Table 6) indicate that the majority of respondents believe that the transition towards a green economy can contribute to water conservation by raising the efficiency of water use in agriculture and improving drainage systems, work on rainwater harvesting and reuse, work on wastewater treatment and benefit from it, contribute to providing job opportunities in the field of water network maintenance, rationalize the use of irrigation water with the aim of Maximizing the return from the water unit, 2.09, 2.07, 2.05, 2.05, 2.04 degrees out of 3 degrees, respectively, accordingly, it is clear that the respondents have high knowledge of the contribution of the green economy to achieving this goal of sustainable development, which may be due to the association of their specialization with water and its uses, besides the increased attention to the issue of water and the need to preserve it in various media and social media, especially after Ethiopia's desire to build the Renaissance Dam.

Goal Five: Access to affordable and clean energy

Using more renewable energy can reduce the level of pollution as this can be a great solution to stimulate economic growth by stimulating the industrial and service sectors (Bilgili *et al* 2016, Gasparato, *et al*, 2017), In order to build an effective green economy model, it is necessary to move towards new and renewable energy sources such as solar energy, water energy, and wind energy, and to reduce traditional energy sources (Fareed, 2012). In this context, the results (Table 6) indicate that the majority of respondents believe that the transition towards a green economy can contribute to obtaining clean and affordable energy through the expansion of new and renewable energy production, especially from the sun and wind, and the expansion of the use of clean energy such as gas. and electricity in the operation of vehicles, with weighted averages of 2.13, and 2.02 degrees out of 3 degrees, respectively. It is worth noting that Egypt, within

the framework of implementing the economic reform program, the government has gradually canceled energy subsidies, which decreased from 139.5 billion pounds in 2013 to 28 billion pounds in 2021 (Ministry of Finance, 2022) Egypt also aims to increase the contribution of renewable energy in electricity production, to reach 42% in 2035 and 55% of the total electricity produced on the electrical grid in 2040 (<https://attaqa.net>.) through a Benban complex which is the largest solar power station in the world, as it includes 32 solar stations with a capacity of 1465 megawatts, equivalent to 90% of the energy produced from the High Dam, with a total investment of \$2 billion.

The sixth goal: Preserving the environment and confronting climate change

The green economy makes economic activities more environmentally friendly by promoting sustainable transportation, greening buildings, greening electricity production, improving water management and desalination, reducing carbon emissions, mitigating land degradation and desertification (Khanfar, 2014) and thus preserving the environment and contributing more effectively to facing changes Climate, and in this context, the results (Table 6) indicate that the majority of the respondents believe that the shift towards a green economy can contribute to achieving this goal by supporting the environmentally clean transport sector which helps to preserve the environment. the shift towards a green economy can help in the treatment of toxic waste and reduce Its negative effects on the environment, the use of building materials that reduce the use of electric energy to ensure the preservation and sustainability of the environment, and the expansion of tree planting in a way that preserves air purity and ensures the environmental quality of life, with a weighted average of 2.25, 2.19, 2.15, and 2.14 out of three degrees. Degrees in order, it is clear from the above that the majority of the respondents believe that the green economy is a haven to reduce the negative effects of these changes and, therefore, contributes significantly to achieving this goal.

Fifth: Requirements for the transition to a green economy

Omar (2008) defines requirements as a set of basic things that are indispensable or necessary to do to achieve a goal. "Hence, the requirements of the

Table 6: Respondents' Distribution according to their opinion of the green economy contribution to achieving the studied SDGs

s	Statement	contribution level				Weighted average	Ranking
		High	medium	low	nothing		
The contribution of the green economy to poverty reduction							
1	Supporting sustainable rural livelihoods and adopting poverty reduction policies	116	169	25	20	2.15	1
2	Achieving food security by using the most sustainable agricultural techniques	147	105	57	21	2.15	2
3	Provide more job opportunities in the field of construction, agriculture, and maintenance of water networks	121	143	51	15	2.12	3
4	Green management of waste works to provide new job opportunities	100	116	93	21	1.89	4
5	Green buildings help provide job opportunities and new industry	76	141	88	25	1.81	5
The contribution of the green economy to the preservation of natural resources							
1	Encouraging the shift towards industries that rationalize the consumption of natural resources	149	150	26	5	2.34	1
2	Increase the sustainable use of agricultural land	159	118	43	10	2.29	2
3	Enhancing soil fertility by using natural and sustainable fertilizers	143	135	47	5	2.26	3
4	Maximizing the yield of agricultural production after recycling agricultural waste	128	138	54	10	2.16	4
5	Assisting in the production of non-traditional fodder as food for farm animals	133	112	75	10	2.12	5
6	Preserving the strategic reserve of groundwater	103	114	92	21	1.91	6
The contribution of the green economy to maintaining health and providing well-being							
1	Reducing the use of chemical pesticides through the use of integrated biological control	150	115	54	11	2.22	1
2	Production of healthy food commodities	166	85	53	26	2.18	2
3	Expansion of organic farming to maintain public health	111	170	33	16	2.14	3
4	Expanding the production of organic fertilizers to obtain healthy and safe food	109	128	71	22	1.98	4
Contribution of the green economy to water conservation							
1	Raising the efficiency of water use in agriculture and improving drainage systems	115	142	62	11	2.09	1
2	Harvesting rainwater and reusing it	124	125	61	20	2.07	2
3	Waste water treatment and utilization	118	130	62	20	2.05	3
4	Contribute to providing job opportunities in the field of water network maintenance	118	130	62	20	2.05	3
5	Rationalizing the use of irrigation water in order to maximize the yield of the water unit	116	137	51	26	2.04	4
Contribution of the green economy to access to clean and affordable energy							
1	Expansion in the fields of new and renewable energy production, especially from the sun and wind	122	149	38	21	2.13	1
2	Expanding the use of clean energy such as gas and electricity in operating vehicles	100	147	73	10	2.02	2
3	Generating clean energy from water	109	133	58	30	1.97	3
4	Producing clean energy such as biogas from waste	96	135	52	47	1.85	4
The green economy's contribution to preserving the environment and facing climate change							
1	Supporting the environmentally clean public transport sector, which helps in preserving the environment	155	123	31	21	2.25	1
2	Assisting in the treatment of toxic waste and reducing its negative effects on the environment	155	113	31	31	2.19	2
3	The use of building materials that reduce the use of electrical energy to ensure the preservation and sustainability of the environment	124	154	31	21	2.15	3
4	Expansion of tree planting to preserve the purity of the air and ensure the environmental quality of life	171	77	40	42	2.14	4
5	Reducing greenhouse gas emissions, which helps combat climate change	114	139	41	36	2	5

Source: Field survey, 2022

green economy are the set of economic, legislative, financing, and environmental conditions necessary for the transition towards a green economy. The requirements for the transition to a green economy can be summarized as shown in Table 07 in the legislative, political, financing, and societal requirements. At the forefront of the legislative requirements was the review and updating of environmental laws and activation of their implementation mechanisms, and the issuance of new legislation to ensure the sustainability of resources, not imposing restrictions on the green economy and addressing trade distortions such as taxes imposed on exports and imports of its products, with a weighted average of 1.58, 1.53, and 1.51 out of two degrees, respectively, while the last rank was the toughening of penalties against wrong environmental, agricultural, and industrial practices, with a weighted average of 1.3 degrees. The most important political requirements were the integration of environmental considerations into the frameworks of national plans and strategies. encourage investments in the field of green economy and encourage leadership and environmental innovation in the field of the green economy. Preserving the environment and adopting a set of policies that support the transition towards a green economy (incentives for environmental activities, technology transfer, research, and development of quality certification programs) with a weighted average of 1.55, 1.53, 1.38, and 1.22, respectively. The most important financing requirements were state support and stimulation for environmentally friendly facilities, work to attract various investments for green projects, and reduced interest on loans for those working in the field of the green economy with a weighted average of 1.72, 1.53, and 1.5 degrees. In this context, the idea of green financing was proposed, as one of the financing tools. Investments, called climate bonds or green bonds, are debt instruments issued to finance projects related to the environment or climate (World Bank, 2015). The volume of green bonds issued in 2019 exceeded \$258 billion (climate bonds initiative, 2020).

While the most important societal requirements were the development of consumer awareness and the promotion of a culture of sustainable production and consumption patterns, the development of awareness among community members of the

effects of climate change, and the development of awareness among community members of the need to reduce activities that pollute the environment with a weighted average of 1.74, 1.34, 1.45 degrees, respectively. These results are in line with what was mentioned by Abdelhamed (2018), AbdJabil and Kazem (2018), Bilal and Oreysi (2017), Saad (2003), Ministry of State for Environmental Affairs (2019), and Khanfar (2014). the previous studies confirmed that the most important requirements for the transition to a green economy were the shift towards sustainable production and consumption patterns, the shift towards sustainable agriculture, the reduction of waste generation, the use of green means of transportation, and reliance on clean and green energy sources, and the trend towards creating environmentally friendly buildings and conserving resources. In addition to rural development, attention to water resources and rationalization of their consumption, reviewing government policies and redesigning them to stimulate the transition towards a green economy, paying attention to policies related to rural development, not imposing restrictions on the green economy, addressing the problem of waste and treating it, supporting the mass transport sector, and stimulating the participation of the private sector in the transition to a green economy. These results confirm the fact that the transition to a green economy requires changes in management, policies, existing markets, the contribution of actors in the various economic sectors, and their involvement in the transition to a green economy, stimulating green financing or green banking (Abdeen, 2021) (UNICEF, 2019).

Sixth: The role of university education institutions in spreading awareness of the green economy

The education system plays an important role in raising awareness of the SDGs and teaching skills and values that lead to more sustainable behavior (UNESCO, 2017). Higher education institutions are of particular importance in this regard, as they educate the next generation of decision-makers who will have a decisive influence on the future of the planet (Yuriev and Sierra-Barón, 2020). Egypt is considered one of the developing countries that suffer from a quantitative and qualitative deficit in the social capital capable of achieving the goals of sustainable development for the year 2030. There are also continuous and growing shortcomings in the quality of the outputs of the educational process,

so the green economy must be a major aspect of the university's vision and mission. Where the university is considered one of the most important institutions that seek to develop knowledge of society. and in a changing society, the university must perform multiple functions through which it can achieve a green economy and support sustainable development (Akroun&Cumin 2020). In this context, the majority of the respondents believe that the university should play its role in activating the transition to the green economy through the teaching function by integrating the basic concepts

Table 7: Distribution of respondents according to their agreement with the requirements of transitioning to a green economy

S	Requirements	Response			Weighted average	
		agree	neutral	Disagree		
	legislative requirements					
1	Reviewing and updating environmental laws and activating their implementation mechanisms	220	83	27	1.58	1
2	Issuing new legislation to ensure the sustainability of resources	192	122	16	1.53	2
3	Not imposing restrictions on the green economy and addressing trade distortions, such as taxes imposed on exports and imports of its products	205	87	38	1.51	3
4	Introducing laws for providing appropriate technology for the green economy	182	101	47	1.41	4
5	Increasing penalties against wrong environmental, agricultural, and industrial practices	158	113	59	1.3	5
	political requirements					
1	Integrating environmental considerations into the frameworks of national plans and development strategies	229	53	48	1.55	1
2	Encouraging investments in the green economy	207	92	31	1.53	
3	Encouraging leadership and environmental innovation in the field of preserving the environment	170	117	43	1.38	4
4	Adopting a set of policies supporting the transition towards a green economy (incentives for environmental activities, technology transfer, research and development, quality certification programs)	192	102	36	1.47	3
5	Review government policies and make them subject to the green economy	150	102	78	1.22	5
	financing requirements					
1	State support and incentives for environmentally friendly facilities	254	61	15	1.72	1
2	Work to attract various investments for green projects	200	105	25	1.53	
3	Reducing interest on loans for those working in the green economy	212	71	47	1.5	
4	Financing green economy projects in green ways	188	106	36	1.46	
5	Facilitating the procedures for obtaining loans in order to establish small and medium enterprises in the field of green economy	168	96	66	1.31	5
	societal requirements					
1	Developing consumer awareness and promoting a culture of sustainable production and consumption patterns	259	56	15	1.74	1
2	Developing awareness among community members of the effects of climate change	169	104	57	1.34	3
3	Developing awareness among community members of the need to limit activities that pollute the environment	183	111	36	1.45	2
4	Paying attention to water resources, rationalizing their consumption, and preserving them from pollution	164	108	58	1.32	4
5	Work on the private sector's participation of the public sector in green economy projects	154	109	67	1.26	5

Source: Field survey, 2022

related to environment and green economy concepts in the school curricula (77.3%), Establishing colleges for energy and the environment to meet the community's need for manpower in green jobs in the fields of renewable and clean energy, (74.2%). The creation of new disciplines related to the green economy and environmental development and the creation of specialized scientific degrees in this field from bachelor's to doctorate (60.6%). These results are consistent with what was stressed by Mora, *et al*, (2018) on the necessity of redesigning education in terms of sustainability, meaning changing the curricula that promote sustainable thinking in education, by integrating the concepts of sustainability and its components in the curricula. The respondents also indicated that the university, in order to play its role in activating the transition to the green economy through the function of scientific research, should encourage research in the field of climate change, pollution, biodiversity, waste management, resource sustainability, and renewable energy (73%) and work to increase funding and find sources Others to fund research in the field of the green economy (59.7%), establish, encourage and follow up research programs related to the green economy and sustainable development (57.3%), which necessitates increased spending on education, research, and development, which had a positive impact on green growth, as indicated by Yang *et al* (2019). The respondents also indicated that the university should play its role in activating the transition to the green economy through the scientific research function, expanding vocational training programs to qualify trainees for the labor market in the field of green jobs (60%), and strengthening partnership with businessmen, community institutions and the private sector in issues related to In the green economy (55.8%), these results are consistent with what was confirmed by Nhamo, (2014,) about the need to seek cooperation and partnerships with the private sector and local community organizations, work on developing curricula, developing postgraduate studies, and the development of new specializations related to the green economy.

Seventh: The reality of activating the green economy at Al-Azhar University in Egypt

The university that adopts the green economy and moves towards it in all its roles is called a green university, which can be defined as an institution

of higher education that can meet the requirements of the green economy through the application of environmental practices in the functions of the university such as teaching, research and community participation. Therefore, the university departments must encourage activities That achieve environmental awareness and serve the green economy concept, (Sisriany and Indung, 2017) In this context, the results (Table 09) indicate the most important activities implemented at Al-Azhar University in Cairo to support the greening of the university. came at the forefront of planting trees around buildings that block sunlight in summer It reduces the energy consumed in cooling and heating, painting university streets with white paints, proper and organized planning of spaces on campus, and publishing banners and posters urging the conservation of the environment and rational management of resources by rates of 78.79%, 76.67%, 62.12%, and 61.52%, respectively.

While the activities related to the gradual transition towards the adoption of renewable energy sources such as solar energy systems and wind energy, the use of insulating and lightweight walls to reduce the weight and operating expenses of the building, the transformation of the buildings of the university's departments and colleges into smart systems that shut off electricity when the work ends, these activities came in the last ranks, according to the respondents (Table 9) These results are consistent with what Shaker (2019) mentioned that the most important requirements for greening the university are water conservation, water reuse and recycling, waste recycling and use as organic fertilizer, expanding green spaces and increasing vegetation on campus, and in this context the UN program identified United Environment IPB Dramaga Ten Standards for the Green University with regard to energy, carbon and climate change Employing campus buildings to improve energy efficiency Automatic heating, ventilation, and smoke management, awareness programs for energy conservation, installing digital control systems in all buildings, installing photovoltaic systems and relying on green energy.

Eighth: Obstacles facing the transition to the green economy

The transition to green development is not an immediate event that can be taken by a single

decision at a high level. Rather, it is a long and arduous process that is guided by a political view from above and public participation from the base, ensuring the mobilization of efforts on a large scale to make this transformation a reality. This transformation faces a set of challenges related to Planning development policies, widespread unemployment and poverty, and the high cost of this transformation (Khanfar, 2014) these challenges led to the conviction of governments of the difficulty of separating economic development

from environmental issues, as environmental degradation will lead to undermining economic development. Development is built through resources, not at their expense. In this context, the results (Table 010) indicate that there are a set of obstacles facing the transition to the Green economy, which was arranged according to the percentage mentioned by the respondents, foremost of which came the high cost of using the green economy with the lack of all its requirements, the high cost of treating environmental degradation

Table 8: Distribution of respondents according to their opinion about the activities that the university should undertake to move to a green economy

S	The role of universities in activating the transition toward a green economy	approval		Ranking
	The role of universities in activating the transition towards a green economy through the teaching function	N	%	
1	Integration of basic concepts related to environment and green economy concepts in university curricula	255	77.3	1
2	Establishing energy and environment colleges to meet society's need for manpower in green jobs	245	74.2	2
3	Assign students to conduct research dealing with environmental problems and how to confront them	111	33.6	5
4	Building skills that promote the transition towards a green economy, such as positivity and the promotion of collective responsibility	147	44.5	4
5	Establishing new specializations related to the green economy and environmental development	200	60.6	3
	The role of universities in activating the transition towards a green economy through the scientific research			
1	Motivating researchers to conduct applied research to address existing environmental problems	159	48.2	4
2	Encouraging research in the field of climate change, pollution, biodiversity, waste management, resource sustainability, and renewable energy	241	73	1
3	increase funding and find other sources of funding for the green economy research	197	59.7	2
4	Interest in marketing research related to environmental issues through offices linking the university with the community	123	37.3	5
5	Establishing, encouraging, and following up research programs related to the green economy and sustainable development	189	57.3	3
	The role of universities in activating the transition towards a green economy through community service			
1	spread the values of community participation in environmental issues	145	43.9	1
2	Strengthening partnerships with businessmen, local community institutions, and the private sector in issues related to the green economy	184	55.8	2
3	Holding training seminars in partnership with local community organizations to spread awareness of environmental issues	145	44.5	3
4	Expansion of vocational training programs to qualify trainees for the labor market in the field of green jobs	198	60	4
5	Encouraging the interaction of faculty members with the issues of their local community through research and training activities	136	41.2	5

Source: Field survey, 2022

and its consequences, and the spread of unemployment among large groups of society, especially the youth group, at a rate of 89.4%, and 89%. 1%, and 88.8%, respectively, and in the fourth to sixth place came the high poverty rates and the need to increase production without taking into account environmental aspects, the conflict of public interest with the interests of influential people, and the weak technical capabilities and technical expertise available, with a rate of 86.1%. And 84.5% and 84.2%, respectively, and in the seventh to ninth place came the lack of protection policies or additional incentives for those using the green economy, the lack of integrated planning in the field of development policies, and the large population growth that is not commensurate with the available resources, at a rate of 83.9%, 82.4%, and 81.2%, respectively, And in the tenth to twelfth place came the high rate of illiteracy, especially in the countryside, the lack of political will to expand the green economy, and the lack of appropriate technology for the green economy, at a rate of 80.9%, 79.4%, and 79.1%, respectively. While the absence of the media's role in spreading the culture of green economy, and the educational system's disregard for the concept of green economy and sustainable development, came in the last ranks, with rates of 78.2%, 76.1%, and 75.5%, respectively. These results are consistent with the results of previous studies, which indicated that the most important obstacles to the transition to a green economy were the lack of a clear vision and sound planning in the field of development policies and that the option of transition to a green economy is a costly option, the increase in population and the increase in demand for products and services for all sectors., depletion Large natural resources and energy, lack of awareness of the concept of the green economy, and the lack of training programs for students about the green economy and its requirements (Luna *et al* 2012; Laaroussi and Bakkali 2017; Al-Shammari, *et al.*, 2017).

CONCLUSION

Egypt has begun moving towards the green economy as an economic activity that is environmentally friendly and one of the ways to achieve sustainable development through integration between its three economic, social and environmental dimensions. There is no dispute that education and development are closely linked, as higher education is one of the main drivers of sustainable and comprehensive development. It should play a major role in realizing

the concept of the green economy for social growth and development. The results indicated that the 37% of the respondents had a high awareness of the green economy concept in terms of its nature and objectives in general. Despite this, the economic goals of the green economy which are creating additional job opportunities for young people, alleviating poverty in society, and improving the state of well-being and social equity came in the last three ranks, this necessitates carrying out activities that enhance the respondents' awareness of the concept and role of the green economy in achieving economic development. The respondents saw that the green economy can contribute effectively to achieving the studied sustainable development goals, it can reduce poverty and provide sustainable livelihoods by supporting sustainable livelihoods in rural areas, adopting poverty reduction policies, achieving food security through the use of the most sustainable agricultural technologies and provide more job opportunities in the field of construction, agriculture, and maintenance of water networks as well as can contribute to the preservation of natural resources by encouraging the shift towards industries that rational consumption of natural resources, and increasing the sustainable use of agricultural lands, and enhancing soil fertility through the use of natural and sustainable fertilizers. The majority of respondents believe that the shift towards a green economy can contribute to preserving public health by reducing the use of chemical pesticides through the use of biological control, producing healthy food commodities, and expanding organic farming. Green economy policies and programs contribute to water conservation by raising the efficiency of water use in agriculture and improving drainage systems, harvesting rainwater and reusing it, working on wastewater treatment and benefiting from it. the transition towards a green economy can also contribute to obtaining clean energy and affordable through the expansion of new and renewable energy production, especially from the sun and wind, and the expansion of the use of clean energy such as gas and electricity in the operation of vehicles. The results indicated that the most important requirements for the transition to a green economy are reviewing and updating environmental laws, activating their implementation mechanisms, issuing new legislation to ensure the sustainability of resources, encouraging investments in the field of green economy, and adopting a set of policies that support the transition towards the green economy. attract various investments for green

projects, reduce interest on loans for those working in the field of green economy, develop consumer awareness and promote a culture of production patterns and sustainable consumption.

The majority of the respondents believe that the university should play its role in activating the transition to the green economy by integrating the basic concepts related to the environment and the green economy in the academic curricula, establishing colleges of energy and environment to meet the society's need for manpower in green jobs, and expanding vocational training programs, strengthen partnership with businessmen, community institutions, and the private sector in issues related to the green economy. Therefore, the university must meet the requirements of the green economy by applying environmental practices in the university's functions, such as teaching, research, and community participation, and encouraging activities that achieve environmental awareness

and serve the concept of green economy.

The transition to the green economy obstacles was the high cost of this transition, the high cost of treating environmental degradation, the unemployment, the high rates of poverty, the conflict of public interest with the interests of influential people, lack of integrated planning in the field of development policies, the large population growth, and the high rate of illiteracy, especially in the countryside.

Recommendations: In light of the study results, the following can be recommended:

- 1- Increasing the activities aimed at increasing university youth's awareness of environmental issues and the green economy.
- 2- Encouraging civil society organizations to participate in raising awareness of reducing activities that pollute the environment, and

Table 9: Distribution of respondents according to their opinion about the reality of activating the green economy at Al-Azhar University in Egypt

s	The role of universities in activating the transition toward the green economy	Imple- mented activity N %		Rank- ing
1	trees Cultivation around buildings, which block sunlight in summer and reduce the energy consumed in cooling and heating.	260	78.79	1
2	Recycle used paper waste	91	27.58	9
3	The gradual shift towards adopting renewable energy sources such as solar energy systems and wind energy	74	22.42	11
4	Painting the streets of the university white	253	76.67	2
5	The gradual shift towards the use of economic transportation powered by electricity and solar energy to reduce the number of cars in the university	18	5.45	14
6	The use of insulating and lightweight walls	69	20.91	12
7	Dissemination of banners and posters urging the preservation of the environment and rational management of resources	203	61.52	4
8	ICTs is used to spread environmental awareness to university students	198	60.00	5
9	Providing safe methods of handling hazardous waste	177	53.64	7
10	Proper and organized planning of spaces on campus	205	62.12	3
11	Greening all roofs of buildings and greening the university campus	79	23.94	10
12	Training students to rationalize water through student activities	134	40.6	8
13	Transforming the buildings of the university's departments and colleges into smart systems that turn off the electricity when the work ends	22	6.67	13
14	Seminars and competitions are organized for students to raise environmental awareness	185	56.06	6

Source: Field survey, 2022

- raising awareness of the importance of waste and the need to recycle and benefit from it.
- 3- Increasing investments in the field of the green economy by reducing interest on loans, and facilitating the obtaining of loans to establish projects in the field of green economy
- 4- Encouraging the use of new and renewable energy sources that are environmentally friendly, while increasing the penalty for those who violate the proper and safe use of energy sources.

Table 10: Distribution of respondents according to their opinion of the obstacles facing the transition to the green economy

Obstacles	Yes		No	
	N	%	N	%
The high cost of transition to a green economy and the lack of its requirements	295	89.4	35	10.6
The high cost of treating environmental degradation and its implications	294	89.1	36	10.9
The spread of the problem of unemployment among large groups of society	293	88.8	37	11.2
High rates of poverty necessitate increased production without regard to environmental aspects	284	86.1	46	13.9
Conflict of public interest with the interests of influential people	279	84.5	51	15.5
Poor available technical capabilities and technical expertise	278	84.2	52	15.8
There are no protection policies or additional incentives for the user of the green economy	277	83.9	53	16.1
Lack of integrated planning in the field of development policies.	272	82.4	58	17.6
Large population growth, which is not commensurate with the available resources	268	81.2	62	18.8
High illiteracy rate, especially in the countryside	267	80.9	63	19.1
Lack of political will to expand the green economy	262	79.4	68	20.6
Lack of appropriate technology for the green economy	261	79.1	69	20.9
Absence of the media role to spread the green economy culture	258	78.2	72	21.8
The educational system ignored the concept of the green economy and sustainable development	251	76.1	79	23.9

Source: Field survey, 2022

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