

The Strategy of Green Jobs as a Mechanism to Address Climate Change within an Environmentally Sustainable Economy

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Abstract:

This research seeks to clarify the idea of Green Jobs (GJ) as a fundamental approach within the green economy framework and to investigate their relevance in offsetting the unfavorable consequences of climate change on the stability of the labor market. Providing adequate job possibilities consistent with economic, social, and environmental sustainability criteria helps to accomplish this; a training and development strategy helps to improve green skills.

The research found that a low-carbon economy ecologically viable depends mostly on green employment. This calls for supporting investment, increasing international discussion and collaboration, and benefitting from the knowledge of top nations in the creation and marketing of such employment.

Keywords: Green Jobs; Green Economy; Sustainable Development; Climate Change; Labor Market.

1. INTRODUCTION

Given how climate change and environmental damage affect the labor market, adopting a low-carbon green economy strategy is essential to mitigate the negative consequences of climate change. This transformation has created new employment options, while old ones have become outdated. Many countries have so begun investigating other initiatives and strategies that can promote economic activity under control of the hazards of climate change and greenhouse gas emissions in addition to achieving social, economic, and environmental development that is interconnected. The primary focus is on providing adequate employment opportunities without sacrificing people's current or future quality of life.

In order to address the effects of climate change on the labor market, the idea of "Green Jobs" (GJ) was developed. The goal of green employment is to set the stage for a more equitable, inclusive, and sustainable economy and society. This is done through well designed programs that reduce greenhouse gas emissions by creating decent and efficient jobs tailored to the needs of each population and natural capital of each country.

International financial institutions have been looking to act proactively to protect the climate and the environment and create more jobs than traditional business growth does. They aim to create 60 million more jobs by 2030. For instance, with \$10 billion in five-year pledges, the World Bank Group presented its Climate Change Strategy for the Middle East and North Africa region.

The importance of this study, then, is in defining the concept of Green Jobs (GJ) as a means to attain a sustainable economy under climate change. Green Jobs (GJ) contribute to protecting ecosystems and biodiversity from the effects of emissions and greenhouse gases through a highly efficient strategy. This, in turn, creates quality job opportunities aligned with the development requirements imposed by each country's natural resources while controlling the severity of climate changes that threaten individuals' right to stable and decent work.

Another significant aspect of this paper is its presentation of various international experiences, showcasing the progress made in internal policies to promote Green Jobs (GJ) based on labor market needs and environmental conditions.

To underscore the significance of the subject, the following scientific goals have been delineated:

- To emphasize the significance of implementing a green employment program as a substitute strategy to mitigate the effects of climate change.
- To highlight the necessity of enhancing the GJ program with effective measures to ensure its role in protecting individuals' right to decent and stable work that aligns with sustainable development requirements.

The study poses the following primary research question in this respect:

In light of climate change, can the establishment of green employment ensure the development of a sustainable economy?

To address this research question, I propose the following hypothesis:

GJ help reduce carbon emissions and harmful gases, thereby contributing to the establishment of a sustainable economy.

I have selected the descriptive method to investigate this subject since it is most appropriate for analyzing the idea of GJ in connection to climate change. This includes discussing the proposed measures to ensure the success of this strategy while drawing on international experiences in this field.

To answer the study's main research question, I have structured the discussion into:

- Climate Change and the Labor Market: This section looks at climate change in concept and labor market requirements.
- GJ as an environmentally sustainable economic solution: The idea of "GJ" and its significance for environmental sustainability are examined in this section.
- How to strengthen the GJ strategy: This section looks at proposed solutions and international best practices in GJ.

2. The Relationship Between Climate Change and the Labor Market

To clarify the job market and climate change, we first need to define climate change and then look at the various impacts that cause instability and fluctuation in the labor market.

2.1 A Conceptual Approach to Climate Change

The Intergovernmental Panel on Climate Change (IPCC) defines climate change as a shift in the average and variability of its features over an extended period of time, often lasting decades or more. These alterations comprise human activity or natural variability.¹

"Climate change" is also used to describe imbalances and significant, long-term alterations in the weather patterns of a given region, including changes in temperature, precipitation amounts, and wind conditions. The causes of this phenomenon can be attributed to Earth's dynamic processes, external forces, or the aftermath of human activities.²

Growing human activity, especially the dependence on traditional fossil fuels and the gradual shift to renewable energy sources as main substitutes for pollutant-generating resources, compounds the dangers linked with climate change. Human activity size correlates to more carbon dioxide emissions.³

Climate change is defined as "A change in the climate that is attributed directly or indirectly to human activity, which alters the composition of the global atmosphere and is

1- S. Lahour, An Analytical Study of the Contribution of Carbon Markets in Financing Climate Change Mitigation, Journal of Financial, Accounting and Administrative Studies, Volume 07, Issue 02, 2020, p.294.

2- F. M. Maki & A. Ghali, Climate Justice and Geopolitical Consequences, Anbar Journal of Human Sciences, Volume 02, 2014, p. 418.

3- B. A. Jalila & H. Kamel, The Impact of Climate Change on Environmental Security, Journal of Scientific Research in Environmental Legislation, Volume 12, Issue 01, 2022, p. 44.

observed in addition to natural climate variability over comparable time periods" in Article 1, paragraph 2 of the 1992 United Nations Framework Convention on Climate Change (UNFCCC).

The IPCC also defines it as: "Any statistically measurable changes that occur over many decades and are caused by human activities or internal interactions among the climate system's components."⁴

2.2 Climate Change's Effects on Labor Market Demands

The paper "Working on a Warmer Planet: The Impact of Heat Stress on Labor Productivity and Decent Work" was just released by the International Labor Organization (ILO). It uses climate, physiological, and employment data to estimate current and expected productivity losses at national, regional, and global levels. Working under excessive heat endangers occupational health by compromising workers' physical abilities and task performance, hence reducing production. In extreme situations, it can cause heat strokes, which could be deadly.

The report highlights that global productivity losses due to climate change will result in 80 million workers permanently losing their jobs by 2030, equating to 11 million job losses annually over less than eight years.

With clear changes already visible, climate change impacts some sectors more particularly. Climate-related catastrophes like droughts, hurricanes, and earthquakes spread their influence outside the immediately impacted areas. For example, an earthquake in April 2016 harmed companies providing components to Toyota, hence endangering output.

Although it is difficult to precisely determine the impact of climate change on various economic activities, "major" industries such as cement, metals, chemicals, glass, and automobile manufacturing are among the most affected sectors. These industries are also the primary contributors to harmful emissions.⁵

Remarkably, some of the biggest cities in the world are situated on floodplains and along the shore, especially in developing nations where 21% of urban dwellers and 14% of the population reside in low-lying coastal areas. These regions are especially vulnerable and have limited adaptive capacities.

With 940 million workers worldwide, the agricultural industry is predicted to be the most negatively impacted. It is projected that excessive heat would be responsible for 60% of all missed working hours worldwide by 2030. By the same period, it is anticipated that the construction industry would also be severely hit, losing almost 19% of working hours worldwide. Waste collection, emergency response, maintenance work, transportation,

4- T. Bousbaine, The Impact of Climate Change on the Economy and Sustainable Development, First National Symposium on Climate Change and Pollution, University of Akli Mohand Oulhadj, Bouira, 2014, p. 03.

5- S. Ashi, The Adoption of Green Jobs in Youth Employment and Achieving Sustainable Development, Master's Thesis, Faculty of Economics and Management Sciences, University of El-Hadj Lakhdar, Batna, May 2021, p. 06.

tourism, sports, and some heavy machinery-related industrial activities are some of the other sectors that are particularly susceptible.⁶

Another consequence of climate change, often overlooked by analysts and policymakers, is its effect on the labor market and future job requirements. The environment is essential to the survival of over three-quarters of the world's population, who make less than two dollars each day. Simultaneously, even with social and political partners striving to address this problem, climate change makes the young jobless situation worse.

3. Establishing GJ as a Sustainable Economic and Environmental Solution

GJ, a new kind of employment that is essential to greening businesses and economies, have emerged as a result of the shift to an ecologically sustainable economy. To comprehend the connection between labor markets and environmental sustainability, these occupations must be identified and measured.⁷

A "green economy," according to the UNEP, is "an economic system that improves human well-being in the long run without exposing future generations to environmental risks or serious ecological scarcity." Another helpful definition offered by UNEP is "An economy that lowers environmental risks and ecological scarcities while enhancing human well-being and social equity."⁸

3.1 The Concept of GJ

By examining their definition and following their evolution, the idea of "GJ" may be better understood.

3.1.1 Definition of GJ

Green occupations are ones that use renewable energy to generate goods and services, recycle trash, cut down on pollution, and save energy and natural resources.⁹

Additionally, green occupations are those that lessen and control the environmental effect of businesses and industries. These employments may be found in a variety of industries, including construction, energy, agriculture, waste recycling, and transportation. These positions lower energy usage, maximize the use of water and raw resources, decarbonize the economy, lower greenhouse gas emissions, limit or completely eradicate waste and pollution, and safeguard and restore biodiversity and ecosystems.

The ILO defines GJ as "decent work that reduces the environmental effect of businesses

6- International Labour Organization, It Is Projected That Heat Stress Caused by Climate Change Will Lead to a Loss of Productivity Equivalent to 80 Million Job Opportunities, Regional Office for the Arab States. Available at: <https://shorturl.at/VNSWq> (Accessed on 29 January 2025).

7- International Labour Office, Sustainable Development, Decent Work and Green Jobs, Fifth Report, 102nd Session, Geneva, 2013, p. 22.

8- United Nations, Governing Council of the United Nations Environment Programme, Twenty-Sixth Session of the Governing Council. Emerging Policy Issues: Green Economy, Global Ministerial Environment Forum, Nairobi, 2011, p. 04.

9- C. McClelland, Green Careers for Dummies, Wiley Publishing, Canada, 2010, p. 32.

and economic sectors, therefore lowering it to sustainable levels, or work that involves preserving and restoring the environment."¹⁰

Green employment is similarly defined as "decent jobs that contribute to preserving or restoring environmental quality, whether in agriculture, industry, services, or administration" in a 2008 paper co-authored by the UNEP, ILO, IOE, and ITUC.

Green employment prioritizes energy efficiency, sustainability, alternative technology, social responsibility, environmental preservation, and environmental awareness. They also cover every job aiding the conservation of ecosystems and biodiversity, the application of high-efficiency strategies to reduce resource, energy, and water use, and the creation of a carbon-free economy always abstaining from producing pollution and waste.

It is worth noting that GJ must also meet decent work criteria, ensuring fair returns, productive employment, adequate social protection, respect for workers' rights, and participation in decision-making to foster a sustainable economic framework.

GJ are multidimensional, focusing on developing and rationalizing environmentally, socially, and economically sustainable enterprises, companies, and economic sectors.

Making the distinction between environmental and green occupations is crucial. The latter refers to occupations that rely on the environment and natural resources, such as managing land, conserving biodiversity, and using water, of which agriculture is a major example.¹¹ In contrast, GJ are those created by reducing the environmental footprint of any process, such as employment in organic farming, energy efficiency, and recycling.¹²

The growth and effectiveness of Green Jobs (GJ) depend on fostering a supportive and encouraging policy environment.

3.1.2. The Development of the Green Job Concept

By combining efforts to eliminate poverty with efforts to reduce greenhouse gas emissions through the provision of good work opportunities, the GJ program is an effective strategy for addressing the detrimental effects of climate change on employment.

The growth and effectiveness of GJ depend on fostering a supportive and encouraging environment while addressing obstacles that may hinder their potential impact.

The greatest hurdle to achieving the Millennium Development Goals by 2015 is climate change, the largest hindrance to sustainable development in the twenty-first century.

10- United Nations, Adopting Green Jobs to Promote Youth Employment in Six of the 100 Poorest Syrian Villages. International Labour Organization and the United Nations Development Programme to Train Rural Workers on Solar Water Heaters, Regional Office for Arab States of the United Nations, Aleppo, 2011, p. 01.

11- T. El-Habib & B. Nasira, The Role of Green Economy in Creating Green Jobs and Contributing to Poverty Reduction, International Symposium on Assessing Poverty Reduction in Arab Countries in the Context of Globalization, Faculty of Economic, Commercial and Management Sciences, University of Algiers, Algiers, 2014, p. 96.

12- Sustainlabour, Green Jobs and Related Policy Frameworks: An Overview of the European Union. Available at: <http://www.sustainlabour.org> (Accessed on 29 January 2025).

Resolving this challenge requires interrelated environmental, social, and economic changes.

These topics have become more important in global conversations, particularly in light of the latter two decades of the 20th century and the need to address environmental difficulties. The UN General Assembly established the Brundtland Commission, sometimes called the "World Commission on Environment and Development," in 1982 with the aim of examining the relationship between development and the environment.

Even though there have been published studies on the economic and environmental effects of climate change, the social effects—particularly those related to labor—have sometimes been overlooked. Environmental deterioration and climate change's socioeconomic aspects were usually disregarded. The idea of "just transition," however, has gained traction as this topic has gained more attention, notably from the International Trade Union Confederation (ITUC) in the last years of the first decade of the twenty-first century, especially in the wake of the global financial crisis. This concept, when seen as a way to contribute to the transition to a more sustainable society, demonstrates how the green economy may provide decent employment and provide opportunities for everyone to live.

This viewpoint stems from the concept of sustainable development, which emphasizes the equitable allocation of costs associated with environmental concerns, such as climate change, and the measures implemented to alleviate them.¹³

Using adaptation and mitigation strategies across industries, occupations, and individuals, the "GJ Initiative," a program founded on the "just transition" concept, seeks to manage the consequences of climate change. In March 2007, the ILO launched this effort in collaboration with UNEP, IOE, and ITUC.

Together, these four partners produced a paper titled "GJ: Towards Decent Work in a Sustainable, Low-Carbon World." This global effort currently has 15 participating governments. In response to the global financial crisis of 2008, the ILO also created the "Global Jobs Pact" in June 2009 with the intention of fostering economic recovery, creating jobs, and preparing for a more equitable, sustainable, and balanced global economy.¹⁴

Thus, GJ are seen as one of the strategies of the green economy, which is predicated on reorganizing and redirecting economic activity to be more conducive to environmental sustainability and social development, so creating a path toward sustainable development.

3.2. the importance of GJ in environmental sustainability

The importance of GJ is highlighted as follows:

GJ practically reduce raw material consumption and energy, limit greenhouse gas emissions, lower pollution and waste, protect and restore ecosystems, and help companies and communities adapt to climate change.¹⁵

13- S. Ashi, op. cit., p. 05.

14- Ibid., pp. 05–06.

15- International Labour Office, op. cit.

- Promoting inclusive employment: They provide a pathway for individuals from impoverished communities to work by training them in skills needed to produce environmentally friendly products or services.
- Facilitating decent work: GJ provide respectable employment while also promoting environmentally friendly social and economic growth. In addition to generating employment possibilities, these positions have to be superior than those in related fields.¹⁶ Productive labor carried out in an environment of liberty, equality, safety, and human dignity is referred to as decent work.
- Green employment minimizes the environmental impact of economic sectors and industries by bringing them down to sustainable levels.
- Restoring ecosystems: By means of guaranteeing access to clean water, flood protection, and preservation of biodiversity, these jobs assist to restore ecosystems, decrease waste and pollution, limit greenhouse gas emissions, and lessen the need for energy and raw materials.¹⁷
- Supporting a low-carbon economy: GJ enable a carbon-free economy by Adapting to climate change: Growing interest among employers and employees in reducing climate-change-contributing emissions has driven this transformation. The sustained decline in oil prices has diminished job prospects in the petroleum sector, shifting job seekers' interest towards green economy careers.
- Demand for environmentally aware professionals: The increasing shift towards eco-friendly industries is expected to raise demand for professionals who possess a deep understanding of climate change challenges and solutions. For instance, supply chain managers should anticipate volatile weather patterns that might disrupt manufacturing and product transportation.¹⁸
- minimizing waste and pollution or even eliminating them altogether.¹⁹

A barrier to advancing the GJ initiative is the lack of suitably skilled professionals in key areas. Experts in civil engineering, urban planning, architecture, and urban management have often not received adequate climate-change-related training during their education, making such expertise crucial now.

- Investing more in natural assets—used by the poor for their livelihoods—can help many low-income areas, therefore supporting the green economy model.

As the Millennium Development goals (most notably, goals one and seven) imply, GJ might connect eliminating extreme poverty and hunger with attaining environmental sustainability.

16- M. A. Belaraj, *Green Jobs and Their Role in Promoting Decent Work*, Labour Law and Employment Journal, 3 March 2020, p. 88.

17- T. El-Habib & B. Nasira, op. cit., p. 97.

18- I, Mjich, "Climate Change Affects the Environment, but How Will It Change the Job Market?" Manshoor, Politics & Economy / Science & Technology section. Accessed January 29, 2025. <https://manshoor.com/politics-and-economics/climate-change-future-of-work/>.

19- Ibid., p. 103.

Research indicates that greening companies with GJ would both lower unemployment and ensure environmental sustainability at the same time.

Experience in some countries indicates that switching to GJ might improve job quality, particularly in the recycling and waste management sectors. These industries are projected to expand more and currently employ millions worldwide—1% of urban populations in emerging nations, per World Bank data.

GJ thus offer a means to solve climate change and environmental degradation by harmonizing goals of poverty reduction with those targeted at lowering greenhouse gas emissions and enhancing the natural environment. This aligns goal one (poverty reduction) and goal seven (environmental sustainability) of the Millennium Development Goals, demonstrating their complementarity.

4. Strengthening the GJ Strategy

GJ are among the key advantages of a more environmentally friendly economy. In order for this plan to be successful, thoughtful actions that balance the needs for environmental protection from damaging emissions on the one hand, and market growth and labor market revival on the other, must be taken. To lessen the effects of climate change, several Western and Arab nations have devised strategies to recruit green talent.

4.1 Measures to Strengthen the GJ Strategy

The lack of qualified workers continues to hinder the transition to a more environmentally friendly economy in most countries and sectors. In its 2011 report, ILO emphasized the need to predict future skill needs and modify education and training systems accordingly, acknowledging skills development as a response to labor market restructuring and climate change adaptation.

Developed as well as developing nations have to ensure that the following actions are included when using the green job mechanism to move to a more sustainable green economy in the face of climate change concerns:

4.1.1 Restructuring the Economic System for A Just Transition

This refers to adapting the economic system to the requirements of a sustainable green economy, either permanently or temporarily. The resource and energy sectors, which contribute to emissions and pollution, as well as primary industries like fishing and forestry, which overuse the natural resources they rely on, are among of the sectors most directly engaged in these adjustments.²⁰

reduction) and goal seven (environmental sustainability) of the Millennium Development Goals, demonstrating their complementarity.

4.1.2 Vocational Training and Skill Acquisition

This is achieved through preparing a range of training programs aimed at enhancing existing skills in green workplaces, through structured and methodical education and training

20- M. A. Belaraj, op. cit., p. 84.

across a wide range of jobs and positions. The goal is to develop a workforce that ensures these sectors and green workplaces are rich in competencies and trained employees.

Working with business sectors, labor unions, and civil society organizations in cooperation with UNEP, UNIDO, and the IFPRI, ILO is helping to create training centers for GJ in developing nations.

Facilities must be able to create a greater variety of green products and services and adjust to cleaner production techniques in order to undergo the process of becoming more sustainable. Consequently, governments need to concentrate more on financial and regulatory measures that are suitable for green products and services, especially for small and medium-sized businesses. This covers catastrophe preparation, skills development, insurance, "greening" workplaces and value chains, training on green entrepreneurship, and strengthening the corporate sector's ability to react by constructing climate-resistant infrastructure.

4.1.3 Establishing an Appropriate Legislative System:

The flexibility of the legislative system and its alignment with the green economy is one of the key factors that can promote jobs within green work environments or in laws related to investments and economic activities that can drive sustainable development, not to mention financial legislation.

The implementation of the "National Rural Employment Guarantee Act" in 2006 is one example of India's experience in this field. This legislation invests in the maintenance and restoration of natural capital, providing rural impoverished comm.

4.1.4 Policy for Rationalizing Expenditures Related to Natural Capital

Using green subsidies as necessary measures when determining prices and tax incentives, primarily through offering direct loans to prevent the depletion of natural capital upon which people depend for their livelihoods and ensuring green infrastructure and technology, can contribute to driving growth and employment.²¹

4.2 Leading International Experiences in Enhancing the Role of GJ

Through global research based on case studies from several countries, ILO assesses the skills required to generate green employment in a range of sectors. Additionally, it makes suggestions for training plans and policies pertaining to skill development. This section highlights Western initiatives for developing GJ, followed by an examination of Arab initiatives aimed at enhancing these specialized competencies.

4.2.1 Western Initiatives for Developing GJ

In Latin America, Africa, and Asia, the GJ Program is being actively implemented in a number of nations and industries. Among these efforts are:²²

21- F. Z. Maamouni, The Challenges of the Green Economy in Greening Jobs and Reducing Poverty, *Al-Haqiqa Journal*, Volume 08, Issue 01, 2019, pp. 35–36.

22- W. Kahham, Green Jobs as a Key to a Sustainable Economy: A Reference to Algeria's Experience, *Al-Wahat Journal for Research and Studies*, Volume 09, Issue 01, 2016, p. 364.

- Endorsing social housing and biofuel initiatives in Brazil.
- Encouraging ecotourism and sustainable farming in Costa Rica.
- Creating green employment in South Africa's building industry.
- Promoting green business driven by young people in Kenya, Tanzania, and Uganda.
- Developing GJ in China's heavy industrial, forestry, energy, and recycling sectors.

In the United Kingdom, job postings in the renewable energy sector increased from 32.9% in the first quarter to 51.5% between 2014 and 2017. This suggests that specialists in alternative energy—including bioenergy, geothermal, solar, hydro, and wind power—will see greater employment opportunities in the future.

From global data on green job initiatives, it is evident that India, the United States, and Germany—some of the world's largest greenhouse gas emitters—are also rapidly integrating green skills into carbon-intensive industries.

Germany, for instance, includes green skills into its manufacturing industry at a pace exceeding the worldwide average. Meanwhile, India and the United States lead in oil, gas, and mining, where workers report possessing more advanced green skills than in similar industries in other countries. This trend strengthens local development and promotes renewable energy.

4.2.2 Arab Initiatives for Developing GJ

The following section highlights leading Arab experiences in incorporating GJ into their development programs. It presents the Lebanese experience, followed by Syria's initiative, and concludes with Egypt's efforts (third subsection). unities with a social safety net and a stable means of subsistence.²³

GJ in Lebanon: Green employment in Lebanon's four main economic sectors—waste management, building, energy, and agriculture—was assessed by UNDP and ILO Regional Office for Arab States. various sectoral assessments include data on the current condition of various sectors as well as their greening potential. The research also determines how many green employments are already available in each industry and projects future job growth or declines depending on the application of pertinent regulations.²⁴

The United Nations Development Program, the ILO, and the United Nations Economic and Social Commission for Western Asia (ESCWA) also conducted a joint workshop in the United Nations House in Beirut on July 28 and 29. The purpose of the event was to present the GJ Program and increase understanding of its importance.

GJ in Syria: To teach rural workers how to build, use, and maintain solar water heaters, the ILO and UNDP organized a three-day workshop in Aleppo on March 26–28, 2011. The

23- Ibid., p. 85.

24- United Nations, Green Jobs Assessment in Lebanon, International Labour Organization: Regional Office for Arab States, Lebanon, 2011, p. 04.

program's objectives were to increase employment prospects in this industry and encourage the development of GJ.

The project targeted six villages in the provinces of Aleppo and Deir ez-Zor to develop dairy product industries and enhance skills for green job creation. Solar energy is considered one of the emerging green sectors in Syria.

Egypt's Experience in Developing GJ: In November 2012, GIZ and ILO together hosted a workshop with the topic "Green Skills Needed in Egypt." The action plan emphasized enhancing policies, expanding programs, and promoting the use of fertilizers and renewable energy in Egypt.

Additionally, the "Decent Jobs for Egypt's Young People" project led an initiative for biogas development in Port Said (2014). This project introduced an alternative waste management method that both preserved the environment and produced organic fertilizers while contributing to clean renewable energy through a safe and sustainable economic process.

The project also introduced an innovative agricultural practice by setting up a barley production unit in Port Said to provide livestock fodder, thereby creating GJ for local youth.

Furthermore, the project supported the cultivation of the Jojoba plant in Minya Governorate to produce high-quality renewable oil. In the same region, 100 biogas digester units were installed to generate renewable energy using eco-friendly waste management methods. This initiative diversified energy sources and reinforced sustainable waste management practices.²⁵

Fourth Branch GJ Initiative in Algeria: A study conducted by the National Cooperation Agency for Development estimated that Algeria could create 1.4 million GJ by 2025 in key green economy sectors, including:

- Renewable energy sources
- Waste management
- Water management
- Green buildings
- Environmental and energy-related services

Algeria's National Environmental Strategy implemented an action plan identifying specific activities to encourage sustainable growth and environmental protection. The strategy promoted development in green businesses and allied activities using legal, regulatory, and financial instruments. Already, major investments in green initiatives have helped to generate jobs, promote economic development, and lower greenhouse gas emissions.

25- B. Tawfiq, Decent Jobs for Egyptian Youth, International Labour Organization Office in Cairo. Available at: <https://www.unescwa.org/sites/default/files/event/materials/ilo-cairo.pdf> (Accessed on 29 January 2025), pp. 15–18.

Despite these promising projections, challenges remain in accurately defining and measuring GJ in Algeria due to:²⁶

- The absence of clear concepts regarding green economy and green activities in economic and policy discourse, as this remains a relatively new field.
- The lack of an official list classifying GJ in Algeria.
- The rigid formal classification of economic activities, making it difficult to fully identify and quantify GJ.

5. Conclusion

Given its direct influence on several essential sectors, one of the most pressing global issues now is the phenomenon of climate change. Consequently, it has garnered significant attention from international organizations and environmental bodies.

The implementation of the green employment program as a substitute approach to reach an environmentally sustainable economy is among the most powerful suggestions for reducing greenhouse gas emissions. This program has shown its efficacy and scalability in spite of several implementation-related difficulties.

This represents a positive transformation that must drive fundamental changes in industries to reduce emissions and achieve climate goals. This can be done by gradually moving away from fossil fuel dependence and designing development programs that promote renewable energy sources as a solution to combat climate change and mitigate its negative effects, especially in the labor market. Furthermore, enhancing green economy initiatives depends on supporting worker training and skill development.

Transitioning to new energy sources is imperative, considering countries' needs for urban transformation towards a greener economy. Simultaneously, this shift can help reduce unemployment rates, particularly among youth and working-age individuals, through developing green occupations that safeguard the environment, stop resource depletion, and support sustainable social and economic growth.

Study Findings

Through this research paper, several key findings have been reached, summarized as follows:

- Particularly those brought on by climate change, the idea of GJ has surfaced as a successful way to reduce environmental effects on employment. It also helps to reduce poverty and generate fair job possibilities more quickly, hence supporting the change to a sustainable economy.
- There are now millions of green employments worldwide; with enough investment, political will, and skills development in this area, millions more may be generated. GJ' promotion is projected to speed up the shift for a sustainable, low-carbon economy.

26- W. Kahham, op. cit., pp. 317–372.

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