

**Quality of life and sustainable development in Algeria: An analytical study based on the -Human Development Index and the Social Progress Index-****BEKHEIRA Wahiba Karima ***, Ibn Khaldoun University of Tiaret (Algeria),wahibakarima.bekheira@univ-tiaret.dz**BELADJINE Khaldia**, Ibn Khaldoun University of Tiaret (Algeria),khaldia.beladjine@univ-tiaret.dz**Received: 19/11/2025****Accepted: 31/12/2025****Published: 31/12/2025****Abstract :**

This study aims to highlight the quality of life in Algeria through the Human Development Index (HDI), which seeks to evaluate the overall standard and quality of life, as well as the Social Progress Index (SPI), which measures the country's ability to meet its citizens' basic needs and enhance their quality of life through social and environmental indicators. These indices collectively contribute to promoting sustainable development in its social, environmental, and economic dimensions.

The study also addresses the unemployment rate in Algeria, concluding that unemployment has a negative impact on both quality of life and sustainable development, representing one of the most significant challenges facing the country. Accordingly, the study recommends that governments and private institutions increase efforts to provide employment and training opportunities through vocational education and lifelong learning programs, aimed at improving workers' skills and enhancing access to well-paid jobs.

Furthermore, it calls for strengthening partnerships between the public and private sectors to generate new job opportunities in emerging and growing industries, thereby supporting inclusive and sustainable socio-economic progress.

Keywords: Quality of life; Sustainable Development; Unemployment; Quality of life in Algeria; Human development.

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1. INTRODUCTION:

Improving the quality of life is essential to achieving sustainable development and reducing unemployment, as these elements interact with each other in an interconnected and reciprocal manner. The goal of sustainable development is to meet the needs of the present without compromising the rights of those in the future. Improving the quality of life includes achieving sustainable economic, social, and environmental development, as these dimensions work together to achieve balance and sustainability in economic growth and development, while reducing unemployment enhances the quality of life at the individual and social levels. Work is not just a means of material gain, but is also an essential element in building personal and social identity and enhances a sense of self-dignity and contributes to comprehensive economic growth. Given the mutual impact between improving the quality of life and reducing unemployment, we can see how increasing economic and social opportunities can lead to enhancing the quality of life, including access to basic services such as health care and education, and improving living standards and infrastructure, which in turn enhances job opportunities and reduces unemployment rates.

Improving the quality of life as a mechanism for achieving sustainable development and reducing unemployment represents a mutual and necessary interaction, calling for comprehensive and integrated interventions from governments, organizations, and civil societies to ensure sustainable and comprehensive growth of societies in the long term. Therefore, from the above, we raise the following problem:

1.1 How can quality of life contribute to achieving sustainable development and reducing unemployment in Algeria?

1.2 Research Questions :

- Is improving quality of life important for achieving sustainable development?
- Does Algeria's focus on improving quality of life reduce unemployment and enhance sustainable development?

1.3 Hypothesis/ hypotheses:

Study hypotheses: Through the problem, we assume the following:

- Improving the quality of life is an important process in achieving sustainable development
- Algeria's interest in improving the quality of life will help reduce the unemployment rate and increase the growth rate that achieves sustainable development

1.4 Significance of the Study :

It highlights the reality of quality of life in Algeria by relying on two global indicators: the Human Development Index and the Social Progress Index.1.5 Objectives of the study:

Our study aims to clarify the effective role that quality of life plays in achieving sustainable development and reducing unemployment by trying to present the reality of quality of life and unemployment in Algeria and the extent of their impact on sustainable development.

1.6. methodology of the Study:

The descriptive-analytical approach to analyzing the concepts of quality of life and sustainable development; the quantitative approach for both data collection and analysis, relying on HDI and SPI indicators published by international organizations; and secondary sources including reports from the United Nations Development Programme and the World Bank.

1.7 Organization of the Study The researcher clarifies the general frame of his treated subject, than the special frame that the article emphasised in, arriving at the main information which precisely characterized the treated problem. This later will be presented as one question. Then, the related hypothesis, and the causes of choosing the topic, and the goals of the study and its importance, and the limits of the research and its terms...

2. The Concept of Quality of Life :

2.1 Definition of Quality of Life According to Some Researchers :

Cummins's (1996) Concept: The concept of quality refers to good health, happiness, self-esteem, life satisfaction, or psychological well-being.

Litwin's (1999) Concept: Quality of life is not limited to facing difficulties, overcoming obstacles, and negative aspects, but extends to developing positive aspects.

Barger's (1999) Concept: Studies in the field of quality of life discuss an individual's functional level and their assessment of their personality in terms of its impact on quality of life.

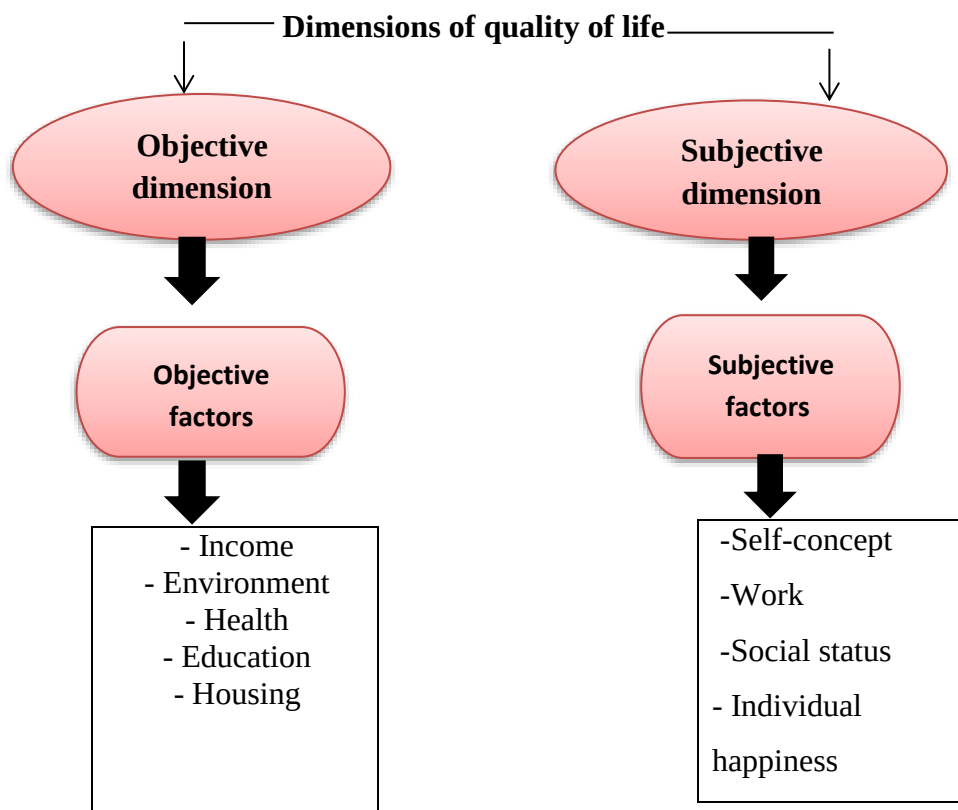
Lehman (1998) and Giannias (1998) believe that quality of life is a sense of satisfaction, well-being, and pleasure within the circumstances in which an individual lives. (Barcaccia, Giuseppe Esposito, Maria Matarese, Marta Bertolaso, Marta Elvira, & Maria GraziaDe Marinis, 2013)

Definition by the World Health Organization (WHO, 1998): Quality of life is viewed as

an individual's perception of their position in life within the context of the culture and values in which they live, and in relation to their goals, expectations, standards, and interests. It is a broad concept that encompasses, in a complex way, a person's physical health, psychological state, level of independence, social relationships, personal beliefs, and their relationship to the environment in general. (Owczarek, 2010)

2.2 Dimensions of quality of life: Quality of life has been defined through two basic dimensions: a subjective dimension and an: objective dimension. : (Felce & Jonathan, 1995)

Figure N°01: Dimensions of quality of life



Source : Prepared by the researchers based on an article from the Director of Social Affairs in Al-Jazeera Channel, 12/07/2024

<https://www.sciencedirect.com/science/article/abs/pii/S0891422294000288>

2.2 Quality of Life Indicators:

Fallowfield (1990) defined the following quality of life indicators:

- Sense of quality of life: An emotional state that allows an individual to perceive themselves as capable of satisfying their various innate and acquired needs and enjoying the surrounding circumstances.
- Psychological indicators: These appear in the individual's feelings of anxiety and depression, coping with illness, or feeling happy and content.
- Social indicators: These are evident in the quality and quality of personal relationships, as well as the individual's participation in social and recreational activities.
- Occupational indicators: These reflect the individual's degree of satisfaction with and love for their profession, their ability to perform their job duties, and their ability to cope with their work obligations.
- Physical indicators: These reflect the individual's satisfaction with their health, coping with pain, sleep, and appetite. (Young, pp. 3-4)

2.3 Components and Obstacles to Quality of Life:

Quality of life encompasses comprehensive dimensions that reflect the extent to which basic human needs are met and the psychological and social well-being of individuals. Within this framework, components of quality of life are key enabling factors, including the availability of advanced infrastructure in the fields of health and education, a sustainable urban environment, effective social protection systems, equal economic opportunities, and the empowerment of individuals to participate effectively in society. : (Teoli & Bhardwaj., 2023)

However, achieving an optimal quality of life faces many structural challenges, the most prominent of which are discussed in the following table:

Table N°01: Components and obstacles to quality of life

Components of quality of life	Obstacles to quality of life
• Physical health: The ability to perform dynamic bodily functions and maintain optimal physical fitness. • Mental health: The ability to recognize and express emotions. • Spiritual health: Health related to religious beliefs and practices for psychological well-being. • Mental health: Health related to the ability to think, make, and act on decisions. • Social health: The ability to relate to others and respect them.	• Life events and stressors, and loss of a sense of meaning in life. • Lack of religious commitment. • Lack of services provided to the individual. • Lack of comprehensive healthcare for individuals. • Internal and external conditions (illness, disability, lack of social support, etc.). • Physiological needs (food, shelter, etc.). • Lack of security. • The individual's social environment is the primary cause of poor quality of life.

Source : Prepared by the researchers based on

<https://www.ncbi.nlm.nih.gov/books/NBK536962/#:~:text=For%20example%2C%20common%20facts%20of,belonging%20and%20their%20physical%20surroundings.> Vu le 12/07/2024

3. Basics of Sustainable Development

Countries seek to achieve their vision of sustainable development to achieve development that efficiently meets the requirements of the present without threatening the opportunities of future generations to provide for their needs and aspirations. In other words, achieving development that feeds the economy, builds generations, and improves the quality of life without threatening natural and environmental resources. 2020 marked the beginning of the Decade of Action to achieve the Sustainable Development Goals by 2030. It is a critical period to present a shared vision and accelerate responses to the world's most serious challenges, from eradicating poverty and hunger to reversing climate change. However, in a short period, the rapid spread of the novel coronavirus has transformed a public health emergency into one of the worst international crises in our lifetime, changing the world as we know it. In this chapter, we will address the most important aspects of sustainable development.

3.1 Definition of Sustainable Development:

In 1987, the United Nations Brundtland Commission defined sustainability as meeting the needs of the present without compromising the ability of future generations to meet their own needs. Today, there are about 140 developing countries in our world looking for ways to meet their development needs, but this is accompanied by an increasing threat of climate change, so efforts must be made to ensure that development today does not negatively affect future generations.

According to the Rio de Janeiro Conference: The United Nations Conference on Environment and Development (UNCED), also known as the Earth Summit, was held in Rio de Janeiro, Brazil, from June 3 to 14, 1992.

The conclusion of the Earth Summit was that the concept of sustainable development includes integrating and balancing economic, social and environmental factors in meeting our needs, which is essential for the sustainability of human life on this planet. The conference also recognized that integrating and balancing economic, social and environmental dimensions requires new ideas about the way we produce and consume, the way we live and work, and the way we make decisions. This concept was revolutionary at the time, and sparked a lively debate within governments and between governments and their citizens about how to ensure sustainable development. (MENSAH, 2019)

3.2 Sustainable Development Goals: Sustainable development seeks to achieve a set of goals that can be summarized as follows:

Achieving a better life for the population: Sustainable development seeks through planning processes and implementing development policies to improve the quality of life of the population in the community economically, socially, politically and even psychologically by focusing on the qualitative aspects of growth rather than the quantitative;

Respecting the natural environment: It is a development that accommodates the sensitive relationship between the natural environment and the built environment, and works to develop this relationship to become a relationship of integration and harmony;

Exploitation and rational use of resources: Sustainable development deals with natural resources as limited resources, so it prevents their depletion or destruction and works to use and employ them rationally;

Linking modern technology to the goals of society: Sustainable development seeks to employ modern technology in a way that serves the goals of society, by educating the population about the importance of modern and different technologies in the field of

development, without resulting in negative environmental risks and impacts;

Creating a continuous and appropriate change in the needs and priorities of society: This is done in an appropriate manner that allows for achieving the balance through which economic development can be activated, all environmental problems can be controlled, and appropriate solutions can be found for them. (medina, 2023)

Figure N°02: Sustainable Development Goals



Source : <https://www.iucn.org/our-work/informing-policy/international-policy/un-sustainable-development-goals>

3.3 Characteristics of Sustainable Development:

It is characterized by dynamism as a continuous and renewable process, which gives the concept of development a sustainable character;

The comprehensiveness of development goals, as the modern concept of development is not limited to raising the level of national income of countries, but rather adds progress in all areas of life, accompanied by maintaining environmental balance;

Development depends primarily on its components from within the geographical area, and this characteristic gives the character of continuity and self-sufficiency to the needs of the current generation without harming the needs of future generations;

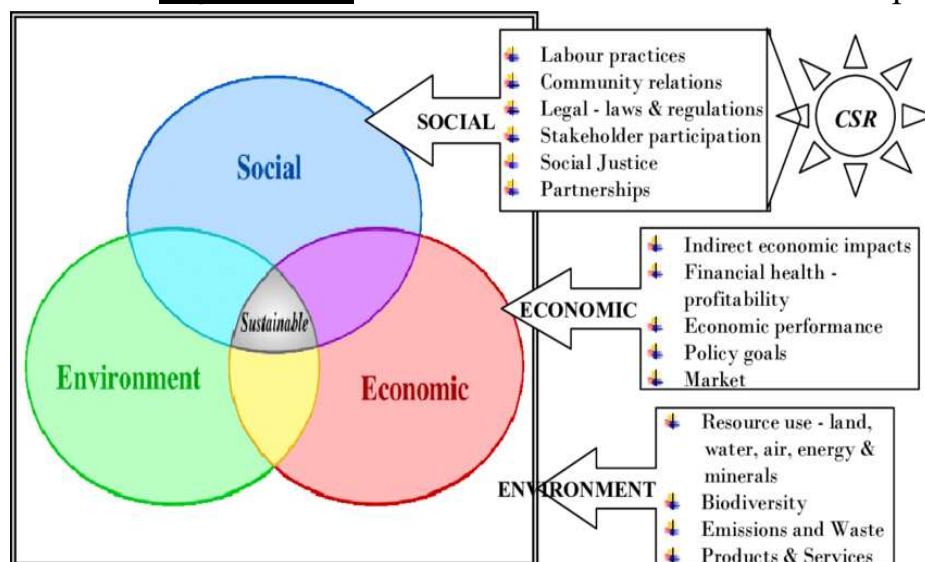
The ability to overcome obstacles and narrow the gap between developing and developed countries through the fact that sustainable development achieves growth, knowledge and continued development, which ensures that natural resources are not depleted (Edwin Zaccai, 1999)

3.4 Dimensions of Sustainable Development:

Through the previous definitions, it became clear to us that sustainable development includes many dimensions that overlap with each other, namely the economic dimensions, the social dimensions, and the environmental dimensions,

without forgetting to mention the technological dimensions. (GROVER)

Figure N°03: Dimensions of Sustainable Development



Source : <https://ebooks.inflibnet.ac.in/geop03/chapter/sustainable-development-concepts-dimensions/#:~:text=With%20a%20deadline%20of%20Agenda,will%20apply%20to%20all%20countries>. Vu le 24/01/2024

4. Analysis of Unemployment Rates in Algeria:

Algeria has experienced significant fluctuations in unemployment rates due to the interplay of various structural and circumstantial factors—most notably those related to the performance of the national economy on the one hand, and the economic policies implemented on the other. Additionally, the impact of rapid demographic growth cannot be overlooked, as the population increased from approximately 11.6 million after independence to about 45.4 million in 2022. This substantial population growth has had a profound effect on the labor market by widening the gap between labor supply and demand.

The rise in unemployment rates in Algeria can be attributed to a combination of factors; however, this study focuses primarily on the economic dimension, given its central role in the development process. This is particularly evident in the mass layoffs that accompanied the dissolution and privatization of public economic enterprises, implemented under the structural adjustment and reform programs launched in the early 1990s under the supervision of the International Monetary Fund (IMF). These reforms were part of the state's efforts to promote the private sector and enhance economic efficiency in accordance with the IMF's vision and recommendations. (Qweiqah, 2012, p. 83)

Nevertheless, the outcomes achieved diverged from the intended objectives. Instead

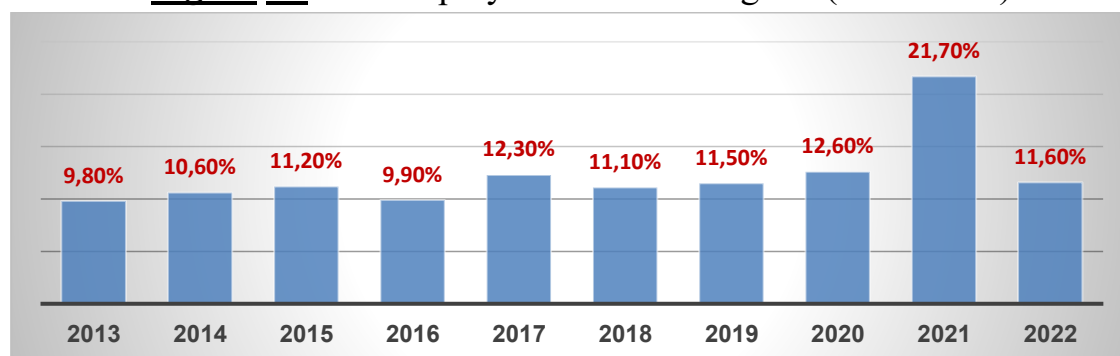
of revitalizing the labor market, privatization policies contributed to the exacerbation of the

Table N°03 : Unemployment rate in Algeria

Years	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
%	9.8	10.6	11.2	9.9	12.3	11.1	11.5	12.6	21.7	11.6

Source : Office National des Statistiques <https://www.ons.dz/> vu le 20/05/2023 a 10h

Figure N°4: Unemployment Rate in Algeria (2013-2022)



Source : Prepared by researchers based on Table 3

Unemployment Trends in Algeria (2013-2022)

The data reveals a period of relative stability followed by a profound exogenous shock, illustrating the vulnerability of the Algerian labor market to both macroeconomic fluctuations and global health crises.

- **Structural Rigidity and Oil-Price Dependency (2013–2019)** During this period, unemployment fluctuated within a narrow band of 9.8% to 12.3%.

The Pro-cyclical Nature: The slight increase in 2017 (12.3%) correlates with the lagging effects of the 2014 oil price collapse. Since the Algerian economy is heavily reliant on hydrocarbon revenues to fund public investment and civil service wages, a drop in oil prices directly constrains the state's capacity to absorb new entrants into the labor market.

The "Dutch Disease" Effect: The persistence of double-digit unemployment despite periods of high oil prices suggests a structural mismatch. Capital-intensive hydrocarbon sectors do not generate sufficient employment, while the manufacturing and agricultural sectors remain underdeveloped.

- **The 2021 COVID-19 Shock: A Massive Exogenous Disruption** The most striking data point is the spike to 21.7% in 2021. This represents a doubling of the unemployment rate compared to 2014 levels.

Aggregate Demand Failure: Lockdowns and movement restrictions led to a sharp contraction in the private sector, particularly in services, construction, and small-to-

medium enterprises (SMEs).

Supply Chain Contraction: As a rentier economy dependent on imports, the global supply chain disruption halted many local assembly and industrial activities, leading to temporary and permanent layoffs.

- The 2022 Technical Recovery: Resilience or Statistical Rebound? In 2022, the rate dropped sharply back to 11.6%.

Post-Pandemic Normalization: This decline is largely attributed to the reopening of the economy and the recovery of global energy demand. Higher oil and gas prices in 2022 provided the fiscal space for the government to resume public works and social support programs.

Youth Unemployment Concern: While the aggregate rate returned to "normal" levels, the structural issue of youth unemployment (often double the national average) remains unaddressed. The volatility seen in 2021 suggests that the labor market lacks a "cushion" and is highly sensitive to external shocks.

Key Economic Conclusions Macroeconomic Vulnerability: The labor market is a "victim" of the hydrocarbon cycle. True stabilization requires a transition from public-sector-led employment to a diversified, private-sector-led model.

The Need for Institutional Reform: The gap between 2021 and 2022 indicates that while the economy can "bounce back," it remains fragile. Policy focus must shift from temporary job creation to addressing the skills mismatch between university graduates and the needs of a modernizing economy.

4.1 Education, health and employment index in Algeria

- Education

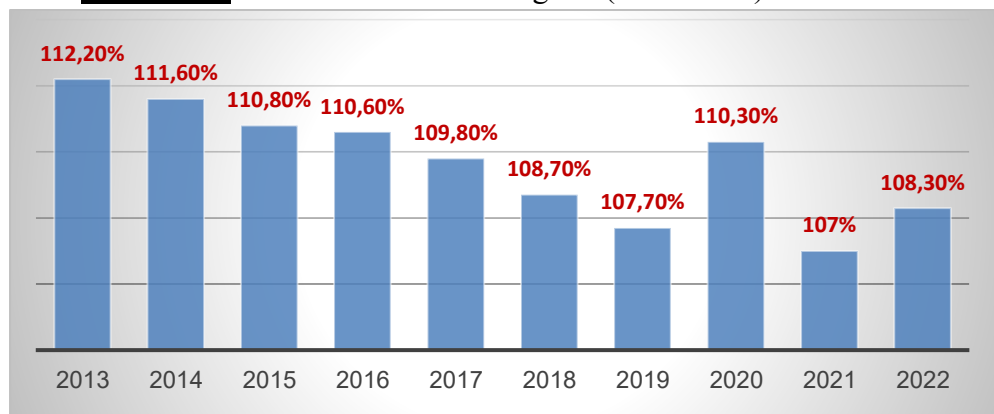
Education is considered one of the basics of building societies, their development and prosperity. The following table shows us the education rates in Algeria during the period (2013-2022).

Table N°4: Education Rate in Algeria

Years	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
%	112.2	111.6	110.8	110.6	109.8	108.7	107.7	110.3	107	108.3

Source : Prepared by Researchers based on the World Bank and Office National des Statistiques
<https://data.worldbank.org/topic/education?locations=DZ> ; <https://www.ons.dz/> vu le 18/06/2023 a
15h

Figure N°5: Education Rate in Algeria (2013-2022)



Source: Prepared by the researchers based on data in Table 4

Economic Analysis of Education Rates in Algeria (2013-2022)

The data presented refers to the "Gross Enrollment Ratio," where the ratio exceeds 100%, which economically reflects the education system's ability to absorb numbers exceeding the theoretical age group for schooling (due to repeating a year or late enrollment).

- **Investment in Human Capital as an Economic Priority (2013-2016)**
During this period, the rates recorded very high levels, ranging between 112.2% and 110.6%.

Expansion of Public Spending: These figures reflect the state's continued policy of directing hydrocarbon revenues towards the social services sector, ensuring free and universal education.

Social Return vs. Economic Return: Despite the quantitative increase in enrollment rates, the Algerian economy faced a challenge in converting this "stock" of human capital into real added value due to the weak coordination between educational outputs and labor market needs.

- **Slight Downward Trend and Financial Pressure (2017-2019)**
We observe a gradual decline from 109.8% in 2017 to its lowest level before the pandemic at 107.7% in 2019.

Rationalizing Expenditures: This decline may be related to the start of budget control policies following the fluctuation of oil prices, which affected the pace of building new educational facilities or supporting programs attached to the educational process.

Demographic Change: This slight decrease can also be explained by the improvement of "flow efficiency" within the education system, i.e., a decrease in failure rates, which brings the gross ratio closer to the net ratio (100%).

- **Fluctuation During Crises (2020-2022)**

The data showed a surprising jump to 110.3% in 2020, then a sharp decline to

107% in 2021, before partially recovering to 108.3% in 2022.

COVID-19 Shock: The increase in 2020 may be statistically attributed to changes in transition criteria or the registration of new cohorts despite the lockdown, while the decrease in 2021 (107%) reflects the real impact of the pandemic on the continuity of schooling and the pressure faced by the sector.

Economic Resilience of the Sector: The return to increase in 2022 indicates the education system's regaining its momentum, which is a positive indicator of the recovery of government investment in the education sector as a fundamental pillar for long-term sustainable economic growth.

Economic Conclusion:

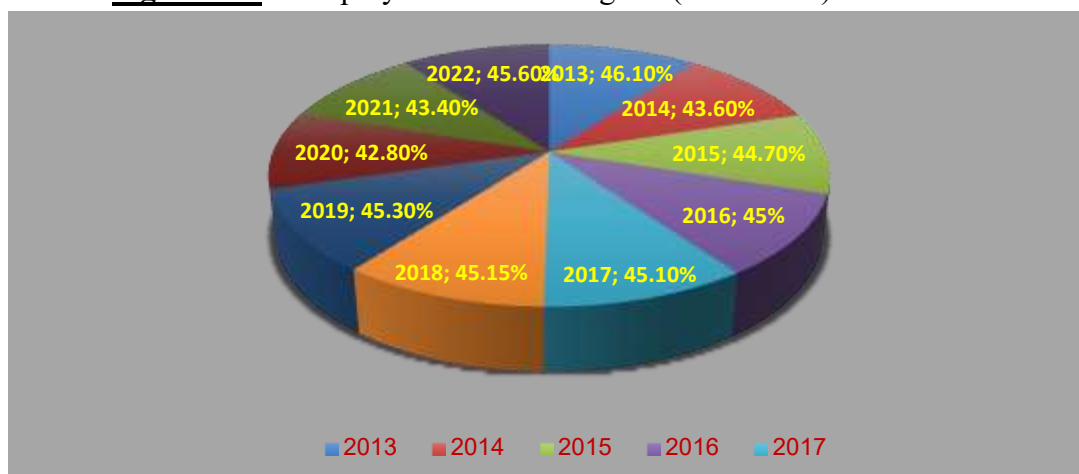
The data confirms that Algeria maintains high enrollment rates that exceed international standards for inclusiveness. However, the economic challenge lies not in the "quantity" (high rates) but in the "quality"; i.e., the quality of education and its ability to reduce unemployment rates (which previous data showed were severely affected by the crises), which requires a deeper connection between education sector investments and the economic diversification strategy.

Table N°5: The Employment Rate in Algeria

Years	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
%	46.1	43.6	44.7	45	45.1	45.15	45.3	42.8	43.4	45.6

Source : Prepared by Researchers based on the World Bank and Office National des Statistiques
<https://data.worldbank.org> ; <https://www.ons.dz/> vu le 12/07/2023 a 22h

Figure N°6: Employment Rate in Algeria (2013-2022)



Source: Prepared by Researchers based on data from Table 5

Economic Analysis: Human Capital Accumulation vs. Labor Market Absorption (2013-2022)

The provided data illustrates a critical paradox in Algeria's developmental economics: high levels of human capital investment (education) juxtaposed with stagnant labor market absorption (employment).

✓ The Human Capital Paradox and Education Over-Enrollment

Table 4 shows "Education Rates" consistently exceeding 100% (e.g., 112.2% in 2013 and 108.3% in 2022).

- **Gross Enrollment Dynamics:** Economically, a Gross Enrollment Ratio (GER) above 100% indicates a system with high social demand and significant state subsidization, but also potential internal inefficiencies such as high repetition rates.
- **Fiscal Commitment:** The sustained high rates (averaging over 109%) despite oil price volatility (notably in 2014 and 2020) demonstrate that education in Algeria is treated as a "public good" with inelastic government spending.

✓ Labor Market Stagnation and the Low-Employment Trap

In contrast to the high education rates, Table 5 reveals an "Employment Rate" that is both low and remarkably rigid, fluctuating narrowly between 42.8% and 46.1%.

- **Structural Mismatch:** While education rates remain high, employment peaked at only 46.1% in 2013 and dropped to a decade-low of 42.8% in 2020. This suggests a "skills mismatch" where the academic output (Table 4) does not align with the technical requirements of the private sector.
- **The Rentier State Constraint:** The lack of growth in employment rates despite high education levels indicates that the Algerian economy remains capital-intensive (hydrocarbons) rather than labor-intensive. The economy fails to create enough diversified jobs to absorb the increasing stock of educated human capital.

✓ Impact of Exogenous Shocks (2020-2021)

The data captures the significant impact of the COVID-19 pandemic on both sectors:

- **The 2020 Divergence:** In 2020, education rates rose to 110.3%, likely due to administrative promotion policies during lockdowns, while employment plummeted to 42.8% due to the suspension of economic activities.
- **The 2021 Contraction:** By 2021, education rates fell to their lowest point (107%), and employment only saw a marginal recovery to 43.4%. This reflects the "lagging effect" of the pandemic on human capital development and the slow resilience of the labor market.

Academic Conclusion

The correlation between education and employment in Algeria during this period is weak. From an endogenous growth theory perspective, high education rates should drive employment and productivity. However, the data suggests that in Algeria, education serves more as a social stabilizer than an economic engine. Without structural reforms to the private sector and industrial diversification, the high investment in education (Table 4) risks becoming a "sunk cost" as the labor market (Table 5) remains unable to utilize this potential.

- **Health:** The World Health Organization placed Algeria among the top ranks in health care for citizens according to several indicators, including:

- **Average Life Expectancy:**

Average life expectancy is an important indicator in demographic and public health studies, as it indicates the age that an individual is expected to live in a specific group of the population at a specific time, and the following table summarizes the average life expectancy rates in Algeria

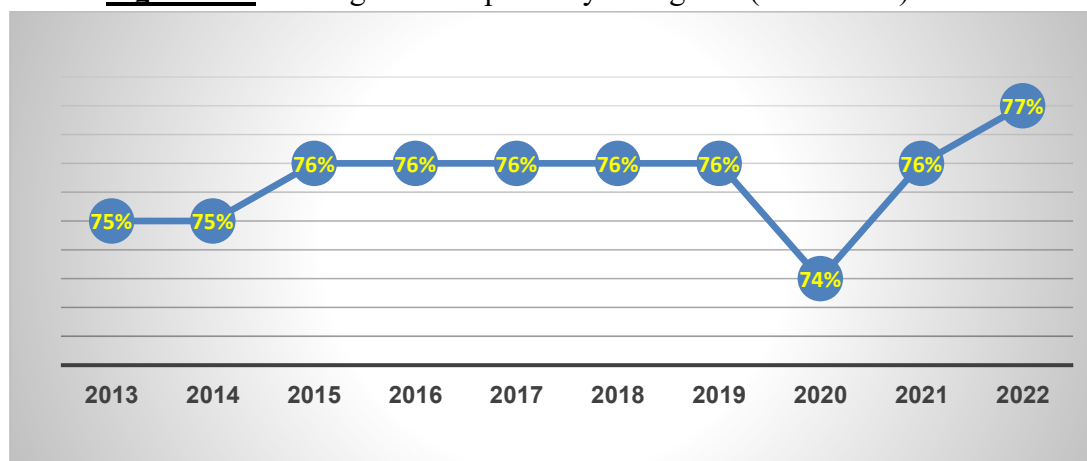
Table N°6: Average Life Expectancy in Algeria

Years	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
%	75	75	76	76	76	76	76	74	76	77

Source : Prepared by Researchers based on the World Bank :

<https://data.worldbank.org/indicator/SP.DYN.LE00.FE.IN?end=2022&locations=DZ&skipRedirectio n=true&start=1960&view=chart> vu le 15/08/2023 a23h

Figure N°7: Average Life Expectancy in Algeria (2013-2022)



Source : Prepared by researchers based on Table 6

Analysis of Life Expectancy Index in Algeria (2013-2022)

The life expectancy index is considered economically as one of the most important pillars of human capital, as it reflects the quality of healthcare, nutrition, and the

general living standard of the population.

- Stability and Gradual Growth (2013-2019):

Life expectancy maintained a stable upward trend, starting at 75 years in 2013 and 2014.

The index rose and stabilized at 76 years throughout the period between 2015 and 2019.

Economic Significance: This long stability indicates the efficiency of social safety nets and the continuity of government spending on the public health sector, which contributed to maintaining the "biological stock" of the workforce.

- External Shock and Pandemic (2020):

The index recorded a sudden and sharp decline in 2020, reaching 74 years.

Economic Significance: This decline represents the impact of the "external shock" resulting from the COVID-19 pandemic, which led to increased mortality rates and pressure on the health system, negatively impacting long-term demographic expectations in that year.

- Recovery and Resilience Phase (2021-2022):

The data showed high resilience of the health and social system, as the index regained its previous level of 76 years in 2021.

The index reached its historical peak during this time series in 2022, reaching 77 years.

Economic Significance: The index reaching 77 years in 2022 enhances the value of "human capital"; the higher the average age, the longer the expected productive period of the individual, which reduces dependency ratios and contributes to the sustainability of long-term economic growth.

Academic Conclusion:

The numbers in the table and figure reveal a direct relationship between time and the improvement of healthy life quality in Algeria, except for the shock year (2020).

Reaching a life expectancy of 77 years in 2022 is a positive indicator of the state's ability to quickly compensate for the demographic losses of the pandemic, providing a healthy human base that supports sustainable development goals.

• Mortality Rate

Mortality rate is used as a key indicator in public health and demographic studies, as it can significantly affect the population. The following table represents the mortality rate in Algeria (2013-2022).

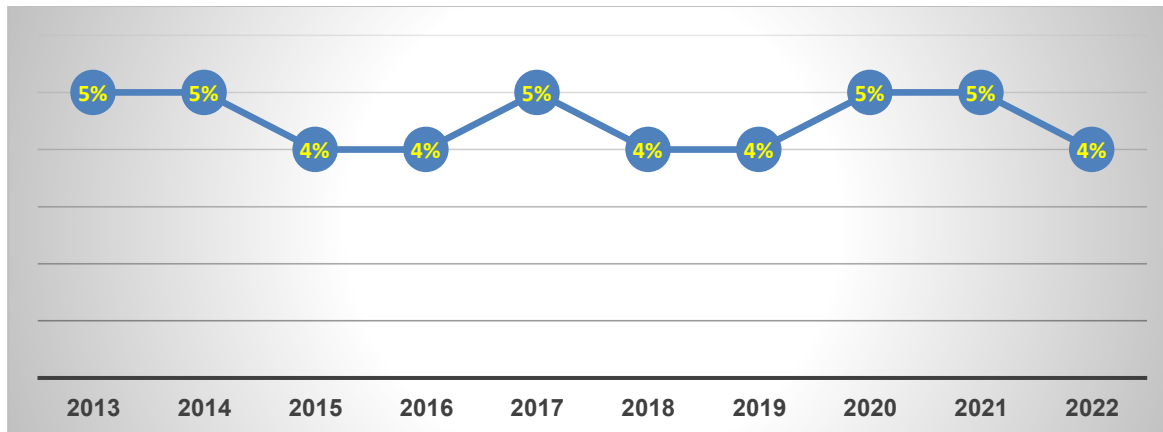
Table N° (7): Mortality Rate in Algeria

Years	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
%	5	5	4	4	5	4	4	5	5	4

Source : Prepared by researchers based on the World Bank :

<https://data.worldbank.org/indicator/SH.DYN.NCOM.ZS?locations=DZ&skipRedirection=true> vu le
10/09/2023 a 16h

Figure N° 8 : Mortality Rate in Algeria (2013-2022)



Source: Prepared by researchers based on Data of Table 7

In economic literature, the crude death rate reflects the level of health efficiency and living conditions of the population. By tracking the observed data, we conclude the following analysis:

- **Trend Stability:** The analysis shows that the death rate in Algeria has maintained relatively low and stable levels, ranging between 4% and 5% during the period (2013-2022). This stability, despite demographic growth, indicates the success of preventive policies and primary health care programs in controlling traditional causes of death.
- **Oscillatory Analysis and Health Immunity:**
The years (2013, 2014, 2017) recorded the highest stability rate at 5%, followed by a decrease to 4% in separate years (2015, 2016, 2018, 2019). Economically, the recurrence of the 4% rate indicates that society has reached an advanced stage of "demographic transition," where deaths decrease due to improved nutrition and increased health awareness associated with higher levels of education.
- **Impact of External Shocks (2020-2021):**
We note that the index returned to rise to 5% in 2020 and 2021.
Academic Interpretation: This increase is directly attributed to the repercussions of the COVID-19 pandemic (an epidemic shock), which led to exceptional pressure on the health system and an increase in crude death rates globally and locally.
- **Health System Resilience (2022):**
The year 2022 recorded a return of the index to a decrease to 4%.
Significance: This rapid decrease reflects the state's ability to restore health

balance after the crisis (Resilience), confirming that the increase in the previous two years was an accidental increase and not due to a structural deterioration in the quality of life.

Final

Conclusion:

The correlation between Table (07) and Figure (08) confirms that Algeria falls within the category of countries with low and stable death rates, which enhances "human capital" by reducing the loss in the labor force. The sustainability of the 4% rate in 2022 is a vital indicator of improved efficiency in public health spending and its ability to contain major health crises.

✓ GDP Growth

GDP is considered one of the most important economic indicators because it provides a comprehensive picture of the size and activity of the economy, and can be used to compare the performance of different economies, analyze economic growth, and estimate the standard of living. We summarized the GDP growth rate in Algeria during the period (2013-2022) in the following table.

Table N°8: GDP Growth Rate in Algeria

Years	2014	2015	2016	2017	2018	2019	2020	2021	2022
%	3.80	3.70	3.20	1.30	2.70	2.30	-5.1	2.60	1.30

Source : Prepared by researchers based on the World Bank :

<https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=DZ&skipRedirection=true> vu
le 05/10/2023 a 21h

Figure N° 9 : GDP Growth Rate (2013-2022)



Source: Prepared by Researchers based on Data of Table 8

Analysis of the GDP Growth Rate Index in Algeria

The GDP growth rate reflects the ability of the macroeconomy to expand and generate added value. By analyzing the observed time series, we note the following:

- Phase of Structural Slowdown (2014-2019):

The economy began with a relatively high growth rate of 3.80% in 2014, then entered a gradual downward trend, reaching 1.30% in 2017.

Academic Interpretation: This slowdown is closely linked to the oil price shock in mid-2014, which led to a decline in tax and oil revenues, and negatively affected public spending, the main driver of growth in Algeria.

The period (2018-2019) recorded a slight fluctuation between 2.70% and 2.30%, indicating limited-impact economic recovery attempts.

- Severe Recession Shock (2020):

The year 2020 recorded a historic economic contraction of -5.1%.

Economic Significance: This figure represents the double "scissors effect" resulting from the Covid-19 pandemic and the collapse in global demand for energy.

Academically, this contraction is classified as a severe recession that led to paralysis in the service and non-hydrocarbon industrial sectors.

- Fragile Recovery Phase (2021-2022):

The economy achieved a rebound effect in 2021 at a rate of 2.60%, before slowing again to 1.30% in 2022.

Analysis: The recovery in 2021 was technically due to the reopening of economic activities and improved energy prices, but the decline to 1.30% in 2022 indicates the continuation of structural challenges and the weak contribution of non-hydrocarbon sectors in driving sustainable growth.

Economic Conclusion:

The data in Table (08) and Figure (09) confirm that economic growth in Algeria is characterized by "high correlation with oil cycles" and "excessive sensitivity to external shocks." The return to a growth rate of 1.30% in 2022 necessitates accelerating structural reforms to diversify the economy, as current growth rates remain below the level required to absorb the increasing workforce observed in the previous tables.

4.2 Algeria: Human development

The Human Development Index (HDI) for Algeria, published by the United Nations Development Programme (UNDP), is a composite indicator that integrates key dimensions such as life expectancy, educational attainment, and income level. This index aims to assess not only economic performance but also the overall quality of life and well-being of individuals.

The HDI is based on three fundamental dimensions of human development: a long

and healthy life, knowledge acquisition, and a decent standard of living. It is calculated using four main indicators: life expectancy at birth, mean years of schooling, expected years of schooling, and gross national income per capita.



Source: https://www.theglobaleconomy.com/Algeria/human_development/ vu le 10/02/2025 a 23.30h

Human Capital Efficiency and Labor Market Inelasticity in Algeria The data presents a longitudinal view of Algeria's social indicators versus its economic output, revealing a significant "Efficiency Gap" where sustained human capital investment has not effectively translated into labor market productivity.

- ✓ The Human Capital Paradox: Education Without Employment Algeria has maintained high levels of human capital investment, but the "return on education" remains structurally constrained.

Non-Discretionary Educational Spending: The education rate remained consistently high, starting at 112.2% in 2013 and ending at 108.3% in 2022. A Gross Enrollment Ratio (GER) above 100% indicates that the system is socially inclusive but may suffer from internal inefficiencies such as high repetition rates.

The Skills Mismatch: There is a stark divergence between the 108.3% education rate and the 45.6% employment rate in 2022. Economically, this suggests that the academic output does not align with the technical requirements of the private sector, creating a "mismatch" between labor supply and demand.

Academic vs. Vocational Divide: While university enrollment is high, vocational training (VET) still suffers from a poor image and lacks clear pathways to higher education, further aggravating employability issues for graduates who often possess only theoretical knowledge.

- ✓ Labor Market Rigidity and the "Rentier State" Trap The employment rate in

Algeria exhibits extreme rigidity, fluctuating within a narrow corridor of 42.8% to 46.1%.

Hydrocarbon Dependency: The Algerian economy remains capital-intensive (oil and gas) rather than labor-intensive. Hydrocarbons contribute significantly to GDP but do not generate widespread employment, leaving the labor market highly vulnerable to external shocks.

Low Private Sector Absorption: The public sector remains the primary employer, but its capacity to absorb new entrants is limited by fiscal constraints tied to oil price fluctuations, such as the downturn after 2014.

- ✓ **Demographic Resilience and Health Indicators** Life expectancy and mortality indicators reflect the "biological" quality of the labor force, which has remained a stable pillar of Algerian social policy.

Life Expectancy Stability: Life expectancy at birth remained relatively high (around 76–77 years) throughout the decade. Research shows a strong positive correlation between health spending and economic development in Algeria, with improvements in life expectancy generally raising economic output.

The 2020 Exogenous Shock: The COVID-19 pandemic caused a temporary dip in life expectancy to 74 years and pushed employment to a decade low of 42.8%. The subsequent recovery in 2022 to 77 years highlights the resilience of the health sector compared to the slower-recovering labor market.

The datasets confirm that Algeria possesses a high-potential human capital stock, characterized by broad educational access and rising life expectancy. However, the economic utility of this stock is severely bottlenecked by a rigid, hydrocarbon-dependent labor market. The persistent gap between educational enrollment and employment suggests that further quantitative expansion of the university system will yield diminishing returns unless accompanied by structural reforms to diversify the economy and incentivize private-sector job creation.

4.3 The Social Progress Index (SPI):

is an international tool used to assess the well-being of societies independent of purely economic factors—that is, without relying directly on gross domestic product (GDP) or per capita income.

This index aims to measure countries' ability to meet the basic needs of their citizens and improve their quality of life through social and environmental indicators.

Table N° 09: Algeria - Social Progress Index - SPI

Years	Social Progress Index (SPI)
2011	60.11
2012	60.53
2013	61.21
2014	61.69
2015	62.13
2016	62.08
2017	62.60
2018	63.13
2019	63.06
2020	64.10
2021	63.89
2022	64.02
2023	64.22

Source: Prepared by Researchers based on Data of

https://www.theglobaleconomy.com/Algeria/human_development vu le 11/06/2024 a 13h

Table No. 09 reflects a gradual and sustained growth in the Social Progress Index, rising from 61.21 in 2013 to 64.22 in 2023.

Social Resilience: We note that the index maintained an upward trajectory even during years of economic crises (such as the 2014 oil price shock). This indicates that the Algerian state adopted a policy of "targeted social spending" to protect basic living standards.

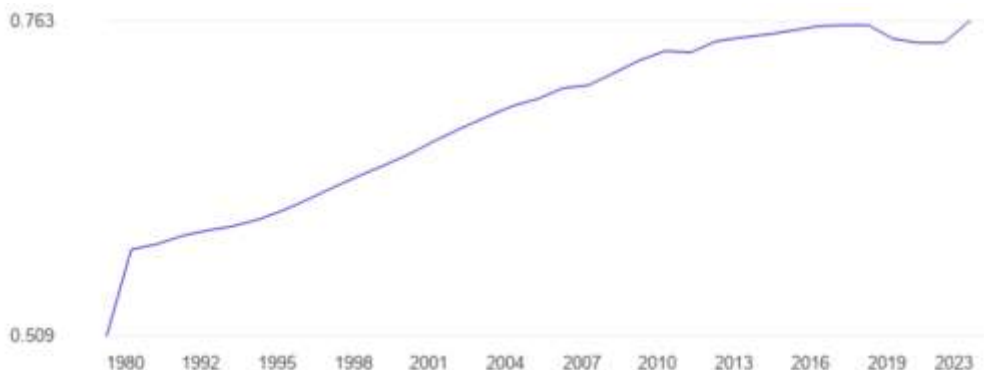
Impact of the Pandemic: The index recorded a very slight decline between 2020 (64.10) and 2021 (63.89), a slight decline compared to the sharp drop in economic growth rates, demonstrating the strength of social safety nets.

Algeria is ranked 95th out of 169 countries globally (ninth in the Arab world). Academic analysis of the figures indicates that Algeria "excels" in converting its wealth into health and education, but "struggles" to convert that health and education into a dynamic labor market.

4.4 Algeria: Happiness index

The Happiness Ranking, featured in the World Happiness Report, is derived from surveys in which respondents assess the quality of their current lives using a scale ranging from 0 (worst possible life) to 10 (best possible life). These scores reflect individuals' subjective well-being and are used to compare levels of happiness across countries. The ranking incorporates various explanatory factors, including income, social support, life expectancy, freedom of choice, generosity, and perceptions of corruption, to provide a comprehensive understanding of overall life satisfaction within each nation.

Figure N° 11: Algeria- Happiness index



Source: https://www.theglobaleconomy.com/Algeria/human_development/ vu le 14/05/2024 a 19h

A cross-analysis of the Happiness Index (Figure 11) with indicators for operations and education (Tables 04 and 05) reveals the nature of well-being in Algeria, which can be described as "government-supported well-being."

Happiness Stability Despite Economic Fluctuations

The "Happiness Index" (Figure 11) shows relative stability or slight growth, reaching 5.32 in 2023.

Academic Interpretation: In economics, the feeling of happiness is often associated with the level of "social support" and "health security." The persistence of life expectancy at 77 years (Figure 07) and the availability of free education at a rate of 108.3% (Table 04) act as cushions preventing the collapse of general satisfaction among Algerian citizens, even when individual income declines or unemployment grows.

Happiness and Crises (The Shock of 2020)

We note a decline in the happiness index in 2020, which coincides with:

A decrease in life expectancy to 74 years (a health shock).

Unemployment reaching 14.04% (an economic shock).

Analysis: This proves that happiness in Algeria is very sensitive to health and security stability, and when these gains were affected during the pandemic, the sense of well-being immediately declined, despite continued government support

From an academic perspective, the analysis of the aforementioned indicators suggests that the quality of life in Algeria has undergone gradual improvement over the past two decades. Nonetheless, this progress remains predominantly quantitative rather than qualitative. The United Nations Human Development Index (HDI) recorded a significant increase from 0.509 in 1980 to 0.763 in 2023, surpassing the global average of 0.744 points which reflects notable advancements in education, healthcare, and per capita income. However, this upward trend does not necessarily translate into tangible

improvements in citizens' daily living conditions, as social and regional inequalities continue to exert a considerable influence on the overall level of well-being.

In terms of subjective well-being, the World Happiness Index shows that Algeria scored 5.36 points in 2024 slightly higher than in 2022 (5.33 points) approaching the global average of 5.56 points. This indicator, however, reveals disparities in individual perceptions of life satisfaction. Algeria reached its highest happiness score in 2016 (6.36 points) and its lowest in 2020 (4.89 points), largely due to health and economic crises that impacted public morale and living standards.

Taken together, these indicators demonstrate that Algeria is progressing along a positive developmental trajectory in measurable terms. Yet, the country continues to confront qualitative challenges associated with enhancing the lived experience of its citizens. Achieving a holistic and sustainable improvement in quality of life will require comprehensive structural reforms in public policy, designed to integrate and balance the economic, social, and human dimensions of development.

Results and Discussion:

Sustainable employment and economic development is a powerful tool to address unemployment issues and promote sustainable development. By creating sustainable job opportunities, a balance can be achieved between supply and demand in the labor market. In addition, sustainable work contributes to enhancing economic and social stability, and improving the quality of life for the individual and society, which contributes

Unemployment and quality of life have a significant impact on sustainable development. Unemployment is considered a major obstacle to sustainable development, as it reduces worker productivity and affects corporate investments and the economy in general. Thus, unemployment can cause slower economic growth and increase poverty and inequality in society.

On the other hand, quality of life plays a vital role in sustainable development, as it is considered an important indicator of the extent of well-being and social and economic stability in society. When individuals have a dignified and sustainable life, they are more optimistic and motivated to contribute to economic and social development processes.

It is important to create policies and programs aimed at reducing unemployment rates and improving the quality of life for individuals. To promote sustainable development, a sustainable economic environment must also be created that works to provide sustainable job opportunities for all. Thus, comprehensive sustainable

development can be achieved that leads to the well-being of everyone in society and reduces poverty rates. It increases growth rates, gross domestic product rates, and per capita rates.

Answering the problem: The role of quality of life in achieving development and reducing unemployment

The quality of life in Algeria, reflected in high levels of education (Table 04) and health (Figure 07), is a necessary but not sufficient foundation on its own to achieve sustainable development and reduce unemployment. The solution lies in transitioning from "consumer quality of life" to "productive quality of life" through the following axes:

1. Transforming human capital into a productive force (the link between education and unemployment)

Data shows that the education rate exceeds 108%, while employment does not exceed 45%.

Mechanism: Quality of life through higher education produces a "stockpile" of competencies. Contributing to sustainable development occurs when this quality is directed towards innovation and entrepreneurship instead of waiting for a government job.

Impact: Reducing structural unemployment by aligning the quality of training with the requirements of the green economy and renewable energies (pillars of sustainable development).

2. Sustainable health and reduced economic costs

The stability of life expectancy at 77 years (Figure 07) means a society with long-term health fitness.

Mechanism: Healthy quality of life increases "worker productivity" and reduces sick leave days and the financial burden on social security funds.

Impact: Directing financial savings from the curative health sector to wealth-creating investment sectors, contributing to sustainable growth.

3. Social stability as a climate conducive to investment

Maintaining the happiness index above 5.0 (Figure 11) and the stability of social progress reflect a state of social peace.

Mechanism: Quality of life acts as a social stabilizer. A sustainable economy requires a stable environment to attract foreign and domestic investments.

Impact: Investment is the only engine for reducing unemployment. A high quality of life makes Algeria an "attractive destination" for talent and investment, breaking the cycle of unemployment.

4. Breaking the cycle of "non-inclusive growth"

Sustainable development requires inclusive growth.

Mechanism: By improving the quality of life in marginalized areas and inner cities (distributive justice), small local economies can be stimulated.

Impact: Reducing rural migration to major cities and alleviating pressure on the urban labor market, creating a balance in the distribution of job opportunities.

Synthetic conclusion:

Quality of life cannot reduce unemployment in Algeria through government spending alone; but through transforming social gains (health + education) into economic inputs.

Proposed equation: $> \text{Quality of life (inputs)} + \text{economic diversification (intermediary)} = \text{sustainable development} + \text{low unemployment (outputs)}.$

5. CONCLUSION:

Unemployment is an economic problem that greatly affects various social, political and financial fields. Unemployment negatively affects Quality of life and sustainable development, this is what we concluded from our research, where we found that the higher the unemployment rate in Algeria, the lower and deteriorate the quality of life in terms of health, culture, security, etc., and the lack of equality and social stability, as well as the lack of security and safety and the absence of a healthy environment that stimulates living, and the more the quality of life is almost non-existent, sustainable development is affected by the slowdown in economic growth and the decline in growth rates and the rate of gross domestic product, and economic recession and low investment. However, if we move towards developing and improving the quality of life of the individual in society, sustainable development is enhanced and unemployment rates are reduced by creating new job opportunities in emerging and growing sectors, which contributes to improving the quality of life and driving the wheel of development and achieving sustainable economic growth.

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