

**Stimulating environmental awareness and its role in achieving sustainable development goals in Algeria****تحفيز الوعي البيئي ودوره في تحقيق أهداف التنمية المستدامة في الجزائر****Mazari Fatima Zohra<sup>1</sup>, Bouchaour Radia<sup>2</sup>**<sup>1</sup> Abi Bakr Belkaid University -Tlemcen (Algeria), fatimazohra.mazari@univ-tlemcen.dz<sup>2</sup> Abi Bakr Belkaid University -Tlemcen (Algeria), bouchaourr@gmail.com**Received:** 27/10/2023**Accepted:** 05/01/2024**Published:** 06/01/2024**Abstract:**

The last summit was the Johannesburg Summit held in South Africa in 2002, and sustainable development is no longer an intellectual luxury, but rather a basic requirement to achieve justice and equity in the distribution of fruits and gains of economic development and wealth among the present and rising generations, as this study aims to shed light on an economic reading of the concept of sustainable development, as well as to identify The most important factors leading to achieving sustainability, taking into account the real protection of the environmental environment and attracting the attention of the community so that environmental awareness is one of its top priorities. The study found that sustainable development and its objectives and dimensions lead to improving the standard of living of all the world's inhabitants on the one hand, while protecting the environment and ensuring that natural resources are not depleted on the other hand, thus achieving growth and stability on the economic side and equity in the distribution of resources between generations.

**Keywords:** sustainable development; Sustainability; Sustainable Development Indicators; Environment and development; Sustainable Development Goals.

**JEL Classification Codes :** Q01, Q20, Q56.

**ملخص:**

استحوذ موضوع التنمية المستدامة خلال السنوات المنصرمة اهتماما عالميا، فعقدت من أجلها القمم والمنتديات الدولية كان آخر قمة هي قمة جوهانسبورغ التي عقدت في جنوب إفريقيا سنة 2002 ، ولم تعد التنمية المستدامة ترفا فكريا بل هي مطلباً أساسياً لتحقيق العدالة والإنصاف في توزيع ثمار ومكاسب التنمية الاقتصادية والثروات بين الأجيال الحاضرة و الصاعدة، إذ تهدف هذه الدراسة إلى تسليط الضوء على قراءة اقتصادية لمفهوم التنمية المستدامة ، وكذلك تحديد أهم العوامل المؤدية إلى تحقيق الاستدامة، مع مراعاة حماية حقيقية للوسط البيئي وجذب اهتمام المجتمع ليكون الوعي البيئي من أهم أولوياته. وقد توصلت الدراسة إلى أن التنمية المستدامة وما ترمي إليه من أهداف وأبعاد تؤدي إلى تحسين المستوى المعيشي لكل سكان العالم من جهة، مع حماية البيئة وضمان عدم استنزاف الثروات الطبيعية من جهة أخرى، وبالتالي تحقيق النمو والاستقرار من الجانب الاقتصادي والعدالة في توزيع الموارد ما بين الأجيال.

**كلمات مفتاحية:** التنمية المستدامة، الاستدامة، مؤشرات التنمية المستدامة، البيئة والتنمية، أهداف التنمية المستدامة.

**تصنيفات JEL:** Q01، Q20، Q56**Corresponding author:** Mazari Fatima Zohra, **E-mail:** fatimazohra.mazari@univ-tlemcen.dz

## **INTRODUCTION:**

The world has witnessed in the sixties of the twentieth century increased concern towards environmental pollution and its negative effects on natural resources, where many conferences were held demanding the protection of the environment, and the Stockholm Conference in 1972 was the first global conference held to consider the protection of the environment, and through it became clear the close relationship between development and the environment, and began the search for a new concept of development expanded linking the economy, society and the environment, and continued this research until the adoption of the expanded concept of development in the term sustainable development. During the past years, the issue of sustainable development caused a great stir in various countries, which led to the holding of many international conferences and summits, which resulted in sustainable development as one of the basic demands aimed at achieving justice in the distribution of wealth among different generations.

The issue of achieving the sustainable development goals is one of the most important topics that have witnessed great interest from various bodies, as the economic, environmental and social dimension and indicators of their measurement contributed to the extent of progress in implementing the sustainable development goals.

Based on the above, the problem of the study will be as follows: **How can stimulating environmental awareness achieve the sustainable development goals in Algeria?**

Which is followed by a number of the following questions:

1. What is the concept of sustainable development and environmental development?
2. What are the dimensions of sustainable development? What are the most important indicators for measuring them?
3. What are the country's efforts to achieve the sustainable development goals in Algeria?

**Objectives of the study:** The study aims to:

1. Identify theoretical concepts of sustainable development.
2. Achieving economic and social development taking into account the real protection of the environmental environment.
3. Attracting the attention of the community so that environmental awareness is one of its top priorities.

**Importance of the study:**

The importance of the study derives from the importance of the topic, which has increased interest in it at the present time, as well as the great role of sustainable development in advancing the economies of countries, as the topic highlights the importance of stimulating environmental awareness to achieve sustainable development goals, so its importance was as follows:

1. The interest of the countries of the world in environmental issues and sustainable development is confirmed through holding conferences and seminars, which emphasize environmental awareness and interest in sustainable development.
2. Protecting the environment and its resources, creating environmental awareness and correct understanding of environmental issues through the optimal use of natural and human resources in light of sustainable development has become a fundamental goal for man and for the benefit of society.

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### **Study Methodology:**

In our study of this topic, we relied on the descriptive analytical approach, due to the need to transfer information on the theoretical side and then analyze it, and finally reach a set of conclusions with some recommendations.

To answer the problem of the study, the topic was divided into three main axes, where we address the following:

- First Theme: Sustainable Development and Sustainable Environmental Development.
- Second Theme: Indicators for Measuring Sustainable Development Goals.
- Third Theme: Sustainable Development Goals and Strategies in Algeria and its Environmental Aspect.

These themes will be detailed as follows:

### **1-Sustainable development and sustainable environmental development:**

It seems that sustainable development is the one that formulates today the largest part of contemporary environmental policy, and the generality that characterized this concept played a role in making it a common and shiny slogan, which made it widely circulated and widely used and shouted associated with any development pattern.

#### **1-1-The concept of sustainable development**

Sustainable development has suffered from severe crowding in definitions and meanings, so the problem is not the absence of a definition, but the multiplicity and diversity of definitions, and among these definitions we find the following:

##### **1-1-1 Definition of burgenmeier**

Sustainable development It is a process of change through the exploitation of resources, the channeling of investments, and technical and institutional changes that bring about coherence or integration and support current and future energies in order to satisfy human needs. (Bürgenmeier, 2005, p. 38)

##### **1-1-2 Definition of the World Commission on Environment and Development 1987**

This development is defined in the report as: "development that meets the needs of the present without compromising the ability of future generations to meet their needs." (World Commission on Environment and Development, 1989, p. 83)

##### **1-1-3 Webster dictionary definition**

This development is "that development that uses natural resources without allowing them to be partially or completely destroyed." (Geis,Kutzmark, 1998, p. 2)

##### **1-1-4 Gro harlebruntland Definition**

Sustainable development as: "development that meets the needs of the present generation without compromising the ability of future generations to meet their needs" (Gendron, Corinne, 2006, p. 166) where it is clear from this concept the future vision to ensure the continuity of resource productivity.

##### **1-1-5 The World Bank's definition of sustainable development**

He defines it as « that process that is concerned with achieving continuous parity that ensures that the same current development opportunities are available to future generations, so as to ensure the stability or continuous increase of inclusive capital over time." (Al-Ashwah, 2004, p. 97)

**1-1-6 Definition of the United Nations Conference on Environment and Development Rio de Janeiro 1992**

as the management of economic resources in a way that conserves or improves environmental resources, so that future generations can live a better decent life. (Muschette.F. Douglas, Bahaa , 2000, p. 13)

**1-1-7 Definition of sustainable development according to the Algerian legislator**

Article 04 of Part One of the No. 3-10 of 19 Jumada I 1424 AH corresponding to 19 July 2003, relating to the protection of the environment within the framework of sustainable development, it means reconciling sustainable social and economic development in the protection of the environment, i.e., the integration of the environmental dimension within the framework of development that includes meeting the needs of present and future generations. (Lakhdari,Kawan, 2008, p. 17)

Through the previous definitions of sustainable development, we can identify its elements, especially what was mentioned at the Earth Summit in Rio de Janeiro in 1996, where the three elements of sustainable development were contained represented in economic development, social development and environmental development.

**Fig (1): Set of three elements to be integrated into sustainable development**

Source: (Muschette.F. Douglas, Bahaa , 2000)

From this, it can be said that sustainable development is development that meets the



needs of the present, taking into account the needs of future generations in the future, who possess the factors of continuity and continuity. Therefore, it can be said that sustainable development has a number of **characteristics** and characteristics that characterize it, as follows:

- It is a long-term development, as it depends on estimating the potential of the present and is planned for the longest future period of time that can predict variables.
- Development that takes into account the right of future generations to the natural resources of the planet's vital space.
- Development that takes into account the preservation of the biosphere in the natural environment through its basic elements such as air, water, soil and other natural resources.
- It is a development that puts meeting the needs of individuals in the first place, as its priorities are to meet the basic and necessary needs of food, clothing, health services ...etc., and everything related to improving the quality of human life material and social.
- Integrated development based on coordination and integration of resource use policies,

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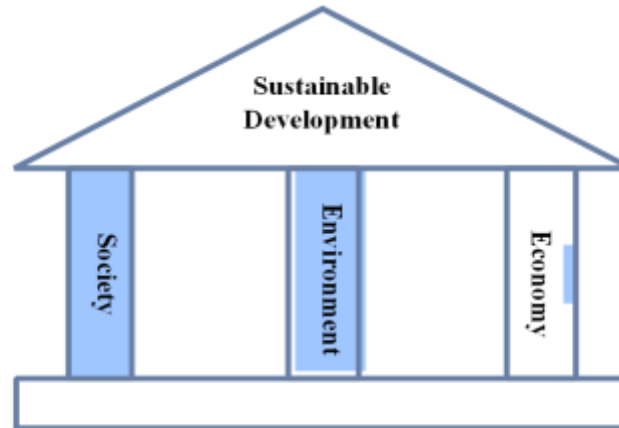
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investment trends, technological testing and institutional form, making it a regular work within the ecosystem. (Thebiji, 2009, p. 24)

### 1-2 Dimensions of Sustainable Development

Before addressing the dimensions, it is necessary to refer to the three pillars on which sustainable development is built according to the report of the World Commission on Development and Environment, namely (economy, environment and society) and this is what we explain in the following figure:

**Fig (2): Clarifies the pillars of sustainable development**



Source: (Hamrouni, 2007, p. 10)

#### 1-2-1 Economic dimension

Sustainability means the continuity and maximization of economic well-being for as long as possible by providing the elements of human well-being of the best quality, such as: food, housing, transportation, clothing, health and education.

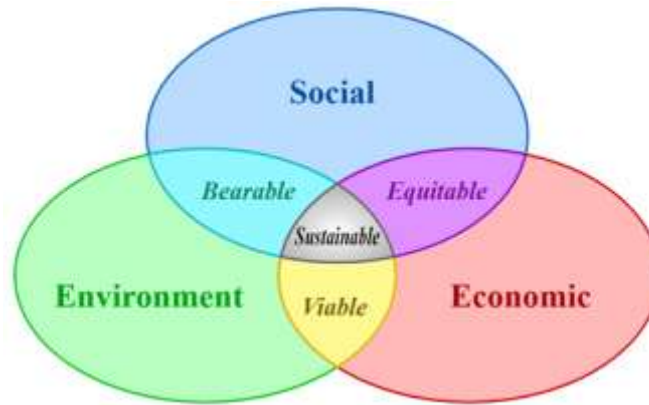
#### 1-2-2 Environmental dimension

The environmental dimension of sustainable development focuses on taking into account environmental limits, so that each ecosystem has certain limits that cannot be exceeded from consumption and depletion. If those limits are exceeded, it degrades the ecosystem. On this basis, limits must be set or consumption, population growth, pollution, poor production patterns, water depletion, deforestation and soil erosion.

#### 1-2-3 Social dimension

The social dimension of sustainable development focuses on the fact that the human being constitutes the essence of development and its ultimate goal by paying attention to social justice, combating poverty, providing social services to all those in need, in addition to ensuring democracy through the participation of people in decision-making with transparency. (Nasser, 2010, pp. 135-136) and this can be illustrated in the following figure:

**Fig (3): Illustrates the dimensions of sustainable development**



Source: (Hamrouni, 2007, p. 10)

### 1-3 Sustainable environmental development

The relationship between sustainable development and environmental protection is very close. Environmental protection is a fundamental objective in sustainable development programmes, because the environment is the primary source of all the resources needed by such programmes and projects. The disruption of the ecological balance leads to the destruction of ecosystems, the degradation of natural resources (living and non-living) and the acceleration of Some of them are exhausted, making them unfit for economic use and leading to a decline in value. Therefore, special controls must be put in place for sustainable development programs to ensure that natural ecosystems are not degraded, and these controls include: ((Al-Hiti, Al-Muhani , 2008, p. 13)

1. Maintaining the integrity of the environment (soil fertility, recycling of nutrients, cleanliness of surface and groundwater, air quality).
2. Conserve the genetic resources of animal and plant organisms, and reduce the loss of biodiversity.
3. Rationalize the continuous use of natural resources (especially plant and animal resources), so that consumption is not greater than the capacity of these resources to reproduce and produce.
4. Promoting environmental awareness and encouraging community participation in sustainable development processes
5. Promote environmental sustainability and biodiversity conservation.
6. Reducing emissions of gases and preventing the degradation of the Earth's ozone layer.
7. Climate protection from global warming.

Sustainable development requires that humans take into account these controls, take into account the importance of preserving ecosystems, and plan their consumption rates so as to maintain a balance between their needs and the energy of those systems and their ability to continue and give.

### 2- Indicators for measuring sustainable development goals:

Thinking about sustainability has led in depth to the development of development measurement tools, whose role for a long time was limited to observing economic growth rates, and in the early nineties it was supplemented by the formulation of sustainable development indicators aimed at taking into account the environmental, social and economic dimensions.

#### 2-1 Levels of sustainable development

Sustainability can be divided into three levels, strong, weak and logical, depending on the degree to which you are committed to dealing with the preservation of the most generous money

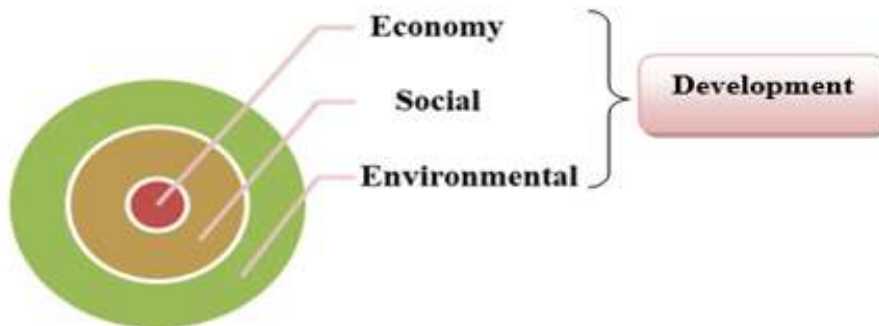
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of all kinds.

### 2-1-1 Strong sustainability

It consists in maintaining the various components of capital at their original level, each separately, and according to this concept, the components of Ars Al-Mal are complementary to each other and not alternatives, for example, the proceeds of the sale of oil must be invested in the fields of energy and development and access to sustainable energy production, and if we made an effort in return to stabilize the level of total capital reserve, then we transfer to future generations the same ability to produce goods and services, i.e. the production of any production of welfare. (Ramadan, 1995, p. 301)

Fig (4): Strong Sustainability



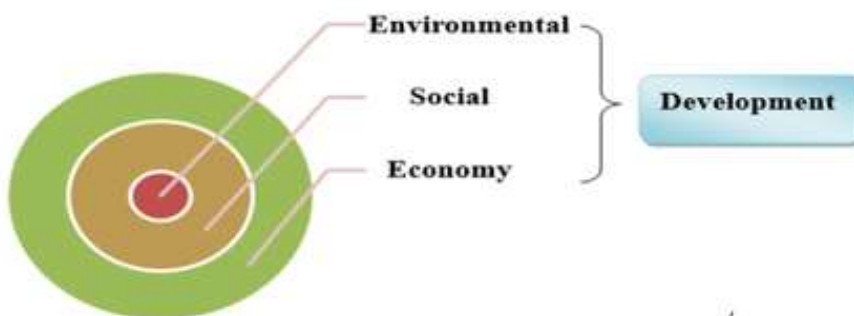
Source: Prepared by the authors

The figure shows that the expansion of economic development in its various fields should not be at the expense of environmental considerations, and that this expansion should be within the framework of environmental limits, so a strong sustainability approach rejects the idea of substitution between the various forms of capital (physical, financial, technological) and supports the need for part of the natural capital to remain constant.

### 2-1-2 Weak sustainability

It consists in maintaining the total money rate at its original level without taking into account the changes in the components of the money rate (natural, human, social, man-made), and therefore poor sustainability is based on the fact that these types of money are alternatives to each other, at least in relation to the current levels of economic activities and available resources. (Ramadan, 1995, p. 301)

Fig (5): Poor sustainability



Source: Prepared by the authors

The figure shows that the expansion of economic development in its various fields should not be at the expense of environmental considerations and the balance of environmental

resources, and that such expansion should be linked to the need for the balance of the global capital to remain stable through development processes towards the interior.

### **2-1-3 Logical sustainability**

This type of sustainability requires in addition to maintaining the total money at its original level, and paying attention to each component of *Ars Al-Mal* from nature, human, social and man-made, for example, oil can be consumed as long as the proceeds are used to invest in another component (*Ars Al-Mal* for example), as well as work must be done to determine the critical levels for each component of *Ars Al-Mal*, whose transgression can lead to the emergence of the problem of inability to Substitution. (Ramadan, 1995, p. 301)

## **2-2 Sustainable Development Indicators**

The dimensions of sustainable development are economic, social and environmental aspects, and all of these aspects must be emphasized just as importantly as the development goals themselves. Sustainable development indicators vary from time to time and from region to region due to the diversity of development goals, different priorities, and the availability of expertise and data. These indicators reflect the fact that economic, social and environmental aspects are interrelated and interrelated, as change in one aspect affects the other. These indicators were developed to track progress and assess the effectiveness of development policies on the exploitation of natural resources. Therefore, the process of preparing indicators to measure sustainable development at different spatial levels includes several issues.

### **2-2-1 Social issues and indicators**

Issues related to social indicators of sustainable development are:

**a - Social equality:** Social equality is one of the most important social issues for sustainable development, as it largely reflects the quality of life and public participation, and equality is associated with the degree of justice and comprehensiveness in the distribution of resources, providing opportunities and taking the decision, and includes a disk of access to work and public services, the most important of which are health, education and justice, and one of the important issues associated with achieving social equality highlights the issue of combating poverty, work, income distribution, access to financial resources and fairness of opportunities between generations, and it has been chosen Two main indicators to measure are the proportion of the population below the poverty line and the Gini benchmark index of income inequality (Al-Hiti, Al-Mohannadi ,Issa, 2010, p. 23)

**b- Public health:** There is a close link between health and sustainable development, as access to drinking water, healthy food and health care is one of the most important principles of sustainable development, because the deterioration of health conditions pollutes the environment surrounding the population, poverty and the high cost of living leads to failure to achieve sustainable development, especially in developing countries. (Ghoneim , Abu Zant , 2006, p. 255) The most important health indicators are: life expectancy at birth, maternal and child mortality rates, and health care.

**c- Education:** Education is a prerequisite for achieving sustainable development and has been focused on in the agenda of the twenty-first century, because education is one of the most important gains that an individual can obtain to achieve success in life, and education is focused

in the twenty-first century agenda document around the following goals: (Tarraf , Hassanein , 2012)



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1. Reorient education towards sustainable development.
2. Increase training opportunities.
3. Raising public awareness.

Among the most important indicators of education are the rate of literacy and literacy and the enrollment rate of various educational institutions.

**d- Security:** In sustainable development, it means social security and the protection of people from crime, as justice, democracy and social peace all depend on the existence of an advanced and fair security management system that protects citizens from crime, but at the same time this administration should not raise social concern or exercise its powers through abuse of thousands of lands and infringements on human rights, and security-related issues that Agenda 21 focused on. Violence and violence against children, women, drug crimes. and others usually through the percentage of perpetrators of crimes. (Adeeb , 2003, p. 169)

### **2-2-2 Economic issues and indicators**

These indicators include issues of economic structure and patterns of production and consumption, which are as follows:

**a- Economic structure:** The development of sustainable economic indicators reflects the nature of the impact of macroeconomic policies on natural resources, which is one of the priorities for measuring sustainable development, and the most important indicators are as follows: (Al-Hiti, Al-Mohannadi ,Issa, 2010, p. 25)

**a-1 Economic performance:** It can be measured by GDP per capita and the percentage of investment in it.

**a-2 Trade:** measured by the trade balance of goods and services

**a-3 Fiscal position:** It is measured by calculating the ratio of external or internal debt to GNP, as well as by the ratio of development assistance provided or received compared to GNP.

**b- Production and consumption patterns:** Consumption and production patterns are one of the most important economic issues for sustainable development, as the world is characterized by consumer tendencies in industrially developed countries, and unsustainable production patterns that deplete natural resources, whether in developed countries or in developing countries, and therefore it is inevitable to make a radical change in production and consumption policies to preserve resources and make them available to all the world's population equally, provided that they remain available for generations. Coming. (Wardam, 2003, p. 182)

The most important indicators of production and consumption patterns are as follows: (Ghoneim , Abu Zant , 2006, p. 118)

**b-1 Material consumption:** Material refers to all natural raw materials and is measured by the intensity of the use of raw materials in production.

**b-2 Energy use:** It is measured by calculating the annual energy consumption of an individual.

**b-3 Waste production and management:** It is measured by the quantities of industrial and household waste, the production of hazardous and radioactive waste, and the recycling of waste.

**b-4 Transportation:** It is measured by the distance traveled annually by an individual compared to the type of transportation.

### **2-2-3 Environmental issues and indicators**

Environmental issues and indicators are represented in the following indicators:

**a-Atmosphere:** There are three main indicators related to the atmosphere: (Al-Hiti, Al-Mohannadi ,Issa, 2010, p. 27)

**a-1 Climate change:** It is governed by the United Nations Convention on Climate Change and the Kyoto Protocol.

**a-2 Ozone layer depletion:** It is monitored through the consumption of ozone-depleting substances and is governed by the Vienna Convention and the Montreal Protocol.

**a-3 Air quality:** It is measured by the degree of concentration of air pollutants in the outdoor environment of urban areas.

**b-Land:** The Agenda for the 21st century calls for a holistic approach using integrated and ecosystem-based management to achieve the sustainable development of land resources, and the application of this approach is intended to resolve conflicts between competing land uses with attention to the issue of land provision and related rights, and the land-use indicators focus on land degradation, desertification, deforestation, agricultural development and urban growth.

**c-Seas, oceans and coastal areas:** Since seas and oceans occupy 70% of the Earth's area, managing these vast ecologically vast areas is one of the biggest challenges facing humanity, and it is also one of the most difficult tasks due to the constraint, fragility and least explored by scientists of ocean ecosystems. (Merzig, Ben Nafla , 2010, p. 12)

**d-Biodiversity:** Biodiversity is measured through two main indicators: ecosystems, which are measured by calculating the ratio of the area of protected areas compared to the total area, as well as the area of sensitive ecosystems, and the second indicator is species and is measured by calculating a percentage of endangered organisms. (Merzig, Ben Nafla , 2010, p. 12)

### **3-Sustainable development goals and strategies in Algeria and its environmental aspect:**

The Sustainable Development Goals (SDGs) are a blueprint for a better and more sustainable future for all, and address the global challenges we face, including those related to poverty, inequality, climate, environmental degradation, prosperity, peace and justice. ( the United Nations, 2018)

#### **3-1 Sustainable Development Goals**

Through its mechanisms and content, sustainable development attempts to achieve a set of goals that can be summarized as follows:

**3-1-1 Achieving a better quality of life for the population:** Sustainable development through planning and implementation of development policies tries to improve the quality of life of the population in society socially, economically, psychologically and spiritually, by focusing on the qualitative aspects of growth, not quantitative, in a fair and acceptable manner (Al-Hiti, Al-Mohannadi ,Issa, 2010, p. 15)

**3-1-2 Respect for the natural environment:** Sustainable development focuses on the relationship between the activities of the population and the environment, and deals with natural systems and their content as the basis of human life, it is simply a development that accommodates the sensitive relationship between the natural environment and the built environment, and works to develop this relationship to be a relationship of integration and harmony. (Al-Hiti, Al-Mohannadi ,Issa, 2010, p. 18)

**3-1-3 Enhancing the population's awareness of environmental problems:** This is done by

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developing a sense of responsibility towards environmental problems, and urging them to actively participate in creating appropriate solutions to them by participating in the preparation, implementation, follow-up and evaluation of sustainable development programs and projects. (Al-Taweel, 2010, p. 18)

**3-1-4 Achieving the rational exploitation of natural resources:** Sustainable development treats natural resources as finite resources, so it prevents their destruction or destruction and works to use and employ them rationally. (boucetta, 2022, p. 724)

**3-1-5 Linking modern technology to serve the goals of society:** This is achieved by educating the population about the importance of The different technologies of the development process, and how to use the available and new ones to improve the quality of life of society and achieve its desired goals, without resulting in negative environmental risks and effects, or at least that these risks and effects are controlled in the sense of having appropriate solutions to them. (Al-Hiti, Al-Mohannadi ,Issa, 2010, p. 18)

**3-1-6 Bringing about appropriate and continuous change in the needs and priorities of Society:** This is done in a way that suits the capabilities of society and allows achieving a balance through which economic development can be activated, all environmental problems can be controlled, and appropriate solutions can be developed. (boucetta, 2022, p. 724)

- Researching environmental developments and considering in particular their repercussions on countries with an exchange of views on benefiting from successful experiences in the field of environmental protection and searching for new horizons for cooperation.

- Considering economic developments by focusing on the impact of globalization and benefiting from its advantages, especially in enhancing the role of the private sector, increasing its competitiveness, and achieving the optimal use of natural and human resources.

### **3-2 Algeria's efforts in the field of sustainable development**

Over the last five years, Algeria has taken institutional, legal, financial and internal measures to achieve sustainable development and protect the environment. Bodies specialized in environment and development, such as the Higher Council for the Environment and Sustainable Development and the National Economic and Social Council for Multisectoral Consultation, have been established. Positive results have been achieved in many areas, such as fighting poverty, controlling demographic shifts, improving health and human settlements, and including concern for the environment in decision-making.

#### **3-2-1 Sustainable Development Challenges in Algeria**

the world has faced challenges Such as financial difficulties, technology issues and a lack of effective information systems have affected its efforts to implement Agenda 21. Algeria needs to address these challenges to strengthen its efforts to achieve sustainable development and effectively protect the environment. It is clear from the following table that the data and information available on demographic transitions and sustainability are very good in Algeria, as are those related to health.

**Table (1): Sustainable Development Indicators in Algeria**

Good	Some good but incomplete data	Emaciated
- Fighting poverty	- Integrating environmental	- International Trade and

<ul style="list-style-type: none"> <li>- Change consumption patterns</li> <li>- Human settlements</li> <li>- Integrated resource planning and management Floor.</li> <li>- Fight against deforestation -</li> <li>- Combating desertification and drought</li> <li>- Sustainable exploitation of the forehead</li> <li>- Support sustainable agriculture and rural development</li> <li>- Biotechnology</li> <li>- Oceans, seas, coastal areas and their resources Hazardous wastes, education, public awareness and training</li> </ul>	<ul style="list-style-type: none"> <li>and development into decision-making</li> <li>- Air protection</li> <li>- Biodiversity conservation</li> <li>- Water Resources</li> <li>- Toxic chemical resources</li> <li>- Farmers</li> <li>- Financial Resources and Mechanisms</li> <li>- Technology, cooperation and building cods</li> <li>- Science at the service of sustainable development</li> <li>- International cooperation for building art</li> <li>- International legal instruments</li> <li>- Media for decision-making</li> </ul>	<ul style="list-style-type: none"> <li>Cooperation</li> <li>- Biodiversity conservation</li> <li>- Farmers</li> <li>- International institutional arrangements</li> </ul>
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Source : [www.uneca-na.org/arabe/un/documents%20et%20etudes/indicateurs-AR\(8\).doc](http://www.uneca-na.org/arabe/un/documents%20et%20etudes/indicateurs-AR(8).doc)

### **3-2-2 Obstacles to sustainable development in Algeria:**

Algeria is among the countries facing many problems that stand in the way of achieving sustainable development, mainly related to the level of economic growth and the social and environmental framework. In light of this, Algeria is seeking to overcome them, and among these obstacles we find

1. The phenomenon of corruption that stands as an obstacle to the efforts of the United Nations to achieve sustainable development.
2. Instability and insecurity.
3. The problem of poverty and the increase in illiteracy and unemployment.
4. Continued population growth and increased migration from rural to urban areas.
5. Air pollution and waste accumulation.
6. Exacerbate pressures on ecosystems, infrastructure and urban services.
7. Algeria is in a hazardous area prone to earthquakes and flood hazards.
8. Persistence of drought and increased desertification.
- 9- Severe shortage of water resources and pollution, scarcity of land suitable for exploitation in various agricultural activities and lack of renewable energy in some areas.
- 10- Limiting the experience of civil society and its lack of effective participation in the development and implementation of sustainable development strategies and programs. (Sayeh, 2013, pp. 440-441)

### **3-3 Algeria's strategies for sustainable development**

Algeria's development strategies require a balance between achieving economic and social progress and protecting the environment and natural resources to achieve long-term sustainable development. The interest in sustainable development in Algeria aims to improve the quality of life of citizens and ensure comprehensive and sustainable progress in all vital areas.

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### **3-3-1 Algeria's role in regional and global efforts to achieve sustainable environmental development**

Algeria occupied a distinguished place in the map of work in the field of sustainable environmental development at the regional, Arab and international levels, as it has trusted and participated in many conferences, forums and committees interested in sustainable environmental development.

#### **a- The role of Algeria at the regional and Arab levels**

Algeria has participated in the efforts exerted at the regional and Arab levels to achieve sustainable environmental development through ministerial committees directly related to the applications of sustainable environmental development through active participation in the annual meetings of Arab ministers within: (Bersouli, lakhdar , 2018, p. 20)

**a-1 The Council of Arab Ministers for Environmental Affairs:** Algeria participates actively in the work of the Council of Arab Ministers for Environmental Affairs, which was established in 1987 with the aim of promoting Arab action Arab action in the fields of environmental protection and resource conservation, identifying environmental problems and proposing joint action plans to confront them. International forums concerned with environmental protection and sustainable development Algeria is also a member of the Joint Committee for Environment and Development in the Arab World emanating from the Council of Arab Ministers for the Environment.

**a-2 Abu Dhabi Announcement on the Future of Arab Environmental Action:** Algeria contributed to the work of the emergency session of the Council of Arab Ministers of Environmental Affairs held in Abu Dhabi in February 2001, which emphasized the basic features of the Arab Environmental Action Strategy.

**a-3 Sustainable Development Initiative in the Arab Region:** In implementation of Council resolution No. 313 of the League of Arab States at its 17th session held in Tunis in 2005, it recommended the adoption of the Sustainable Environmental Development Initiative in the Arab Region and its implementation mechanisms in coordination with specialized Arab organizations, international and regional organizations, the private sector and civil society.

**a-4 Doha Development Forum:** Held in 2005, the title of promoting policies and mechanisms capable of achieving sustainable development and addressing the most important global issues of the environment and its regional impacts.

#### **b-Algeria's role at the international level**

Algeria is one of the active members of most international conferences and seminars and one of the most important actors in the field of environmental protection and also among the participants in international conventions on environmental protection and the achievement of sustainable development. ( Bersouli, Boulahia, 2018, p. 326)

**Table (2): International conventions related to environmental protection**

<b>year</b>	<b>Title of the Agreement</b>
1902	International Convention for the Protection of Beneficial Birds for Agriculture - Paris
1946	International Convention for the Protection of Huth Fish - Washington
1951	International Plant Protection Convention - Rome

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1958	Special Convention on Fishing and the Conservation of Living Resources on the High Seas, Geneva
1971	Convention on Wetlands of International Importance, particularly as Waterfowl Habitat - Ramsar
1972	Convention for the Conservation of the Antarctic Seal - London Convention for the Prevention of Marine Pollution by Dumping - London
1973	Convention on the Conservation of Polar Bears – Oslo International Convention on International Trade in Wild and Endangered Species of Flora and Fauna (CITES) - Washington
1979	Convention on Migratory Species of Wild Fauna - Bonn
1980	Convention on the Conservation of Antarctica Marine Living Resources
1983	International Commitment on Plant Genetic Resources endorsed under the auspices of FAO Rome
1986	International Convention for the Conservation of Atlantic Tonia (ICAT) – Rio de Janeiro
1992	Convention on Biological Diversity - Rio de Janeiro
1993	Agreement to respect international procedures for the conservation of fishing resources Operated by vessels on the high seas, ratified within the scope of the International Code of Conduct for Fisheries FAO Responsible
1995	Agreement on Fish Stocks Moving in the Various Marine Territories and Major Migratory Fish in New York
2000	Cartagena Protocol on Biosafety to the Convention on Biological Diversity
2004	International Treaty on Plant Genetic Resources for Food and Agriculture

Source: ( Bersouli, Boulahia, 2018, p. 327)

### **3-3-2 New programmes for environmental protection and sustainable development**

The Ministry of Environment is working to establish synergy between it and other ministerial sectors by signing framework partnership agreements to implement joint activities to protect the environment to achieve predetermined goals, and this is embodied through the signing of several agreements:

A partnership agreement with the Ministry of National Education to promote environmental education for sustainable development in the educational environment, a partnership agreement with the Ministry of Justice for the social reintegration of prisoners, a partnership agreement with the Ministry of Communication for the training of journalists in the field of the environment, a partnership agreement with the Ministry of Housing, Urbanism and the City to implement the road map for improving the living framework at the level of urban neighborhoods and new cities, a partnership agreement with the Ministry of Vocational Training and Education to promote vocational training and education in developed professions related to the environment. Partnership agreement with the Ministry of Tourism and Handicrafts to promote ecotourism. A partnership agreement with the Ministry of Higher Education and Scientific Research in order to implement education and scientific research programs in the

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field of environmental protection and sustainable development. Cooperation agreement with the Ministry of Fisheries and Fisheries Resources to improve and strengthen the quality control of aquatic media and their good ecological condition, to preserve marine and coastal aquatic ecosystems and exploit their biological resources in a sustainable manner. (Ministry of Environment and Renewable Energies, 2022)

### **b-Signing a partnership agreement between the Ministries of Environment and Higher Education and Scientific Research**

On January 31, 2021, the Ministry of Environment and the Ministry of Higher Education and Scientific Research signed a partnership agreement to establish an exchange space aimed at coordinating and strengthening their efforts in the field of environmental protection and sustainable development. The agreement aims to integrate scientific research efforts into the development of education and research programs related to the environment, promote applied education and pedagogical visits, and develop joint research teams.

The world is currently experiencing multiple environmental challenges such as pollution of various types and its impact on vital elements and ecosystems. Solving these challenges requires a change in people's way of life, production and consumption to achieve sustainable development.

The agreement also aims to promote environmental culture in the university environment by supporting environmental clubs, providing training courses in environmental protection for students and implementing model waste sorting projects. It also encourages the organization of events and activities related to the environment and awards a medal to the most active university institution in this field.

The ultimate objective of the agreement is to promote applied research to address pressing environmental issues such as climate change, waste management, environmental pollution and biodiversity conservation, through the development of joint research teams and achieving tangible progress in the field of scientific research and estimating its results. (Algeria Newspaper, 2021)

### **a-Geographic Information System (GIS)**

A project was implemented in cooperation between the Ministry of Environment and Renewable Energy and the German Association for International Cooperation (GIZ), within the framework of the "Environmental Governance and Biodiversity (GENBI)" program. This project aims to promote the use of geographic information systems (SIGs) to improve biodiversity management and strengthen environmental legislation in Algerian protected areas.

**Fig (6): Geographic Information System**



Source: (Ministry of Environment and Renewable Energies, 2023)

The project focuses on engaging stakeholders, strengthening governance and raising awareness of the importance of biodiversity. Implemented in collaboration with GIZ, the guide provides a systematic approach to the development and implementation of SIG cells in protected areas, as well as guidance for collecting and analyzing geographic data and creating detailed maps.

The project aims to achieve sustainable development, protect biodiversity and promote environmental awareness. It enables informed decision-making and helps in the sustainable management of natural resources in Algeria through the use of SIG technologies and the promotion of international cooperation. This project represents an important step towards achieving the country's environmental and development goals. (Ministry of Environment and Renewable Energies, 2023)

### Conclusion:

Keeping pace with sustainable development indicators has become an inevitable imperative in order not to lag behind nations politically on the one hand and on the other hand economically, since our wealth used to bring in hard currency is non-renewable, which reflects the appropriateness of continuing to apply sustainable development indicators from the exploitation of renewable energies and not prejudice the share of future generations of wealth.

Although some of the indicators reflect its desire to move towards a sustainable development strategy, a simple example of the gap between it and its neighboring countries in the same field clearly shows the fact that the desire is insufficient, but the ability to implement planning comes to the fore.

Based on the various points discussed for this study, the following **results** were reached:

1. Environmental degradation is an inevitable consequence of economic growth.
2. Adopting criteria to measure sustainable development indicators that achieve social justice in the distribution of wealth between generations.



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3. Taking into account the preservation of natural resources that meet the needs of the present without depleting them and compromising the capacity of future generations.
4. Formation of the human cadre specialized in environmental protection.
5. Develop a comprehensive future vision towards taking into account the environmental dimension in all local activities.

### **Recommendations:**

- ✓ Intensifying environmental awareness policies.
- ✓ Fight against all forms of pollution that threaten environmental wealth.
- ✓ Rationalizing the exploitation of natural resources by raising production efficiency and relying on alternative energies.
- ✓ Fight corruption in all its forms and think about future generations.
- ✓ Develop strategies for inclusive growth that is environmentally sensitive according to the country's conditions.

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